



WEST BAY SANITARY DISTRICT

SEWER COLLECTION SYSTEM

Spill Emergency Response Plan (SERP)
May 2023

THE SERP IS A STANDALONE DOCUMENT AND IS ALSO INCLUDED AS APPENDIX-3A TO THE SEWER SYSTEM MANAGEMENT PLAN

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1.0 Agency Notification

WDR General Order 2022-0103-DWQ Section D-6

West Bay Sanitary District's (WBSD) contact information, 650-321-0384, is on the webpage at www.westbaysanitary.org. A bold button in red to "Report a Problem" either through phone or email, is located on the main page.

The West Bay Sanitary District (WBSD, District) is committed to the prevention of sanitary sewer overflows (spills). This commitment is reflected in WBSD's record of proactive sewer maintenance, rapid spill response, and measured through the District's annual Performance Measures Report. The primary objectives of the SERP are to protect public health and the environment, satisfy regulatory agency requirements and waste discharge permit conditions, and minimize the risk of enforcement actions against WBSD by preventing spills, where possible, and supporting an orderly and effective response to spills that occur notwithstanding the District's best efforts toward prevention. This plan provides guidelines for District staff and others working on behalf of the District, for responding to, cleaning up, and reporting spills that may occur in the District's wastewater collection system.

Related efforts from the following agencies were referenced during the development of this plan:

- California State Water Resources Control Board (SWRCB)
- Association of Bay Area Governments (ABAG)
- California Association of Sanitation Agencies (CASA)
- Bay Area Clean Water Agencies (BACWA)

Public observation is the most common way that WBSD is notified of blockages, spills, and sewage system failures. The District's contact information is included on the District website and on a majority of the District's vehicles. The District also distributes other public outreach and information materials that include District contact information such as: Business cards, Refrigerator magnets, Brochures, Door-hangers, Flyers, Pins, Balloons, Canvas grocery bags etc. The District's website address is <http://www.westbaysanitary.org>.

During business hours, customers will first interface with administrative staff. The administrative staff are assigned to receive and dispatch sewer calls. Next, administrative staff will create a field service request (Lucity CMMS) and will dispatch field crews (Unit 208).

The District operates 24 hours a day, seven days a week. After hours, from 4:30 p.m. to 8:00 a.m., and on weekends and holidays, the District's answering service forwards calls to the assigned on-call maintenance staff, who is the First Responder. The First Responder and members of the maintenance field crew are assigned on-call responsibilities on a rotating basis. If the First Responder does not answer within two (2) rings, the next call goes to the Operations Supervisor if no response within two (2) rings the Assistant Operations Superintendent is called. If not response, the call then goes to the Operations Superintendent. Finally, if no one answers, a message is left by the callers which then is sent via email to each of the above-mentioned responders. It is the policy of the District to be on site within 45 minutes of being notified of a sanitary sewer overflow. The On-call person/First Responder may take the District's Service Vehicle home for after hour and weekend emergency services to minimize response time.

All District pumping facilities are alarmed. Alarms from the pumping facilities are sent to the District's Telemetry System, which then forwards the alarm status to pump station personnel (24 hours a day/ 7 days a week/365 days a year). Also, the District currently has installed 27 Flo-Dar High Water Level Monitors and has 39 Smartcover devices strategically placed throughout the District to monitor the Collection System. The Smartcover Alarms are received by on-call personnel, Source Control Inspectors, Pump Supervisor, Operations Superintendent, and the Water Quality Manager. During normal working hours, the Operations Superintendent confirms that the primary customer service vehicle (First Responder) has received the alarm and is responding. Once the First Responder is on-site, they determine the cause and appropriate corrective measure to mitigate the alarm condition. Once the alarm condition has been mitigated, the WQM is notified and resets the smart cover alarm, rearming the SMART cover via the computer system. Contractors (Capital Improvement Projects) will be required to review, train staff, and implement the SERP in coordination with District staff. The SERP will be provided to the contractor during pre-con meetings, with signature verification from the contractor being required.

2.0 Respond and Assess

WDR General Order 2022-0103-DWQ Section D-6

The response begins upon notification of the potential spill. The task sequence may vary depending on the circumstance(s) encountered, and the First Responder shall exercise their training and exercise best judgment while responding to and mitigating the spill's effects. The first responder shall contact their supervisor for directions as appropriate. The First Responder's Goals are to:

- Prevent, contain, control, and mitigate the spill
- Safely respond to the site as quickly as possible. WBSD's response goal is 45 minutes.

- Thoroughly assess to determine the responsibility, if additional resources are needed, and the best course of action to control and mitigate the spill.
- Collect all required data and document on forms provided.

All staff involved in spill response assumes the following responsibilities:

- To follow safe work practices.
- To respond promptly with the appropriate equipment.
- To relieve the blockage and restore the sewer pipe flow.
- To contain the spill wherever feasible.
- To minimize public access to and/or contact with the spilled sewage and protect public health.
- To promptly notify District personnel of preliminary spill information, documentation of the event, provide field notes/logs, pictures, need for additional help, and potential impacts.
- To ensure prompt notification of all appropriate District staff and other potentially affected entities. (RWQCB, County Health Departments, and City or Town Representatives, etc.).
- To provide traffic and crowd control where necessary.
- To return the spilled sewage to the sewer system for safe conveyance to the POTW.
- To restore the spill area to a pre-spill condition.
- Ensure equipment is in operable shape and adequate backup/spare parts are available (ex: bypass trailer & spill response equipment check off sheets).

A. Upon Arrival:

- i. Document the arrival time on the WBSD Call-Out Report (MD-506).
- ii. Take a picture and/or video of the spilling structure (if currently active), with GPS coordinates.
- iii. The First Responder is the person who responds to the site and is responsible for executing the required procedures of this SERP, except for specific notification and reporting that are handled by the District's (LRO) Legally Responsible Officials (Water Quality Manager, Operations Superintendent, the Assistant Operations Superintendent, or the General Manager.) The First Responder is responsible for dispatching any necessary maintenance crews, and for ensuring safe work practices and operations at all events and responses. The First Responder is "in command" until officially relieved by "senior personnel" (source control, management or LRO). All processes described in this SERP are also presented in Flowcharts located in Appendices A-1.

B. Determine Responsibility

- i. Is the problem within WBSD owned/operated Sewer System? If no, proceed to step (C.)
 - a. Determine the source, spill category and start notification procedures appropriately. The Collections staff will notify management and provide updates on the status of the spill event. This group includes both Collections and Water Quality staff contacts.
 - b. During business hours, the Water Quality or Collections Department will make notifications to the responsible regulatory agency.
 - c. Determine additional response personnel and resources needed.
 - d. Attempt to contain or divert the spill.
 - e. Setup traffic control measures to divert pedestrian traffic away from the affected area(s).

C. Is the problem due to another agency's facility?

- i. Contact the agency and inform them of the problem.
- ii. Attempt to contain the spill and keep the public out of harm's way until the agency's personnel arrive.

D. Is the problem due to a privately-owned facility?

- i. Contact the property manager, owner, or resident and inform them of their responsibility. Recommend they call a plumbing service.

- ii. Notify Water Quality of the private spill.
 - iii. Assist with containment, if necessary, to prevent the spill from entering a MS-4.
 - iv. Contact your supervisor for further directions.
- E. Is there a backup in a home or building?
- i. Contact Operations Superintendent or Water Quality Manager .
 - ii. Contact the Risk Manager or Claims Representative.
 - i. If the resident refuses clean-up services, request the resident sign a Declination of Services letter (provided by Claims Rep.).
- F. Survey the area and assess the direction of the sewage flow on the ground and the potential destination to help determine containment needs such as:
- i. Jetter or combo truck.
 - ii. Additional Personnel.
 - iii. Traffic Control/Crowd Control.
 - iv. Signage for public notification.
 - v. Technician for pump station failures.
- G. Collect the following minimal information. Additionally, document activities and findings on the Call-Out Report.
- i. Estimated spill volume discharged (gallons).
 - ii. If ongoing, estimated spill discharge rate (gpm).
 - iii. Spill incident description.
 - a. Brief narrative.
 - b. Date/time District staff became aware of the spill.
 - c. Name of responsible sanitary sewer system agency.
 - d. Spill cause (if known).
 - e. Pictures of spill and affected areas.
 - f. GPS coordinates.
 - iv. Indication of whether the spill has been contained.
 - v. Name of surface water impacted by the spill.
 - vi. Any other known spill impacts.
 - vii. Spill incident location (address, city, state, and zip code).

3.0 Spill Categories

WDR General Order 2022-0103-DWQ Section 5.13.1

Individual spill notification, monitoring, and reporting must be in accordance with the following spill categories:

Category 1 - is any volume of sewage from or caused by a sanitary sewer system regulated under the General Order that results in a discharge to:

- A surface water, including a surface water body that contains no flow or volume;
- A drainage conveyance system that discharges to surface waters when the sewage is not fully captured and returned to the sewer system;
- Any spill volume not recovered is considered discharged to surface water unless the drainage conveyance system discharges to a dedicated stormwater infiltration basin or facility;
- A spill from an District staff-owned and/or operated lateral that discharges to a surface water is a category 1 spill

Category 2 - is a spill of 1,000 gallons or greater from or caused by a sanitary sewer system regulated under this general Order that does not discharge to a surface water.

- A spill of 1,000 gallons out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 2 spill

Category 3 - is a spill of 50 gallons and less than 1,000 gallons from or caused by a sanitary sewer system regulated under this general Order that does not discharge to a surface water.

- A spill of 50 gallons and less than 1,000 gallons that spill out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 3 spill.

Category 4 - is a spill of less than 50 gallons from or caused by a sanitary sewer system regulated under this general Order that does not discharge to a surface water.

- A spill of less than 50 gallons that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 4 spill.
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4.0 Contain and Mitigate

WDR General Order 2022-0103-DWQ Section 5.12 and Section D-6, 6.6 & 6.7

Containment of a spill is one of the primary ways to mitigate the effects of the spill. Immediately block upstream inflows, cover or plug storm drain inlets to divert sewer flow to the containment location. Containment of a spill becomes increasingly difficult once the overflow reaches a drainage conveyance system or a waterway. The quicker the source and extent of the spill can be determined and the spill contained and/or controlled, the less the impact on the environment and public health. The first responder’s decisions should be based on the best action to mitigate the spill’s impacts and prevent discharge to surface waters.

Multiple techniques have been identified to contain the spill depending on the circumstances, spill category, and material available. Table 1 lists possible containment options for field crews in no particular order:

Table 1 - Containment Strategies

Location	Strategies for Containment
Curb & Gutter	Create a berm or dam using the following: <ul style="list-style-type: none"> • Rubber Berm • Dry Sweep • Dirt • Sandbags • Deploy Absorbent Bags
Open Space	<ul style="list-style-type: none"> • Hand-Dig a trench to contain the spill • Create Sandbag Dam • Create a berm to divert the sewage to a natural low point
Lift Station	<ul style="list-style-type: none"> • Vacuum retrieve from the wet well using Hydro-Vac • Establish Bypass Operations
Drainage Channel	<ul style="list-style-type: none"> • Create a Dam using sandbags or dirt • Use vacuum retrieval if accessible by hydro-vac
Storm Drain	<ul style="list-style-type: none"> • Block inlets using rubber mats and/or sandbags • Plug manhole outlets using pneumatic plugs or sandbags <ul style="list-style-type: none"> • Plug outfall manhole to prevent discharge into the environment
Backup In Building	<ul style="list-style-type: none"> • Attempt to remove cleanout caps to allow the sewage to discharge outside the building <ul style="list-style-type: none"> • Establish containment using the most effective method from above
Creeks/Streams (Low-flow only)	<ul style="list-style-type: none"> • Create Sandbag Dams • Install a silt fence to contain floating solids • Contact the local health department or Fish and Wildlife for direction <p><u>NOTE: Containment attempts should not negatively impact aquatic life</u></p>

5.0 Emergency System Operations

WDR General Order 2022-0103-DWQ Section D-6, 6.5

- A. First responders may need to set up temporary traffic control to protect the public's health and safety in the event of a street collapse or undermining of a roadway. In addition, temporary traffic control allows responding crews to safely contain and clear the blockage and prevent sewage from further dispersing by vehicular traffic. Multiple guides provide information on temporary traffic control, including the Cal Trans Work Area Traffic Control Handbook (WATCH), or the Manual on Uniform Traffic Control Devices (MUTCD). However, temporary traffic control shall be set up based on the agency's training guidelines. Finally, responding crews shall use temporary traffic control devices or barriers to divert the public from contact with the spill.
- B. If a spill affects waters of the State, requiring the posting of signage, WBSD will, at the discretion of the local County Health Department, post and remove signage for waterways and beach closures as needed. They will not remove the signs until the spill's effects have been mitigated. Major spills may warrant broader public notice. The Water Quality Manager and/or Operations Superintendent will contact the General Manager. The General Manager will create and execute the outreach plan for media. If media crews show up at a job site, the crews will ask media personnel to wait and contact the General Manager immediately. Do not respond to questions from the media or interview requests unless the General Manager provides direction and permission. The approval of the General Manager is required before contacting local media when significant areas may have been contaminated by sewage.
- C. Adequate funding resources for spill responses will be provided by the District through the General Fund; with any necessary expenses for equipment, training, or otherwise coming from the General Fund.

6.0 Correct Cause and Restore Flow

Correcting the cause and restoring flow depends on the type of infrastructure the spill is discharging from.

- A. **Mainline-** If the blockage is in the main, it will be between a manhole with little to no flow and a manhole surcharging or spilling. Response crews should set up the hydro-vac or jetter truck on the dry manhole, downstream from the surcharged manhole, to clear the blockage and restore flow. If it is difficult to remove the blockage, increase containment or initiate bypass pumping. Request additional assistance to CCTV inspect the line to assess the problem. If needed, contact your supervisor for assistance.

B. Sewer Lift Station- If the station is equipped with an alarm screen, check the alarm status for an indication of a problem. If the station has no power, follow the WBSD procedure until power has been restored. Determine the storage time remaining in the wet well and sewer system; bypass pumping may be necessary.

If power is present, but pumps are not pumping, switch the HOA switch to hand. If pumps start, monitor wet well levels and control them with the HOA switch. Follow agency procedures to notify a Qualified Electrical Worker or Instrumentation & Control personnel.

C. Force Main_– When responding to a broken force main, response personnel should immediately shut down the pumps at the lift station affecting the force main and apply lockout -tagout measures to ensure the pumps remain off. The first responder should establish the remaining storage in the wet well and collection system, then contact the necessary crews to repair the main, set up bypass pumping, or utilize vacuum trucks to control the wet well levels and prevent an additional spill from occurring.

7.0 Spill Specific Monitoring

WDR General Order 2022-0103-DWQ Section D-6, 6.3 & E-1, 2.1

The District staff shall visually assess the spill locations and spread using photography, a global positioning system (GPS), or other best available tools. In addition, a best practice would be to provide a drawing of the spill spread and dimensions specific to the spill. In the drawing, indicate the spill's final destination or containment point. The District staff shall document the spill locations, including;

Photography and GPS coordinates for:

- The system location where the spill originated. If multiple spill appearance points exist, use the point closest to the spill origin.
- Include GPS coordinates for the spill destination or containment point if available.

Photography for:

- Drainage conveyance system entry locations.
- The locations of discharge to surface waters, if applicable.
- The extent of the spread.
- The location(s) of the spill clean up.

8.0 Initiate Spill Clean Up

WDR General Order 2022-0103-DWQ Section 5.12 & Section D-6, 6.9

Recovery and thorough clean-up are necessary for all spills. When recovering spills, all solids and materials should be recovered and removed from the site, and every effort should be made to recover as much of the spill as possible. In addition, implement disinfection procedures (liquid enzymes) to reduce the potential for health and human issues and adverse environmental impacts associated with the spill event.

Procedures for cleaning affected areas after a spill are as follows:

- A. Back up in Building
 - i. If a building or structure is flooded due to a failure in the WBSD sewer system, contact the Water Quality Manager or Operations Superintendent.
 - ii. If the backup and spill are due to a failure in the agency's system, but the resident refuses the offered clean up services, politely ask the resident to sign a Declination of Cleaning Services letter.

- B. Street, Curb or Gutter or Hardscape
 - i. Remove all debris and solids with a broom, rakes, shovels, and wash down water.
 - ii. Before removing any contaminated soil and plants, photograph the area and speak to the property owner.
 - iii. Wash pavement, curb, and gutter area, with the high-pressure wand, then vacuum all wash water with a hydro-vac.

- C. Open Area/ Landscape
 - i. In an open area that is primarily dirt, response crews shall use either a hydro-vac vacuum nozzle, or dig and remove dirt until a dry layer is visible.
 - ii. If the area is a grass-landscaped area, flush the spill area with water and vacuum the area thoroughly. **The flushing volume should be three times the estimated spill volume.**

- D. Natural and Man-Made Waterways

Notify the Water Quality Manager or Operations Superintendent in the event a spill impacts any waterways. Contain contaminated creeks where feasible. Remove all contaminated water by pumping to the collection system or vacuuming using a vacuum truck and return all collected water to the sewer system. Introduce additional wash water to flush contaminated areas towards the containment area.

9.0 Remove Sewage from Drainage Conveyance System

WDR General Order 2022-0103-DWQ Section 5.12 & Section D-6, 6.8 & 6.9

Response crews shall remove all sewage that has entered the drainage conveyance system by vacuuming all water, debris, solids, and paper in the drainage conveyance system. With containment still in place, flush the affected area with water to the containment location and vacuum water and debris. Depending on the circumstance, either hydro jet the affected drainage conveyance system or flush clean water to the containment location where a vac truck is located. Operators should be aware of the drainage conveyance system infrastructure. If the system is in poor condition, then flushing may be a better option in this case rather than hydro-jetting. Once thoroughly cleaned, remove the containment and flush and vacuum the remaining area, capturing all water. Local agency storm system maps are available in both electronic and hard copy versions; and coordination between agencies is discussed at monthly inter-agency meetings coordinated by the District's Projects Manager.

The District will coordinate with the MS4/other outside utilities agencies during and after a spill event via phone, electronic, in person, or other means of communication to notify and/or assist with cleanup of the affected areas.

10.0 Regulatory Notification

WDR General Order 2022-0103-DWQ Section D-6, 6.1 & 6.2

If a spill that discharged in or on the waters of the State or discharged to a location where it will probably be discharged to the waters of the State, the District staff shall notify the Office of Emergency Services (OES) and obtain a control number as soon as possible, but no later than 2 hours after becoming aware of the discharge; and notification can be provided without substantially impeding clean-up or emergency measures. *Table 2-3* provide the necessary contacts, both internal and external, to meet the regulatory notification requirements. During business hours and after hours, the Water Quality Manager, the Operations Superintendent, or their designee will make all notifications to regulatory agencies

11.0 Notification and Reporting

WDR General Order 2022-0103-DWQ Section D-6, 6.3

The notification requirements of this section apply to all spills resulting from a failure or blockage in the District staff's owned and /or operated sanitary sewer system regulated under this Order. Table 4 will aid field staff, data submitters and the LRO (s) in meeting the requirements for notification and reporting in the re-issued general order.

- A. Once the event is complete, Collections staff will provide the draft event summary (with information collected – see Appendix A2-6) to be submitted into CIWQS within the required timeframe (See Table 4).
- B. The Operations Superintendent and/or Water Quality Manager will coordinate a review session and a submission meeting with Collection staff and the Legally Responsible Official (LRO) within the required timeframe (See Table 4).
- C. Water Quality staff will help facilitate the upload of the final report into CIWQS with the LRO.

Table 2- WBSD Contact Information

Group	Name	Number	Notes
Water Quality	Jed Beyer	O:650-321-0384 C:650-477-6428	Water Quality Primary
Water Quality	Rupert Sandoval Albert Patino	C: 650-477-6427 C: 650-477-6426	Water Quality Secondary
Collections	Robert Hulsmann	O: 650-321-0384 C: 650-477-6413	Collections Primary
Collections	Heath Cortez	650-477-6386	Collections Secondary
Pump Facilities	Lisandro Marquez	650-307-2624	Pump Primary

Table 3- Agency Contacts

Agency	Number	Notes
California Office of Emergency Services (OES)	(800) 852-7550	Obtain a control number and contact name
Regional Water Quality Control Board (RWQCB)	<p><u>San Francisco Bay(R2):</u> <u>510-622-2369</u> RB2SpillReports@waterboards.ca.gov</p>	Leave a voicemail and email- note the date and time.
San Mateo County Environmental Health Department	<p>General Line – (650) 599-1679 After Hours – (650) 867-9434</p>	Verbally notify within 24 hrs if a private spill occurs.
Menlo Park Engineering	<p>General Line – (650) 330-6740 Dispatch – (650) 330-6317</p>	Call when discharge reaches water body or not fully captured.
Town of Atherton	General Line – (650) 752-0532	Call when discharge reaches water body or not fully captured.
Town of Portola Valley	General Line –(650) 851-1700	Call when discharge reaches water body or not fully captured.
Other Notifications	<p>Cal-OES (800) 852-7550 Carl Warren – Insurance Carrier (Alan Dilon) (855) 763-5898 June Wong – SMCEHD Lab (650) 573-2500 Phelepe Cohen – Searsville Lake (650)851-6814</p>	<p>Call when discharge may affect City property or businesses. These include things like endangering public health, blocking roads, or enters a storm drain to contact the responsible MS4. Collections will need to provide the proper context to determine who to contact, i.e. the county, city, etc.</p>

Table 4 - Monitoring and Reporting

<p>Category 1</p> <p>Any volume of sewer discharging to surface water</p>	<ul style="list-style-type: none"> • Within 2 hours of the District staff's knowledge of the spill of 1,000 gallons or greater discharging or threatening to discharge to surface waters. • Obtain a Control number from OES 	<ul style="list-style-type: none"> • Conduct spill-specific monitoring. • Conduct water quality sampling within 18 hours of knowledge of a spill 50,000 gallons or greater to surface waters 	<p>Due within 3 business days of knowledge or self-discovery of Category 1 spill.</p>	<ul style="list-style-type: none"> • Due within 15 calendar days of the spill end date. Upon completion, the CIWQS will issue final spill event ID number. • Submit Technical Report within 45 calendar days after the spill end date for spill greater than 50,000 gallons • Submit the Amended Report within 90 calendar days after spill end date
<p>Category 2</p> <p>Spills of 1,000 gallons or greater that do not discharge to waters of the State</p>	<ul style="list-style-type: none"> • Within 2 hours of the District staff's knowledge of the spill of 1,000 gallons or greater discharging or threatening to discharge to surface waters. • Obtain a Control number from OES 	<ul style="list-style-type: none"> • Conduct spill-specific monitoring. 	<p>Due within 3 business days of the District staff's knowledge of the spill</p>	<ul style="list-style-type: none"> • Due within 15 calendar days of the spill end date. Upon completion, the CIWQS will issue final spill event ID number. • Submit Amended reports within 90 calendar days of Certified Report due date
<p>Category 3</p> <p>Spills of 50 gallons to less than 1,000 gallons that don't discharge to surface waters</p>	<p>N/A</p>	<ul style="list-style-type: none"> • Conduct spill-specific monitoring. 	<p>N/A</p>	<ul style="list-style-type: none"> • Due 30 calendar days after the end of the month in which the spills occurred. After LRO certifies the spill, CIWQS will issue a spill identification number for each spill. • Submit Amended reports within 90 calendar days of Certified Report due date
<p>Category 4</p> <p>Spills less than 50 gallons that don't discharge to surface waters</p>	<p>N/A</p>	<ul style="list-style-type: none"> • Conduct spill-specific monitoring. 	<p>N/A</p>	<ul style="list-style-type: none"> • Within 30 calendar days after the end of the month in which the spills occurred, certify monthly the volume spilled and the total number of spills • Upload and certify a digital report of all Category 4 spills in CIWQS by 1 FEB after the end of the calendar year in which the spills occur.

12.0 Receiving Water Sampling

WDR General Order 2022-0103-DWQ Section E-1, 2.3

For sewage spills in which an estimated 50,000 gallons or greater are discharged into surface water, the District staff shall conduct water quality sampling no later than 18 hours after the District staff's knowledge of a potential discharge to a surface water.

In addition, the District staff shall gather information during and after the spill event to assess the spill magnitude and update its notification and estimated spill volume. The water quality sampling results will enable the district to prioritize areas of concern regarding water quality impacts.

A. **Receiving Water Monitoring**

Through visual observation, spill volume-estimating and field calculation techniques, the District staff shall gather and document the following information for spills discharging into receiving waters:

1. Estimated spill travel time to the receiving water
2. For spills entering a drainage system, estimated spill travel time from point of entry to the point of discharge into receiving water
3. Spill travel time can be calculated in the following ways:
 - i. Travel time based on design slope of in feet per second (fps)
 - ii. Timed water release in the cleaned pipe over the distance traveled
4. Estimated spill volume entering the receiving water
5. Photographs of the following:
 - i. Waterbody bank erosion
 - ii. Floating matter
 - iii. Water surface sheen (potentially from oil and grease)
 - iv. Discoloration of receiving water
 - v. Impact to the receiving water

B. **Water Quality Sampling and Analysis**

Surface water samples will be collected using a grab sample technique. Employees must wear new sterile powder-free surgical gloves when collecting all samples.

1. **Trigger for Sampling** -Water quality sampling is required within 18 hours of initial spill notification for Category 1 Spills in which 50,000 gallons or greater are spilled into surface waters.

2. **Safety and Access-** Water quality sampling should only be performed if it is safe to do so and access is not restricted or unsafe. Unsafe conditions include traffic, heavy rains, slippery or steep creek banks, visibility issues, high-flowing creeks, and limited access due to soil conditions or poor terrain. If access restrictions or unsafe conditions prevent compliance with these monitoring requirements, the District staff shall provide documentation of the access restriction or safety hazards in the required report.

3. **Where to Sample-** The District staff must use the best professional judgement to determine the upstream and downstream distances based on receiving water flow, accessibility to waterbody banks, and size of visible plume. Collect one sample each day for the duration of the spill. In addition, the District staff shall collect receiving water samples from the following locations:
 - i. A point in the drainage conveyance system before the flow discharges into the receiving water. *Label this sample DCS-001*
 - ii. Point of Discharge into the receiving water where sewage initially enters the receiving water. *Label this sample RSW-001*
 - iii. Upstream Sample – A point in the receiving water upstream of the point of sewage discharge. *Label this sample RSW-001U*
 - iv. Downstream Sample – A point in the receiving water downstream of the point of discharge where the spill is thoroughly mixed with the receiving water. *Label this sample RSW-001D*

Determine the water velocity present in the body of water during the spill. Use velocity meter or by dropping debris in the water and timing how long the debris takes to travel a known distance is a good indicator of the water velocity present. Use this information to determine the next downstream sampling point. Then, multiply the water velocity by the spill duration to determine the furthest point downstream to sample.

C. Sampling Procedure

1. Put on the required PPE (safety glasses and latex gloves)
2. **Collect Drainage Conveyance System Sample** – Sample at a point in the drainage conveyance system before the flow discharges into receiving waters
 - a. Label this sample DCS-001 and take a picture of the location you are sampling.
 - b. Avoid any debris or scum layer from the drainage system.
 - c. Fill the bottle against the direction of flow, replace the cap, and secure the sample to avoid contamination.

3. **Collect Upstream Sample** - Move approximately 100 feet upstream of the source.
 - a. Label the bottle RSW-001U and take a picture of your sampling location.
 - b. Sample away from the bank and avoid any debris or scum layer from the surface.
 - c. Fill the bottle against the direction of flow, replace the cap, and secure the sample to prevent contamination.

4. **Collect Point of Discharge Sample**- Move approximately 10 feet downstream of the source location.
 - a. Label the bottle RSW-001 and take a picture of your sampling location.
 - b. Sample away from the bank and avoid any debris or scum layer from the surface.
 - c. Fill the bottle against the direction of flow, replace the cap, and secure the sample to prevent contamination.

5. **Collect Downstream Sample** – Move approximately 100 feet downstream of the source.
 - a. Label this sample RSW-001D and take a picture of the location you are sampling.
 - b. Sample away from the bank and avoid any debris or scum layer from the surface.
 - c. Fill the bottle against the direction of flow, replace the cap, and secure the sample to prevent contamination.

D. **Required Water Quality Analyses** – All samples will be immediately transported to the nearest certified water quality laboratory for analysis. The sample analysis, at a minimum, will include the following:

1. Ammonia
2. pH
3. Bacterial indicators, such as total and fecal coliform, enterococcus, and e-coli, per the regional Basin Plan or as directed by SWRCB

E. **Equipment and Supplies** – The following items and PPE are required for sampling:

1. Cooler with Ice
2. Sterile sampling bottles
3. Powder-free latex gloves
4. Safety glasses
5. Marking pen
6. Field log forms

13.0 Final Spill Volume Estimation

WDR General Order 2022-0103-DWQ Section E-1, 2.3

The final spill volume estimation is critical for CIWQS reporting and determines whether additional reporting to regulatory agencies is required. Additionally, the District staff shall update its notification and reporting of estimated spill volume, including spill volume recovered, as further information is gathered during and after a spill event.

To assess the approximate spill magnitude and spread, the District staff shall estimate the total spill volume using updated volume estimation techniques, calibration, and documentation for CIWQS reporting. WBSD will follow the guidelines for volume estimation in Appendix E to determine the spill's volume.

14.0 Documentation of Spill Events

WDR General Order 2022-0103-DWQ Section D-6, 6.13

Collection Systems management staff will thoroughly investigate and document all spills to enable efficient wastewater collection system management, meet the General Order's reporting requirements, and assess the effectiveness of the emergency response plan. Once the first responder has mitigated the spill, they (or source control) will complete the Sanitary Sewer Overflow Field Report Form (Call-Out Form) and turn it in to the Operations Superintendent. Collection Systems management will then assemble all available documentation for review and complete a draft report of the spill documenting all field activities. Collections Systems management will submit a Post Spill Assessment to the Water Quality staff when finished. Water Quality staff (data submitters) will enter all required information into the California Integrated Water Quality System (CIWQS) online reporting system, and the LRO will certify the report in CIWQS.

A. Upon completion of the spill event, an electronic file for each individual spill will be prepared, including the following information where appropriate:

- Initial service call information;
- Spill Response Field Report;
- Volume estimate;
- Map showing the spill location;
- Photographs of spill location;
- CCTV inspection data, if applicable;
- Water quality sampling and test results, if appropriate;
- Spill event investigation results; and

- Any other forms related to the spill.

B. Private Spill Documentation

Collection Systems management will complete the Private Spill Response Report form and provide a draft report to the Water Quality Department. In addition, Collection Systems management will assemble all available documentation and review, complete, and submit an internal report of all available information to Water Quality staff via e-mail. A separate electronic file will be prepared for each individual private spill. The file will include any relevant information from the above list.

D. Annual reviews of the SERP will be conducted by the Water Quality Manager and the Operation Superintendent, using spill data, the Districts SSMP, and Performance Measures Report. Any deviations and/or changes to the SERP will be noted in track changes and implemented into the plan, including staff training.

E. The District will conduct annual bypass and spill estimation volume trainings in-house, as well as continue to provide staff with off-site spill prevention/estimation techniques (ex: CWEA local section trainings).