PART 2 (FIELD GUIDE)

LIST OF TABLES

1.0 RESPOND AND ASSESS

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 the best judgment while responding to and mitigating the spill's effects. The first responder shall contact their supervisor for direction as appropriate. The First Responder's Goals are to:

- Prevent, Contain, Control, and Mitigate.
- Safely respond to the site as quickly as possible. IEUA's response goal to a reported spill is 1 hour.
- 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.

A. Upon Arrival:

   i. Document the "Arrival Time" on the Sewer Spill Response Field Report

   ii. Take a 10-second video of the spilling structure (if currently active)

   iii. Take photos of the affected area

B. Assess and Determine Responsibility. Is the problem within the IEUA owned/operated sewer system?
   i. Determine the source of the spill, the spill category and start internal notifications as appropriate. If the spill is a Category 1 or 2, immediately notify the supervisor.
   ii. Determine additional resources and personnel needed including potential mutual aid if necessary.
   iii. Attempt to contain or divert the spill. Block, plug, or cover all storm drain inlets in the immediate area to redirect the spill to a containment area. Use the storm drain map to assess the direction of the sewage flow on the ground and the potential destination to help determine additional containment needs.
   iv. Setup traffic control measures to keep pedestrians and pets away from the affected area(s)

C. Is the problem due to another agency's facility?
   i. Inform the customer the spill is not IEUA responsibility, and provide them with the responsible agency contact information.
   ii. Attempt to contain the spill and keep the public out of harm's way until the agency's personnel arrive.
   iii. Additionally, contact the agency and inform them of the problem, and offer Mutual Aid Assistance (see Table 3)

D. Is the problem due to a privately-owned facility?
   i. Advise the owner/manager to stop all water use in the building or facility.
   ii. Explain that the cause of the spill is in the portion that IEUA does not maintain or perform work on

iii. If the property owner/ manager is unwilling to address the cause of the spill, contact your Supervisor to discuss whether Code Enforcement or County Environmental Health should be notified
iv. In addition, the first responder should call their Supervisor and discuss or determine if IEUA will clear the blockage or recommend that the owner/manager call a plumbing service. If IEUA decides to clear the blockage, track your time and material for billing purposes.
v. If IEUA determines not to clear the blockage, assist with containment, if necessary, to prevent the spill from entering a DCS. Again, track your time and materials used for billing purposes.

E. Is there a backup in a home or building caused by a failure in an IEUA main?
   i. Once the blockage has been cleared, the first responder will call the Manager of Facilities and Water System Programs to inform them of the backup.
   ii. Recommend the customer keep children and pets out of any affected areas.
   iii. IEUA will support cleanup if the resident requests IEUA assistance. IEUA has contracts with the following contractor:
      i. SERVPRO of Chino 909-548-3191
      ii. SERVPRO of Northeast Ontario 909-390-0238
   iv. After explaining the concerns with sewer spills and contamination and offering clean-up services to the resident, if the resident refuses clean-up services from IEUA, politely ask them to sign the Declination of Cleaning Services form.
   v. Additionally, the resident/owner can decide to clean up the spill and file a claim with the IEUA.
F. Document activities and findings on the Spill Response Field Report

2.0 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 Agency 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.

3.0 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 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: • Rubber Berm • Dry Sweep • Dirt • Sandbags • Deploy Absorbent Bags
Open Space	• 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	• Vacuum retrieve from the wet well using Hydro-Vac • Establish Bypass Operations
Drainage Channel	• Create a Dam using sandbags or dirt • Use vacuum retrieval if accessible by hydro-vac
Strom Drain	• Block inlets using rubber mats and/or sandbags • Plug manhole outlets using pneumatic plugs or sandbags • Plug outfall manhole to prevent discharge into the environment

Location	Strategies for Containment
Backup In Building	• Attempt to remove cleanout caps to allow the sewage to discharge outside the building • Establish containment using the most effective method from above
Creeks/Streams (Low flow only)	• Create Sandbag Dams • Install a silt fence to contain floating solids • Contact the local health department or Fish and Wildlife for direction NOTE: Containment attempts should not negatively impact aquatic life

4.0 EMERGENCY SYSTEM OPERATIONS

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

IEUA 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 crews responding 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.

5.0 CORRECT CAUSE AND RESTORE FLOW

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

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. Once the blockage has been relieved, monitor the mainline flow to ensure the blockage doesn't reoccur downstream. 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.

Sewer Lift Station- If the station is equipped with an alarm screen, check alarm status for indication of problem. If the station has no power, contact Southern California Edison to determine if they are aware of the outage, and a estimation of when service will be restored. Determine the retention time remaining in the wetwell and sewer system, bypass pumping may be necessary. If the first responder feels that a hydro-vac will sustain the flow coming into the station, mobilize one immediately. If power is present, but pumps are not operating, switch the HOA switch to hand. If the pumps start, monitor wetwell levels and control with the pump controls. If pumps will not operate in the hand position, mobilize additional staff for by-pass pumping of the station. Follow agency procedures for notification of Qualified Electrical Worker or Instrumentation & Control personnel.

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.

6.0 SPILL SPECIFIC MONITORING

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

The enrollee 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 sketch of the spill spread and dimensions specific to the spill. In the sketch, indicate the spill's final destination or containment point. The enrollee 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, and
- The location(s) of the spill clean up

7.0 INITIATE SPILL CLEANUP

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

Recovery and thorough cleanup are necessary for all sewer 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 SSO as possible. Disinfection of contaminated soil or drainage ways is only performed when directed by San Bernardino County Environmental Health or the CA Department of Fish and Wildlife

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

A. Back up in Building
   1. Once the blockage has been cleared, the first responder will call the Manager of Facilities and Water System Programs to inform them of the backup.
   2. Recommend the customer keep children and pets out of any affected areas.
   3. IEUA will support cleanup if the resident requests IEUA assistance. IEUA has contracts with the following contractor:
      i. SERVPRO of Chino 909-548-3191
      ii. SERVPRO of Northeast Ontario 909-390-0238

B. Street, Curb or Gutter or Hardscape
   i. Remove all debris and solids with broom, 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 copious amounts of water and vacuum the area thoroughly.

8.0 REMOVE SEWAGE FROM DRAINAGE CONVEYANCE

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. Photographs must be taken to verify the conditions before and after cleaning activities. With containment still in place, flush the affected area with water to the containment location and vacuum water and debris. IEUA determines the condition of the storm drain pipe when deciding to hydro-jet. If the pipe condition has deteriorated to the point that damage to agency equipment may result, flushing to the containment point is the best option. Once thoroughly cleaned, remove the containment measures and flush and vacuum the remaining area, capturing all water and returning it to the sanitary sewer system.

9.0 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, IEUA 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 cleanup or emergency measures. Table 2-3 provides the internal and external contacts for IEUA to aid in regulatory notification and mutual aid.

Table 2 - Agency Contact Information

Group	Name/Title	Number	Notes
IEUA	Lucia Diaz Manager of Facilities and Water System Programs	909-342-2365	LRO
IEUA	Ken Tam Manager of Environmental Services Resources	909-993-1917	LRO
IEUA	Pietro Cambiaso Manager of Compliance and Sustainability	909-732-3397	LRO
IEUA	Warren Green Manager of Contracts and Procurement	909-993-1709	Insurance/Risk support
IEUA	Ed Makowski Collections System Supervisor	909-497-4934	STAFF
IEUA	Lucia Diaz Manager of Facilities and Water System Programs	909-342-2365	LRO

Table 3- Regulatory Agency Notification

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)	951-782-4130 RB8SpillReporting@waterboards.ca.gov	Leave a voicemail with date and time. Send follow up email.
San Bernardino County Environmental Health	800-782-4264 - Business Hours 800-472-2376 - After Hours	
California Department of Fish and Wildlife	909-484-0167 AskRegion6@wildlife.ca.gov	Guidance for Sensitive Riparian areas
Mutual Aid Contact number provided is the agency on-call number	Agency	Contact Information
	Cucamonga Valley Water District	909-987-2591
	City of Chino	909-628-1234 (Police Dispatch)
	City of Chino Hills	909-364-2860
	City of Fontana	909-721-8770
	City of Montclair	909-905-0410
	City of Ontario	909-721-7246
	City of Upland	909-296-0133
	Jurupa CSD	951-685-7434
	City of Pomona	909-772-4105

10.0 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 IEUA's owned and /or operated sanitary sewer system regulated under this Order. Table 4 aids field staff, data submitters, and the LRO(s) with the timeline requirements for notification of regulatory agencies and the submittal of draft and certified reports into CIWQS.

Table 4 - Monitoring and Reporting

Spill Category	OES Notification	Monitoring	Draft Report	Certified Report
Category 1 Any volume of sewer discharging to surface water	• Within 2 hours of the Agency'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	• Conduct spill-specific monitoring. • Conduct water quality sampling within 18 hours of knowledge of a spill 50,000 gallons or greater to surface waters	• Due within 3 business days of knowledge or self-discovery of Category 1 spill.	• 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

Spill Category	OES Notification	Monitoring	Draft Report	Certified Report
Category 2 Spills of 1,000 gallons or greater that do not discharge to waters of the State	• Within 2 hours of the Agency'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	• Conduct spill-specific monitoring.	• Due within 3 business days of the Agency's knowledge of the spill	• 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
Category 3 Spills of 50 gallons to less than 1,000 gallons that don't discharge to surface waters	• N/A	• Conduct spill-specific monitoring.	• N/A	• 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

Spill Category	OES Notification	Monitoring	Draft Report	Certified Report
Category 4 Spills less than 50 gallons that don't discharge to surface waters	• N/A	• Conduct spill-specific monitoring.	• N/A	• 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.

11.0 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 a surface water, IEUA shall conduct water quality sampling no later than 18 hours after IEUA's knowledge of a potential discharge to a surface water. In addition, IEUA 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 division to prioritize areas of concern regarding water quality impacts

A. **Receiving Water Monitoring**

Through visual observation, spill volume-estimating and field calculation techniques, IEUA 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 estimated the following ways:
    i. Travel time based on design slope of 2 fps
    ii. Timed water release in 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 are required to 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 to 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 IEUA shall provide documentation of the access restriction or safety hazards in the required report.
3. ***Where to Sample***- The IEUA must use 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. The IEUA 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 fully mixed with the receiving water. Label this sample RSW-001D

Determine the water velocity present in the creek or body of water during the spill. Dropping debris in the creek, 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. Multiply the water velocity by the spill duration to figure the furthest point downstream to sample.

C. **Sampling Procedure**

1. Put on 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.
   - **d.** Use a thermometer to measure the temperature of the sample, and record the results
3. **Collect Upstream Sample** - Move approximately 100 feet upstream of the source.
   - **a.** Label the bottle RSW-001U 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 avoid contamination.
   - **d.** Use a thermometer to measure the temperature of the upstream sample location and record the results.
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 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 avoid contamination.
   - **d.** Use a thermometer to measure the temperature of the source sample location and record the results.

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 avoid contamination.
    d. Use a thermometer to measure the temperature of the downstream sample 1, and record the results

D. **Required Water Quality Analyses** – All samples will be immediately transported to the nearest ELAP certified water quality laboratory for analysis. The sample analysis, at a minimum will include the following:
1. Ammonia
2. pH
3. Electrical Conductivity
4. Bacterial indicators, such as total and fecal coliform, enterococcus and e-coli, per the regional Basin Plan or as directed by SWRCB
5. Temperature

List Agency Specific Lab Names and contact information here.

E. **Equipment and Supplies** – The following items and PPE are required for sampling:
1. Cooler with Blue Ice
2. Sterile sampling bottles
3. Powder free latex gloves
4. Safety glasses
5. Marking pen
6. Field log forms

12.0 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 Enrollee 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 enrollee shall estimate the total spill volume using updated volume estimation techniques, calibration and documentation for CIWQS reporting. The Agency has trained on the following methods of volume estimation.

A. **Measured Area/Volume** - The volume of most small spills that have been contained can be estimated using this method. The shape, dimensions, and depth of the contained wastewater are needed. This information is used to calculate the area and volume of the spills. Measured volume is not an appropriate estimation matrix if the spill occurs during a rain event.

B. **Flow Estimation Charts** – Overflow volume can be estimated by multiplying the overflow duration by the overflow rate. The overflow rate can be determined by pick hole or vent hole spill height, flow meter data, SCADA information, and pump data from lift stations.
C. **Upstream Connections/EDU -** This method can be used for overflows from residential properties when enough information has been gathered through interviewing the resident. Be clear with your questions and explanation for the interview. Only interview residents from the household contributing to the spill.

13.0 DOCUMENTATION OF SPILL EVENTS

WDR General Order 2022-0103-DWQ SectionD-6, 6.13

Inland Empire Utility Agency shall maintain records for each of the following spill-related events and activities:

A. Spill event complaint, including but not limited to records documenting how the IEUA responded to notifications of spills. Each complaint record must, at a minimum, include the following information:
    a. Date, time, and method of notification,
    b. Date and time the complainant first noticed the spill, if available,
    c. Narrative description of the complaint, including any information the caller provided regarding whether the spill has reached surface waters or a drainage conveyance system, if available,
    d. Complainant's contact information, if available, and
    e. Final resolution of the complaint;
B. Records documenting the steps and/or remedial action(s) undertaken by IEUA, using all available information, to comply with this General Order, and previous General Order 2006-0003-DWQ as applicable;
C. Records documenting how estimate(s) of volume(s) and, if applicable, volume(s) of spill recovered were calculated;
D. All California Office of Emergency Services notification records, as applicable; and
E. Records, in accordance with the Monitoring Requirements in this Attachment.

(For additional references, please refer to SERP PART 1 (COMPLIANCE GUIDE).