

Certified Spill Report for Category 1 Spills

Spill Event ID:	893543	Spill Location Name:	Airport Force Main 24
Sanitary Sewer System:	Goleta West SD CS	Agency:	Goleta West SD
Spill Report Type:	Category 1 Spill	Spill Report Status:	Amended
Initial Draft Submitted On:	02/23/2024	Certified On:	04/02/2024
Spill Report Version Number:	2.1		

File Name	File Description	Uploaded Date	Status
<u>893543_Version_3.1.pdf</u>	Certified spill pdf : 893543_Version_3.1.pdf	2024-05-22	OK
<u>Technical Report Update Attachment 4 - Hydrostatic Test Report.pdf</u>	Spill Technical Report Update for CIWQS Spill Event ID 893543 - Attachment 4 (Pressure Test Report)	2024-05-17	OK
<u>Technical Report Update Attachment 3 - Cause Investigation Technical Memorandum.pdf</u>	Spill Technical Report Update for CIWQS Spill Event ID 893543 - Attachment 3 (Cause Investigation)	2024-05-17	OK
<u>Technical Report Update Attachment 2 - Flow Analysis Technical Memorandum.pdf</u>	Spill Technical Report Update for CIWQS Spill Event ID 893543 - Attachment 2 (Flow Analysis)	2024-05-17	OK
<u>Technical Report Update Attachment 1 - Flow Data and Analysis.xlsx</u>	Spill Technical Report Update for CIWQS Spill Event ID 893543 - Attachment 1 (Flow Data and Analysis)	2024-05-17	OK
<u>2024.05.17 Goleta West Sanitary District Spill Technical Report Update.pdf</u>	Spill Technical Report Update for CIWQS Spill Event ID 893543	2024-05-17	OK
<u>Technical Report Attachment 4 - 2024.04.02 Goleta Sewer Spill Impact Assessment.pdf</u>	Spill Technical Report for CIWQS Spill Event ID 893543 - Attachment 4 (Spill Impact Assessment)	2024-04-04	OK
<u>893543_Version_2.1.pdf</u>	Certified spill pdf : 893543_Version_2.1.pdf	2024-04-02	OK
<u>Technical Report Attachment 3 - 2024.04.02 Water Quality Data.pdf</u>	Spill Technical Report for CIWQS Spill Event ID 893543 - Attachment 3 (Water Quality Data)	2024-04-02	OK
<u>Technical Report Attachment 2 - Spill Response Field Report.pdf</u>	Spill Technical Report for CIWQS Spill Event ID 893543 - Attachment 2 (Spill Response Field Report)	2024-04-02	OK
<u>Technical Report Attachment 1 - Photos from 2024.02.17 and 2024.03.28.pdf</u>	Spill Technical Report for CIWQS Spill Event ID 893543 - Attachment 1 (Photos)	2024-04-02	OK
<u>2024.04.02 Goleta West Sanitary District Spill Technical Report.pdf</u>	Spill Technical Report for CIWQS Spill Event ID 893543	2024-04-02	OK
<u>893543_Version_1.6.pdf</u>	Certified spill pdf : 893543_Version_1.6.pdf	2024-03-01	OK
<u>IMG_5227.JPG</u>	On UCSB Campus looking Northeast towards spill site. With Tecolotito Creek in foreground; Tecolotito Creek water condition upstream of confluence with tributary where discharge occurred.	2024-03-01	OK
<u>IMG_5218.JPG</u>	Example of recovered solids.	2024-03-01	OK
<u>IMG_5190.JPG</u>	Wetted area south of service road.	2024-03-01	OK
<u>IMG_5188.JPG</u>	Receiving tributary looking north from downstream of discharge point, white objects are shell debris.	2024-03-01	OK
<u>240222 Map of Sampling Locations.pdf</u>	Sampling Locations Map	2024-03-01	OK
<u>240301 Spill Map 2.pdf</u>	Detail Map 2, for use with General Overview Map	2024-03-01	OK
<u>240301 Spill Map 1.pdf</u>	Detail Map 1, for us with General Overview Map	2024-03-01	OK
<u>240301 Spill Overview Map.pdf</u>	General Overview map of spill site for reference with other two final maps	2024-03-01	OK
<u>IMG_5185.JPG</u>	Staff using equipment to collect debris and remove from site. Looking North/northwest from service road toward spill site and creek.	2024-02-26	OK
<u>IMG_5182.JPG</u>	Staff vacuuming water from pooled area north of service road.	2024-02-26	OK
<u>IMG_5180.JPG</u>	Staff vacuuming debris from spill site	2024-02-26	OK
<u>IMG_5178.JPG</u>	Spill site, sink hole above force main where spill reached surface	2024-02-26	OK
<u>IMG_5177.JPG</u>	Pooled spill area north of service road, south of runway 33L	2024-02-26	OK
<u>IMG_5175.JPG</u>	Looking North east from creek bank where spill entered creek.	2024-02-26	OK
<u>IMG_5162.JPG</u>	Looking east from service road at large pooled water area south of runway 33L.	2024-02-26	OK
<u>IMG_5160.JPG</u>	Spill area from creek bank looking south west along service road	2024-02-26	OK
<u>IMG_5158.JPG</u>	Spill area entering unnamed creek	2024-02-26	OK

Spill Report General Information

1. Name of Enrollee contact person to respond to spill-specific questions:	Joey Hilliard and/or Brian McCarthy
1.a. Telephone number of Enrollee contact person to respond to spill-specific questions:	(805) 968-2617
2. Spill Location Name:	Airport Force Main 24
3. Date and time the Enrollee was notified of, or self-discovered, the spill:	02/17/2024 08:24
4. Operator arrival time:	02/17/2024 09:15
5. Estimated spill start date and time:	02/16/2024 19:22
6. Date and time the Enrollee notified the California Office of Emergency Services:	02/17/2024 18:00
6.a. Assigned control number:	24-0124
7. Description, photographs, and GPS coordinates of the system location where the spill originated: If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field:	30 feet south of the south west corner of runway 33L at the Santa Barbara Municipal Airport.
7.a. Latitude:	34.4193
7.b. Longitude:	-119.83825
7.c. Appearance points:	Force Main
7.d. If other, describe:	
7.e. Additional spill appearance point(s) explanation:	
8. Estimated total spill volume exiting the system:	1086000
9. Description and photographs of the extent of the spill and spill boundaries:	Spill was originating out of the ground, 30 feet south of the southwestern corner of Runway 33L at the Santa Barbara Municipal Airport. Flow headed west and into the tributary spread across 145 linear feet of the embankment. Flow spread around the spill origin covering roughly 50 foot diameter circle area. Spill also headed south along the eastern edge of the service road in a 10 foot wide stream, then east along the northern edge of the service road where it pooled on the north side of the service road and created a triangular shaped wetted area. Flow also crossed over service road to the south and pooled in a drainage area. See attached spill map.
10. Did the spill reach a drainage conveyance system?:	Y
10.a. Description of the drainage conveyance system transporting the spill and photographs of the drainage conveyance system entry location(s):	Tributary to west of spill origin that flows south roughly 400' and connects to Tecolotito Creek, which eventually leads to Pacific Ocean.
10.b. Estimated spill volume fully recovered from the drainage conveyance system:	0
10.c. Estimated spill volume remaining within the drainage conveyance system:	1022500
11. Description and photographs of all discharge point(s) into the surface water:	To the west of spill origin across 143' of embankment into tributary of Tecolotito Creek.
12. Estimated spill volume that discharged to surface waters:	1022500
13. Estimated total spill volume recovered:	17000

Certification Questionnaire	
1. Spill Destination(s):	Drainage Conveyance System that discharges to surface water
1.a. If other, describe:	
1.b. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill:	Spill was originating out of the ground, 30 feet south of the southwestern corner of Runway 33L at the Santa Barbara Municipal Airport. Flow headed west and into the tributary spread across 145 linear feet of the embankment. Flow spread around the spill origin covering roughly 50 foot diameter circle area. Spill also headed south along the eastern edge of the service road in a 10 foot wide stream, then east along the northern edge of the service road where it pooled on the north side of the service road and created a triangular shaped wetted area. Flow also crossed over service road to the south and pooled in a drainage area. See attached spill map. The spill origin is 30 feet from tributary of Tecolotito Creek, 1,000 linear feet from main body of Tecolotito Creek. Roughly 6,000 linear feet from location of spill entering the tributary to Goleta Slough inlet at Pacific Ocean if travelling along the waterway. Tributary had existing flowing water in it at time of spill.
1.c. Coordinates available?	Y
1.d. Latitude:	34.41915
1.e. Longitude:	-119.83844
1.f. Latitude:	34.41915
1.g. Longitude:	-119.83848
1.h. Latitude:	34.41849
1.i. Longitude:	-119.8378

1.j. Latitude:	34.41902
1.k. Longitude:	-119.83724
2. Spill end date and time:	02/17/2024 09:00
3. Description of how the spill volume estimations were calculated, including at a minimum: The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information, used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered):	Assumed duration based on the earliest possible start time. Assumed total volume based on comparative average flow data. Assumed constant discharge throughout duration. For spill volume estimation, used flow telemetry at the regional treatment plant (operated by Goleta Sanitary District) to determine when leak occurred based on drop in flow received. Calculated total volume received at treatment plant during this time period and compared to historical average flow during the same time period. Estimated volume that did not enter the tributary by measuring wetted areas around spill origin and calculated volume based on average depths of wetted areas. Recovered amount calculated by known capacity of equipment used to remove wastewater and debris.
3.a. Description of the methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time:	Assumed spill start time based on analyzing flow telemetry and noting when flow received at regional treatment plant dropped off from normal. Spill stop time determined by field observation of when water stopped coming out of ground after all valves were closed and pipe was isolated.
4. Spill cause(s):	Other (specify below)
4.a. If other, describe:	Primary cause of failure was external corrosion of the 24-inch force main caused by imperfect external corrosion protection and severely corrosive soils (severely corrosive, high chloride). No evidence of internal corrosion. Determined not to be caused by District's operations. See attachment for #4.a for details.
5. System failure location:	Force Main
5.a. If other, describe:	
6. Description of the pipe material, at the failure location:	Ductile Iron
6.a. If other, describe:	
6b. Estimated age of pipe material, at the failure location:	46
7. Description of the impact of the spill:	Current estimates are approximately 1,140,657 gallons of raw wastewater spilled from site. Roughly 68,961 gallons were contained within non-native dominated grassy area, of which 12,000 gallons were recovered by Vac truck and 21.25 tons of saturated solids were recovered and removed by dump truck, with approximately 1,593 gallons of wastewater. Approximately 1,116 gallons saturated soils. 1,071,969 gallons likely entered a tributary to Tecolotito Creek which eventually drains to the Pacific Ocean. Approximately a day and a half into response activities, spill area received approximately 3 inches of rain. Site monitoring is ongoing.
8. Was the spill associated with a storm event?	N
9. Spill response activities:	Other Enforcement Agency Notified, Returned Portion of Spill to Sanitary Sewer System, Other (specify below), Property Owner Notified, Mitigated Effects of Spill (specify below), Contained All or Portion of Spill, Cleaned Up (specify below)
9.a. If other, describe:	See attachment for response to #9. In addition to details in attachment for response to #9, District removed 21.25 tons of wastewater solids on February 17 and March 28, revegetated the grassy area upland from embankment to tributary, and continues to monitor site.
9.b. Description of spill response activities including description of immediate spill containment and cleanup efforts:	See attachment for response to #9.
10. Spill corrective action:	Repaired Facilities or Replaced Defect
10.a. If other, describe:	

10.b. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps:	See attachment to #10. In addition to details in attachment to #10, District has completed updates to its force main recommissioning SOP, received training on its updated SERP, set up temporary inflow monitoring and updated its integration of GSD's flow data with the District's SCADA, updated its contingency plan, replaced coupling bolts to reduce any other potential failure point, pressure tested the 24" line prior to recommissioning with engineers, and recommissioned the line successfully on 5/1. District retained additional compliance support over next several months to ensure highest standard of operations. More corrective action details in 4/2 Technical Report and 5/17 Update to Technical Report.
10.c. Schedule of major milestones:	See attachment to #10.
11. Spill response completion date:	03/01/2024
12. Detailed narrative of investigation and investigation findings of cause of spill:	Uncovered pipe and found exterior coating of ductile iron had been compromised. Hole was roughly 6" in diameter with a 5" crack running from the hole along the side of the pipe. Independent engineer further investigated pipe and soil conditions and determined primary cause of failure was external corrosion of the 24-inch force main caused by imperfect external corrosion protection and severely corrosive soils (severely corrosive, high chloride). Details in Attachment 4 of May Technical Report Update. Expected life expectancy of pipe is 60 to 100 years and pipe age is 46 years. During excavation and replacement of portion of failed pipe, remaining pipe visually inspected with no issues seen.
13. Is the Enrollee conducting an ongoing investigation?	Y
13.a. Reasons for an ongoing investigation:	GWSD will continue further investigation of incident alongside the broader assessment of forcemains for future rehabilitation or replacement with contracted engineering firm that has already begun to ensure incident does not occur again.
13.b. Expected date of completion of investigation:	07/01/2024 18:30
14. Name of receiving water body(s):	Tributary to Tecolotito Creek, Mouth of Goleta Slough, Pacific Ocean
14.a. Type of receiving water body(s):	Other (specify below), Ocean
14.b. If other, describe:	Tributary located at south edge of estuary/slough
15. Description of the water body(s):	Tributary along south side of Goleta Slough which is designated as a state marine preserve and closed to fishing or collecting as marine protected area. Tributary joins Tecolotito Creek upstream of confluence with other creeks at Goleta Slough mouth to Pacific Ocean. Multiple uses for water bodies defined in Basin Plan.
15.a. Observed impacts on aquatic life:	Staff has been monitoring tributary, Tecolotito Creek, and Goleta Slough multiple times on day of spill and subsequent weeks after, including 2/17, 2/18, 2/20 through 2/23, and 2/27 through present. This was done during water sampling activities as well as other site visits specifically to observe the waterway and aquatic life. No apparent impacts on aquatic life observed. Monitoring ongoing, and District in communication with California Public Health Department and retained Geosyntec Consultants for support.
15.b. Public access impact:	Public Closure, Other (specify below)
15.c. If other, describe:	The local public health department issued a Beach Advisory on 2/16, before the spill in anticipation of water quality impacts of forecasted storm on 2/18 to 2/19. GWSD tracked whether the Goleta Beach area was closed and followed up to confirm. GWSD reached out to the local public health department on 2/21 and understands the beach was closed that day. GWSD was told by County staff on 2/25 that the beach was closed due to unrelated dredging and beach replenishment activities in the Goleta Slough by Santa Barbara County Flood Control District that started on 2/20. Based on water quality data, beach could be opened by 3/4, but was not reopened until 3/15 due to the unrelated beach replenishment activities and rain.
15.d. Responsible entity for closing/restricting use of water body:	Santa Barbara County Public Health Department and Environmental Health Services
15.e. Number of days closed/restricted as a result of the spill:	13
16. Was the spill located within 1,000 feet of a municipal surface water intake?	N
17. Were water quality samples collected?	Y

17.a. Identify sample locations:	Water samples were taken from 4 separate locations within the receiving tributary and downstream in Tecolotito Creek on 2/17 in the afternoon. Upstream from the discharge point, at the discharge point, and two downstream of the discharge point where water is fully mixed with receiving water. Additional samples were taken upstream of the contact point and below for reference. Samples were taken at sample sites 1 through 4 between 3:30PM and 4:00PM on 2/17/24. Sample site 4 was replaced by sample site 5 & 6 during the next sampling period on 2/22/24. Sample sites 1, 2, 3, 5 & 6 were sampled again on 2/27 and 2/29/24. Refer to sample location map for specific locations. GWSD understands samples are also being collected by other local agencies including local health department.
17.b. Identify parameters the water quality samples were analyzed for:	All samples were analyzed for total and fecal coliform and ammonia. GWSD is consulting with other agencies, plans including Ocean Plan, and continuing to sample post-spill conditions until further guidance.

Certification			
I certify under penalty of perjury under the laws of the State of California that the electronically submitted information was prepared under my direction or supervision. Based on my inquiry of the person(s) directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete, and complies with the Statewide Sanitary Sewer Systems General Order. I am aware that there are significant penalties for submitting false information.			
Certifier Name:	Brian McCarthy	Certifier Title:	General Manager
Certifier Initials:	BM	Certification Date:	04/02/2024