COYOTE HILLS REGIONAL PARK

SANITARY SEWER MANAGEMENT PLAN
COYOTE HILLS REGIONAL PARK
SEWER SYSTEM MANAGEMENT PLAN

Updated March 2019

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LIST OF ACRONYMS

ACC Area Control Center
ACEH Alameda County Environmental Health
BACWA Bay Area Clean Water Agencies
CAL OES California Office of Emergency Services
CCTV Closed-Circuit Television
CDFW California Department of Fish and Wildlife
CIWQS California Integrated Water Quality System
DISTRICT East Bay Regional Park District
EBMUD East Bay Municipal Utility District
FOG Fats, Oils, and Grease
GIS Geographical Information System
LRO Legally Responsible Official
MRP Monitoring and Reporting Program effective 9/9/13
O&M Operations and Maintenance
OERP Overflow Emergency Response Plan
PM Preventive Maintenance
POTW Publically Owned Treatment Works
RWQCB Regional Water Quality Control Board
SCADA Supervisory Control and Data Acquisition
SSMP Sewer System Management Plan
SSO Sanitary Sewer Overflow
SWRCB State Water Resources Control Board
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USD  Union Sanitary District
WDID  Waste Discharger Identification
WDR  Waste Discharge Requirements
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EXECUTIVE SUMMARY

This Sewer System Management Plan (SSMP) has been prepared in compliance with requirements of the San Francisco Bay Regional Water Quality Control Board (RWQCB) pursuant to Section 13267 of the California Water Code, and the State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ.

ES-1 Background

On July 7, 2005, the RWQCB issued a letter to the San Francisco Bay Region (Region 2) sewer collection system enrollees that required the enrollees to prepare an SSMP. The recipients included East Bay Regional Park District (District). At the same time, the RWQCB released an SSMP Development Guide that was prepared in cooperation with the Bay Area Clean Water Agencies (BACWA). The 2005 directive stated that the District must also comply with RWQCB sanitary sewer overflow (SSO) electronic reporting requirements issued in November 2004.

Similarly, on May 2, 2006, the SWRCB issued a directive through Order No. 2006-0003-DWQ to require all public wastewater collection system enrollees in California with greater than one mile of sewers to be regulated under General Waste Discharge Requirements (WDR). The SWRCB action also mandates the development of an SSMP and the reporting of SSOs using an electronic reporting system. The SWRCB SSMP requirements are similar to those of the RWQCB but differ in organization and some details. Subsequent to the original adoption of the WDR, changes were made to the Monitoring and Reporting Plan (MRP) element of the WDR. The last change was effective on September 9, 2013 in Order No. WQ 2013-0058-EXEC and resulted in substantial changes especially to the emergency response requirements associated with sewer system overflows. On June 6, 2012, the District passed a resolution (No. 2012-6-140) approving a sanitary sewer management plan in accordance with SWRCB Order 2006-003-DWQ statewide general waste discharge requirements for sanitary sewer systems for Coyote Hills.

The intent of this SSMP is to meet the requirements of both the RWQCB and the Statewide WDR.

ES-2 Coyote Hills Regional Park Sanitary Sewer System

East Bay Regional Park District operates Coyote Hills Regional Park which is a 1,274-acre parkland located in Fremont, California on the southeast shore of San Francisco Bay. The sanitary sewer system at Coyote Hills Regional Park is categorized as a day use park servicing a public restroom facility within the Visitor Center. There are approximately 1.4 miles of 4-inch diameter PVC force mains and about 1.1 miles of 6-inch diameter PVC gravity sewers inside 8-inch VC sleeves (part of the former Nike septic system – more detail provided below). The system includes 3 service lateral connections and 1 lift station with multiple manholes and cleanouts. The lift station has a duplex pump configuration which allows for alternating from one pump to the other. Sewage from the Coyote Hills Visitor Center is gravity fed directly to the lift station and then pumped into the force main which essentially follows the Tuibun Trail, a paved park trail located on the north side of Patterson Ranch Road where it ultimately conveys to the Union Sanitary District (USD) system.
The District upgraded the Nike sewage system, which consisted of evaporation ponds located near Wren Marsh, decades ago. In 1992 a new system was installed that consisted of a four-inch, 8,000-foot-long force main (located under a strip at the northern side of Patterson Ranch Road to Paseo Padre Parkway). The ponds were removed as a part of the project. The lift station is located north of the Visitor Center parking lot. According to a recent Land Use Plan for Coyote Hills, the sewer capacity is deemed adequate to serve present needs. A figure showing the current system configuration is provided in the Appendix.
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ELEMENT 1: GOALS

The first element of the Coyote Hills Regional Park SSMP is to identify goals as follows:

Proper management, operation and maintenance (O&M) of the system: The District's field and skilled trades staff will be knowledgeable of, and trained on, all aspects of the management, O&M of the sewer system. This includes any new equipment, infrastructure or protocols that pertain to the system. In this way, the District staff will be able to maintain and improve system performance to adequately meet the needs and demands placed upon the Coyote Hills sewer system.

Provide adequate capacity to convey peak flows: Sewer system equipment and infrastructure was engineered and designed to accommodate and convey peak flows. The District park supervisors are knowledgeable of visitor capacities and respond accordingly when these capacities are approached. If, for any reason, any part of the sewer system must be shut down, park staff will bring in additional resources to continue public service. Should new demands upon park facilities occur that would necessitate additional sewer system infrastructure and equipment, such improvements or expansions will be professionally designed and engineered to meet expected demand.

Minimize the frequency of SSOs: The District field and skilled trades staff will be knowledgeable of, and trained to, provide appropriate monitoring (e.g.-alarm system checks, lift station inspections) and maintenance (e.g. periodic lift station maintenance/repair, conveyance equipment replacement) of the sewer system equipment and infrastructure in order to ensure optimal system performance and timely repair to minimize the frequency of SSOs.

Mitigate the impact of SSOs: In the event of an SSO at Coyote Hills Regional Park, the District staff will immediately implement the Overflow Emergency Response Plan (OERP) to minimize and mitigate the impact of the SSO. This response plan will include but is not limited to proper notifications, emergency response, reporting and impact mitigation which are detailed in Element 6 of this plan.

Be a part of the community and be a responsive public agency: The mission of the District is to preserve a rich heritage of natural and cultural resources and provide open space, parks, trails, safe and healthful recreation and environmental education. An environmental ethic guides the District in all of its activities. The District envisions an extraordinary and well-managed system of open space parkland in Alameda and Contra Costa Counties, which will forever provide the opportunity for a growing and diverse community to experience nature nearby. As part of this mission and vision, the District strives to provide a diversified system of regional parklands, trails, and parkland-related services that offer outstanding opportunities for creative use of outdoor time. This includes acquisition and preservation of significant biologic, geologic, scenic, and historic resources within Alameda and Contra Costa Counties.
ELEMENT 2: ORGANIZATION

The purpose of this section is to identify District and Contract staff responsible for implementing this SSMP, responding to SSO events and meeting the SSO requirements. This section also includes the designation of the Legally Responsible Official (LRO) or Authorized Representative to meet RWQCB and Statewide WDR requirements for completing and certifying spill reports.

2-1 Organization Chart and SSMP Responsibilities

The Coyote Hills Regional Park sewer collection system is operated and maintained by the District. They are responsible for all sewer, stormwater, and treatment plant operations, maintenance and management, and responding to sewer emergencies including SSOs.

Responsibility for reporting SSOs is as follows:

1. District staff first on scene of the SSO would notify District Dispatch either by radio or calling 510-881-1833 and then contact the Park Supervisor, at 510-690-6675.
2. Then Dispatch notifies the Park Water Utilities Maintenance Supervisor and Sanitation Supervisor, Police and Fire and the Stewardship Department’s Water Management Supervisor and Environmental Services Manager. SSO information is transmitted to the District Stewardship Department, who in turn reports each SSO to the Regional Board through CIWQS, and makes all reports to the SWRCB, RWQCB, Alameda County Environmental Health (ACEH, California Department of Fish and Wildlife (CDFW), and CAL OES as appropriate. The District’s Chief of Stewardship is the LRO for reporting and certifying SSOs.

Roles and responsibilities of key personnel involved in managing the wastewater collection system are as follows:

Board of Directors – The East Bay Regional Park District is governed by a seven-member board of directors, who are publicly elected to serve four-year terms. Each Board Member represents a specific geographic area of the Park District. The District itself comprises all of Alameda and Contra Costa counties and the Board Members include (see Ward Map below):
The District Board room is located at: 2950 Peralta Oaks Court, Oakland, California 94605. Open sessions of Board meetings are generally held after 2:00 pm on the 1st and 3rd Tuesday of each month. For additional information about board meetings, contact: Clerk of the Board at 1-888-EBPARKS (1-888-327-2757), 510-544-2020.

General Manager– Overall responsibility for implementation, direction and leadership of the care and operations of an extensive park system.

Assistant General Manager, Operations Division- Establishes policy, plans strategy, leads staff, allocates resources, delegates responsibility, authorizes outside contractors to perform services and may serve as public information officer pertaining to Operations Division.

Chief, Park Operations– Management of operations of District’s various parks and facilities.
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Park Lakes Unit Manager—First level management responsibilities for parks and facilities, supervises park supervisors.

Park Supervisor, Coyote Hills—Supervise field staff in O&M of parks, trails and facilities, implement first level response to sewage overflows.

Operations Field Staff, various—Performs O&M of District properties, provides support to park supervisor for sewage overflows, monitoring sewer systems within District boundaries.

Chief, Stewardship (LRO)—Management of development and implementation of natural resources programs including District water resources program.

Environmental Services Manager (LRO) – Manages and ensures regulatory compliance of District water resources, maintains SSMP, provides support to park staff during sewage releases; notifies appropriate regulatory agencies during overflow events. This position is currently vacant at the District.

Water Management Supervisor—Provides response, assistance, monitoring and reporting of emergencies involving District water resources including sewer system overflows and acts as a key contact person in case of emergency incidents. Is required to be “on call” 24/7, available by cell phone.

Water Management Technician—Provide support to park staff during sewer system overflows.

Chief, Maintenance and Skilled Trades—Manages District facilities, maintenance services and equipment.

Maintenance Superintendent—Manages District vehicle fleet and specialized industrial equipment including sewage pumper trucks. Has responsibility for overseeing the Sanitation, Water Utilities and Maintenance and Skilled Trade Supervisors.

Sanitation Supervisor—Supervise collection/disposal of sewage and sanitation crews; coordinate emergency response related to sewer systems.

Sanitation Field Staff, various—Operate sanitation trucks and provide site labor to collect/dispose of park generated sewage, provide emergency response regarding sewage systems. Currently there are four permanent drivers and one relief driver.

Roto-Rooter On-Call, San Leandro, 510-483-2324—An informal contract has been established between Roto-Rooter and the District to provide on-call sewer cleanout services on an as needed basis.

Water Utilities Maintenance Supervisor—Provides District-wide maintenance of all sewer lift stations, water systems and associated equipment and infrastructure.
Water Utilities Maintenance Technicians, various – Provides maintenance of drinking and waste water systems primarily at Coyote Hills Regional Park but can provide maintenance service to all District water systems.

Maintenance and Skilled Trades Supervisor, – Second in line under the Maintenance Superintendent who could provide authorization to either call Roto-Rooter or dispatch a District plumber for blocked sewer lines at District residences.

Senior Office Specialist, Renee Robinson, 510-690-6650 – Responsible for tracking authorized Roto-Rooter work within the District.

Public Safety Division, Dispatch 510-881-1833 - Provides support regarding public safety and 24-hour dispatch/communication services to support all departments and emergencies to ensure timely response to sewage releases.

Fire Department – Provides emergency response and support to any hazardous materials release including sewage.

Police Department – Provides emergency response and support to any park related incident including sewage releases.
2-2 Chain of Communication, Notifications and Response

- The immediate notification of SSO to appropriate entities should be conducted to provide emergency response/support and termination of additional sewage release. Estimated response times, in no particular order, are as follows:
  a. District Staff first on scene would notify dispatch of SSO. Dispatch notifies Park Staff in following order:
  b. Coyote Hills Supervisor (response time: immediate to 45 minutes)
  c. District Sanitation Supervisor (response time: 45 minutes)
  d. District Police and Fire Departments (response time: as soon as possible)
  e. District Maintenance and Skilled Trades Supervisor, for residential plumbing issues (response time: 45 minutes)
  f. District Water Utilities Maintenance Supervisor, for lift station issues (response time: 45 minutes)
  g. District Environmental Services Manager and Water Management Supervisor or Water Management Technician (response time: 45 minutes)

Actions to secure the release site:

- Evacuation of public from affected areas. Area should be cordoned off to prevent public access to affected area.
- Shut-off of all facilities (e.g. bathrooms, showers, etc.) that may contribute additional sewage effluent.
- Provide immediate containment of any released sewage to minimize contamination. Containment measures may include but are not limited to: containment berms or trenches, vacuum equipment on sewer pumper trucks, etc. Should sewage release continue, notify District Sanitation Supervisor or other entity equipped with sewage pumper trucks for immediate containment response.
- If SSO impacts or is suspected to impact any water body immediate closure or limit to water-related activity/recreation including: closure of beaches (including posting of beach closure notifications at pre-designated posting sites), implement fishing ban (including “no fishing” notifications), and cessation of boating and other water contact
activities. Adequate public notification should be posted. The District’s Water Management Department will collect water samples for bacteriological analyses and will continue to collect samples until bacteria levels subside to normal levels. Reopen to public access after receiving approval from Alameda County Environmental Health.

- Other notifications or remainder of the notification list above should be made accordingly after securing release site, see Table 2-1 for additional notifications, certification and reporting requirements.

- Additional notifications may include:
  - California Department of Fish and Wildlife: 707-944-5500 or 831-649-2870
  - California Department of Public Health, Sanitary Engineer: 510-620-3463 (day) or 510-223-3502 (night).
  - Union Sanitary District: 510-477-7500

- Subsequent to containment and stoppage of release, proper cleanup of affected site utilizing appropriate protocols should be conducted. Soil impacted by sewage shall be cordoned off to avoid exposure risk to public and can be left in place as long as it does not pose risk to the public or the environment until appropriate treatment is determined. Contaminated soil removed to expose sewer system infrastructure for repair shall be stored onsite, at an upland location and protected from the elements until appropriate treatment and/or disposal measures are determined.

- Complete system analysis, evaluation and remediation to identify causes of SSO and to ensure risk of future releases is minimized.

The District’s waste discharger identification number (WDID) in CIWQS is 2SSO11481.
<table>
<thead>
<tr>
<th>Communication Type (all are required)</th>
<th>Agency Being Contacted</th>
<th>SSO Type and/or Quantity</th>
<th>Timeframe Requirements</th>
<th>Method For Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Notification</strong></td>
<td>California Office of Emergency Services (Cal OES)</td>
<td>Category 1 SSOs</td>
<td>As soon as possible, but not later than <strong>2 hours</strong> after becoming aware of the SSO.</td>
<td>Telephone: 800-852-7550 or (916) 845-8911 (obtain a control number from Cal OES)</td>
</tr>
<tr>
<td></td>
<td>Local Health Department</td>
<td>Category 1 SSOs</td>
<td>As soon as possible, but not later than <strong>2 hours</strong> after becoming aware of the SSO.</td>
<td>Alameda County Environmental Health: 510-567-6777 or for after hours: California Office of Emergency Services, /Alameda County Sheriff’s Department, 510-667-7721 Local Health Officers: Alameda County Health. Bonnie Reed, Supervising Environmental Health Specialist (M-F 8-5) 510-567-6777</td>
</tr>
<tr>
<td></td>
<td>State Water Resources Control Board and Regional Water Quality Control Board (RWQCB)</td>
<td>Category 1 SSOs</td>
<td>As soon as possible, but not later than <strong>2 hours</strong> after becoming aware of the SSO.</td>
<td>Electronic: LRO enters data into the California Integrated Water Quality System (CIWQS) Online SSO Database: <a href="http://ciwqs.waterboards.ca.gov">http://ciwqs.waterboards.ca.gov</a></td>
</tr>
<tr>
<td><strong>2. Certification</strong></td>
<td>State Water Resources Control Board</td>
<td>All SSO Categories</td>
<td>As soon as possible, but not later than <strong>24 hours</strong> after becoming aware of the SSO.</td>
<td>Electronic: LRO certifies that the data entered in CIWQS Online SSO Database is correct and/or submits monthly “no spill” certification and completion of annual questionnaire</td>
</tr>
<tr>
<td></td>
<td>No Spill</td>
<td>Certify that no SSOs occurred within <strong>30 calendar days</strong> of the end of the month in which no SSOs occurred.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>All District collection systems meeting the criteria to be enrolled in the SSO Program</td>
<td>Update and certify questionnaire <strong>every 12 months</strong>.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Reporting</strong></td>
<td>State Water Resources Control Board</td>
<td>Category 1 and 2 SSOs</td>
<td>Initial report within <strong>3 business days</strong>, final report within 15 calendar days after response activities have been completed.</td>
<td>Electronic: LRO enters data into CIWQS Online SSO Database</td>
</tr>
<tr>
<td></td>
<td>Category 3 SSO</td>
<td>Within <strong>30 calendar days</strong> after the end of the calendar month in which SSO occurs.</td>
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</table>
Coyote Hills

The District was created under state law in 1934 for the purpose of developing, operating and maintaining a system of public parks, and is empowered to do “all things necessary or convenient,” including making contracts and employing labor, to carry out that purpose (Public Resources Code Sections 5541 and 5543). Under this authority, the Park District maintains full-time sanitation and water quality staff to oversee installation, operation, maintenance, repair and replacement of sewer system utilities within the parks throughout Contra Costa and Alameda Counties. The District is governed by a seven-member Board of Directors. Directors are elected by the voters to serve four-year terms. Each Director represents a specific geographic area (ward) of the District. The General Manager of the District is appointed by the Board of Directors and is authorized to manage the day-to-day operations of the District.

The District builds facilities within the park and trail system to protect resources, serve operational requirements and support recreational uses and activities. Facility development is governed by Board of Director approved policies, planning documents and financial budgets.
ELEMENT 4: OPERATION AND MAINTENANCE PROGRAM

A routine and systematic O&M program is an essential element in the management of a wastewater collection system. This requires effective sewer system inspections, cleaning, and documentation as discussed below for optimizing the sewer collection system and to prevent sewer system overflows (SSOs).

a. **Up-to-date Collection System Map**: See main Map and Detail inset provided in the Appendix. The system was installed around 1992 and included both 4” force main (approximately 1.4 miles) and 6” gravity lines (approximately 1.1 miles) for wastewater conveyance. There is 1 lift station with a manhole and 3 lateral connections. There are also multiple cleanouts. All wastewater from the Visitor Center is conveyed by gravity lines toward the lift station prior to being discharged to the force main which ties in with the USD main which has its own publically owned treatment works (POTW), the Alvarado Wastewater Treatment Plant in Union City. Various additions, repairs and replacements have been conducted over time and are represented on the current maps.

b. **Resources and Budget**: Resources required for effective wastewater collection system operations, maintenance and repair (including reliable and sufficient funding for operating and capital replacement; formal operating budget and expenditure plan and the capital; improvement plan to ensure the continued longevity of the Coyote Hills sewer system) are supplied from the East Bay Regional Park District’s General Fund, which also includes a major maintenance account and a $capital account for repairs. Although there are no budgets or accounts specific to the ongoing O&M and capital improvement of the Coyote Hills sewer system, any costs associated with the sewer system will be covered by any of the aforementioned funding sources. There is also an account to fund annual regulatory permit fees associated with the Coyote Hills sewer system.

c. **Prioritized Preventive Maintenance (PM)**: The program that addresses prioritized PM and plans to improve the system to maintain system integrity and reduce the frequency of SSOs includes:

   Any park user/customer complaint regarding the Coyote Hills sewer system will be thoroughly investigated and resolved to the maximum extent possible.

   Preventive maintenance activities include camera inspections, hydro flushing and root foaming. These preventative activities are implemented on a 2-year cycle.

   The Water Utilities Maintenance Technician will routinely perform scheduled lift station cleaning and maintenance including the maintenance of activity records to support appropriate analysis and reporting and the submittal of an “Environmental Event Report” in the event of any system failure or SSO.

   The lift station associated with the Coyote Hills sewer system began being monitored using the MultiTrode MultiSmart Pump Controllers in 2007. With the MultiSmart controller, there are several fail-safe features built into the system. For instance, the controller has alarms and also pre-alarms, where an operator is notified prior to an alarm. The system isn’t limited to only look at things that have failed. It’s also able to pinpoint potential failures and other problems before they happen. Staff who control the pump stations are able to log into a station and take a critical look and see if a pump has failed to start, or a pump is starting too fast, or even if the sun is heating the inside of the control panel and causing a component to malfunction. Any of these conditions would prompt a pre-alarm signal. The MultiSmart controller not only sends a signal, it is capable of identifying the problem.
At Coyote Hills Regional Park, Supervisory Control and Data Acquisition (SCADA) was put online in 2010 and is used to interface with the MultiSmart controllers. A centralized network is able to reset, troubleshoot and otherwise correct the majority of problems directly from either a remote location computer or a centralized computer. With SCADA, the operator can see what the problem is, what caused the problem, and decide to either reset it from the base computer or dispatch someone to the station for service. The dispatcher can tell that person exactly what they're going out there for, exactly what they're going to be doing, and exactly what they need to bring with them.

In the District, flexibility in pump station control is an important issue. Sudden population shifts at the park may require a station to perform differently, or alarm criteria change to accommodate a critical upcoming event. In the past the pumps were either on or off, and the same applied to the alarms. The controllers also allow stations to communicate with each other. This is a very valuable feature. In cases where there are long distances to the sewer, there are often multiple stations connected serially. If one station fails, it can communicate to the stations behind it to stop pumping and become holding tanks to eliminate the risk of overflow.

d. **Scheduled Inspections, Condition Assessment, and Rehabilitation**: The approach used by the Park District for scheduled inspections and condition assessment to identify and prioritize structural deficiencies and implement a program of prioritized actions to address them includes:

The proactive program to maintain sewer system pump stations is implemented to provide optimal system performance and minimize SSO occurrence. Small sections of the gravity mains have been inspected using video equipment. All system pump stations are routinely monitored and maintained to maximize optimal performance.

The Coyote Hills sewer system has flow monitoring equipment for the Lift Stations that are routinely checked.

As much as resources allow, inspection data will be collected to not only assess individual components or portions of the Coyote Hills sewer system but to also allow general assessment of the entire sewer system. Should problems be identified during this assessment process, appropriate response and rehabilitation/remediation will ensue in a timely manner.

All records of maintenance, repairs and inspections will be maintained at a central location for easy access in order to support appropriate analysis and reporting.

e. **Training**: The Coyote Hills Park Supervisor and Water Utilities Maintenance Supervisor ensure all park staff is appropriately and adequately trained on the maintenance, operation and safety practices of the Coyote Hills sewer system. More specifically, Coyote Hills park staff have received training in the routine maintenance, emergency response and safety practices regarding sewer system pump stations. The Park District will continue to develop training opportunities for park staff in order to maximize the optimal performance of the entire Coyote Hills sewer system.

Additionally, the Park District’s Sanitation Supervisor has responsibility for the Sanitation Truck Drivers that have the duty of properly collecting and disposing of sewage. Future reorganization of the Sanitation Department will expand this position to allow these types of employees to clean, inspect and repair sewer lines, among other things. This position will require the employee to be certified in Collection System Maintenance (Grade 1) by the California Water Environment Association.
maintaining certification, these sanitation workers will be able to provide valuable knowledge and expertise for the continued O&M of the Park District’s sewer systems.

f. **Contingency Equipment and Replacement Inventories:** The District does not currently maintain replacement inventories for sewer pipeline, although the Sanitation Department can make minor repairs. The Water Utilities Maintenance Department does, however, have the capability to service pumps in-house. The sewer response equipment that the Sanitation Department currently has is as follows:

- 4-3000 gallon Sanitation Trucks
- 1-500 gallon 4x4 Sanitation Truck
- 1-200 feet push sewer camera
- Metrotech line tracing kit with transmitter, push rod and receiver
- Confined space equipment (tri-pod, gas detector, fan and personnel protective equipment)
- Sewer tools, including pipe cutting

Additional equipment purchases may occur in the future especially if the Sanitation Department reorganizes. These updates will be provided in subsequent versions of this SSMP.

g. **Outreach to Plumbers and Building Contractors:** The District maintains an active list of available contractors to assist with Emergency Response that would require immediate action beyond the scope of normal District operations. Within the District’s Operations Division under Maintenance and Skilled Trade, there are some plumbers available that could respond in an emergency situation.
ELEMENT 5: DESIGN AND PERFORMANCE PROVISIONS

a. **Standards for Installation and Repair:** The East Bay Regional Park District’s vision is to preserve a priceless heritage of natural and cultural resources, open space, parks and trails in Alameda and Contra Costa Counties. Park visitors enjoy the use of diverse facilities including public restrooms at most parks. The District is responsible for implementing a construction, O&M program for all District facilities serviced by a sanitary sewer system at those parks.

The District’s standard plans and specifications for the installation, rehabilitation and repair of sanitary sewers cover the design, construction, O&M of gravity and low-pressure sanitary sewers and manholes.

The District’s plans and specifications are required to comply with the applicable codes, ordinances and regulations of the local sanitary Districts and incorporated cities within Alameda and Contra Costa Counties having legal jurisdiction at the location of such facilities. In addition to local codes and ordinances, the District may incorporate the Standard Plans and Specifications for Public Works Construction (Green Book), to properly design and construct sewer facilities.

This approach requires establishing design criteria for the selection of pipe materials, pipe sizes, slopes, trenches depths, backfill cover, manhole structures and other factors that are satisfactory to the regulatory entities.

The District’s goal is to provide restroom facilities serviced by sanitary sewer systems that are reliable, economical, long lasting, free of deficiencies, and with minimum O&M problems.

b. **Standards for Inspection and Testing of New and Rehabilitated Facilities:**

Sewer system inspections during construction or repair are coordinated by the District construction inspector assigned to that project. Code, inspection and test criteria are set in the design documents generated by the appropriate design professional. In most cases the construction inspector has the capability to perform the necessary inspections and assure design requirements are met however the inspector has the authority to call in specialty inspectors and District personnel as necessary to inspect work that may require special expertise or expertise outside the inspector’s scope of knowledge.

Inspection criteria may include: material sampling and compaction testing of sub grade; concrete testing for structures; air and water pressure tests for pipes; leak testing and coating thickness of special coatings for wet wells and manholes; electrical testing of controls and control systems and manufacturer testing and certification of pump installations. If necessary, particularly on existing systems, inspection by CCTV or mandrel may be required. Also included is continuous physical and visual inspection as the installation progresses.
If the sewer system has operational parts (such as a sewer lift station) District O&M personnel are provided operating and services manuals and operational training through the contractor and system manufacturer.

A sewer system is accepted based on a final inspection attended, at a minimum, by the contractor representative, District project designer, assigned District construction inspector, District park supervisor, District construction manager and Water Utilities Maintenance Supervisor. Others may attend as necessary including technical support, design professionals and other District managers. This acceptance is based on verification that the system has been correctly installed, successfully tested and is operating properly, personnel have been trained and the system is visually acceptable. The system has at a minimum a one-year warranty.
ELEMENT 6: OVERFLOW EMERGENCY RESPONSE PLAN

This section of the Coyote Hills SSMP is the Overflow Emergency Response Plan developed and maintained by the District and fulfills the Overflow Emergency Response Plan requirements for both the RWQCB and the SWRCB.

6-1 Sanitary Sewer Overflow (SSO) Definitions

Sanitary Sewer Overflow (SSO) – Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:

SSO Category 1 – All discharges of sewage resulting from a failure in the District’s sanitary sewer system that resulted in a discharge to a drainage channel and/or surface water.

SSO Category 2 – All discharges of sewage resulting from a failure in the District’s sanitary sewer system of 1,000 gallons or more that did not reach surface water.

SSO Category 3 – All discharges of sewage resulting from a failure in the District’s sanitary sewer system of less than 1,000 gallons that did not reach surface water.

6-2 Response Plan

- The immediate notification of SSO to appropriate entities should be conducted to provide emergency response/support and termination of additional sewage release. Estimated response times, in no particular order, are as follows:

  a. District Staff first on scene would notify dispatch of SSO. Dispatch notifies Park Staff in the following order:

    a. Coyote Hills Park Supervisor (response time: immediate to 45 minutes)
    b. District Sanitation Supervisor (response time: 45 minutes)
    c. District Police and Fire Departments (response time: as soon as possible)
    d. District Maintenance and Skilled Trades Supervisor, for residential plumbing issues (response time: 45 minutes)
    e. District Water Utilities Maintenance Supervisor, for lift station issues (response time: 45 minutes)
    f. District Environmental Services Manager and Water Management Supervisor or Water Management Technician (response time: 45 minutes)
Actions to secure release site:

- Evacuation of public from affected areas. Area should be cordoned off to prevent public access to affected area.

- Shut-off of all facilities (e.g. bathrooms, showers, etc.) that may contribute additional sewage effluent.

- Provide immediate containment of any released sewage to minimize contamination. Containment measures may include but are not limited to: containment berms or trenches, vacuum equipment on sewer pumper trucks, etc. Should sewage release continue, notify District Sanitation Supervisor or other entity equipped with sewage pumper trucks for immediate containment response.

- If SSO impacts or is suspected to impact any water body immediate closure or limit to water-related activity/recreation including: closure of beaches (including posting of beach closure notifications at pre-designated posting sites), implement fishing ban (including “no fishing” notifications), cessation of boating and other water contact activities. Adequate public notification should be posted. The District’s Water Management Department will collect water samples for bacteriological analyses and will continue to collect samples until bacteria levels subside to normal levels. Reopen to public access after receiving approval from Alameda County Environmental Health.

- Additional notifications may include:
  - California Department of Fish and Wildlife: 707-944-5500 or 831-649-2870
  - California Department of Public Health, Sanitary Engineer: 510-620-3463 (day) or 510-223-3502 (night).
  - Union Sanitary District: 510-477-7500

- Subsequent to containment and stoppage of release, proper cleanup of affected site utilizing appropriate protocols should be conducted. Soil impacted by sewage shall be cordoned off to avoid exposure risk to public and can be left in place as long as it does not pose risk to the public or the environment until appropriate treatment is determined. Contaminated soil removed to expose sewer system infrastructure for repair shall be stored onsite, at an upland location and protected from the elements until appropriate treatment and/or disposal measures are determined.

- Complete system analysis, evaluation and remediation to identify causes of SSO and ensure risk of future releases is minimized.
The District’s WDID in CIWQS is 2SSO11481.

### TABLE 6-1

<table>
<thead>
<tr>
<th>Communication Type (all are required)</th>
<th>Agency Being Contacted</th>
<th>SSO Type and/or Quantity</th>
<th>Timeframe Requirements</th>
<th>Method For Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>California Office of Emergency Services (Cal OES)</td>
<td>Category 1 SSOs</td>
<td>As soon as possible, but not later than 2 hours after becoming aware of the SSO.</td>
<td>Telephone: 800-852-7550 or (916) 845-8911 (obtain a control number from Cal OES)</td>
</tr>
<tr>
<td>1. Notification</td>
<td>Local Health Department</td>
<td>Category 1 SSOs</td>
<td>As soon as possible, but not later than 2 hours after becoming aware of the SSO.</td>
<td>Alameda County Environmental Health: 510-567-6777 or for after hours: California Office of Emergency Services, /Alameda County Sheriff’s Department, 510-667-7721 Local Health Officers: Alameda County Health. Bonnie Reed, Supervising Environmental Health Specialist (M-F 8-5) 510-567-6777</td>
</tr>
<tr>
<td></td>
<td>State Water Resources Control Board and Regional Water Quality Control Board (RWQCB)</td>
<td>Category 1 SSOs</td>
<td>As soon as possible, but not later than 2 hours after becoming aware of the SSO.</td>
<td>Electronic: LRO enters data into the California Integrated Water Quality System (CIWQS) Online SSO Database: <a href="http://ciwqs.waterboards.ca.gov">http://ciwqs.waterboards.ca.gov</a></td>
</tr>
<tr>
<td>2. Certification</td>
<td>State Water Resources Control Board</td>
<td>All SSO Categories</td>
<td>As soon as possible, but not later than 24 hours after becoming aware of the SSO.</td>
<td>Electronic: LRO certifies that the data entered in CIWQS Online SSO Database is correct and/or submits monthly “no spill” certification and completion of annual questionnaire</td>
</tr>
<tr>
<td></td>
<td>No Spill</td>
<td>Certify that no SSOs occurred within 30 calendar days of the end of the month in which no SSOs occurred.</td>
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<tr>
<td></td>
<td>All District collection systems meeting the criteria to be enrolled in the SSO Program</td>
<td>Update and certify questionnaire every 12 months.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Reporting</td>
<td>State Water Resources Control Board</td>
<td>Category 1 and 2 SSOs</td>
<td>Initial report within 3 business days, final report within 15 calendar days after response activities have been completed.</td>
<td>Electronic: LRO enters data into CIWQS Online SSO Database</td>
</tr>
<tr>
<td></td>
<td>Category 3 SSO</td>
<td>Within 30 calendar days after the end of</td>
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</tbody>
</table>
6-3 **Impact Mitigation**

Depending on the severity of the sewage release, impact mitigation will vary accordingly and with a substantial sewage release, temporary closure of park and/or campgrounds may be necessary. Any decision to close the park or campgrounds, however, should be made at a high managerial level. Potential system failures and proper response is as follows:

1. **Blocked sewer system lines**: Response should follow notification and response protocols as listed above. The District Maintenance and Skilled Trades Department, Sanitation Department, or other entity capable of clearing sewer lines (Roto-Rooter, for example) will be called immediately. Mobilization of chemical toilets for temporary use will be carried out if necessary. Preventative maintenance can include regular monitoring of sewer system and periodic root foaming of sewer lines.

2. **Failed lift stations**: Response should follow notification and response protocols as listed above. The District Water Utilities Maintenance Supervisor should be notified for timely repair of lift station. The District Sanitation Supervisor and park operations staff should be notified immediately to provide containment response. Mobilization of chemical toilets for temporary use should be carried out if necessary. Preventive maintenance can include regular monitoring of sewer system and annual diagnostic check of lift station pumps and motors.

3. **Sewer main line or lateral breaks**: Response should follow notification and response protocols as listed above. The District Maintenance and Skilled Trades Supervisor should be notified for timely repair of main lines and laterals. The District Sanitation Supervisor should be notified immediately to provide containment response. Mobilization of chemical toilets for temporary use should be carried out if necessary. Preventative maintenance can include regular monitoring of sewer system.

6-4 **Water Quality Sampling**

Water quality sampling and testing is required whenever the spilled sewage enters a water body. The purpose of testing is to determine the extent and impact of the SSO. The following guidelines must be followed:

- The District’s Water Management Department should arrange for and implement collection of samples. Samples should be collected as soon as possible after the discovery of the SSO event.

- For spills less than 1,000 gallons, at a minimum, water quality samples should be collected at the discharge point. Both an upstream and downstream sample should also be collected at a distance reasonably accessible not to exceed 100 feet.
• If a spill is more than 1,000 gallons, additional sites should be sampled, following the requirements of the California Department of Public Health and/or as recommended by the Regional Water Quality Control Board.

• The water quality sampling procedures should generally follow the Public Health Department procedures as applicable, which are as follows:
  
  o Keep the sterile collection bottle closed until it is to be filled. Do not contaminate inner surface of the lid or bottle rim.
  
  o Collect water sample just below the surface as best as can be collected not deeper than a nitrile gloved hand, or if a sampling pole is available, extend to its fullest length to reach deeper water depth to access the sample site area. Minimize contact with bank or beach bed as water fouling or cross contamination may occur.
  
  o Remove cap and hold the bottle near its base and plunge it, neck downward, below the surface
  
  o Turn bottle until neck points slightly upward and mouth is directed toward the current. Fill bottle leaving about 1 inch of air to allow lab to mix by shaking. Collect a minimum of 100 ml. (If applicable, insert sterile collection bottle into the holder on the sample pole. Extend the sample pole and plunge bottle end into the water, bottle opening downward.)
  
  o Immediately place cap securely on bottle to avoid leaks and contamination
  
  o Dry the bottle
  
  o Label container with distinctive sample site name, date, and time collected
  
  o Complete the laboratory chain of custody form with requested information (site, bottle number, collector, date and time of collection, type of sample, test requested, name and phone number of responsible person for reporting purposes, and deliverer name). Note any field observations that may have occurred during the sampling.

• Samples should be tested for total coliform and E. coli by means of Colilert-18 QT (or similar enumerating method).

• Samples should be stored and shipped according to the following procedures:
  
  o Place water sample bottle in a cooler with frozen blue ice. Water sample must be kept cool. Ice may be used but care must be taken so water samples are not contaminated or diluted by the ice.
Bring to a California state-certified laboratory within 8 hours of collection. For compliance tests, the holding time must not exceed 8 hours from the time of collection to time of processing or the tests will be invalidated. Other water tests for non-compliance purposes may be held below 10 degrees C until the time of analysis, up to 24 hours.

Water samples are taken to the East Bay Municipal Utility District (EBMUD) Laboratory at 2020 Wake Avenue, Oakland, CA 94607. The water samples must be brought to the laboratory within 8 hours of collection. For weekend SSO response, the EBMUD Laboratory is generally available to sample drop off. As a courtesy, call the intercom phone number at 510-287-1571 and leave a message with the number of samples and their anticipated time of arrival at the lab. If the Laboratory is closed, an alternate testing laboratory that is certified for the required water quality tests may be used. The District will keep a list of alternate laboratories updated and available for field staff.

Records of monitoring information shall include the date, exact place, and time of sampling or measurements, the individual(s) who performed the sampling or measurements, the date(s) analyses were performed, the individual(s) who performed the analyses, the analytical technique or method used, and the results of such analyses.
ELEMENT 7: FATS, OILS AND GREASE (FOG) CONTROL PROGRAM

Based on sewer system evaluation, historical absence of grease-based sewer blockages and lack of FOG dischargers or blockage “hot spots”, a FOG Control Program for the Coyote Hills sewer system is unnecessary at this time. Should any changes occur to the Coyote Hills facilities (e.g. - installation of a restaurant or other facility that would constitute a blockage “hot spot” or contribute grease to the sewer system), the District would prepare and implement a FOG source control program as part of the Coyote Hills SSMP to reduce the amount of these substances discharged to the sanitary sewer system.

This plan would include the following as appropriate:
(a) An implementation plan and schedule for a training program that promotes proper disposal of FOG;
(b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;
(c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
(d) Requirements to install grease removal devices (such as traps or interceptors) design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
(e) Establishment of enforcement authority to inspect grease producing facilities, and ensure the District has sufficient staff to inspect and enforce a FOG control program;
(f) An identification of sanitary sewer system sections subject to FOG blockages and establish a cleaning maintenance schedule for each section; and
(g) The development and implementation of source control measures, for all sources of FOG discharged to the sanitary sewer system, for each section identified in (f) above.
ELEMENT 8: SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

Sewer system equipment and infrastructure was engineered and designed to accommodate and convey peak flows. The District park supervisors are knowledgeable of visitor capacities and respond accordingly when these capacities are approached. If, for any reason, any part of the sewer system must be shut down, park staff will bring in additional resources to continue public service. Should new demands upon park facilities occur that would necessitate additional sewer system infrastructure and equipment, such improvements or expansions will be professionally designed and engineered to meet expected demand.
ELEMENT 9: MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS

The District will monitor and measure the effectiveness of implemented SSMP elements by developing and tracking performance indicators on a regular basis. The Coyote Hills SSMP elements will be assessed by the following performance indicators:

1. Number of SSOs over the past 12 months, distinguishing between dry weather and wet weather overflows.

2. SSO volume distribution:
   a. Number of SSOs < 100 gallons
   b. Number of SSOs 100 to 999 gallons
   c. Number of SSOs 1,000 to 9,999 gallons
   d. Number of SSOs > 10,000 gallons

3. Volume of SSOs that was contained in relation to total volume of SSOs.

4. SSOs by cause: roots, grease, debris, pipe failure, pump station failure, capacity, etc.)

5. Number of stoppages over the past 12 months.

6. Stoppages by cause.

7. Average time to respond to SSO.

8. Ratio of planned sewer cleaning to unplanned sewer cleaning.


10. Plans developed for or implementation of activities to target specific problems identified such as roots, structural deficiencies, or fats oil and grease (FOG).
At a minimum the Coyote Hills SSMP will be reviewed on an annual basis and will be updated, revised, modified and edited to reflect any changes to the system’s infrastructure, operation, maintenance or organizational structure. The District Water Management and Maintenance departments will meet on a regular basis to discuss any issues regarding the sanitary sewer systems operated by the District including the Coyote Hills system. The Coyote Hills park operations staff will be involved on any discussions regarding changes to the sanitary sewer system’s O&M, infrastructure or SSMP elements.
ELEMENT 10: SSMP AUDITS

This section of the SSMP outlines the process that the District will follow to evaluate the effectiveness of the SSMP and to identify updates that may be needed for a more effective program. As part of the SSMP, the District shall conduct periodic internal audits, appropriate to the size of the Coyote Hills system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the District’s compliance with the SSMP requirements, including identification of any deficiencies in the SSMP and steps to correct them.

10-1 Audit Procedures

The District will prepare a biannual SSMP audit for submittal to the RWQCB (and to keep on file in accordance with the Statewide WDR requirements). The audit covers each of the major sections of the SSMP. In addition to the Yes/No response to questions, the checklist provides space for each group of related questions to document any deficiencies and steps taken or planned to correct them. The comment spaces will also be used to document qualitative evaluations related to the particular element or sub-element. In this way, the audit serves as the primary tool for documenting SSMP effectiveness as prescribed per the SWRCB. The audit format follows the format that was established by the BACWA Collection System Committee and is included in the Appendix.

10-2 SSMP Updates, Roles and Responsibilities

This revised SSMP serves as a comprehensive SSMP update. Starting in 2017, audits will be conducted every two years by the LRO. Other parties may be added to the future audit teams.

As part of the audit process, District staff will update critical information in the SSMP, such as contact information, names of the key staff in the response chain of communication, or other similar data as needed. A comprehensive SSMP update will occur every 5 years, as required by the GWDR.

Changes made to the SSMP will be documented in the SSMP Changes Log. See Table 10-1.

<table>
<thead>
<tr>
<th>Date</th>
<th>SSMP Element #</th>
<th>Description of Update/Change Made</th>
<th>Person Authorizing Change</th>
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ELEMENT 11: COMMUNICATION PROGRAM

This section of the SSMP outlines the process involved in communicating with interested members of the public regarding the development, implementation, and performance of this plan.

11-1 Regulatory Requirements for SSMP Communication Program

In accordance with the Statewide WDR the District is required to communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the District as the program is developed and implemented.

11-2 District’s Current SSMP Communication Program

The District does not currently have a formal communication plan in place for the communication of SSMP elements, performance, or updates. The District will post the Board-approved SSMPs on its website. A clear link to the document will be provided on the website to facilitate access to the document.

The District’s Board of Directors will be involved with the approval process of SSMPs at its Board Meeting(s). In advance of such approval, personnel from Operations Division and the Stewardship Department will prepare a Report to the Board that provides background information including regulatory drivers for SSMP development, SSMP purpose and content, relationship to existing District policies as described in the Planning for Regional Parks and Trails utilities sub-element of the District’s Master Plan, and the SSMP implementation schedule. The report to the Board will be made available to the general public through posting on the District web page. The future Board meeting(s) will be open to the public and include a period for public comment.

11-3 Ongoing Communication

Posting of Sewer-Related Information on District Web Site: East Bay Regional Park District maintains a website (http://www.ebparks.org/) to inform the public about Park Services, activities and events. Updates on the Operations Services and Environmental issues can be displayed there. The District’s website is an effective communication channel for providing alerts and news to the public. The main page of the website provides important announcements, agendas and minutes for Board meetings, and other key information for all stakeholders.

SSO Reporting: The Chief of Stewardship is currently responsible for reporting SSOs to Cal OES. Information on individual SSOs is available to the general public through a Geographical
Information System (GIS) based application on the State Board's web site at http://www.waterboards.ca.gov/water_issues/programs/sso/sso_map/sso_pub.shtml