



SANITARY SEWER OVERFLOW RESPONSE PLAN



AUGUST, 2020

1.0 BACKGROUND AND PURPOSE

This manual documents the City of Corpus Christi’s Sanitary Sewer Overflow Response Plan (SSORP) including procedures and reporting requirements of the Texas Commission on Environmental Quality (TCEQ) and United States Environmental Protection Agency (EPA). The following table outlines permits held by the City of Corpus Christi with the above agencies:

Facility Name	Permit Number
Allison Wastewater Treatment Plant	TPDES Permit 10401-006/TX0047082
Broadway Wastewater Treatment Plant	TPDES Permit 10401-005/TX0047066
Greenwood Wastewater Treatment Plant	TPDES Permit 10401-003/TX0047074
Laguna Madre Wastewater Treatment Plant	TPDES Permit 10401-008/TX0047104
Oso Wastewater Treatment Plant	TPDES Permit 10401-004/TX0047058
Whitecap Wastewater Treatment Plant	TPDES Permit 10401-009/TX0047121

The SSORP is designed to confirm and address reports of suspected sanitary sewer overflows (SSOs) in order to minimize the impact of the SSO with respect to public health, adverse effects on water quality and customer service. The procedures outlined in this manual provide guidance to staff in responding to SSOs and documents procedures to evaluate the cause. The SSORP also includes provisions to ensure appropriate notification and reporting to local, state, and federal authorities. **Note: this plan only applies to wastewater overflows and does not apply to non-wastewater overflows including overflows of hazardous waste. A hazardous material response team or fire department will assume control of any suspected hazardous waste overflow regardless of the source.**

This manual will be used for SSO/spill reporting and follow-up to maintain the City’s compliance with Federal and State regulations as they apply to the wastewater collection and treatment system. It is important that the SSORP be reviewed and updated as needed on a regular biennial basis. The review schedule will be maintained in Maximo and will alert the Water Utilities Director or designee prior to the next review.

1.1 OBJECTIVES AND ORGANIZATION

The primary objectives of the SSORP are to (1) protect public health and the environment, (2) comply with requirements governing the procedures for responding to SSOs, and (3) minimize the risk of enforcement action against the City.

To meet these objectives, responsibilities have been designated to various City divisions as follows:

- A. Water Utilities Infrastructure Division – includes vector truck crews, service technicians, and new construction and repair crews that respond to reports of SSOs and mitigate or initiate repairs when needed.
- B. Wastewater Treatment Division – oversees wastewater plant operations, the industrial pretreatment program, the Fats, Oil and Grease (FOG) program, and lift station maintenance and response.
- C. Water Utilities Planning and Design Division – oversees asset management, closed-circuit television (CCTV) review and grading, utility design, drafting, and the City’s hydraulic model.

Note: The SSORP shall not supersede other City emergency operations plans or Standard Operating Procedures (SOPs) unless determined and directed otherwise by the appropriate authority.

1.2 APPLICABILITY

Regulatory and enforcement agencies applicable to this plan:

- State of Texas - Texas Commission on Environmental Quality (TCEQ)
- United States of America - United States Environmental Protection Agency (USEPA) Region 6 – Dallas, Texas

An SSO is an overflow, spill, diversion, or release of wastewater from, or caused by, conditions in the City's sewer collection system. In 2016, TCEQ commissioners adopted the Volume Based Exemptions for Certain Accidental Discharges (Senate Bill (SB) 912, 84th Legislature). These rules allow any single, accidental discharge or spill of treated or untreated domestic wastewater that occurs at a wastewater treatment or collection system owned or operated by a local government to be reported to the TCEQ monthly as a summary of spills (TCEQ Form 20756), provided the following conditions are met:

- the spill volume is 1,000 gallons or less;
- it is not associated with another accidental discharge or spill;
- it is controlled or removed before entering waters of the state;
- it does not adversely affect a public or private source of drinking water;
- it will not endanger human health or safety or the environment; and
- it is not otherwise subject to local regulatory control and reporting requirements.

The rule requires the City to use standard methods established by the TCEQ when calculating the volume of an accidental discharge or spill. Additionally, the rules created a definition for the history of noncompliance and allow the TCEQ to require more frequent reporting based on that history.

In this SSORP, SSOs that meet the requirements above are sometimes referred to as spills in order to make clear the distinct reporting requirements associated with those events as compared to other SSOs. For purposes of the CMOM and SSORP, a TCEQ accidental discharge or spill is a sub-category of SSO that has a different reporting requirement. Section 2.5 of this plan presents information on SSO and spill reporting. In addition, the most current Texas Administrative Code regulations governed by TCEQ are referenced via the Secretary of State website (<https://www.sos.state.tx.us/tac/index.shtml>). At times, the SSORP may refer to events as spills, SSOs, releases, or use other similar terms. Except with respect to any distinct reporting requirements, any such reference should be read to apply to any event that meets the definition of an SSO.

For those SSOs that do not meet the above "spill" criteria, the TCEQ Water Quality Noncompliance Notification, TCEQ Form 00501, modified as Notice of Wastewater Overflow Form (see Appendix A) should be initiated by the City's designated staff member within 24 hours of the first responder's confirmation. A written report on the SSO is due within five (5) days of the event. For the purpose of the SSORP, bypasses refer to pipes or channels constructed or intended as a temporary path for the flow within the Corpus Christi collection system during an SSO response event. Bypasses within the collection system are not SSOs but are a mitigation technique that may be used during an SSO response. Bypasses within the treatment plant shall be reportable when they impact the treatment process or effluent quality in accordance with 30 Texas Administrative Code, Chapter 305, Subchapter O. Employees shall have a working knowledge of this plan and are responsible for ensuring each SSO or spill is handled in a manner that complies with this plan and TCEQ/EPA regulations.

Note: Potable water discharges, usually from water line breaks or flushing water mains, are reportable to TCEQ if the discharge causes or may cause a pollution or results in an environmental impact (such as a fish kill). Potable water spills are considered “other waste” by TCEQ and must be reported as soon as possible and at least within 24 hours.

1.3 IMPLEMENTATION SCHEDULE

Below is the implementation schedule for the SSORP.

Description	Implementation Date*
Train and equip response personnel on SSORP procedures	90 days
Implement posting procedures	90 days
Regulatory agency SSO notification plan	Upon approval
Media notification procedures	90 days
Review and update SSORP	Biennial (at minimum) or more frequently as needed
Preparedness training	Annual

*Calendar Days from Consent Decree Effective Date

2.0 OVERFLOW RESPONSE PROTOCOL

A spreadsheet that electronically files and tracks the frequency and location of sewer overflows and lift station overflows is maintained by the Engineering Design Manager. The spreadsheet will assist in directing corrective measures and prioritizing maintenance activities where chronic problems have been encountered.

The City’s Computerized Maintenance Management System (CMMS) documents the time the work order is issued. The responding crew records the arrival time and time the work is completed. These two important times are reviewed by supervisors and monitored annually. The response time is embedded within the CMMS for every Water Utilities Department work order issued. The wastewater system layout greatly influences response times due to its unique geometry which is generally a 30-mile-long by five-mile wide rectangle that follows Corpus Christi Bay. Crew location at the time a potential SSO call comes into the Call Center will greatly impact the crew response time. The goal of the Water Utilities Department is to respond to reports of backups in homes or businesses within an average time of 1.5 hours and resolve the issue within an average of 4 hours.

After an SSO event has been resolved, the following will be reviewed:

1. An attempt will be made to determine the cause of an SSO by review of the Notice of Wastewater Overflow field report (Appendix A) by the Wastewater Collection System Superintendent or designee. Where the cause of the SSO is uncertain, additional actions may be initiated depending on the suspected cause.
2. Follow-up inspections (including visual inspection or televised inspection) may be performed at the site of an SSO to determine the cause of the SSO and the corrective action(s) needed to prevent reoccurrence. Data will be captured in the City’s CMMS. If no additional evidence of cause is found, these inspections may be terminated.

3. After each SSO, the Preventive Maintenance (PM) schedule for the affected sewer(s) for cleanings, inspections, etc., may be considered to prevent similar future occurrences. The site of the SSO will remain on a more frequent PM schedule, if necessary, until it is reasonably determined that the site is no longer a risk for a future occurrence due to maintenance needs.
4. After the occurrence of an SSO, notification of relevant parties will be conducted (if applicable) to prevent future similar occurrences. Examples of relevant parties include employees and management of restaurants, manufacturers, construction sites, etc. if their actions contributed to an overflow. Notification may include information on City Ordinances applicable to the given parties and type of operation, requirements that must be met in order to comply with the given ordinance, and the measures to be taken by the personnel to eliminate future overflows.

The SSORP presents a strategy for the City to mobilize labor, materials, tools, and equipment to correct or repair and mitigate any condition which may cause or contribute to an SSO. The plan considers a wide range of potential system failures that could create an SSO to surface waters, structures, and/or land surfaces.

2.1 RECEIPT OF INFORMATION REGARDING A SEWER OVERFLOW

An SSO may be detected by City employees, residents, businesses or by others. The City answers telephone calls dialed to the Customer Call Center at 361-826-CITY (2489). The Call Center is primarily responsible for receiving phone calls from the public and directing them to the appropriate department. The Customer Call Center is responsible for receiving calls of possible SSOs from the wastewater collection system and transmission system (e.g., sewer pipes and lift stations) and for notifying the appropriate personnel in the City. A City representative is available 24/7 to answer calls (after hours calls will be directed to 361-885-6913 through the call center automated message). In addition to the Call Center, citizens may be updated by staff through the City website, CCMobile smart phone application, social media accounts, or email alerts as outlined in the CMOM Plan.

In general, residents are not well versed in the difference between a water line leak, a sanitary sewer overflow or overflowing storm sewer. Many calls from residents, particularly during dry weather, are therefore not properly identified until the responding crew arrives on scene. In addition, due to the very flat terrain, there are several potential waters that may be affected, and residents generally are not aware of the names of local streams or drainage areas. Although the Call Center will attempt to obtain accurate information from the resident, the responding crews will confirm if an SSO exists. The first responders will clarify and document the on-site conditions and impacted waters, if any. For possible SSOs, the Customer Call Center obtains information offered by the caller and attempts to collect other relevant information regarding the possible overflow, including:

- a. Contact/Customer Name.
- b. Contact/Customer Phone and E-mail.
- c. Location of the suspected overflow (Work Location).
- d. Observations of the caller (e.g., odor, duration, back or front of property).
- e. Other relevant information that will enable the responding crews, if required, to quickly locate and respond to the caller's observation.

The Call Center enters this information into the CMMS and creates a new work order. The Utilities Dispatcher monitors the system for new work orders and notifies Utilities Infrastructure personnel of suspected SSO. In the event possible SSO calls outnumber the available response staff, calls will be prioritized in the following manner (listed in order from highest to lowest priority):

- Sewage in a creek; sewer overflow or lift station overflow to dry land with immediate and direct public access.

This is the highest priority. The dispatcher shall IMMEDIATELY dispatch this call to the on-call foreman responsible or her/his designee. If the dispatcher is unable to contact the foreman or designee, he/she shall continue calling foremen until a foreman or work coordinator is reached, regardless of her/his area of responsibility.

- Overflow to dry land with no immediate and direct public access. Order of priority for cave-in:
 - a. Sewer pipes damaged/suspected damage
 - b. No reported damage
- Utilities damaged by a construction activity
- Locating utilities. When receiving such calls, confirm if the call is for emergency related locating of utilities.
- Customer service requests

The Utilities Dispatcher provides notification of suspected SSOs directly to the appropriate Utilities Infrastructure crew. Confirmed SSOs are immediately reported back by the crew supervisor or designee.

Sanitary Sewer Overflows detected by any personnel in the course of their normal duties shall be reported immediately to the Utilities Dispatcher. The dispatcher shall record the relevant overflow information, create a work order, and notify the appropriate crew. The crew will immediately notify the appropriate supervisor.

Supervisors shall confirm any reported possible SSO. Until confirmed, the reported possible SSO should be referred to as a "possible" SSO, spill or overflow, not as a "sewage overflow" or "non-permitted discharge". The on-site supervisor or designee shall complete the Notice of Wastewater Overflow Form (see Appendix A) within approximately 12 hours of the confirmed overflow. This customized City form is utilized in lieu of the standard TCEQ Water Quality Noncompliance Notification Form TCEQ - 00501 (Rev. 09-07-10). The Notice of Wastewater Overflow Form shall be reviewed and signed by both the supervisor and QA/QC designee then submitted within 24 hours of confirmation of the reported SSO. This form may be used as the 24-hour notification to the TCEQ Regional Office and may also be used as the 5-day written report (check the appropriate box to distinguish the reporting type). If the event was reported within 24 hours via phone, or an incomplete form was submitted as part of the 24-hour reporting requirement, a completed and signed form shall be faxed or mailed within 5 days to the Water Section Manager at the TCEQ Regional Office. The original, signed copy should be mailed to the address located at the bottom of the form.

Applicable supervisory or management personnel will be responsible for reviewing these completed forms. Table 1 summarizes the overflow response tracking protocol. Figure 1 presents the standard daily crew and equipment staffing available to respond to overflows.

The personnel on duty shall immediately convey all information regarding lift station failures and SSOs to the appropriate Wastewater Treatment Maintenance personnel and initiate the investigation and correction. The Lift Station Response Plan (LSRP) provides specific information on procedures associated with each lift station outage. The detailed Lift Station Response Plan resides with each supervisor, including assistant directors and directors, and should be utilized to minimize the impact of power outages or lift station failures.

Note: the Overflow Response Plan is available to responding staff and may be posted at lift stations, electronically available on crew field tablets and distributed at training sessions.

TABLE 1

Sewer Overflow Response Tracking Protocol

Staff uses the following general procedures when responding to SSOs. These procedures may be revised to adapt to changing best management principals, software/hardware upgrades and TCEQ reporting requirements.

Step Event/Activity

1. Report of possible SSO received by the Call Center at 361-826-CITY (361-826-2489).
2. Dispatcher receives a work order through MAXIMO documenting the caller-provided information.
3. Dispatcher contacts Utilities Infrastructure personnel who deploy a response crew to investigate the possible SSO.
4. Verification of SSO by response crew and initiate corrective actions.
5. Wastewater Technician or designee completes investigative work order and reports back to Dispatch providing an assessment of the significance of the SSO (e.g., volume/flow rate of spill, contained vs. discharge to surface water) and confirms overflow to Dispatcher. The work-order on an SSO is only closed after a combination or jetting unit has opened the line and clean-up/mitigation procedures have been completed and logged. Additional work-orders may be created for repairs, by-pass pumps and other such support activities.
6. Wastewater Technician submits data regarding confirmed SSOs to the Foreman. The Foreman completes the Notice of Wastewater Overflow Form and submits the written copy at the end of shift or within approximately 12 hours from event start time. Notice of Wastewater Overflow Form will be reviewed for completeness by the Collections Work Coordinator.
7. From the initial Notice of Wastewater Overflow Form submitted, the Work Coordinator reviews the Notice of Wastewater Overflow Form for QA/QC, and the updated/corrected form is faxed to appropriate regulatory (TCEQ/EPA) agency within 24 hours or in the case of a TCEQ spill, submitted with monthly spill report. Save the sent SSO confirmation FAX report to document FAX transmission to regulatory agencies.
8. The Notice of Wastewater Overflow Form and fax confirmation will be scanned and archived in Water Utilities Department database.
9. For SSO events lasting longer than 24 hours or events that require updating of initial 24-hour notice, Engineering Design Manager or designee will prepare Notice of Wastewater Overflow Form and send updated form to applicable regulatory agencies within 5 days of the event. All SSO events require written five-day reports.
10. The Notice of Wastewater Overflow Form may be used as the 24-hour notification to the Regional Office and may also be used as the 5-day written report. If the event was reported within 24 hours via phone, or an incomplete form was submitted as part of the 24-hour reporting requirement, you must fax or mail a completed, signed copy within 5 days to the Water Section Manager at your TCEQ Regional Office. The original, signed copy should be mailed to the address located at the bottom of the form.
11. Operations Superintendent, Assistant Director – Utilities Infrastructure, and/or Director of Water Utilities will make the decision based on established criteria by TCEQ on Public Advisory Procedures and Media Notification Procedures to be implemented, if any.

Figure 1

Daily Utilities Infrastructure Crew and Equipment Staffing

In general, the first response equipment and crew will be a trouble truck dispatched to the potential SSO site. Upon confirmation and extent of the SSO a request of additional crew(s) and equipment may occur. Equipment available for secondary response includes (call 361-774-4216 after hours):

- Vactors
- Generators
- Backhoe
- Portable pumps
- Bypass pipe/hoses
- Portable lighting equipment
- Sandbags
- Spill containment supplies
- Disinfectant
- Posting signage

Monday
 Day Shift: 7 work crews
 (4 response trucks; 3 vactors)
 Afternoon Shift: 5 work crews
 (4 response trucks; 1 vactor)
 Evening Shift: 1 response crew

Tuesday
 Day Shift: 7 work crews
 (4 response trucks; 3 vactors)
 Afternoon Shift: 5 work crews
 (4 response trucks; 1 vactor)
 Evening Shift: 1 response crew

Wednesday
 Day Shift: 13 work crews
 (8 response trucks; 5 vactors)
 Afternoon Shift: 5 work crews
 (4 response trucks; 1 vactor)
 Evening Shift: 2 response crews

Thursday
 Day Shift: 7 work crews
 (4 response trucks; 3 vactors)
 Afternoon Shift: 5 work crews
 (4 response trucks; 1 vactor)
 Evening Shift: 1 response crew

Friday
 Day Shift: 7 work crews
 (4 response trucks; 3 vactors)
 Afternoon Shift: 5 work crews
 (4 response trucks; 1 vactor)
 Evening Shift: 1 response crew

Saturday
 Day Shift: 7 work crews
 (4 response trucks; 3 vactors)
 Afternoon Shift: 5 work crews
 (4 response trucks; 1 vactor)
 Evening Shift: 1 response crew

Sunday
 Day Shift: 7 work crews
 (4 response trucks; 3 vactors)
 Afternoon Shift: 5 work crews
 (4 response trucks; 1 vactor)
 Evening Shift: 1 response crew

Contractor Name	Equipment/Services Provided
Godwin	Diesel Pumps - Repairs, Rental & Purchase
Odessa Pumps	New Pump Purchase & Drywell Pump Repairs
Smith Pumps	Drywell Pumps - Repair & Purchase
Universal Tool & Die	Various Pump Repairs
Xylem	Submersible Flygt Pumps - Repair & Purchase
C-D Electric	Motors - Repair & Purchase
Massengale Armature	Motors - Repair & Purchase
Holt	Generators - Rental & Purchase
Stewart & Stevenson	Generators - Rental & Purchase
ADK Environmental	Vactor Services - Tank & Pumping
Miller Environmental	Vactor Services - Tank & Pumping
Video Pipeline	Vactor Services - Tank & Pumping

Should an emergency situation arise and immediate contact of the supervisor is not successful, the City staff member handling the call shall reference the list of home telephone and cell numbers of all supervisory personnel and call each number until they reach an authorized employee no matter what time of day or night an emergency may arise. Appendix E contains a Guide to City Services with telephone numbers listed for each department.

2.2 DISPATCH CREWS TO SITE OF SEWER OVERFLOW

By immediately responding to a failure within the wastewater collection and treatment system, which threatens to cause or causes an SSO, crews can isolate and resolve the problem before a negative impact occurs. Crews and equipment shall be made available to respond to any SSO location. Additional maintenance personnel, materials and equipment shall be gathered as needed. Figure 2 summarizes sewer overflow response and reporting.

1) Dispatching Crews

- Utilities Dispatcher monitors new work orders created for reported SSOs and notifies the appropriate On-Call Foreman designee or Lift Station Operator. Observations will be logged on the active work order.
- Upon confirmation by the Supervisor or designee of a reported SSO, if necessary, the Supervisor shall directly call for support, or if requested to do so, the Dispatcher shall call appropriate additional crews and resources on behalf of the Supervisor or designee.

2) Crew Instruction and Work Orders

- Responding crews shall be dispatched and shall receive instructions from their Supervisor regarding appropriate crews, materials, supplies and equipment to be deployed.
- Utilities Dispatcher communicating with crews responding to a request for service shall ensure that the entire communication has been received and acknowledged by the responding crews. To avoid delay, all standard communications procedures shall be followed. All employees dispatched to the site of a sewer overflow shall proceed immediately to that site. Any delays or conflicts in assignments must be immediately reported to the appropriate Supervisor or designee for resolution.
- Responding crews shall report their findings, including damage to private and public property or threat to public health and safety, to their Supervisor or designee as frequently as necessary to keep him/her well-informed of the conditions found.
- Supervisor or designees and Utilities Dispatcher shall assist, as necessary, at crew shift changes, in the transfer of all pertinent information to the next shift, including any details of the problems and observations described by customers.

3) Preliminary Assessment of Damage to Private Property

- The responding crew shall use discretion in providing assistance to a property owner/occupant who has sustained property damage. The responding crew should not enter private property for purposes of assessing damage unless directed otherwise by a Supervisor or designee. Residents should be instructed to contact the Risk Management Department at 361-826-3680 to make damage claims. The City of Corpus Christi letter to residents affected by building backups is provided in Appendix E. This letter will be handed out to affected residents and provides information on obtaining cleanup

assistance. The City of Corpus Christi Risk Management Department is responsible for addressing any claims residents may have regarding backups.

- If property damage was caused by the use of a Vac Con, contact Risk Management to deploy a contracted vendor to clean up the damage. After hours and on weekends, responding crews will contact the contracted vendors directly to arrange for cleaning.
- Appropriate photographs, if needed, should be taken of the impacted outdoor area of the SSO in order to document the nature and extent of damage. Copies of photographs, negatives or videotapes shall be forwarded to the Engineering Design Manager for filing with a copy of the Notice of Wastewater Overflow Form as appropriate.

4) Field Supervision and Inspection

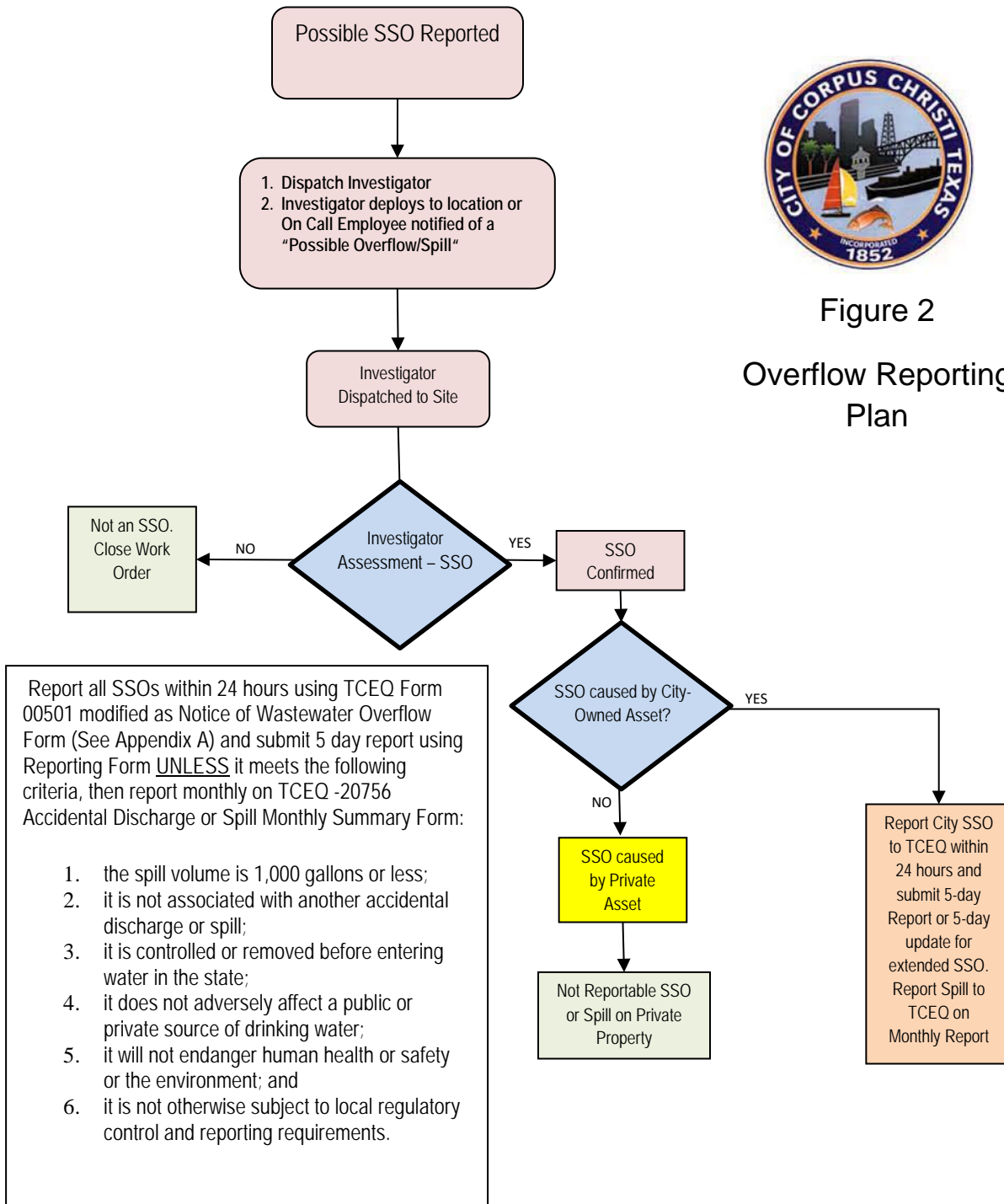
- The Supervisor or designee assigned to a confirmed SSO shall visit the site of the overflow to assure that provisions of the SSORP and other directives are met. The Supervisor or designee will determine if outside vendor services are required and will make the initial contacts to facilitate needed outside services.
- The Supervisor or designee of the responding crew is responsible for completion of the Notice of Wastewater Overflow Form and for confirming that the form is distributed to management staff and regulatory agencies, if appropriate. In the case of a lift station overflow to a creek or dry land, the Facility Superintendent shall be responsible for completing the Notice of Wastewater Overflow Form, as appropriate, and informing City management staff and regulatory agencies, as appropriate.

5) Coordination with Hazardous Material Response

- Responding crew shall contact their supervisor as soon as possible whenever a suspicious substance (e.g., oil sheen, foamy residue) is found on the ground surface, surface waters or ponded areas, or upon detection of a suspicious odor (e.g., gasoline) not common to the sewer system.
- Should the Supervisor decide it is necessary to alert the TCEQ in consultation with the local Fire Department, the responding crew shall await the arrival of the hazardous material response team to take over the response activities. Remember that any vehicle engine, portable pump, or open flame (e.g. cigarette lighter) can ignite an explosion or fire where flammable fluids or vapors are present. Keep a safe distance and observe caution until assistance arrives. The on-site staff shall also take measures to keep the general public away from the impacted area. Perimeter control of pedestrian and vehicular traffic shall be established using traffic barricades, barricade warning tape, or temporary barrier/safety fencing with signage "Caution Do Not Enter" where appropriate.
- The Fire Department's hazardous material response team shall be contacted by dialing 911 if the overflow contains or is thought to contain hazardous material.
- Upon arrival of the hazardous material response team, the responding crew shall take direction from the lead person of the response team. Only when that authority determines it is safe and appropriate for the responding crew to proceed under the SSORP with the SSO containment, correction and clean-up activities can they then proceed.



Figure 2
Overflow Reporting Plan



2.3 OVERFLOW CORRECTION, CONTAINMENT, AND CLEANUP

Overflows may result from blocked sewers, pipe failures, lack of capacity, power outages, treatment plant or lift station malfunctions, contractors or mechanical malfunctions among other natural and manmade causes. This section describes specific actions to be performed by the responding crews during a sewer, treatment plant or lift station overflow. Table 2 presents an SSO Checklist. These actions are instrumental for:

- Protecting public health, the environment, and property from SSOs and restore the surrounding area back to normal as soon as practical.
- Establishing perimeters and control zones with appropriate traffic cones and barricades, vehicles or use of natural topography (e.g., hills).
- Promptly notifying regulatory agencies of preliminary SSO information and potential impacts.
- Containing the SSO to the maximum extent practical including preventing the discharge of sewage into surface waters and returning as much of the sewage back into the collection system as practical.
- Minimizing the probability of regulatory agency penalties and fines.

Under most circumstances, the Water Utilities Department will handle response activities with its own work forces. The City possesses the skills and experience to respond rapidly and in the most appropriate manner. An important issue with respect to an emergency response is to ensure that temporary actions necessary to divert flows and repair the problem do not produce problems elsewhere in the system. For example, the repair of a force main requires the shutdown of the lift station and diversion of the flow at an upstream location. If the closure is not handled properly, a backup of sewage may create other SSOs.

Circumstances may arise when the City requires the support of an outside contractor. This may occur when a deep system requires an emergency repair in order to resolve the SSO, or extensive shoring or bypass pumping is necessary. The City Engineering Services Department maintains a list of local and area contractors/vendors and has the authority to engage and expedite construction where the health and safety of the public is at risk. Selection of a contractor/vendor may be driven by availability to respond, work in progress and equipment required. The Engineering Services Department will generally initiate contact by phone and continue contacting contractors/vendors until one is identified who can perform the work the timeliest and at a historically reasonable price.

Containment of the SSO is critically important to minimize the impact of the SSO. Responding crews must evaluate the local conditions and select equipment and techniques to contain the SSO. The method used for containment will vary based on site conditions. General options for containment, needed equipment and materials are summarized in Table 2.

Sanitary sewer overflows inside houses or buildings should be cleaned by a professional cleaning company. Information that can be distributed to residents to address building backups is presented in Appendix E. On-site crews and supervisors should maintain copies of the information for distribution to residents following a backup or overflow on private property.

2.4 RESPONSIBILITIES OF UTILITIES INFRASTRUCTURE CREW UPON ARRIVAL

It is the responsibility of the first City personnel who arrive at the site of an SSO to protect the health and safety of the public by mitigating the impact of the overflow to the highest extent possible. Emergency contact telephone numbers are presented in Appendix C should conditions warrant immediate notification. However, should the cause of the SSO not be the responsibility of the City, e.g., caused by an overflowing private sanitary sewer, but there is imminent danger to public health, public or private property, or to the quality of waters of the State, then prudent emergency action shall be taken until the responsible party assumes responsibility and provides appropriate action. Upon arrival at an overflow, the responding crew shall do the following:

1. Determine the cause of the SSO, e.g. sewer line blockage, sewer line break, lift station mechanical or electrical failure, treatment plant process flow problem, etc.
2. Identify and request, if necessary, assistance or additional resources to recover the SSO or to assist in the determination of its cause.
3. Determine if private property has been affected. If yes, contact Risk Management at 361-826-3680.
4. Take immediate steps to stop the SSO, e.g. relieve pipeline blockage, manually operate lift station controls, repair pipe, etc. Extraordinary steps may be considered where overflows from private property threaten public health and safety (e.g., an overflow running off of private property into the public right-of-way).
5. Extra care should be taken in securing the work site immediately adjacent to or around private property.
6. Request additional personnel, materials, supplies or equipment that will expedite and minimize the impact of the overflow.

TABLE 2 SSO Response Checklist

- ✓ Investigation, SSO Confirmation and Site Assessment
- ✓ Dispatch Initial Response Personnel and Equipment
- ✓ Stop and Contain SSO
- ✓ Assess Best Cleanup Method
- ✓ Initiate Site Remediation
- ✓ Inspect Receiving Waters (if applicable)
- ✓ Initiate Sampling of Affected Waters (if applicable)
- ✓ Post Warning Signs (if applicable)
- ✓ TCEQ/EPA Initial Notifications
- ✓ Public Notifications (if applicable)
- ✓ Complete Remediation
- ✓ Collect Follow-up Samples (if applicable)
- ✓ Remove Signs (if applicable)
- ✓ Account for all line plugs, signage, samplers, etc. (if applicable)
- ✓ Site Quality Control
- ✓ TCEQ/EPA Final Notifications
- ✓ Follow-up SSO Root Cause Analysis

Major SSO Containment Options and Needed Equipment

Overflow onto Ground

Overflow onto Ground	Needed Equipment
<ul style="list-style-type: none"> • Create earthen trench or berm to contain or divert SSO • Place sand bags in gutter or around low ponding area • Turn off or manually control tributary lift station if possible 	<ul style="list-style-type: none"> • Sandbags • Plastic sheets • Portable pumps (3" to 4") • Bypass pumps/hose or pipe • Vactors • Generators • Backhoe

Overflow into Storm Sewer or Open Ditch

Overflow into Storm Sewer or Open Ditch	Needed Equipment
<ul style="list-style-type: none"> • Contact storm water department to coordinate containment • Locate storm drain/ditch at downstream end point • Plug affected storm system outlet(s) and coordinate with Operations Superintendent to contain and cleanup SSO • Turn off or manually control tributary lift station if possible 	<ul style="list-style-type: none"> • Sandbags • Plastic sheets • Portable pumps (3" to 4") • Bypass pumps/hose or pipe • Vactors • Generators • Backhoe

2.5 INITIAL MEASURES FOR CONTAINMENT AND REPORTING

Crews arriving initially will:

- ✓ Initiate measures to contain the overflowing sewer and recover, where possible, sewage which has already spilled, minimizing the impact to public health or the environment.
- ✓ Determine the immediate destination of the SSO, e.g. storm drain, surface water, ground surfaces, structure, etc.
- ✓ Identify and request additional materials and equipment to contain or isolate the SSO, if not readily available.
- ✓ Take immediate steps to contain the SSO, e.g., block or bag storm drains, recover through vacuum truck, divert/pump into downstream sanitary sewer manhole, etc.
- ✓ Check treatment plant process equipment/lift station status.

In the event of a prolonged sewer line blockage or collapse, treatment plant issues, or lift station outage, a determination shall be made in a timely fashion to operate a portable pump-around operation to direct flows around the defective or damaged facility. Personnel shall be trained in proper portable pump capacity selection and the setup of temporary suction and discharge piping to assure safe and reliable emergency operation. Other methods of bypassing shall be utilized when appropriate such as fluming and berms to contain flows while repairs are made.

Appropriate measures shall be taken to determine the proper size and number of portable pumps required to effectively handle the sewer bypass pumping operation. Any regulatory agency issues that arise as a result of a prolonged pumped bypass situation (e.g., need for redundancy of portable pumping) shall be addressed in conjunction with emergency repairs.

Contaminated soil, stream and riverbanks, and shorelines of other types of bodies of water, shall be thoroughly cleaned after an overflow. No readily identifiable residues (e.g., fecal matter, rags, papers, or plastics) shall remain.

Where practical, the area shall be thoroughly flushed with the wash-down water which should be contained and properly disposed. Heavy flushing could make containment of wash down water impractical. Solids and other debris shall be flushed, swept, raked, picked-up and transported to proper disposal area.

The overflow site shall be secured to prevent contact by the public until the site has been thoroughly cleaned. Signage, if required, shall be utilized.

Where appropriate, the overflow site shall be disinfected and deodorized.

If a ponded area contains sewage, which cannot be pumped dry, it shall be treated with bleach or dry high-test hypochlorite (HTH). If sewage has entered a body of water that may contain fish or other aquatic life, bleach or other disinfectants shall not be applied. Appendix D contains additional guidance on the quantification of SSOs and the use of disinfectants.

The Notice of Wastewater Overflow Form and CMMS work order shall be completed by the responsible Supervisor. The TCEQ shall be notified immediately following confirmation of an SSO into a waterway and no later than 24 hours after confirmation. The hard copy report for an SSO to surface waters is forwarded to TCEQ and EPA when repair work on the sewer is completed but no later than five days of confirmation of an SSO. If

an SSO requires more than 24 hours to recover and cleanup, a written status report shall be forwarded by certified mail to TCEQ every five days until correction of the SSO is completed. Information recorded for SSOs should include the following:

1. Indication of whether there was an actual observation of SSO running into surface waters, or whether there was only an indication (e.g. sewer residue on the ground surface leading to the surface water) that sewage had possibly flowed to surface waters but was not actually observed.
2. Indication that the SSO had not reached surface waters. Guidance in characterizing these overflows as dry land only includes:
 - a. SSOs to underground storm drains (with no public access) where a crew verifies, by inspection, that the entire volume is contained in an impoundment and where complete cleanup occurs, leaving no residue.
 - b. SSOs where observation or on-site evidence clearly indicates all sewage was retained on land and did not reach surface water and where complete cleanup occurs leaving no residue.

A determination of the start time of the SSO should be made using one or more of the following methods:

- a. Date and time report of an SSO was received by the Call Center customer service representative.
- b. Date and time of a visual observation by a City employee.
- c. Lift station flow charts and other recorded data.
- d. Treatment plant observations.

A determination of the stop time of the SSO should be made using one or more of the following methods:

- a. When the blockage is cleared or flow is controlled or contained.
- b. Visual observations.

A determination of the volume or rate of the SSO should be made using one of the following methods:

- a. When the rate of SSO is known, multiply the duration by the rate of flow to determine the volume of the SSO.
- b. When the rate of overflow is not known, investigate the surrounding area for evidence of ponding. Obtain dimensions of ponding and calculate volume in gallons. Total volume divided by the appropriate time interval will provide a flow rate.
- c. If a manhole is observed overflowing, use the chart and photographs in Appendix D to estimate the rate of SSO, then multiply by the duration of the SSO.

Photographs should be taken of the event when possible and forwarded to the Operations Superintendent. An assessment of any damage to public and private property should be documented. Personnel shall not enter private property for purposes of estimating damage to structures, floor and wall coverings, or personal property.

The Supervisor or designee confirming the reported SSO shall make follow-up contact with the customer(s) reporting the incident summarizing the actions taken to resolve the overflow, to clean up the area, and to post and barricade the area if necessary.

2.6 POST SSO PRIMARY CAUSE ANALYSIS

The Engineering Design Manager or designee is responsible for reviewing and maintaining the SSO spreadsheet and database. Part of the review process is the evaluation of the primary cause of the SSO following containment and cleanup. The primary cause of the SSO will be analyzed to determine if other actions are necessary to prevent future SSOs at this location. The Engineering Design Manager may implement additional actions to establish the cause and then initiate actions to prevent future SSOs at the location. For purposes of addressing repeat backups, blockages and SSOs, a “chronic problem” is defined as a backup, blockage or SSO that occurs at the same asset and/or same line segment at a frequency of twice (2) in twelve (12) months. The following are activities the Engineering Design Manager or designee may initiate to further evaluate and address the SSO:

- Evaluate the location and identify line segment(s) for televised inspection
- Review video and logs to isolate the primary cause of the SSO
- Review available historical data including SSO history and cleaning and inspection history
- Determine if the site is a chronic problem that warrants detailed investigation
- Prepare work order and place line segment on a preventive maintenance cleaning schedule or where a maintenance schedule already exists, increase cleaning frequency
- Prepare work order and place line segment on root removal list
- Prepare work order and place line segment(s) or specific location(s) within the line on repair list
- Contact FOG Coordinator with area suspected of contributing to grease blockage. FOG coordinator will review and may generate work order for increased inspections in the area, distribute FOG outreach educational materials in the area, and/or issue notice of violation where appropriate.

Data collected during the analysis will be used to update the SSO spreadsheet with primary cause for the SSO. The updated spreadsheet will be the basis for the TCEQ/EPA reporting. The Engineering Design Manager will review the primary causes for SSOs and make necessary adjustments to preventive maintenance cleaning schedules, root removal activities, pipeline repair or rehabilitation schedules, etc. to prevent repeat SSOs.

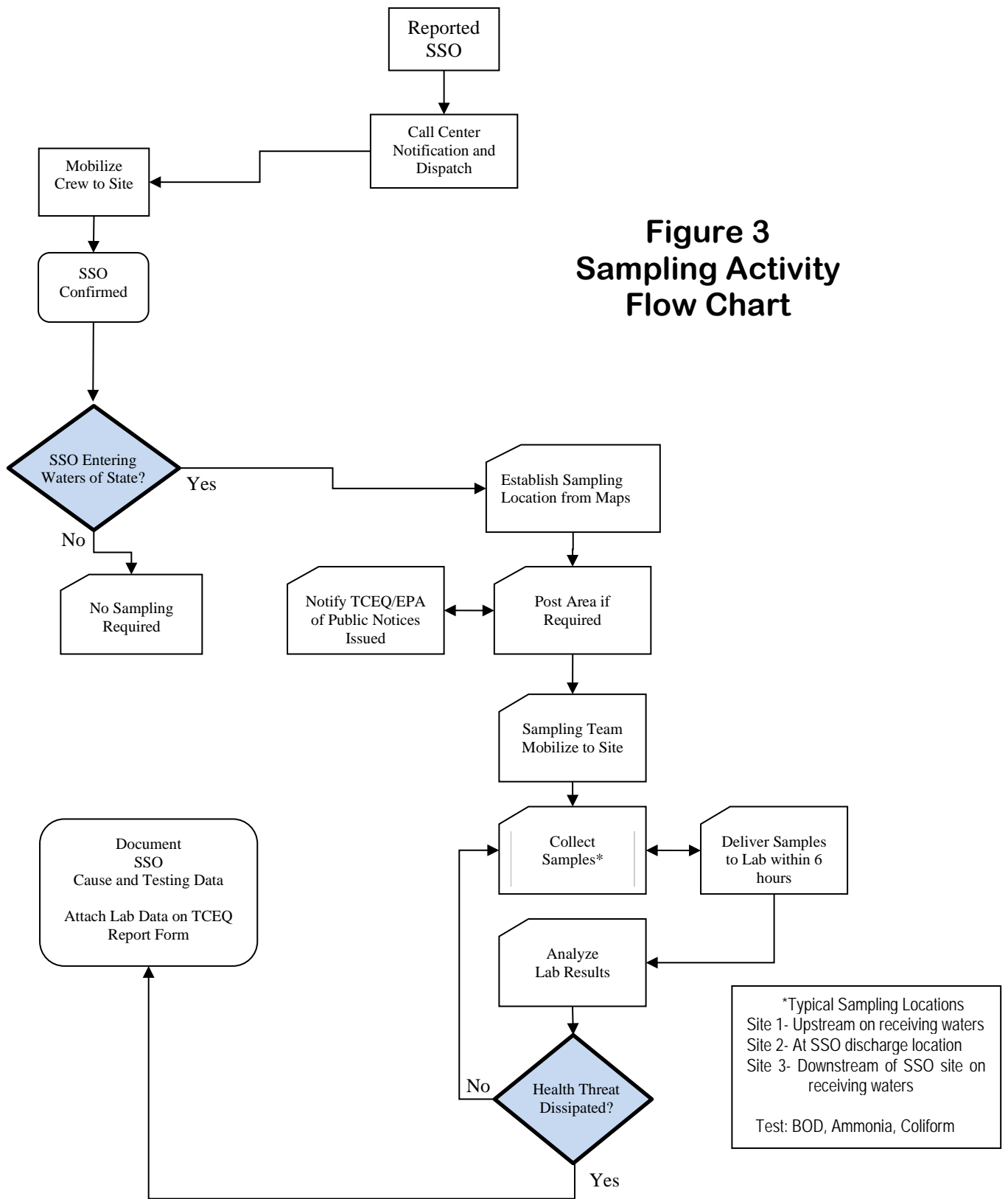
3.0 MONITORING/SAMPLING OF SURFACE WATERS AFFECTED BY SSOs

The City will monitor and sample regulatory surface waters affected by SSOs. Once reported, personnel from the City will respond to the location of the SSO. These personnel will take the following steps, immediately after initiating efforts to stop the overflow:

- Stop SSO and determine volume of SSO (i.e. total gallons).
- Determine if SSO goes to a stream or receiving water. The impact of the overflow on water quality is assessed by visual inspection for abnormal conditions such as effects on aquatic life, abnormal color, odor, etc.
- Notify sampling team if an SSO reaches a stream or receiving water. If a storm or other conditions present an unsafe sampling environment, sampling may be omitted and impacts will be based on visual observations only until sampling can be resumed.
- Post signs for restricting public access.

Requests for sampling during SSOs shall be initiated by the Supervisor. During normal business hours the

treatment plant operator shall be contacted to initiate sampling actions due to SSOs. During after hours, weekends or holidays, the staff identified should be contacted by starting with the first name on the list and working down, as necessary, until the needed contact is made. Home telephone and cell numbers should only be called during major SSO events or if contact has not been established after exhausting the list of business phone numbers. The Work Coordinator or Supervisor is responsible to see that operator is contacted in the case of any SSO from a lift station where sampling is required. Figure 3 presents a general sampling flow diagram that summarizes the sampling procedures. Sample submissions to the lab after hours shall be made by contacting the Water Quality Manager at (office) 361-826-1289 or (cell) 361-726-1670.



4.0 NOTIFICATION PROCEDURES

This section describes the actions the City may take, in cooperation with TCEQ, EPA, and the Corpus Christi/Nueces County Public Health District, Environmental Consumer Health Protection Department, to protect the public and limit public access to areas potentially impacted by SSOs to surface water. Actions to limit public access to areas impacted by SSOs which do not reach surface water but affect ground surfaces, structures or other resources are also addressed.

4.1 POSTING AND SIGNAGE

The City has primary responsibility for determining whether signage (see Figure 4) is necessary for areas affected by SSOs to ground surfaces, structures, or surface waters. The main factor in determining when and where to post signs is the degree of public access to any effects of the overflow that may remain at the site. The posting of signage would not necessarily prohibit use or access to the area unless posted otherwise but provide a temporary warning of potential public health risks due to a recent sewage contamination. The City may elect to use such signs, for example, where heavy flushing made it impractical to recover all of the wash-down water commingled with sewage. In cases when posting of signs is not sufficient or not feasible, door hangers may be used instead of, or in addition to, signs. The Supervisor or designee in consultation and cooperation with the Corpus Christi/Nueces County Public Health District, Environmental Consumer Health Protection Department, as appropriate, shall make this decision. All SSOs entering surface waters must be posted with signage for at least seven days. Table 3 outlines the posting decision process for City personnel. The Corpus Christi/Nueces County Public Health District, Environmental Consumer Health Protection Department shall be consulted during the posting decision process.

Table 3
SANITARY SEWER OVERFLOW (SSO)
POSTING DECISION PROCESS

Step Event/Action

1. Responding Supervisor or crew supervisor confirms reported SSO.
2. Supervisor makes recommendation on intent to either post or not post, or intent to use other public notification measures (e.g. front door hangers), depending on the degree of the public's accessibility of the area impacted by the SSO.
3. Supervisor or designee calls the TCEQ.
4. The Water Utilities Director is advised of the final posting recommendation by the Supervisor or designee. Director or designee will determine to either post or not post.
5. If the Director or designee's recommendation not to post or use other public notification measures is subsequently reversed by the health department, the Director or designee will be responsible for posting or using other public notification measures.
6. Locations of SSOs to surface waters must be posted until the area is free from contaminants as evidenced by the on-site or laboratory test results.

Figure 4
 SANITARY SEWER OVERFLOW (SSO)
 POSTING SIGNAGE

WARNING !

STOP

THIS AREA HAS BEEN
 CONTAMINATED BY
 UNTREATED SEWAGE

DO NOT ENTER

FOR INFORMATION CALL
 361-826-3000



¡ADVERTENCIA!

ALTO

ESTA ÁREA HA SIDO
 CONTAMINADA
 POR AGUAS RESIDUALES
 NO TRATADAS.

NO ENTRE

PARA MAS INFORMACIÓN LLAME AL
 361-826-3000



WARNING !




NO FISHING NO SWIMMING

Keep children from playing near this area.

*Discharge of untreated sewage has occurred
 and may adversely affect the water quality. The
 impacted waters are being tested by the
 City for the extent of the pollution.*

FOR ADDITIONAL INFORMATION CALL
 361-826-3000



¡ADVERTENCIA!




No pescar No nadar

Evite que los niños juegen cerca de esta zona.

*Se ha producido la descarga de aguas
 residuales no tratadas y puede afectar
 adversamente la calidad del agua.
 Las aguas impactadas están siendo
 analizadas por la Ciudad para
 determinar la extensión de la contaminación.*

PARA MAS INFORMACIÓN LLAME AL
 361-826-3000



Note: The on-site supervisor will determine which signage, if any, is appropriate for the location.

4.2 OTHER PUBLIC NOTIFICATION

Should it be determined that the posting of signs indicating that surface waters, ground surfaces or structures have been subject to an SSO are not sufficient, the Water Utilities Director shall determine the need for further public notification. This additional notification will be accomplished through the use of pre-scripted notices made available to the print or electronic news media for immediate publication or airing, or by other measures (e.g., front door hangers). See Appendix E for example news releases. Circumstances under which further public notification may be considered include:

- When permanent repairs to resolve an SSO will take in excess of 24-48 hours and the reduction in the usage of water in homes and businesses would assist in managing the operation of the locally affected sewer or lift station;
- When permanent repairs to resolve an SSO will take in excess of 24-48 hours and the citizenry need to be advised of repair schedules and possible traffic detours in the vicinity of the repairs and/or sewer or lift station pump-around operations;
- When permanent repairs to resolve an SSO which took in excess of 24-48 hours are completed and the City wishes to recap the episode such as the circumstance(s) contributing to the cause of the SSO, measures taken to repair and cleanup the affected area, time required to effect repairs, total gallons of the SSO, and any continuing monitoring of surface waters/ if applicable; and,
- When posting of waterways and ground surfaces affected by SSOs cannot be effectively accomplished to adequately protect public health and safety (e.g., receiving water is bordered by private property).

4.3 REGULATORY AGENCY NOTIFICATION PLAN

Agency notifications shall be performed in parallel with other City internal notifications. The procedures for providing notification to the media of an SSO are presented in this section. Internal notification and mobilization of personnel are detailed in Section 2.1, Table 1 - Sewer Overflow Response Tracking Protocol.

Using data supplied from the confirmation of reported possible overflows and subsequent updates from response personnel, the Supervisor shall prepare the Notice of Wastewater Overflow Form. The Supervisor shall notify TCEQ and the Corpus Christi/Nueces County Public Health District, Environmental Consumer Health Protection Department within 24 hours of all SSOs and a five (5) day written report is submitted to TCEQ. Spills that meet TCEQ requirements (refer to Section 1.2) will be grouped and reported monthly.

A summary listing all reports shall be included in the submittal and placed in the Engineering Design Manager's file for each such overflow. Laboratory and/or field sampling test data will be attached or sent when available. The process for reporting is summarized:

Monday thru Thursday Procedures:

1. Wastewater Collection personnel verify the SSO, complete the 24-hour notification form, FAX the 24-hour notification to TCEQ and confirm transmission.
2. Wastewater Collection submits the 24-hour FAX notification form, the FAX confirmation sheet and the work order for each SSO to the Engineering Design Manager.
3. The Engineering Design Manager reviews the documents for each SSO for errors/omissions, signs and submits them to Admin Staff.
4. Admin Staff enters the pertinent data from the SSO documents into the weekly Noncompliance Notification Reporting spreadsheet.
5. When the Noncompliance Notification Reporting spreadsheet for the day is complete, Admin Staff submits it to the Engineering Design Manager for quality assurance review and approval.

Friday Procedures:

1. Wastewater Collection personnel verify the SSO, complete the 24-hour notification form, FAX the 24-hour notification to TCEQ and confirm transmission.
2. Wastewater Collection submits the 24-hour FAX notification form, the FAX confirmation sheet and the work order for each SSO to the Engineering Design Manager.
3. The Engineering Design Manager reviews the documents for each SSO for errors/omissions and submits them to Admin Staff.
4. Admin Staff enters the pertinent data from the SSO documents into the weekly Noncompliance Notification Reporting spreadsheet.
5. When the Noncompliance Notification Reporting spreadsheet for the day is complete, Admin Staff submits it to the Engineering Design Manager or designee for quality assurance review and approval.
6. Admin Staff emails the approved weekly Noncompliance Notification Spreadsheet to the Engineering Design Manager.
7. Admin Staff prepares the standard cover letter that accompanies the weekly Noncompliance Notification Spreadsheet and emails it to the Engineering Design Manager.
8. The Engineering Design Manager reviews the Noncompliance Notification Reporting spreadsheet and cover letter.
9. The Engineering Design Manager compiles the cover letter and attaches the spreadsheet overflow documents for submittal to the Assistant Director of Utilities Infrastructure for signature.
10. The Noncompliance Master List from January 1 to December 31 will be managed and updated by the Design Manager in a secure directory.
11. After the Water Utilities Director or designee signs the cover letter, the Engineering Design Manager takes the signed cover letter Admin Staff to be scanned and emailed back to the Engineering Design Manager.

12. The Engineering Design Manager or designee prepares an email to TCEQ Region 14 (ud14@tceq.state.tx.us) and attaches the five-day Noncompliance Notification Spreadsheet and signed cover letter to the email. Appendix E provides the current contact information. The following City personnel are copied on the email:
 - a. Assistant City Manager for Public Works
 - b. Executive Director of Water Utilities Dept.
 - c. Water Utilities Director
 - d. Assistant Director of Utilities Infrastructure
 - e. Assistant Director of Wastewater Treatment
 - f. TCEQ Region 14
13. Admin Staff will mail a copy of the Weekly Noncompliance Notification Spreadsheet and signed cover letter to TCEQ in Austin.

4.4 TCEQ PUBLIC NOTIFICATION REQUIREMENTS

The Texas Commission on Environmental Quality regulations address public notification requirements. Subchapter C: Public Notice of Spills or Accidental Discharges from Wastewater Facilities Owned or Operated by Local Governments (Chapter 319.302 Notification Requirements and 319.303 Notice to Local Officials and Local Media) states:

§319.302. Notification Requirements.

- (a) The owner of a facility must designate a responsible individual to comply with this subchapter.*
- (b) In addition to the noncompliance notification to the commission required by §305.125(9) of this title (relating to Standard Permit Conditions) and any notification required under Chapter 327 of this title (relating to Spill Prevention and Control), the owner of a facility, through its responsible individual, must notify appropriate local government officials and the local media (see §319.301 of this title (relating to Definitions)) whenever one of the following types of spills occurs from the facility:*
 - (1) a spill, regardless of volume, that the facility owner knows or has reason to know, will adversely affect a public or private source of drinking water;*
 - (2) a spill with a volume of 50,000 gallons or more where one or more of the following conditions also exists:*
 - (A) the spill occurs within 1/2-mile of a public or private source of drinking water;*
 - (B) the spill occurs within 1/2-mile of a private drinking water well which is located within 1/2-mile of a public water supply well;*
 - (C) the spill occurs within 1/2-mile up-gradient of a surface water intake of a public or private source of drinking water;*
 - (D) the spill occurs in an active groundwater recharge area;*
 - (E) the spill occurs up-gradient and within 1/2-mile of a karst terrain or shallow alluvial well that is a source of drinking water;*

(3) a spill of 100,000 gallons or more.

(c) The responsible individual must issue the notice as quickly as possible, but not later than 24 hours after the facility becomes aware of the spill. The notice may be hand-delivered, sent by facsimile, e-mail, or by phone with follow-up written notice. The contents of the notice must comply with §319.303 of this title (relating to Notice to Local Officials and Local Media.)

(d) Within 48 hours of providing notice to appropriate local government officials and local media, the responsible individual must provide to the commission regional office in whose region the spill occurred a copy of the notice, the date notice was provided to local officials and local media, and a list of notice recipients.

§319.303. Notice to Local Officials and Local Media.

(a) Persons responsible for a wastewater spill must ensure notice complies with subsections (b) and (c) of this section. Responsible persons may contact the commission to obtain a template which may be used in the event of a wastewater spill.

(b) For all wastewater spills as referenced in §319.302(b) of this title (relating to Notification Requirements) the notice must contain the following:

(1) one of the following statements:

- (A) a spill from a wastewater treatment facility has occurred; or*
- (B) a spill from a collection facility has occurred;*

(2) the facility name;

(3) person to contact for further information;

(4) the location of the spill;

(5) the estimated date and time of the spill;

(6) the estimated volume of the spill (number of gallons);

(7) the type of the spill (domestic, industrial, etc.);

(8) a description of the area potentially affected, including a down-gradient and lateral distance from the spill site;

(9) the suspected cause of the spill; and

(10) a list of actions that have been taken including, but not limited to:

(A) notification of:

- (i) appropriate local government officials; and*
- (ii) the TCEQ regional office;*

(B) containment of the spill;

(C) increased monitoring of water supply systems; and

(D) initiation or completion of cleanup activities.

(c) If the wastewater spill meets the conditions of §319.302(b)(2) and/or (b)(3) of this title then the notice must also contain the following precautionary statements:

- (1) *Persons using private drinking water supply wells located within 1/2-mile of the spill site or within the potentially affected area should use only water that has been distilled or boiled at a rolling boil for at least one minute for all personal uses including drinking, cooking, bathing, and tooth brushing. Individuals with private water wells should have their well water tested and disinfected, if necessary, prior to discontinuing distillation or boiling.*
- (2) *Persons who purchase water from a public water supply may contact their water supply distributor to determine if the water is safe for personal use.*
- (3) *The public should avoid contact with waste material, soil, or water in the area potentially affected by the spill.*
- (4) *If the public comes into contact with waste material, soil, or water potentially affected by the spill, they should bathe and wash clothes thoroughly as soon as possible.*

Figure 5 presents the TCEQ Notification Template for use in providing the required notification should the SSO meet the requirements for notifying City officials and media. This notification is provided in Appendix E. The following summarizes the normal protocol when City officials and media must be notified of an SSO:

1. The Water Utilities Director or designee will prepare a City of Corpus Christi Media Release Letter with attached TCEQ Notification Letter Form TCEQ-20627 (See Appendix E) and contact the Public Information office at (361) 826-3211 to brief them on the content and details of the event. A copy of the proposed notification letter will be sent to the Public Information Office that will coordinate the notification efforts. The Public Information Office will contact the appropriate local City officials and media outlets.

This notification is done as soon as possible, but not later than 24 hours after becoming aware of the SSO.

2. Immediately after distributing the notice, the Engineering Design Manager or Assistant Director of Utilities Infrastructure shall report notifications to TCEQ Region 14 by faxing notice to (361)825-3101 and EPA Region 6 by faxing notice to (214)665-2168.
3. After hours and weekend sewer overflows are reported to the Collections Work Coordinator at the number(s) listed in Appendix E. SSOs that occur on weekends will be called in to the TCEQ and will be submitted on the following Monday.
 - a. Calls received by the Call Center from the media dealing with SSOs are always referred to the Public Information Office.
 - b. The Water Utilities Director, Assistant Director of Utilities Infrastructure, Water Quality Manager, or designee is authorized to be interviewed by the media as the designated spokesperson.

Figure 5
TCEQ Public Notification Template

Texas Commission on Environmental Quality
Public Notification Form for Wastewater Discharges

Information about the Discharge

An unauthorized discharge or spill of wastewater has occurred from:

Wastewater Treatment Facility: _____ Collection System: _____

Facility Name:

Person to contact for information:

Location of spill(s):

Estimated date and time of spill(s):

Estimated volume of spill(s):

Type of Spill:

Description of the area potentially affected, including down gradient and lateral distance from spill(s) site:

Suspected cause of spill(s):

.

List of Actions Taken Including but, not Limited to:

Notification of

Appropriate local government officials: _____

TCEQ Regional Office: _____

Figure 5 - Continued TCEQ Public Notification Template

Containment of spill:

Increased monitoring of water supply systems:

Initiation of cleanup activities:

Precautionary Statements:

1. Persons using private drinking water supply wells located within ½ mile of the spill site or within the potentially affected area should use only water that has been distilled or boiled at a rolling boil for at least one minute for all personal uses including drinking, cooking, bathing, and tooth brushing. Individuals with private water wells should have their well water tested and disinfected, if necessary, prior to discontinuing distillation or boiling.
2. Persons who purchase water from a public water supply may contact their water supply distributor to determine if the water is safe for personal use.
3. The public should avoid contact with waste material, soil, or water in the area potentially affected by the spill.
4. If the public comes into contact with waste material, soil, or water potentially affected by the spill, they should bathe and wash clothes thoroughly as soon as possible.

4.5 MEDIA REQUESTS

The City of Corpus Christi is committed to maintaining an open and informative dialogue with members of the media as well as the general public. In order to avoid confusion and provide the most factual information regarding utility issues, as well as protect our customers' right to privacy, the Water Utilities Director or designee should be notified of any media (newspaper, trade publication, radio, etc.) contact or requests for information about the Water Utilities Department or its customers.

The Water Utilities Director is the primary individual for media interviews. In the event the Director is unavailable, additional points of contact include Assistant Director of Utilities Infrastructure, Assistant Director of Water Quality and Treatment, or the Engineering Design Manager (reference Appendix C for contact information). Dispatch has the contact list and can make the necessary call after hours and on weekends.

Cooperation with reporters is essential in order to provide them with the needed information in a timely manner. They are the means of transmitting factual information from the City of Corpus Christi to the general public. If an employee is approached in the field or at work by a member of the media concerning an incident involving the utility (whether it is an accident involving a City of Corpus Christi employee, a major or extended interruption of service, or an issue considered to be controversial in nature) that employee should advise the reporter that their contact should be the Water Utilities Director. Offer them the appropriate phone numbers or obtain their name and phone number for the Director so that a return call may be made. The employee should also advise their immediate supervisor or manager that an inquiry has been made by the media, so the supervisor or manager may forward details of the incident to the Director or designee. The Director or designee will determine if the inquiry should be directed to the Public Information Office.

Managers, supervisors, or crew leaders can serve as the contact in the field for questions regarding routine projects that may be taking place near or on a customer's property, such as repair work or outage response. If a customer approaches a field employee with questions regarding a routine project, they should politely direct the customer to the manager, supervisor, or crew leader. If that person is not on site at the time, the employee should offer to take the customer's name and phone number and have the manager, supervisor, or crew leader contact them as soon as possible to answer any questions or concerns.

4.6 REQUESTS FOR CONSTRUCTION SITE AND FACILITY TOURS

Safety of the general public and security of City of Corpus Christi facilities should be of utmost priority for all employees. For this reason, construction site and facility tours for members of the general public should be cleared through the office of the Director. That person will be in charge of seeking approval of a facility tour from the respective member of the Department. No one from the general public or the media is permitted to enter non-public areas of the City of Corpus Christi facilities without first seeking permission from the appropriate Director. Employees are within their right to ask unauthorized persons to leave the premises immediately.

5.0 DISTRIBUTION AND MAINTENANCE OF SSORP

The SSORP reflects the procedures established for responding to reports of possible SSOs and confirmed SSOs

from the wastewater collection system, treatment plants and lift station system so as to:

- Minimize the adverse effects of SSOs on public health, water quality and beneficial uses of the receiving waters.
- Minimize the SSO volume which enters surface waters.

Updates to the SSORP shall be made to reflect all changes in City and regulatory policies and procedures as may be required to achieve its objectives.

5.1 SUBMITTAL AND AVAILABILITY OF SSORP

Copies of the SSORP and any amendments shall be distributed to the following offices, departments, bureaus, divisions, sections, and functional positions:

- Utilities Director, Assistant Directors, and Engineering Design Manager
- Water Quality Manager, Wastewater Treatment Managers, and Superintendents
- Any employee responsible for carrying out processes outlined within the plan

Copies are distributed to responding staff and may be posted at lift stations and distributed at training sessions.

All other City staff who may become incidentally involved in responding to SSOs shall be generally familiar with the contents of the SSORP.

5.2 REVIEW AND UPDATE OF SSORP

The SSORP shall be reviewed and amended as appropriate by the Engineering Design Manager or designee. Biennial reviews will be scheduled in Maximo by the Director or designee and generally coincide with CMOM reviews. The City shall:

- Periodically review the SSORP and update the manual as needed
- Conduct annual training on the use of the SSORP with appropriate personnel.
- Review and update, as needed, the various contact person lists included in the SSORP.

5.3 REVIEW OF PROCEDURES AND PREPAREDNESS

Training for preparedness and responsiveness associated with SSOs will be provided as required to the supervisory staff. Training is covered in the CMOM Plan and includes class setting courses, on-the-job training, and frequent safety or toolbox topic sessions. Training on SSOs generally should include:

- Defining the goals and purpose of the SSORP
- Review of Overflow Response Procedures
- Monitoring/Sampling of Surface Waters
- Public Advisory Procedure
- Regulatory Notification Procedure
- Media Notification Procedures
- SSORP updates and revisions
- SSO quantification and use of Appendix D
- Caution in the use of disinfectants

Management will conduct periodic workshops with supervisory and other key City staff to review established

response activities, and suggestions for new or revised procedures shall be held.

The purpose of the training program is to provide personnel with the proper skills and equipment to complete job requirements safely and in compliance with regulatory requirements. The Water Utilities Department provides safety training to all staff, including office personnel. The individual Department managers conduct safety training for their respective departments. TCEQ maintains electronic training records for those City employees with PDH annual training requirements for operator certification.

Appendix A

Notice of Wastewater Overflow City of Corpus Christi, Texas 2726 Holly Road, P.O. Box 9277 Corpus Christi, Texas 78469

Work Order#	
-------------	--

Today's Date:

Location of Overflow:

Date and Time Overflow began: (estimated?) Yes No

Date and Time Overflow ended: (estimated?) Yes No

Estimated Volume of Overflow: (gal.) Estimated Volume Recovered: (gal.)

Report Type

- 24Hr SSO Report
- 5 Day SSO Report
- TCEQ Spill (Monthly Report)
- Reportable Treatment Plant Violation
- Other

<p>Check Appropriate Box</p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Oso Wastewater Treatment Plant TPDES Permit 10401-004/TX0047058 <input type="checkbox"/> Broadway Wastewater Treatment Plant TPDES Permit 10401-005/TX0047066 <input type="checkbox"/> Allison Wastewater Treatment Plant TPDES Permit 10401-006/TX0047082 </td> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Greenwood Wastewater Treatment Plant TPDES Permit 10401-0003/TX0047074 <input type="checkbox"/> Laguna Madre Wastewater Treatment Plant TPDES Permit 1040-008/TX0047 <input type="checkbox"/> Whitecap Wastewater Treatment Plant TPDES Permit 10401-009/TX0047121 </td> </tr> </table>		<input type="checkbox"/> Oso Wastewater Treatment Plant TPDES Permit 10401-004/TX0047058 <input type="checkbox"/> Broadway Wastewater Treatment Plant TPDES Permit 10401-005/TX0047066 <input type="checkbox"/> Allison Wastewater Treatment Plant TPDES Permit 10401-006/TX0047082	<input type="checkbox"/> Greenwood Wastewater Treatment Plant TPDES Permit 10401-0003/TX0047074 <input type="checkbox"/> Laguna Madre Wastewater Treatment Plant TPDES Permit 1040-008/TX0047 <input type="checkbox"/> Whitecap Wastewater Treatment Plant TPDES Permit 10401-009/TX0047121	<p>Was overflow released to Water in the State? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If released to Surface Water (Name):</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> Corpus Christi Bay</td> <td><input type="checkbox"/> Nueces Bay</td> </tr> <tr> <td><input type="checkbox"/> Inner Harbor</td> <td><input type="checkbox"/> Nueces River</td> </tr> <tr> <td><input type="checkbox"/> West Oso Creek</td> <td><input type="checkbox"/> Laguna Madre</td> </tr> <tr> <td><input type="checkbox"/> Oso Creek</td> <td><input type="checkbox"/> Oso Bay</td> </tr> </table> <p><input type="checkbox"/> Other (Log Below)*</p> <p>*Other Description: </p>	<input type="checkbox"/> Corpus Christi Bay	<input type="checkbox"/> Nueces Bay	<input type="checkbox"/> Inner Harbor	<input type="checkbox"/> Nueces River	<input type="checkbox"/> West Oso Creek	<input type="checkbox"/> Laguna Madre	<input type="checkbox"/> Oso Creek	<input type="checkbox"/> Oso Bay																											
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<p>City Point of Contact: Asst. Director MOL 361-826-3111 Engineering Design Manager 361-826-3063</p> <p>TCEQ Region 14: 361-825-3100; FAX 361-825-3101 (required for all basins)</p> <p><small>Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region 14 Office, and the original to: TCEQ, Compliance Monitoring Team (MC224), Enforcement Division, P.O.Box 13087, Austin, TX 78711-3087.</small></p>		<p>Monitor/Sampling: Check All that Apply:</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> Field Measurements</td> </tr> <tr> <td><input type="checkbox"/> Laboratory Samples</td> </tr> <tr> <td><input type="checkbox"/> Fish Kill, if yes number </td> </tr> </table> <p>Potential danger to humans safety or environment? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Action Taken: Check All that Apply</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> Signs Posted/Media Notified</td> </tr> <tr> <td><input type="checkbox"/> Main Jetted</td> </tr> <tr> <td><input type="checkbox"/> Cleanup Activities Still Underway</td> </tr> <tr> <td><input type="checkbox"/> Spill Contained</td> </tr> <tr> <td><input type="checkbox"/> Overflow Vacuumed</td> </tr> <tr> <td><input type="checkbox"/> Overflow Stopped</td> </tr> <tr> <td><input type="checkbox"/> Area Disinfected</td> </tr> <tr> <td><input type="checkbox"/> Photographs Taken</td> </tr> <tr> <td><input type="checkbox"/> Blockage Cleared</td> </tr> <tr> <td><input type="checkbox"/> Repaired</td> </tr> <tr> <td><input type="checkbox"/> Other (Log Below)*</td> </tr> </table> <p>*Other Description: </p>	<input type="checkbox"/> Field Measurements	<input type="checkbox"/> Laboratory Samples	<input type="checkbox"/> Fish Kill, if yes number 	<input type="checkbox"/> Signs Posted/Media Notified	<input type="checkbox"/> Main Jetted	<input type="checkbox"/> Cleanup Activities Still Underway	<input type="checkbox"/> Spill Contained	<input type="checkbox"/> Overflow Vacuumed	<input type="checkbox"/> Overflow Stopped	<input type="checkbox"/> Area Disinfected	<input type="checkbox"/> Photographs Taken	<input type="checkbox"/> Blockage Cleared	<input type="checkbox"/> Repaired	<input type="checkbox"/> Other (Log Below)*																							
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<p>Reported By (Signature/title): </p> <p>Reviewed By (Signature/title): </p>		<p>Superintendent Recommendation:</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> Add/Modify PM cleaning</td> </tr> <tr> <td><input type="checkbox"/> Structural Repair</td> </tr> <tr> <td><input type="checkbox"/> Capacity Verification</td> </tr> <tr> <td><input type="checkbox"/> Contact FOG Coordinator</td> </tr> <tr> <td><input type="checkbox"/> Televis</td> </tr> <tr> <td><input type="checkbox"/> Other (Log Below)*</td> </tr> </table> <p>*Other Description: </p>	<input type="checkbox"/> Add/Modify PM cleaning	<input type="checkbox"/> Structural Repair	<input type="checkbox"/> Capacity Verification	<input type="checkbox"/> Contact FOG Coordinator	<input type="checkbox"/> Televis	<input type="checkbox"/> Other (Log Below)*																															
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Notice of Wastewater Overflow
City of Corpus Christi, Texas
2726 Holly Road, P.O. Box 9277
Corpus Christi, Texas 78469

When reporting an unauthorized discharge or sanitary sewer overflow (SSO), it is important to include all information that is requested on the notification form. If you have questions about the form, do not hesitate to call the TCEQ Regional Office and ask to speak to a wastewater investigator. All information should comply with reporting requirements noted in Texas Water Code Section 26.001(6).

This form may be used as the 24-hour and 5 day notification to the Regional Office and may also be used to document Unauthorized Discharge (UD) and Sanitary Sewer Overflow (SSO) which are reported as a summary on a monthly basis. If the event was reported within 24 hours via phone, or an incomplete form was submitted as part of the 24-hour reporting requirement, you must fax or mail a completed, signed copy at the monthly reporting interval to the Water Section Manager at the TCEQ Regional Office. A signed copy should be mailed to the address located at the bottom of the form. Refer to the TCEQ Regulatory Guidance Document RG-395 (Revised September 2016) for answers to frequently asked questions regarding reporting.

A *sanitary sewer overflow* (SSO) is defined in Section 26.049(e)(4) of the Texas Water Code as "a discharge of wastewater, stormwater that has entered a separate sanitary sewer system, or a combination of wastewater and stormwater from a separate sanitary sewer system at a point or points before the water enters a publicly owned treatment plant."

A *TCEQ Spill* shall be defined herein to match the "accidental discharge" and "spill" definitions in Section 26.039(a)(1)-(2) of the Texas Water Code: "Accidental discharge" means an act or omission through which waste or other substances are inadvertently discharged into water in the state. "Spill" means an act or omission through which waste or other substances are deposited where, unless controlled or removed, they will drain, seep, run, or otherwise enter water in the state.

Noncompliance Summary

Description of Noncompliance:

- Location & collection system structure (i.e., Manhole at 650 Main St.)
- Route of discharge – Follow the discharge from its origin to where it was contained or entered a receiving waterway. If the receiving waterway is unnamed, provide the name of the nearest named adjoining waterway. (Examples: soaked into ground; manhole → nearby storm ditch → unnamed tributary of Kings Creek)
- Estimated amount of the discharge (includes any recovered amount)

Cause of Noncompliance: Why did this incident occur? Was it caused by grease, blockage, infiltration or inflow, equipment failure, structural failure, power outage, vandalism, human error, contractor, unknown?

Duration: Include dates and times.

Potential Danger to Human Health & Safety or the Environment: Any danger to the aforementioned should be promptly discussed with the TCEQ Regional Office. Additional notifications may be necessary.

Actions Taken

Monitoring Data: Mark actions that apply.

Actions taken to Mitigate Adverse Effects: Ask yourself, "How did we keep this from becoming an environmental or health problem?" Include information such as:

- amount recovered from the total estimated amount stated under the description above
- method used to recover the wastewater
- treatments used for disinfection or deodorizing
- activities to lessen impact to property, a waterway, or public health

Actions taken to correct the problem and prevent recurrence: Ask yourself, "How did we address the direct cause of the overflow, and was there anything else we did to prevent this noncompliance from occurring again?" Include actions such as:

- jetting the main
- educating residents about proper grease disposal
- adding the location to your preventative maintenance list
- repairing equipment, circuits, or replacing lines, etc.

Verification Information

Information Reported By: Include both your name and title. Please sign and date the form.

APPENDIX B
LIFT STATION RESPONSE PLAN

Lift Station Response Plan

Introduction

The City of Corpus Christi (City) recognizes the importance of regular and proper operation of its wastewater lift stations to properly convey wastewater for the protection of the environment and to safeguard public health and safety. Failure of a lift station may result in customer service being disrupted and/or a Sanitary Sewer Overflow (SSO) if it takes an extended period of time to return the lift station to service. Failure may result from a variety of causes including, but not limited to, a power outage, mechanical failure, lift station control failure, pump blockage, vandalism, and severe storm damage. For these reasons, the City has developed a Lift Station Response Plan (LSRP, at times may be referred to as Lift Station Outage Response Plan or LSORP) to document lift station monitoring and response procedures to address such events and to minimize the impact on customers and the environment.

This LSRP provides a summary of the staffing and equipment available to continue the proper operation and maintenance of the City's lift stations. Additionally, it includes the specific details of the activities and procedures that personnel follow during an event that does not fall within the normal operation and maintenance of a lift station.

Responsibilities

The Wastewater Facility Manager oversees the dedicated crews responsible for operation and maintenance of the lift stations, including the response to failures. City crews routinely visit each lift station, many on a daily basis and others several times per week. The City's team of electricians and mechanical repair staff are responsible for troubleshooting any identified failure and performing the remedial measures necessary to resolve the failure event. Additional staff is engaged on an as-needed basis.

Alarms and Response Procedures

For every lift station, the City monitors the following four (4) basic events (via a City-wide wireless SCADA System):

- Main Power Failure
- Control Power Failure
- High Water Level in Wet well
- Water detected in Drywell (where applicable)

When any of these events are detected, a signal is transmitted to the City's Water Utilities Department SCADA Control Center, located at the O.N. Steven Water Treatment Plant (ONSWTP). The SCADA HMI (Human-Machine Interface) automatically sends alarm notices to maintenance personnel via cell phone texting and email. The HMI screen is checked periodically during the normal business day to insure proper operation. During non-business hours which includes evenings, weekends, and holidays, designated on-call staff receive cell phone texts and emails to indicate which lift station is experiencing which alarm(s).

The on-call electrician will respond to the alarm. The electrician, (first responder) proceeds to the lift station to confirm the situation and assesses the nature of the failure. If a mechanical crew is required, the on-call mechanical crew will be notified.

The SSO Response Plan details procedures used to address an SSO if it occurs as a result from a lift station failure.

Upon arrival at the lift station the first responder, often the on-call electrician, will initiate troubleshooting procedures (see Attachment A, Standard Operating Procedures for Flow Chart for Power Failure at Lift Stations) to identify the nature of the failure (electrical, mechanical or blockage).

For an observed lift station failure, the first responder will take the following actions as applicable to the situation:

1. If Power is Available:
 - a. Perform a voltage test at the main service panel
 - b. Check electrical panel to ensure main switch is engaged and system is in auto mode of operation
 - c. If system does not operate in automatic mode, then test in manual mode
 - d. Confirm circuit breakers have not tripped
 - e. Confirm pumps are operating
 - f. Check wet well to ensure level is moving
 - g. Observe pump check valve to determine if it is opening normally
 - h. Determine which, if any, pumps are operating
2. If Power is Not Available:
 - a. Review Flow Chart for Power Failure at Lift Stations (See Attachment A)
 - b. If applicable, start backup generator power system per manufacturer's procedures
 - c. Obtain supplemental crews (electrical and mechanical) if needed
 - d. Initiate delivery of appropriate backup portable generator, portable pumps, or vacuum/vactor vehicles based on specific lift station response plan

In the event of a force main leak or failure, the following actions will be taken, as applicable:

1. The leaking force main will be isolated or bypassed.
2. City personnel or outside contractor (depending on the damage, location, depth of pipeline, etc.) will complete repairs to the force main.
3. Containment of any SSO and cleanup will follow the procedures in the SSO Response Plan.

In the event of multiple, simultaneous alarms, the on-call electrician (first responder) will prioritize the lift stations based on estimated time to overflow and dispatch crews accordingly. The on-call electrician may engage his/her supervisor to assist in prioritizing the alarms. If necessary, additional crews will be engaged and dispatched to resolve the issues.

Response Equipment List and Location

Various equipment is available to the Wastewater Maintenance Manager and staff to respond to lift station alarms. The specific equipment to be used to resolve an event will depend on the cause, duration of outage, and existing lift station configuration. Equipment and other options available to respond to lift station outages may include, but are not limited to:

1. On-site backup generators (typical for major lift stations)
2. Portable backup generators for lift stations having electrical connection points to transfer loads
3. Portable engine driven pumps with readily accessible (quick) connection points to force main(s) or header
4. Dual power feeds
5. Vacuum/Vactor vehicles to pump and truck wastewater during outage
6. Engagement of local Equipment Vendors and Service Providers

Equipment is stored at the Water Utilities Building located at 2726 Holly Road. In the event equipment needs to be accessed, a warehouse representative can be reached by calling the on-call number: 361-774-4216. In addition to in-house equipment, Utilities presently has a contract in place for equipment services, including rental, and intends to maintain such a contract in the future.

Equipment Vendors available to the City to provide equipment and support services are included in the following table. This list is updated on a regular basis.

Contractor Name	Equipment/Services Provided
Godwin	Diesel Pumps - Repairs, Rental & Purchase
Odessa Pumps	New Pump Purchase & Drywell Pump Repairs
Smith Pumps	Drywell Pumps - Repair & Purchase
Universal Tool & Die	Various Pump Repairs
Xylem	Submersible Flygt Pumps - Repair & Purchase
C-D Electric	Motors - Repair & Purchase
Massengale Armature	Motors - Repair & Purchase
Holt	Generators - Rental & Purchase
Stewart & Stevenson	Generators - Rental & Purchase
ADK Environmental	Vactor Services - Tank & Pumping
Miller Environmental	Vactor Services - Tank & Pumping
Video Pipeline	Vactor Services - Tank & Pumping

The equipment that City staff will utilize depends on the nature and anticipated duration of the outage and the lift station configuration. The Lift Station Response Plan Maps (see Attachment B) provide necessary information for each lift station to facilitate restoring service. The requisite time for crews to implement alternative flow control measures or restore lift station service before the outage results in an SSO varies from lift station to lift station and is dependent upon one or more factors including, but not limited to, incoming flow volumes, storage volume within the system, upstream diversion(s) and control(s), and flow bypass capabilities. The estimated time needed for City crews to respond before an SSO would occur, *assuming no action is taken to*

bypass or relieve a blockage, is noted on each map of Attachment B (Lift Station Response Plan Maps) and is based on average daily flow. Crews are instructed to monitor the flow at the location where flow is most likely to escape the system. By observing flow elevations at the designated point, response crews can adjust their actions as necessary to prevent an SSO.

Training and Safety

Appropriate staff will participate in regularly scheduled training sessions to assist response crews in awareness of their responsibilities in executing their duties in a safe and effective manner. These training sessions will be organized based on the latest SSORP and LSRP, as well as other pertinent reference materials. Training sessions will also incorporate hands-on field demonstrations to ensure the preparedness of all response personnel. Field demonstrations will be performed to test equipment, response time, training effectiveness, and manpower capabilities.

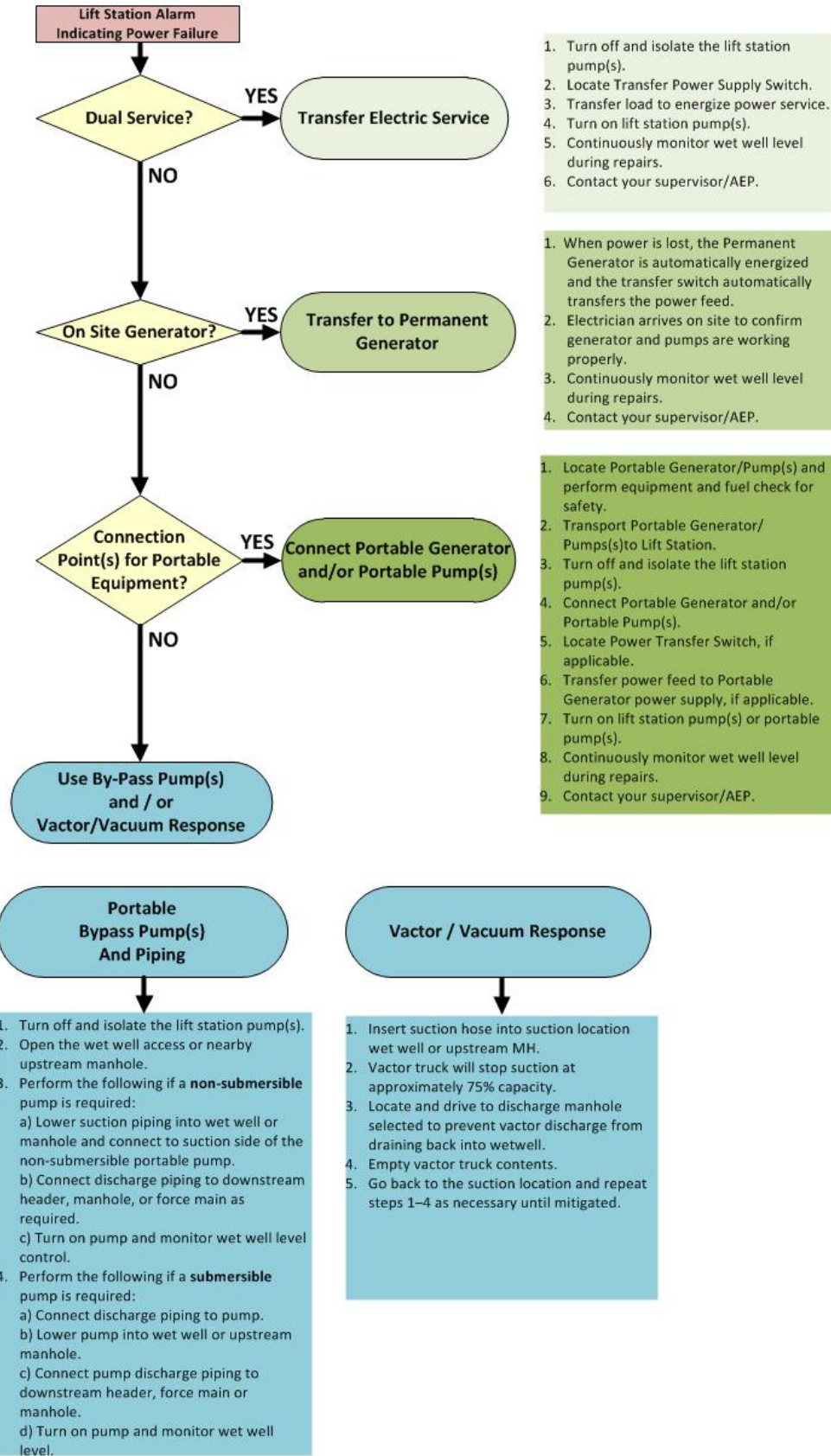
Training and event participation will be documented and maintained by the City. Currently, City staff receives training through various vendors and participate in City-provided lift station and collection system training.

LSRP Availability and Updates

The City will routinely review (in accordance with the CMOM Plan and SSORP biennial review), evaluate and update the effectiveness of this LSRP as appropriate. The LSRP will be amended as necessary to reflect changes in facilities or changes in operations or maintenance procedures that may materially affect the potential for SSOs related to the lift stations. As policies change and response procedures are refined, the LSRP will be reviewed and modified to reflect all necessary changes. The City may also review and recommend modifications as appropriate after any SSO occurrence.

The City will maintain the master copy of this LSRP and amendments and, upon request, be made available to the public for review. Copies will be distributed to appropriate staff, City Departments and regulatory agencies as required. Copies of this document will be kept in response vehicles. A copy of the individual lift station response plan map(s) will be maintained at each lift station where possible.

ATTACHMENT A
STANDARD OPERATING PROCEDURES
FOR
FLOW CHART FOR POWER FAILURE AT LIFT STATIONS



ATTACHMENT B
LIFT STATION RESPONSE PLAN MAPS



LIFT STATION DATA	
BASIN	GREENWOOD WWTP
PUMP HP	35
NUMBER OF PUMPS	10
ALTERNATE SERVICE?	YES (SEE NOTES)
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

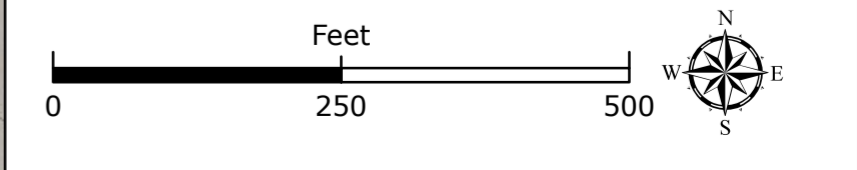
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	0.25 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL32188698 WWMNHL31977067 WWMNHL426749289

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	None

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Bypass to headworks from wetwell

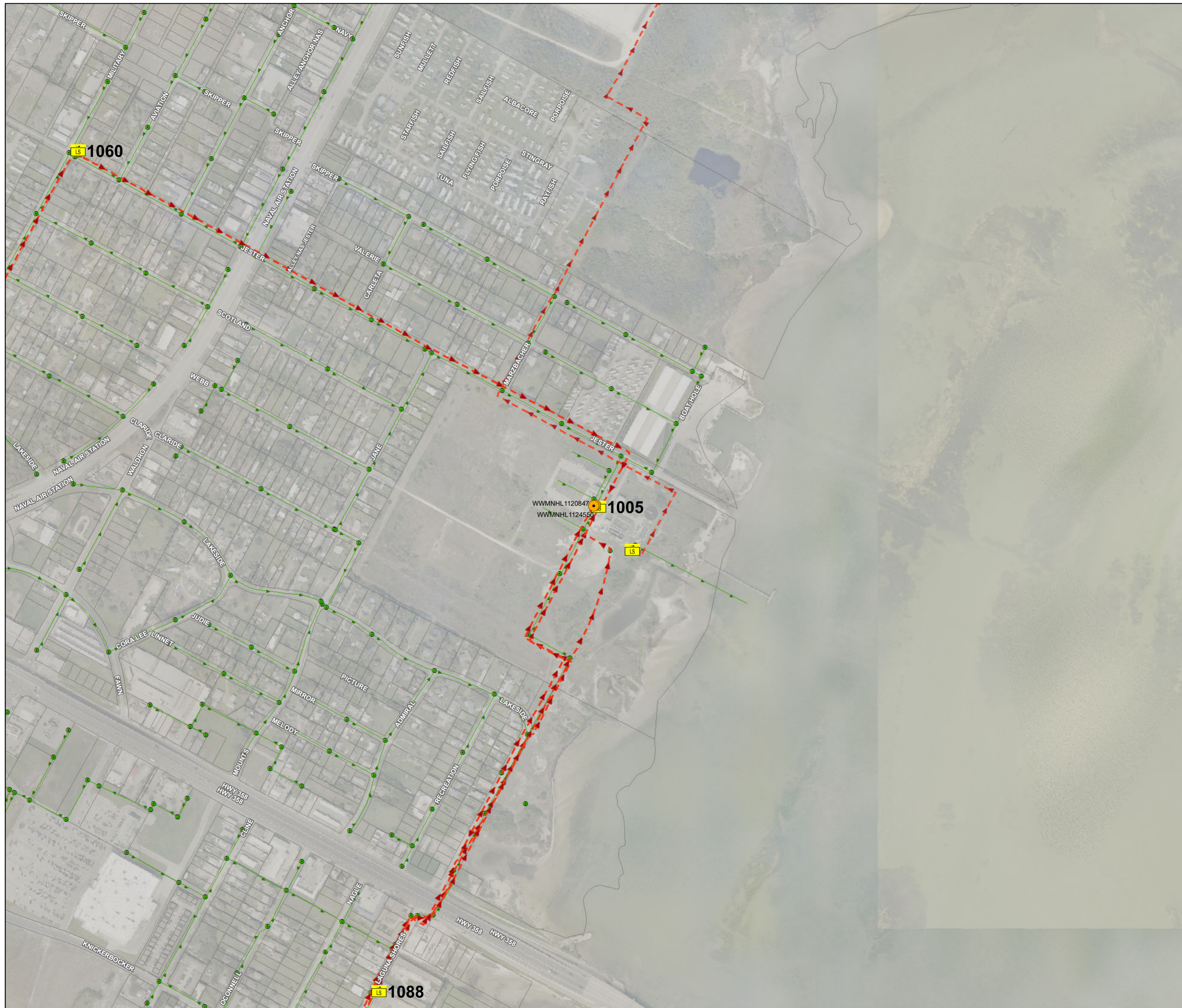


WW-LS1003

LIFT STATION RESPONSE PLAN

LS NAME: Greenwood WWTP LS ID: 1003 LS#: 26





LIFT STATION DATA	
BASIN	LAGUNA MADRE WWTP
PUMP HP	20
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	YES
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>8 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1120847 WWMNHL1124550

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	Verification needed

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

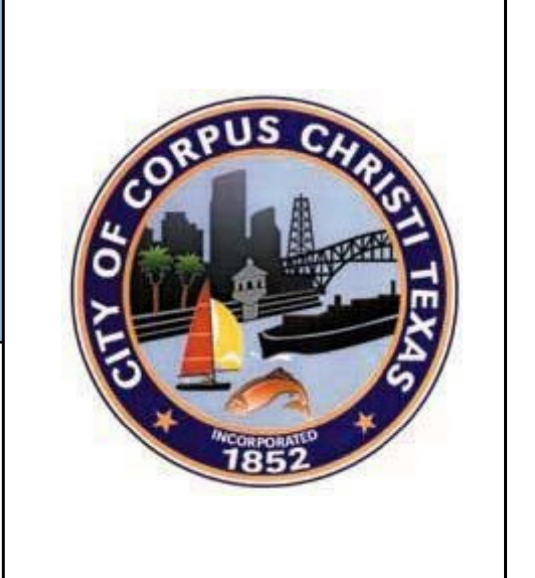
NOTES

Suction flow from wetwell and decant discharge to headworks.
Generator installed 2017

0 250 500 Feet

WW-LS1005

LIFT STATION RESPONSE PLAN
LS NAME: Laguna Madre WWTP LS ID: 1005 LS#: 79





LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	50
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	YES
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

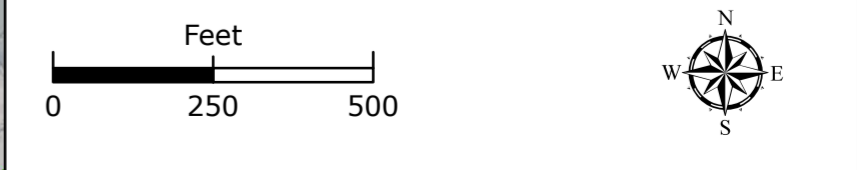
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>8 Hrs
OVERFLOW MANHOLE MAXIMO ID	None

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	None

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant at return splitter box.



WW-LS1006

LIFT STATION RESPONSE PLAN

LS NAME: Whitecap WWTP LS ID: 1006 LS#: 91





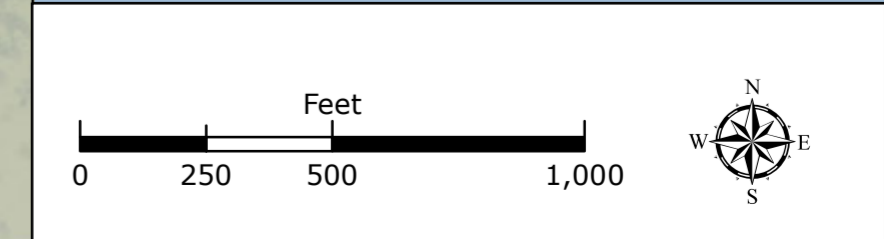
LIFT STATION DATA	
BASIN	LAGUNA MADRE WWTP
PUMP HP	47
NUMBER OF PUMPS	4
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	YES
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	1.3 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1131955 WWMNHL38017706 WWMNHL38017708

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	Verification needed

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES	
Suction flow from wetwell and decant at Laguna Madre WWTP.	



WW-LS1007

LIFT STATION RESPONSE PLAN
LS NAME: Laguna Shores LS ID: 1007 LS#: 81





LIFT STATION DATA	
BASIN	BROADWAY WWTP
PUMP HP	10
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

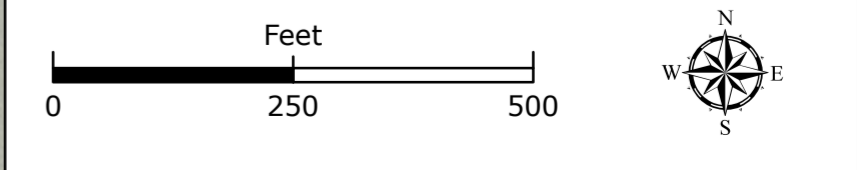
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	4.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1132342

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WW-LS1009

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

None



WW-LS1008

LIFT STATION RESPONSE PLAN

LS NAME: North Beach "C" LS ID: 1008 LS#: 35





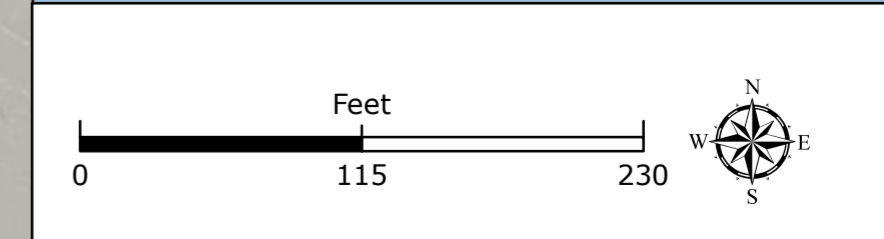
LIFT STATION DATA	
BASIN	BROADWAY WWTP
PUMP HP	10
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	1.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1126924

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL465857870

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES	
None	



WW-LS1009

LIFT STATION RESPONSE PLAN
LS NAME: North Beach "D" LS ID: 1009 LS#: 36





LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	23
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

WW-LS1010

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	4.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL15753462

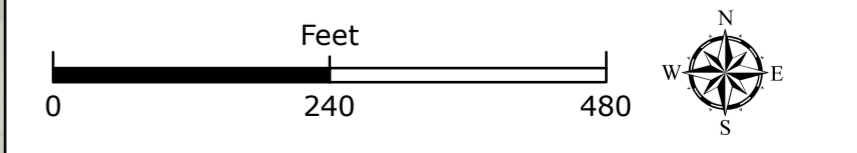
VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL15753568

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.

**LIFT STATION RESPONSE PLAN
LS NAME: Zahn LS ID: 1010 LS#: 100**





LIFT STATION DATA	
BASIN	BROADWAY WWTP
PUMP HP	47
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

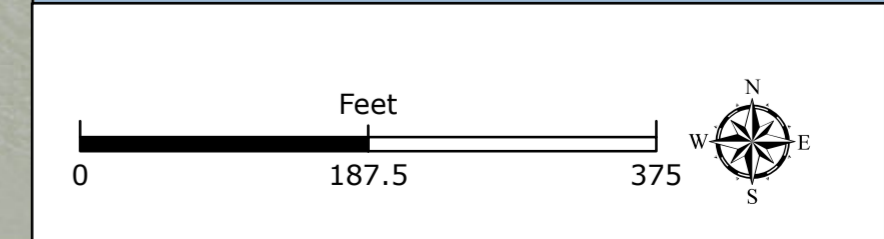
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	8.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1125893 WWMNHL1134700

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	WW-LS1009

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

None



WW-LS1011

LIFT STATION RESPONSE PLAN
LS NAME: North Beach "B" LS ID: 1011 LS#: 34





LIFT STATION DATA	
BASIN	BROADWAY WWTP
PUMP HP	3
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

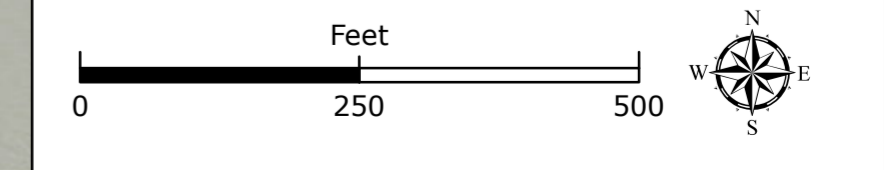
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	4.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1128357

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1124317

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

None



WW-LS1012

LIFT STATION RESPONSE PLAN

LS NAME: North Beach "E" LS ID: 1012 LS#: 33





LIFT STATION DATA	
BASIN	BROADWAY WWTP
PUMP HP	25
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

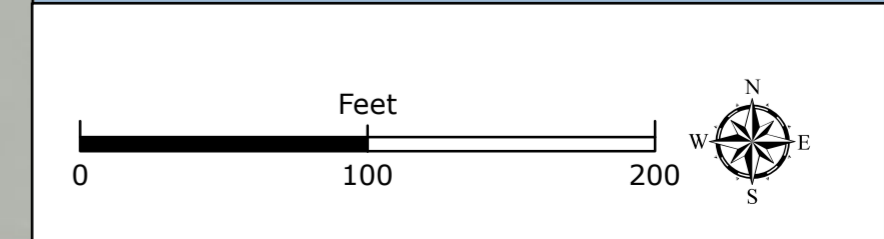
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	Same as Discharge

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1127167

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

None



WW-LS1013

LIFT STATION RESPONSE PLAN

LS NAME: Peoples Street "T" Head LS ID: 1013 LS#: 41





LIFT STATION DATA	
BASIN	BROADWAY WWTP
PUMP HP	25
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

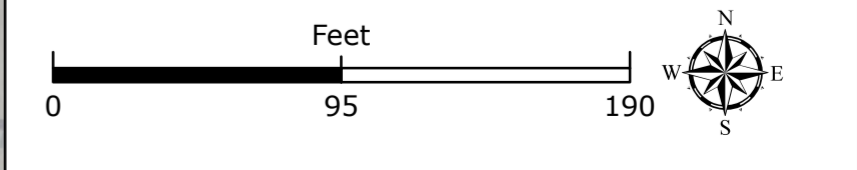
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	4.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1135705

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1135704

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

None

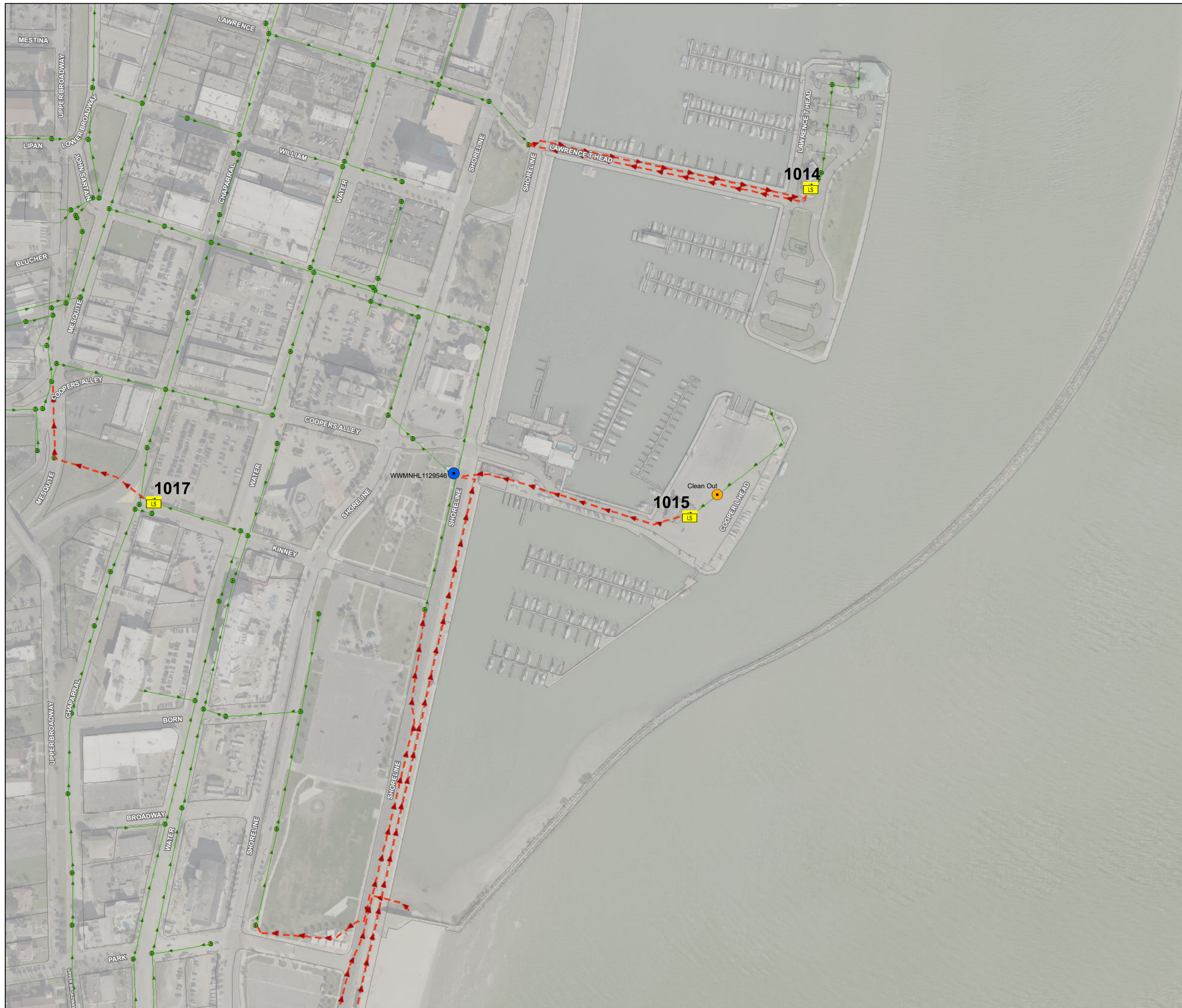


WW-LS1014

LIFT STATION RESPONSE PLAN

LS NAME: Lawrence Street "T" Head LS ID: 1014 LS#: 42





LIFT STATION DATA	
BASIN	BROADWAY WWTP
PUMP HP	10
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

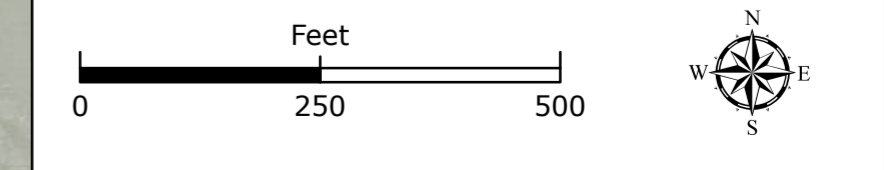
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	Same as Discharge

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1129546

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

None

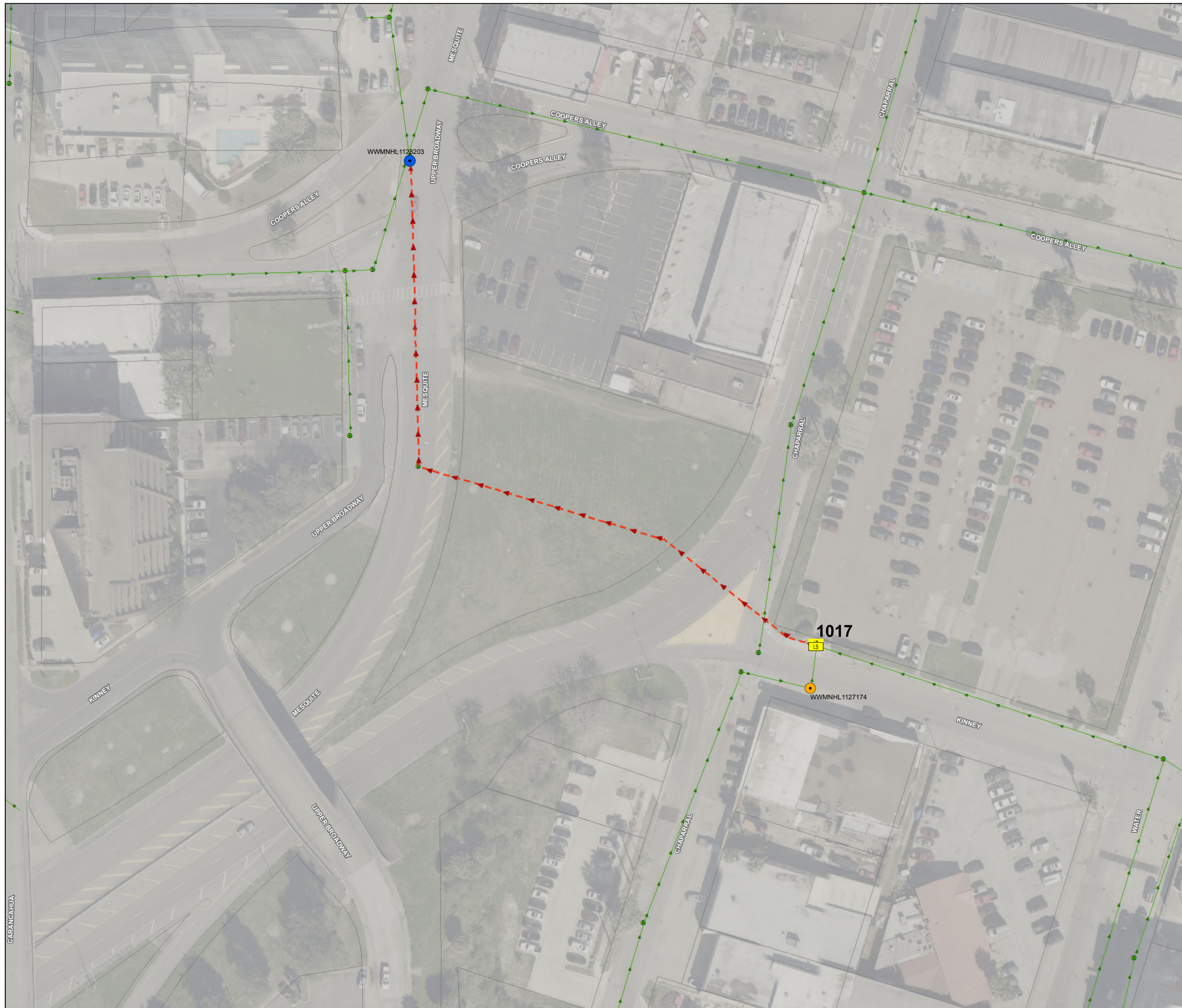


WW-LS1015

LIFT STATION RESPONSE PLAN

LS NAME: Coopers Alley "L" Head LS ID: 1015 LS#: 43





LIFT STATION DATA	
BASIN	BROADWAY WWTP
PUMP HP	15
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

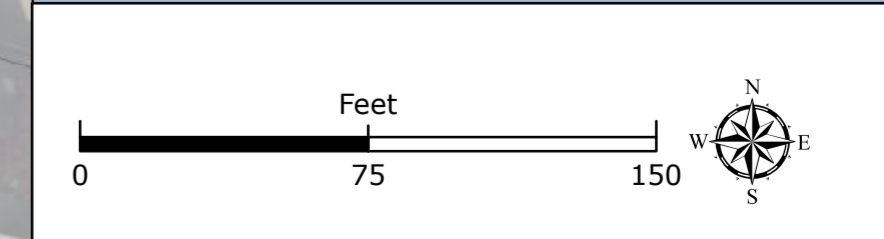
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1127174

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1128203

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.



WW-LS1017

LIFT STATION RESPONSE PLAN
LS NAME: Studebaker LS ID: 1017 LS#: 40





LIFT STATION DATA	
BASIN	BROADWAY WWTP
PUMP HP	5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

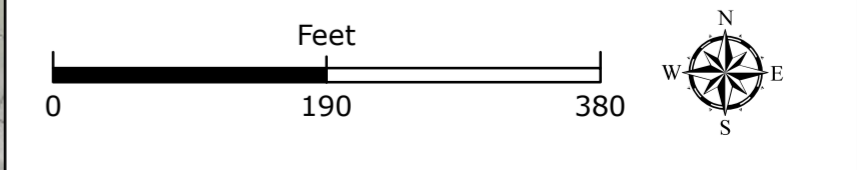
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	1 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1124132

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1129831

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

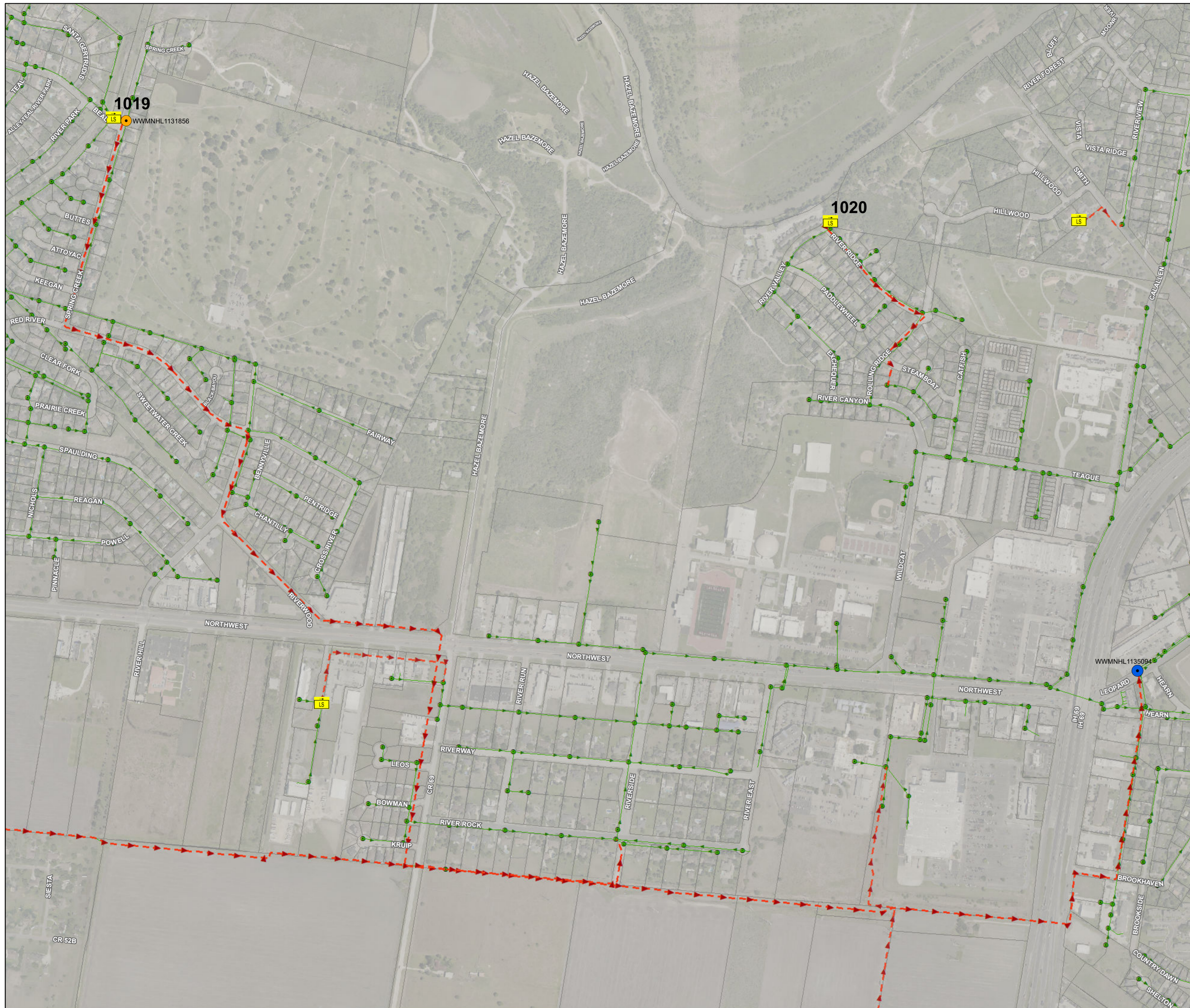
Suction flow from wetwell and decant into discharge manhole.



WW-LS1018

LIFT STATION RESPONSE PLAN
LS NAME: Nueces Bay LS ID: 1018 LS#: 30





LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	88
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	YES
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

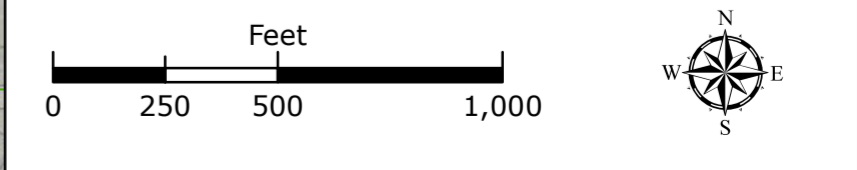
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	7 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1131856

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1135094

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

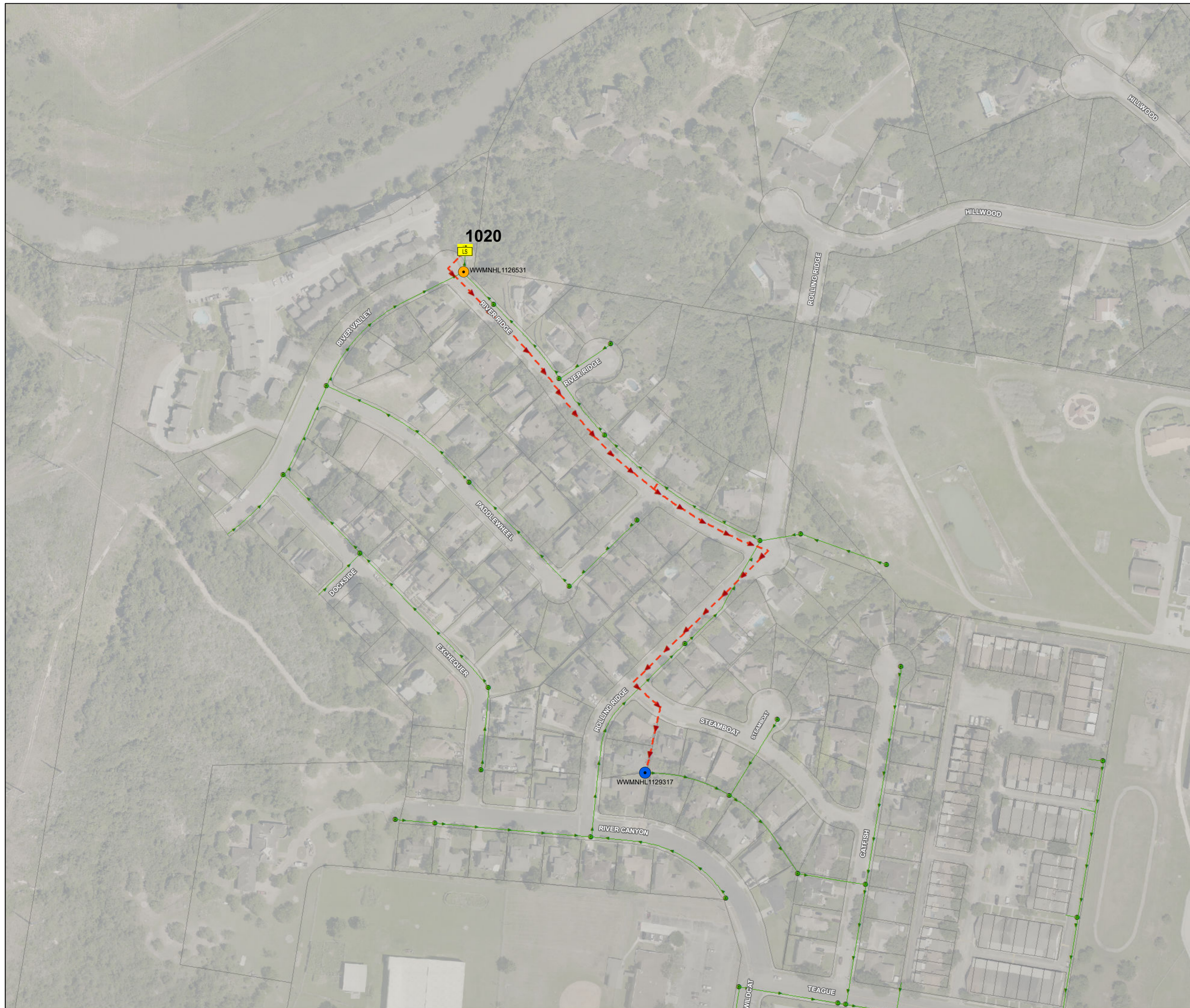
Verify Generator is started and transfer load.



WW-LS1019

**LIFT STATION RESPONSE PLAN
LS NAME: Wood River LS ID: 1019 LS#: 1**





LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	YES (SEE NOTES)
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

WW-LS1020

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	4.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1126531

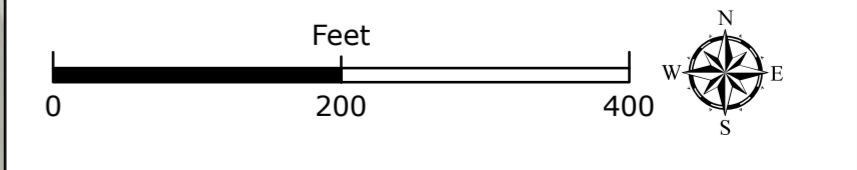
VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1129317

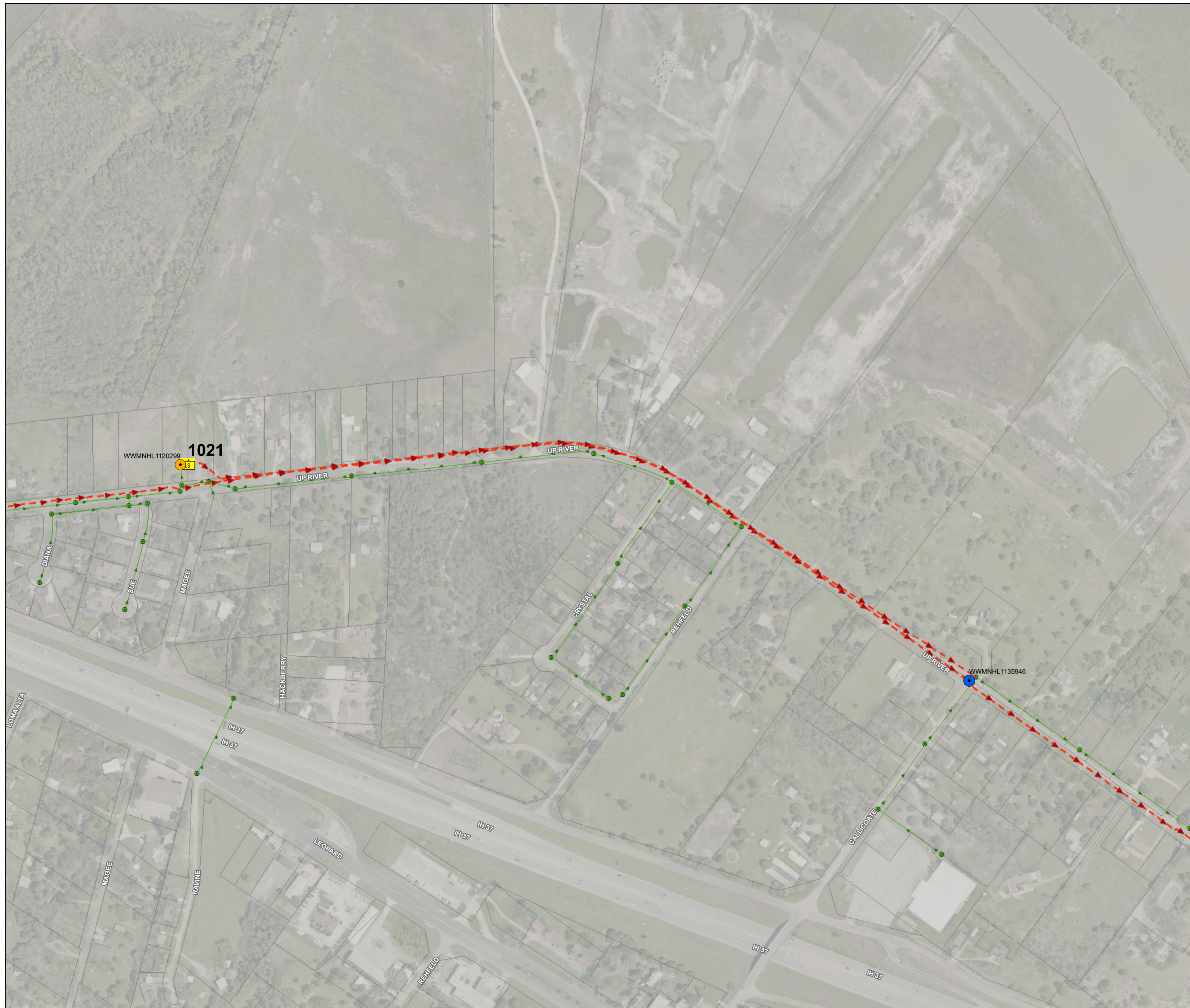
LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

1. Verify Generator is started and transfer load.
2. Permanent backup pump on site.

LIFT STATION RESPONSE PLAN
LS NAME: River Canyon LS ID: 1020 LS#: 2





LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	25
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

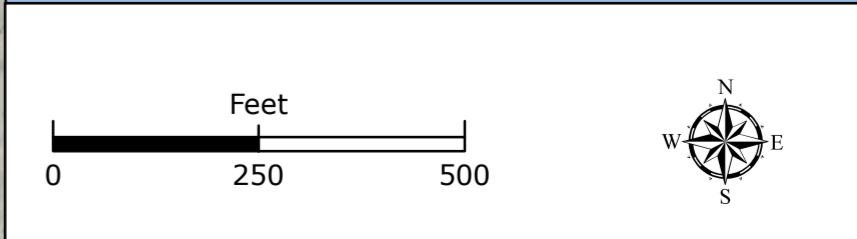
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1120299

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1135946

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

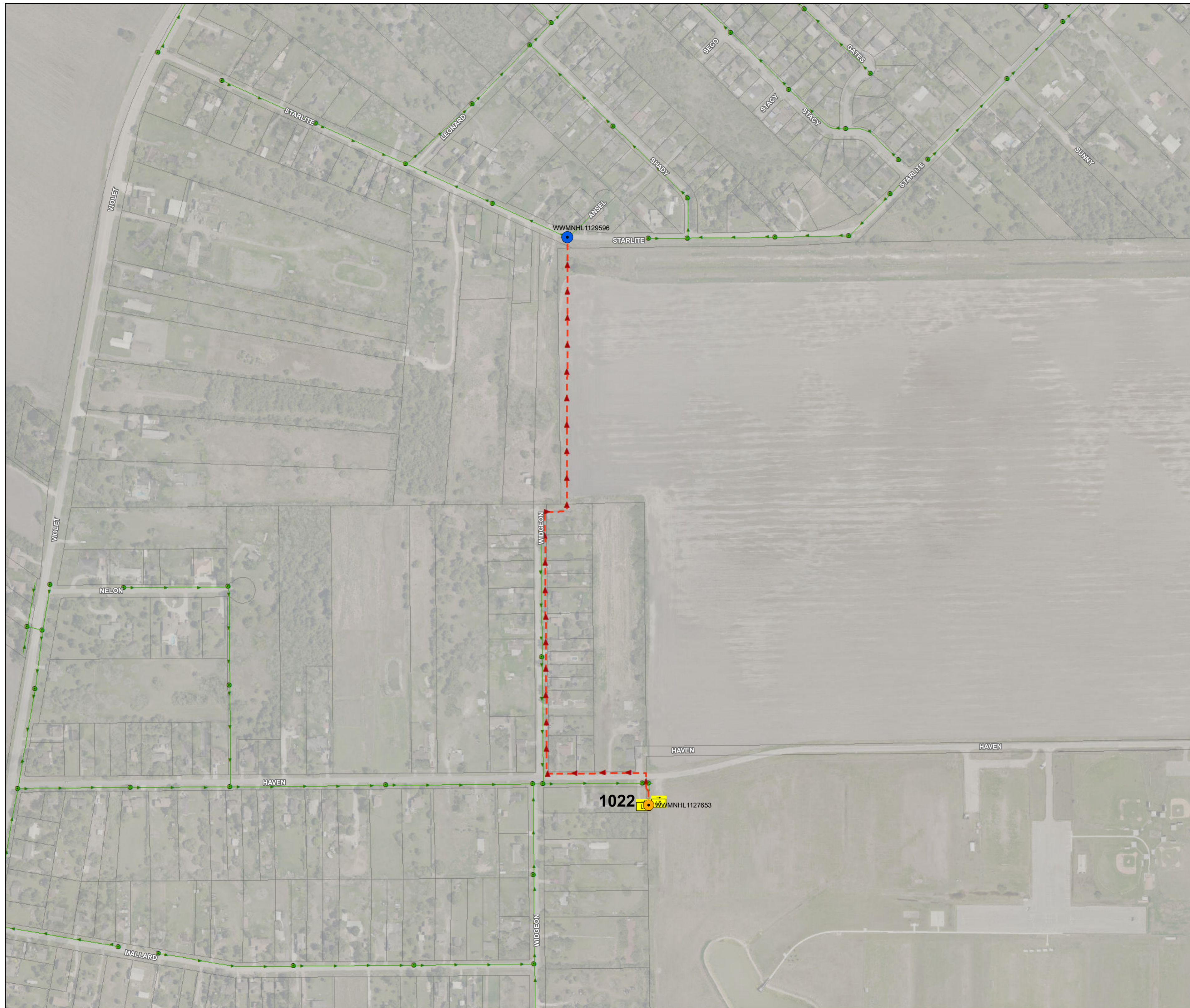
Suction flow from wetwell and decant into discharge manhole.



WW-LS1021

LIFT STATION RESPONSE PLAN
LS NAME: Up River Road LS ID: 1021 LS#: 6





LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	10
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

WW-LS1022

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	5.25 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1127653

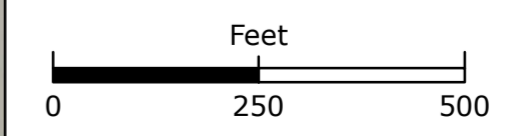
VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1129596

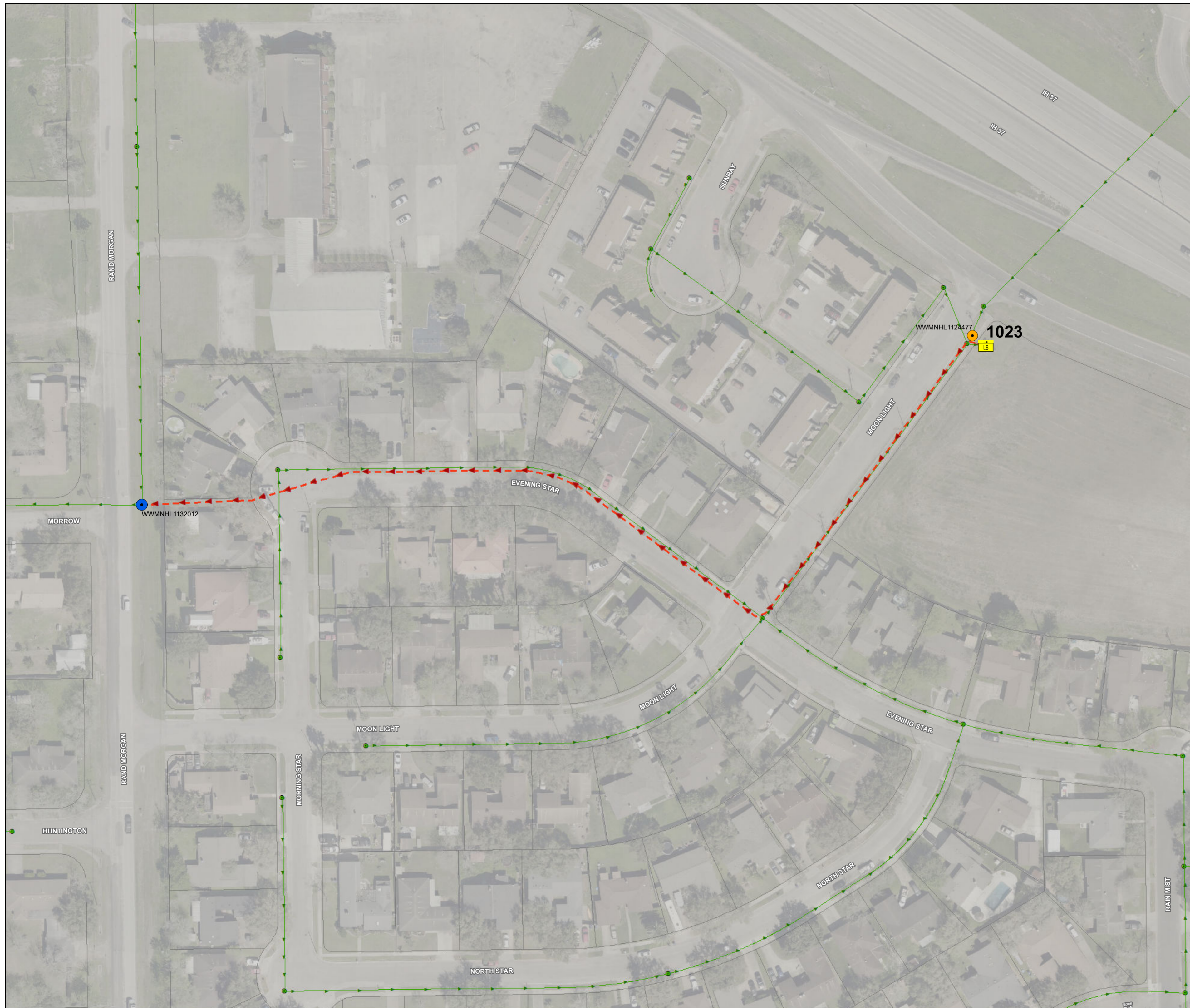
LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.

LIFT STATION RESPONSE PLAN
LS NAME: Nueces Acres LS ID: 1022 LS#: 8





LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

WW-LS1023

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	0.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1124477

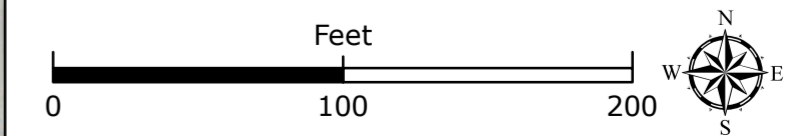
VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1132012

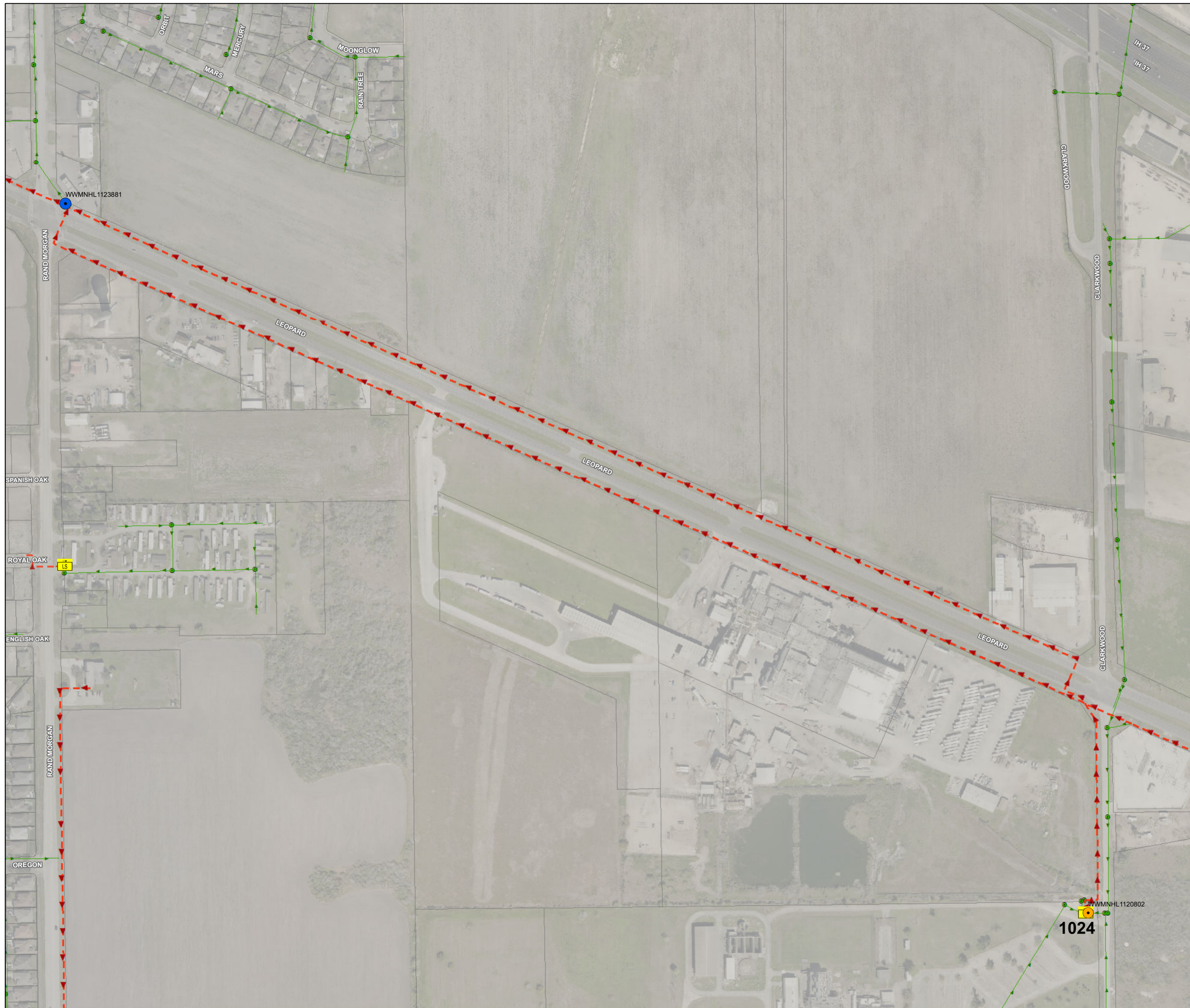
LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.

LIFT STATION RESPONSE PLAN
LS NAME: Solar Estates LS ID: 1023 LS#: 10





LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	47
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	YES (SEE NOTES)
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

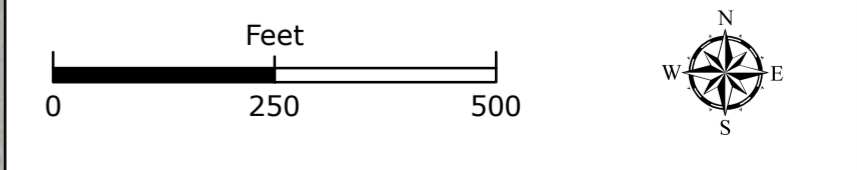
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	0.25 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1120802

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	4
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1123881

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

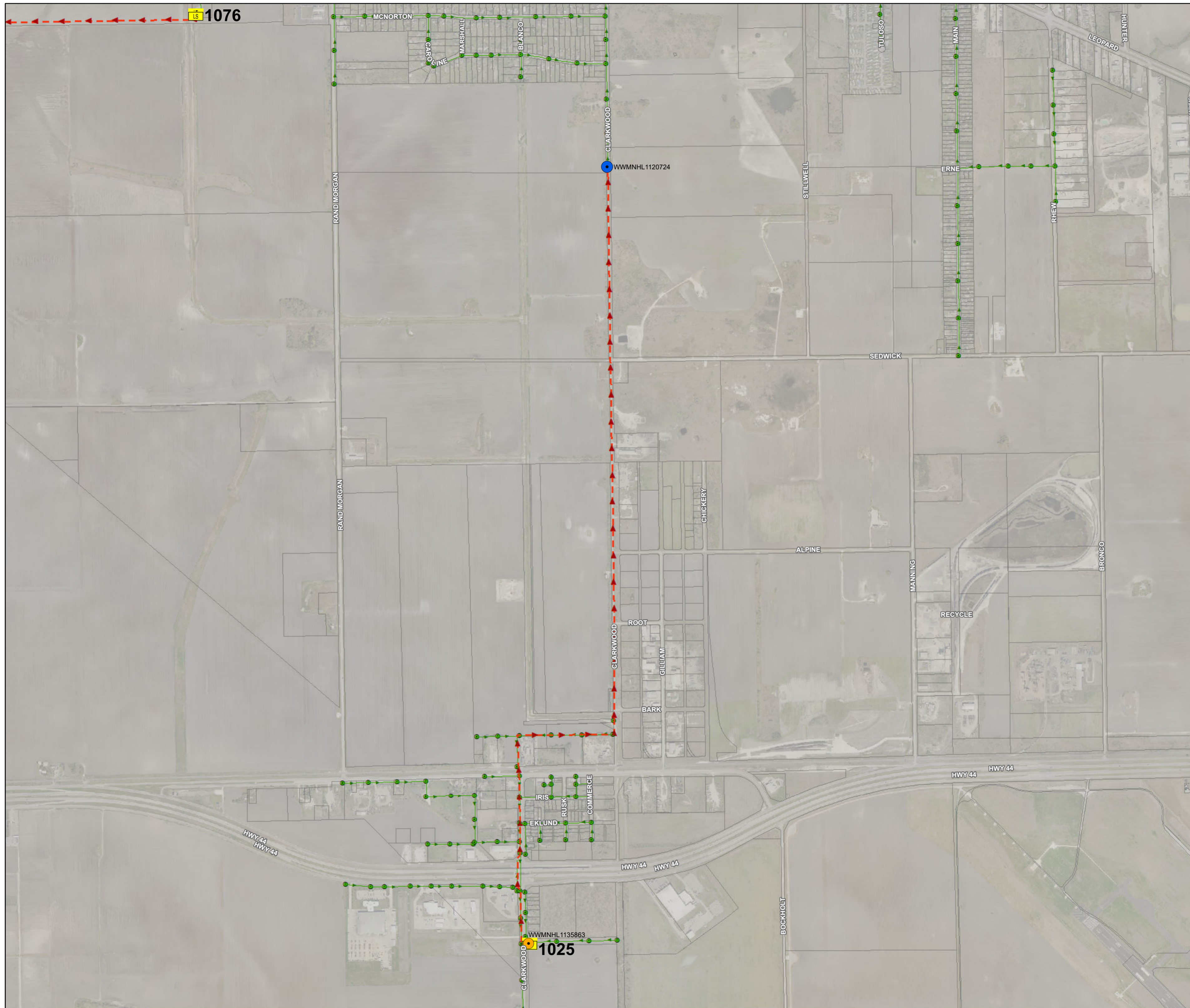
1. Verify Generator is started and transfer load.
2. Permanent backup pump on site.



WW-LS1024

**LIFT STATION RESPONSE PLAN
LS NAME: Clarkwood North LS ID: 1024 LS#: 11**





LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

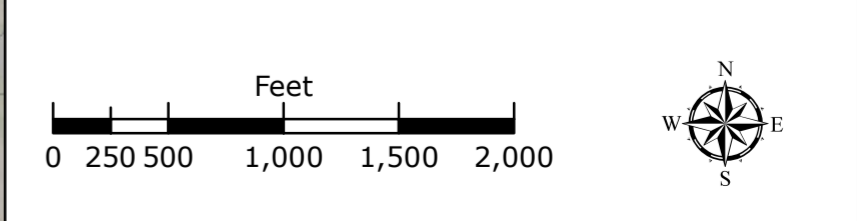
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	1.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1135863

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	4
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1120724

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.



WW-LS1025

LIFT STATION RESPONSE PLAN

LS NAME: Clarkwood South LS ID: 1025 LS#: 15





LIFT STATION DATA	
BASIN	GREENWOOD WWTP
PUMP HP	47
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	YES
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

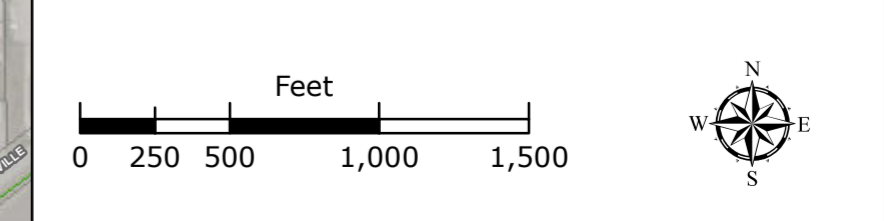
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	4.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL72024035

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1132749

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

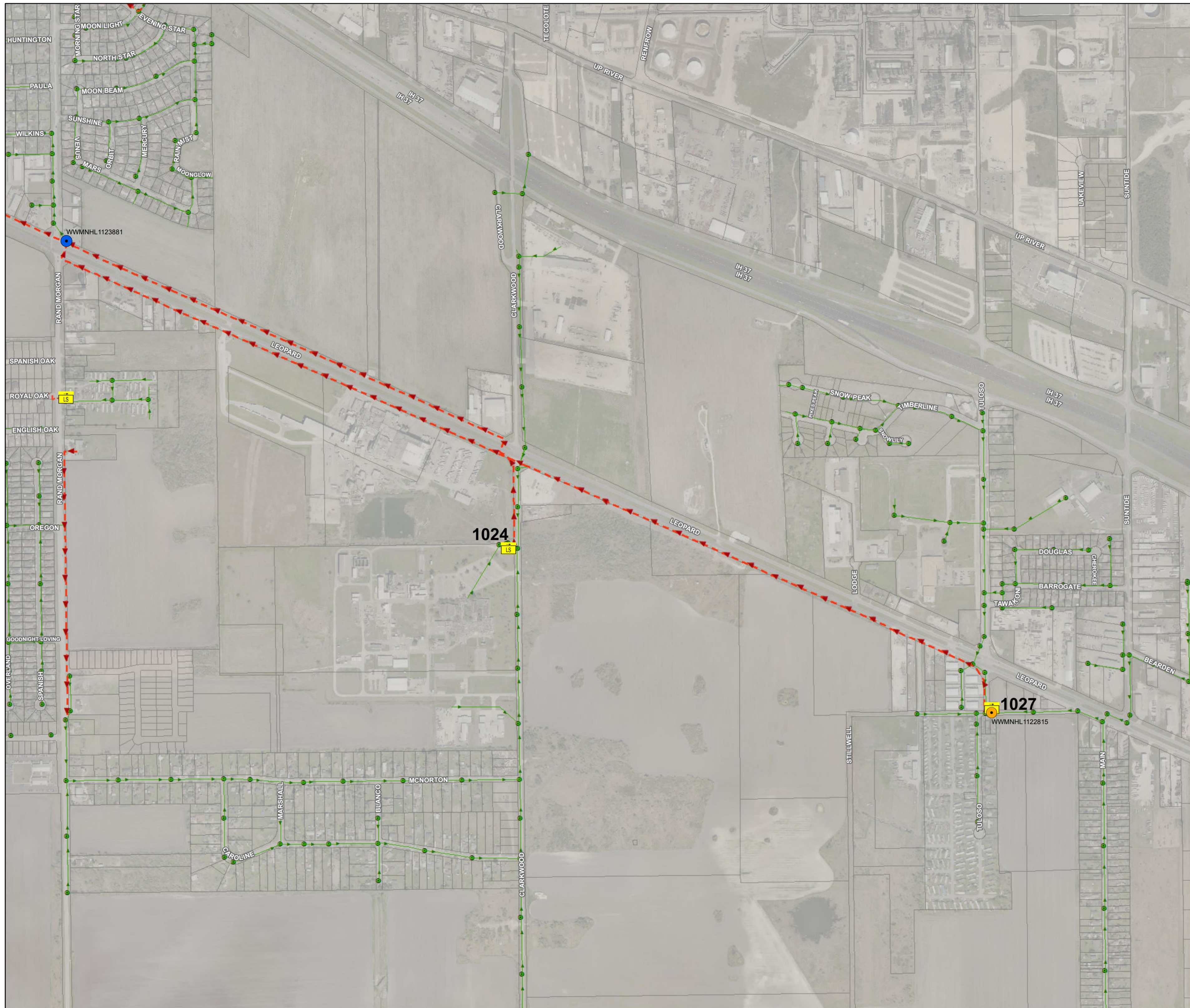
1. Permanent generator on site.
2. Suction flow from wetwell and decant into discharge manhole.



WW-LS1026

**LIFT STATION RESPONSE PLAN
LS NAME: Airport LS ID: 1026 LS#: 18**





LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	25
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

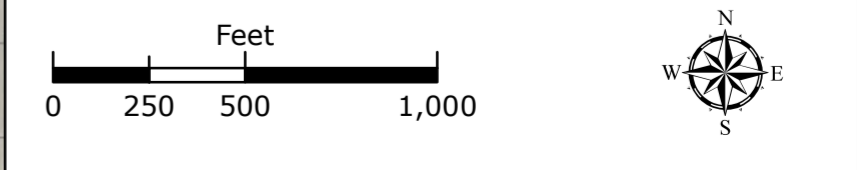
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1122815

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1123881

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from manhole and decant at discharge manhole.



WW-LS1027

**LIFT STATION RESPONSE PLAN
LS NAME: Stillwell LS ID: 1027 LS#: 12**





LIFT STATION DATA	
BASIN	GREENWOOD WWTP
PUMP HP	7.5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

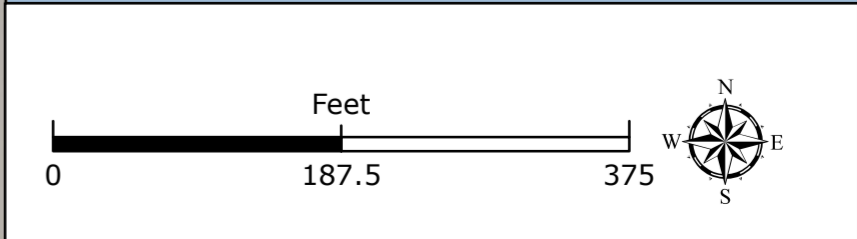
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL29418493

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1127608

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.

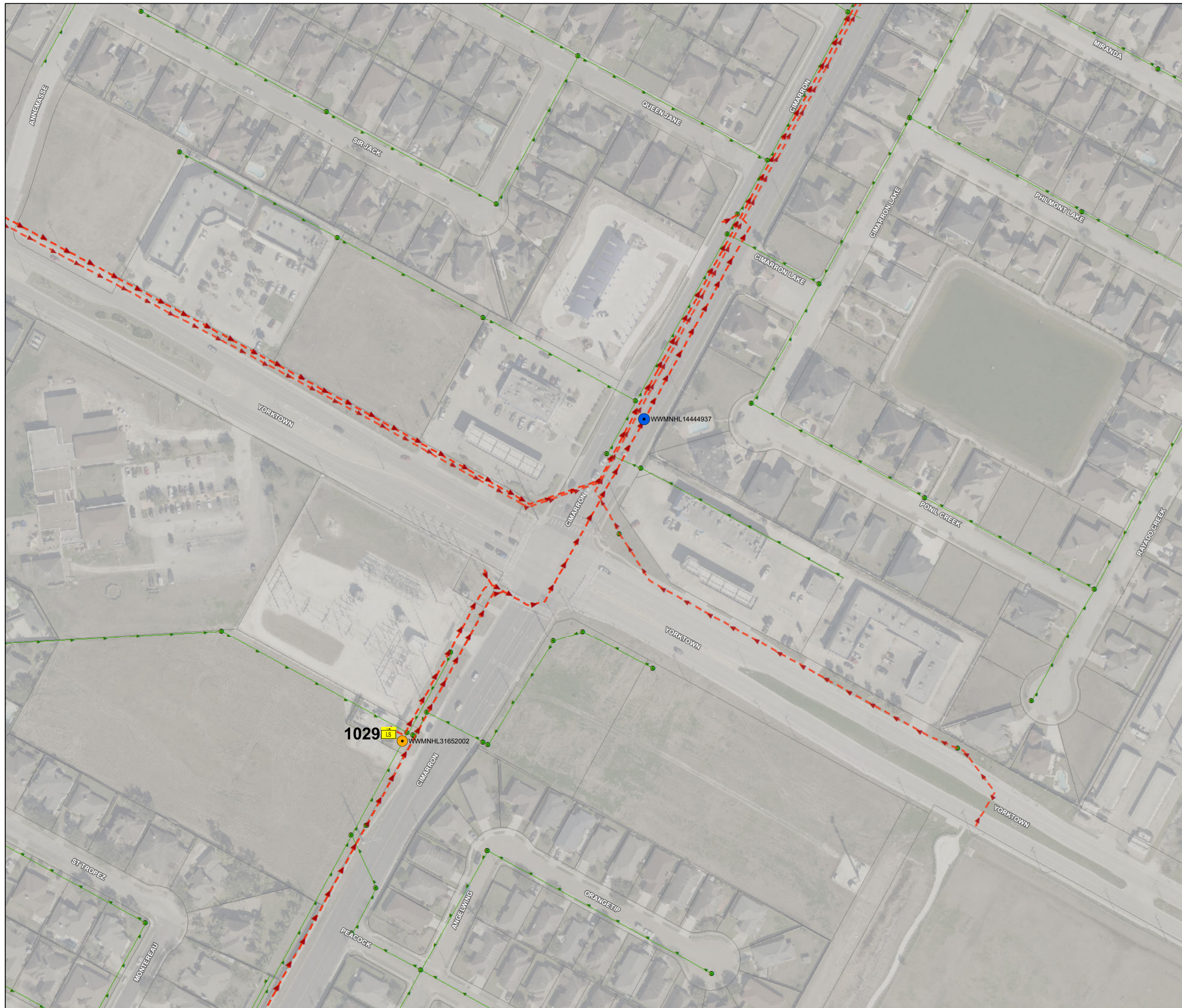


WW-LS1028

LIFT STATION RESPONSE PLAN

LS NAME: Levi County Jail LS ID: 1028 LS#: 20





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	YES
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	YES

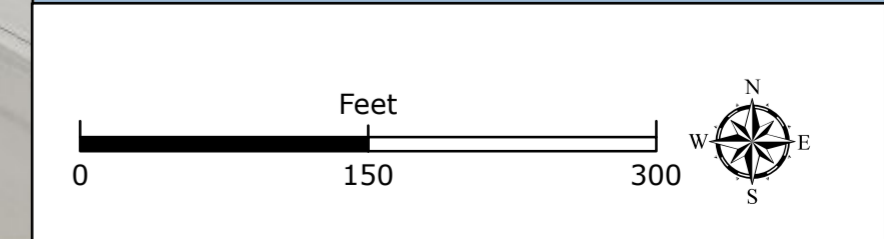
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	13.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL31652002

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1444937

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

1. Verify Generator is started and transfer load.
2. Suction flow from wetwell and decant into discharge manhole.



WW-LS1029

LIFT STATION RESPONSE PLAN
LS NAME: Cimarron LS ID: 1029 LS#: 58





LIFT STATION DATA	
BASIN	GREENWOOD WWTP
PUMP HP	2-30 HP, 1-100 HP
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

WW-LS1030

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	0.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1121888

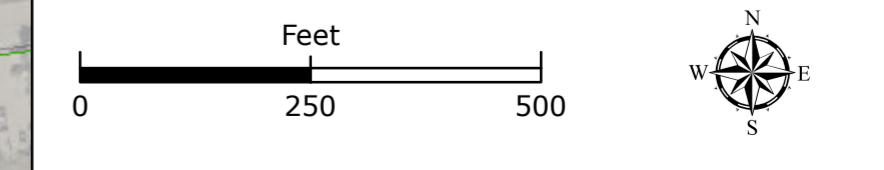
VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	WWMNHL26124584

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.

LIFT STATION RESPONSE PLAN
LS NAME: McBride LS ID: 1030 LS#: 19





LIFT STATION DATA	
BASIN	GREENWOOD WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	4.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1135092

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1132556

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

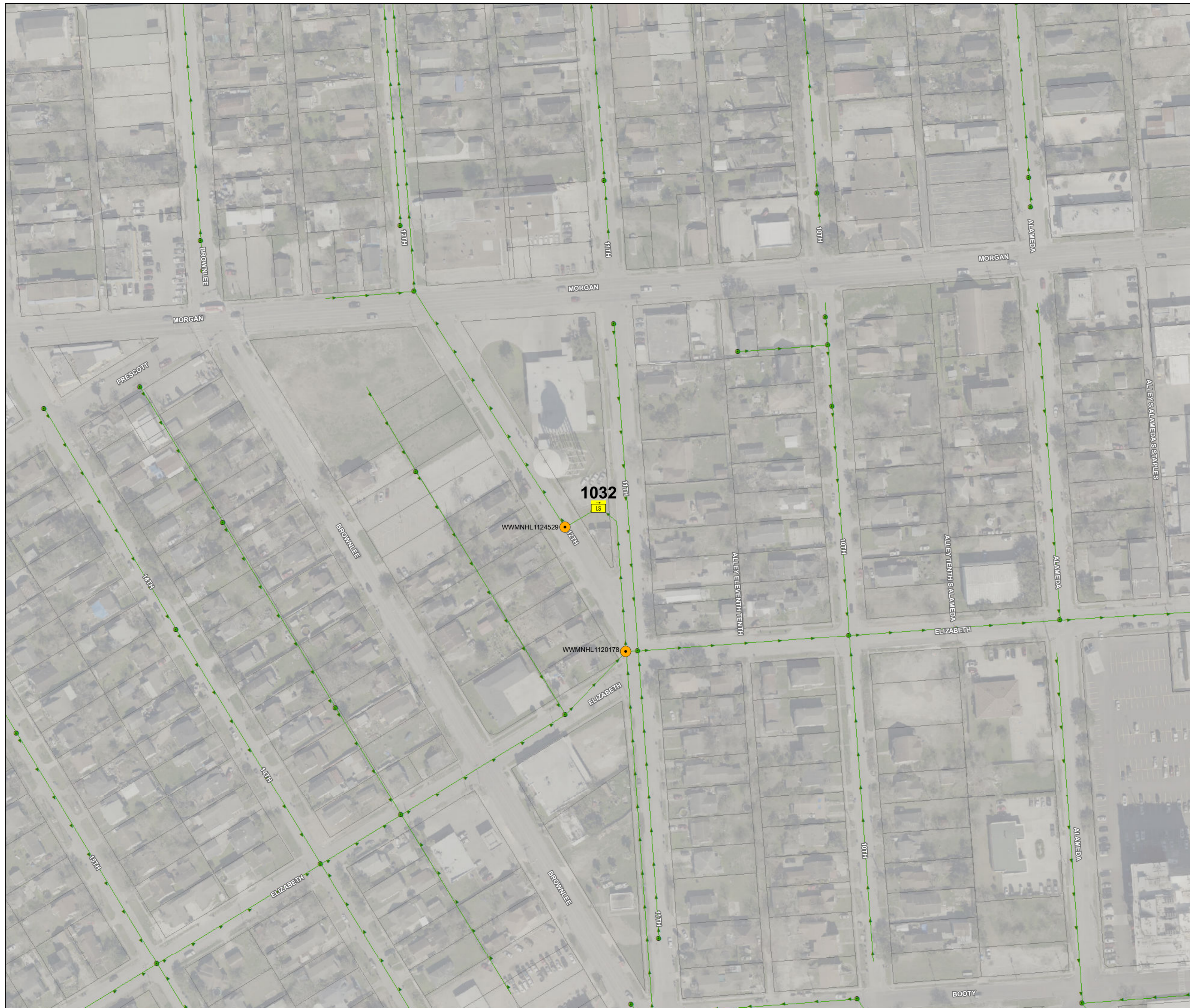
Suction flow from wetwell and decant into discharge manhole.

0 250 500 Feet

WW-LS1031

LIFT STATION RESPONSE PLAN
LS NAME: Highway Nine LS ID: 1031 LS#: 17





LIFT STATION DATA	
BASIN	BROADWAY WWTP
PUMP HP	20
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

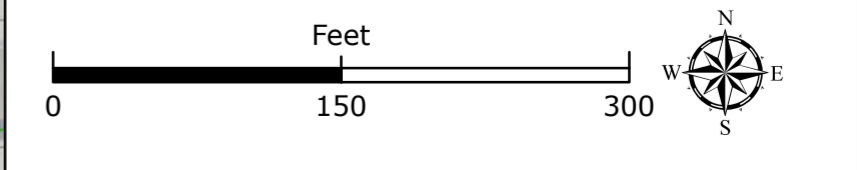
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1124529 WWMNHL1120178

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	None

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

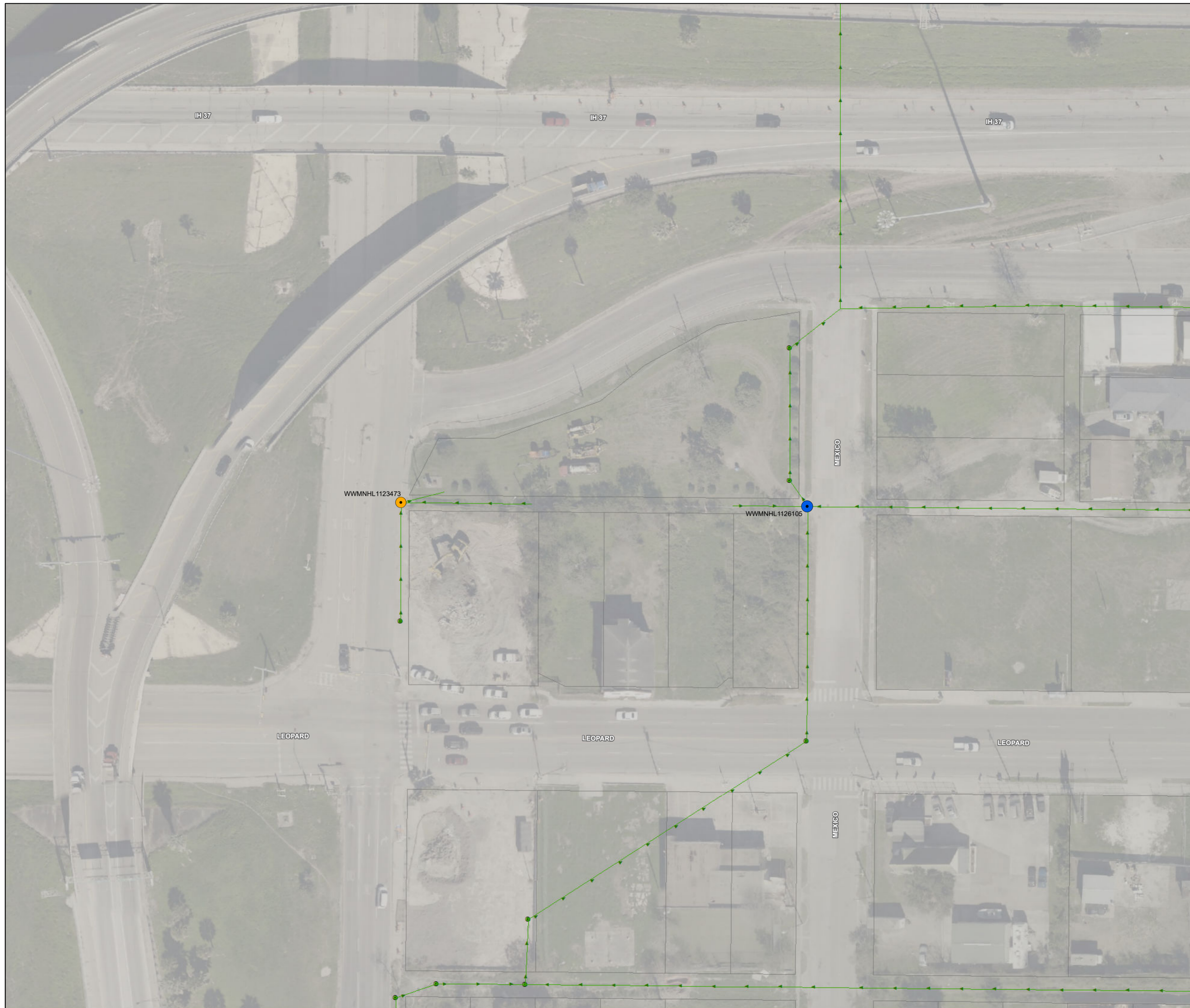
Suction flow from wetwell and decant into discharge manhole.



WW-LS1032

LIFT STATION RESPONSE PLAN
LS NAME: Morgan LS ID: 1032 LS#: 39





LIFT STATION DATA	
BASIN	BROADWAY WWTP
PUMP HP	3
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

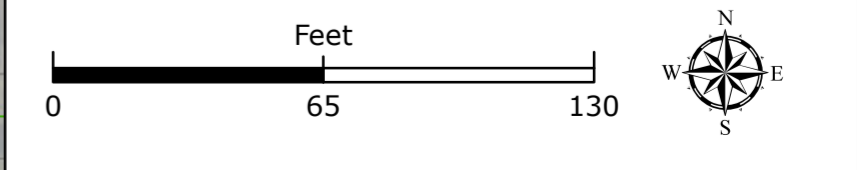
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1123473

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	1
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1126105

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

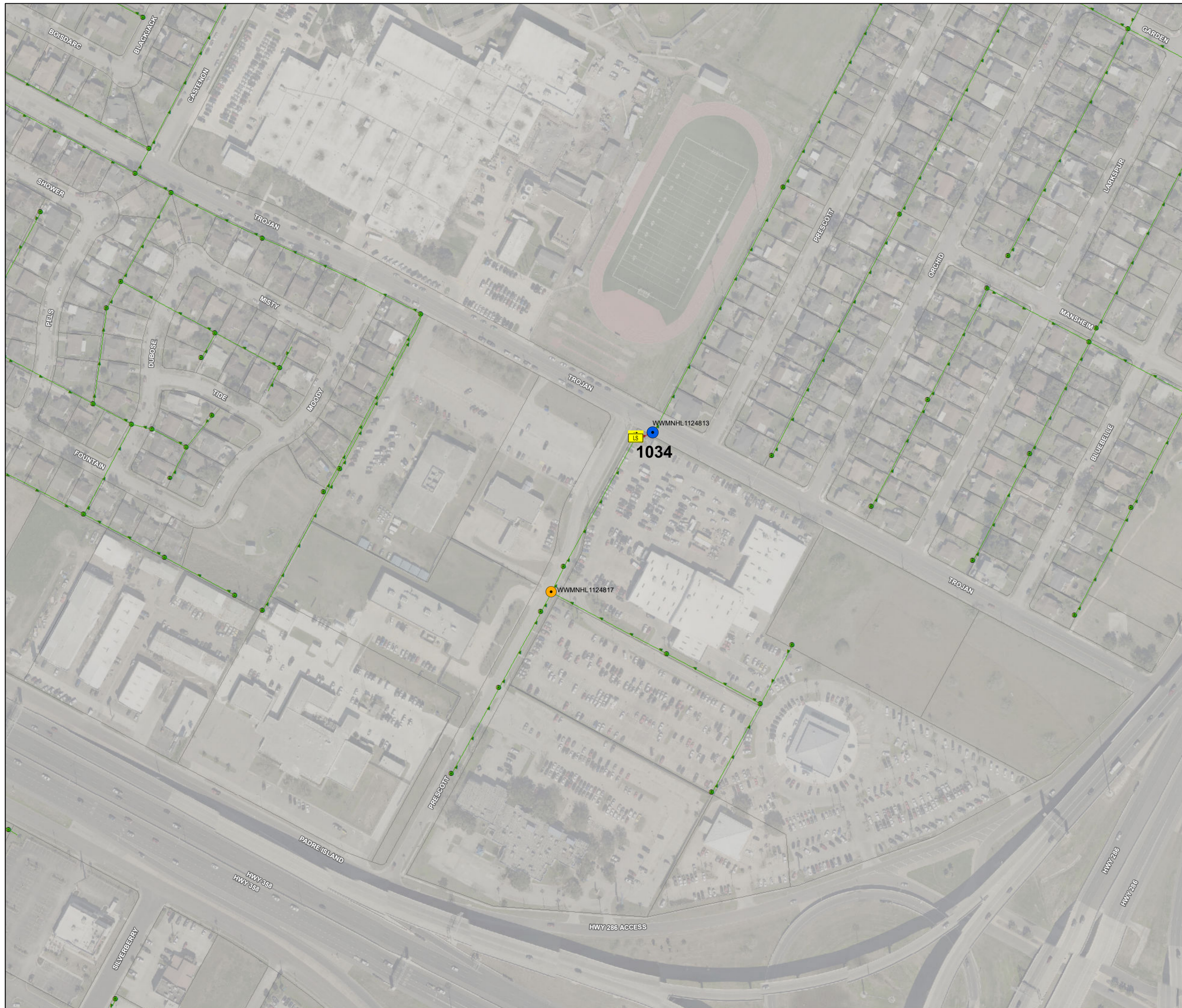
Suction flow from wetwell and decant into discharge manhole.



WW-LS1033

LIFT STATION RESPONSE PLAN
LS NAME: Brownlee LS ID: 1033 LS#: 38





LIFT STATION DATA	
BASIN	GREENWOOD WWTP
PUMP HP	2.5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

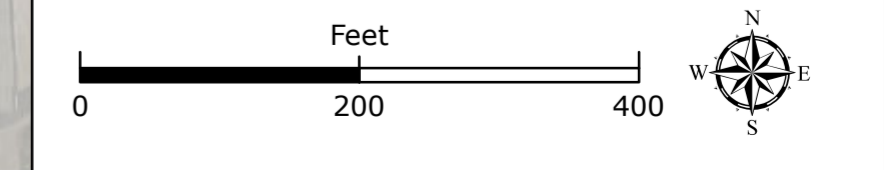
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	22 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1124817

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1124813

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

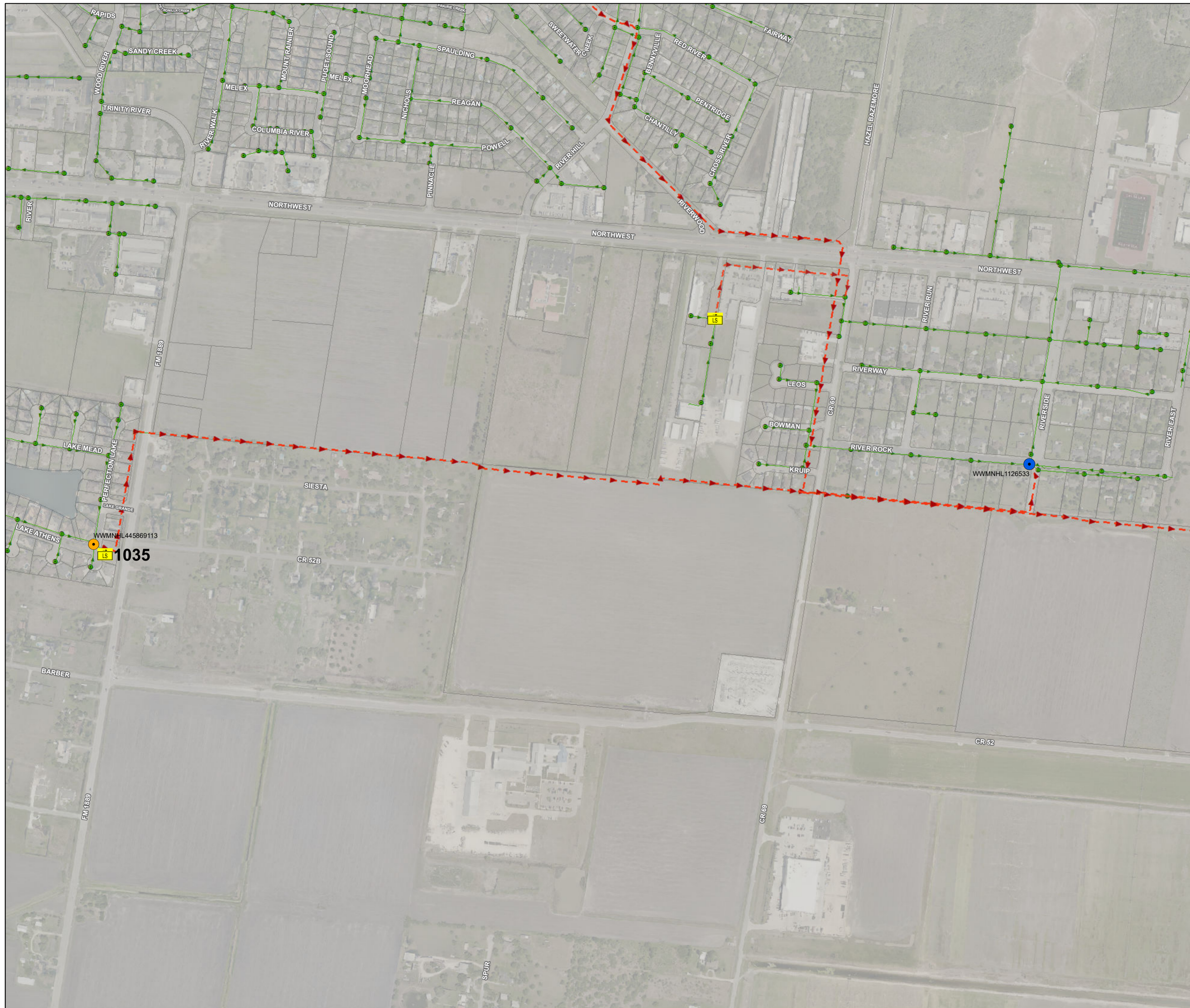
Suction flow from wetwell and decant into discharge manhole.



WW-LS1034

**LIFT STATION RESPONSE PLAN
LS NAME: Trojan LS ID: 1034 LS#: 24**





LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL445869113

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1126533

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

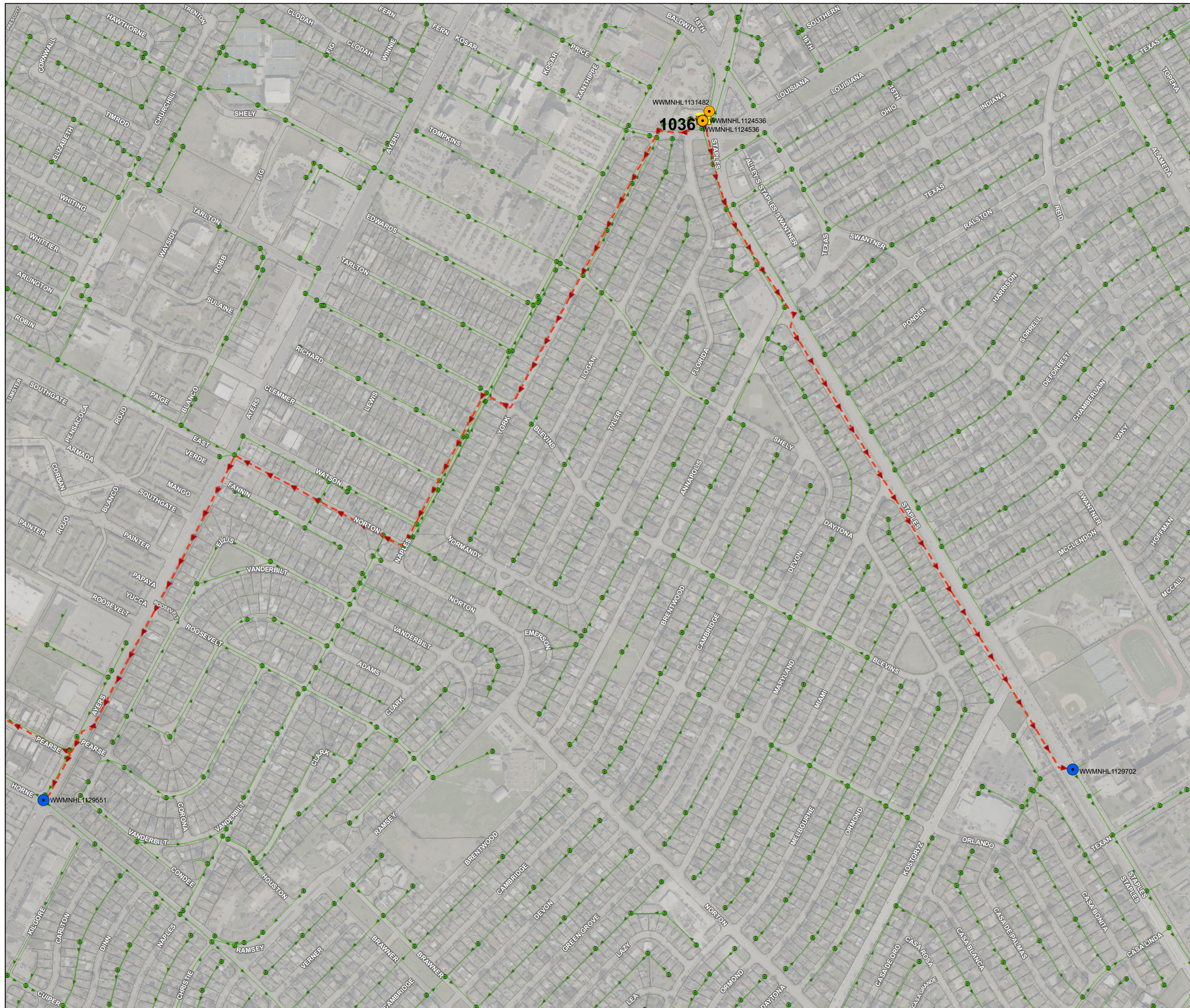
Suction flow from wetwell and decant into discharge manhole.



WW-LS1035

**LIFT STATION RESPONSE PLAN
LS NAME: Lakes Northwest LS ID: 1035 LS#: 16**





LIFT STATION DATA	
BASIN	GREENWOOD WWTP
PUMP HP	1-25 HP, 4-47 HP
NUMBER OF PUMPS	5
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

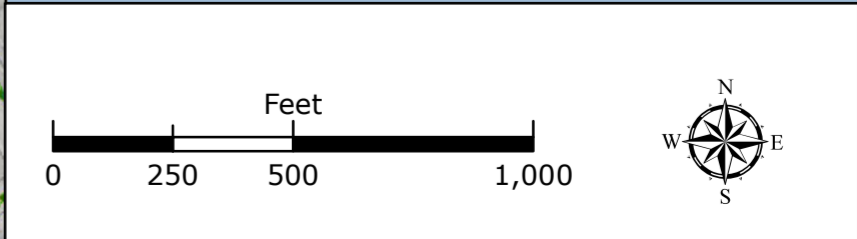
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	1.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1129633 WWMNHL1131482

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	4
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1129551 WWMNHL1129702

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

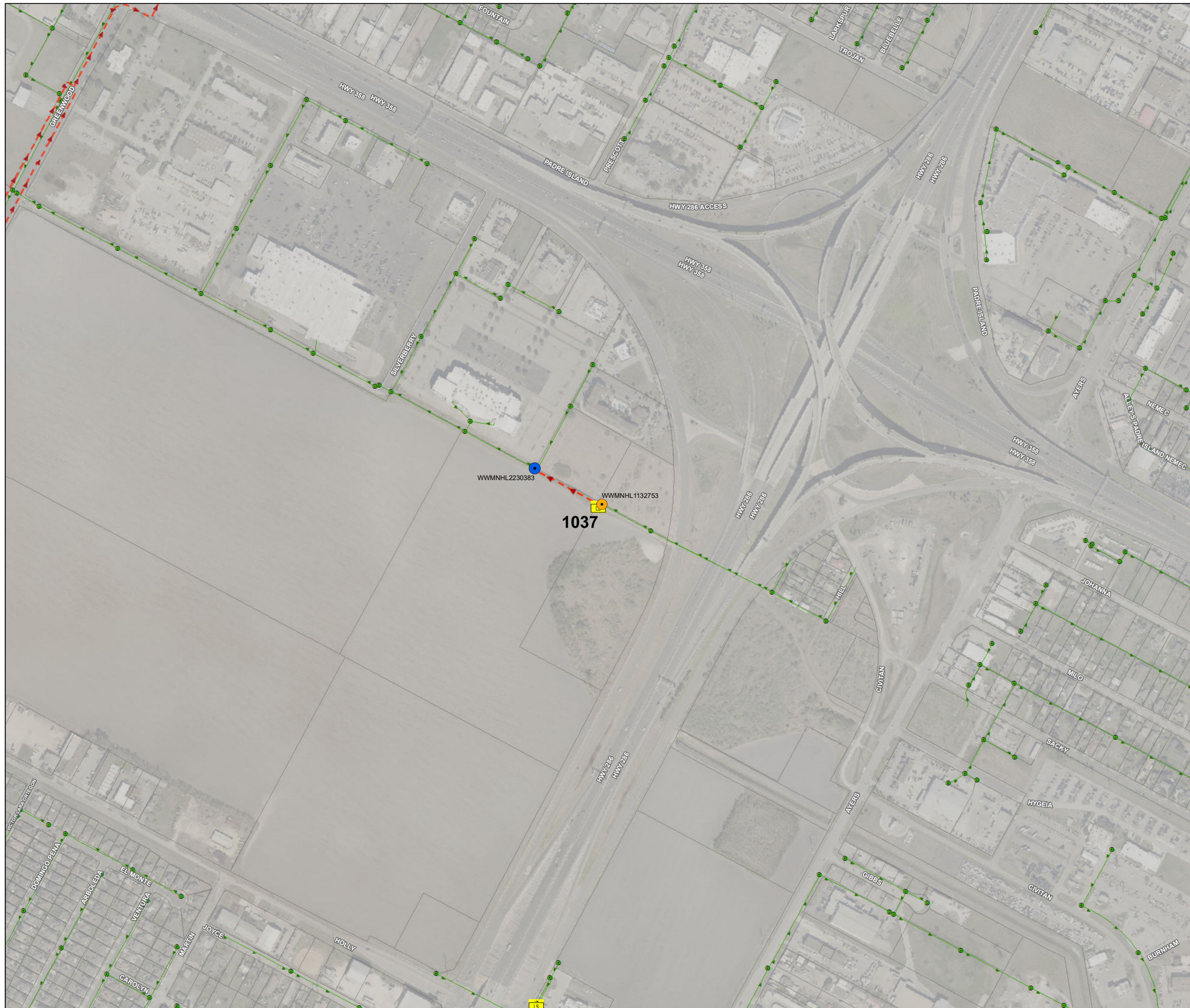
1. Can be diverted to Broadway and Oso WWTP.
 2. In normal conditions pumps to Port/Pierce L.S.



WW-LS1036

**LIFT STATION RESPONSE PLAN
 LS NAME: Arcadia LS ID: 1036 LS#: 22**





LIFT STATION DATA	
BASIN	GREENWOOD WWTP
PUMP HP	7.5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

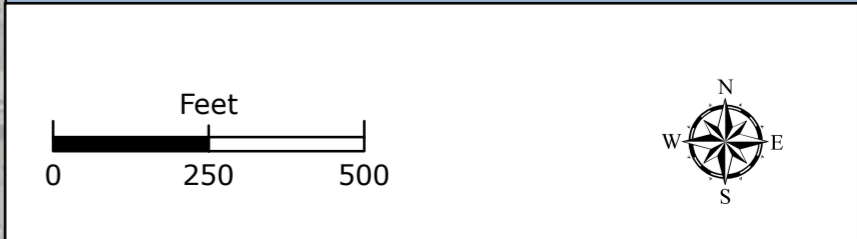
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1132753

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	1
DISCHARGE MANHOLE MAXIMO ID	WWMNHL2230383

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

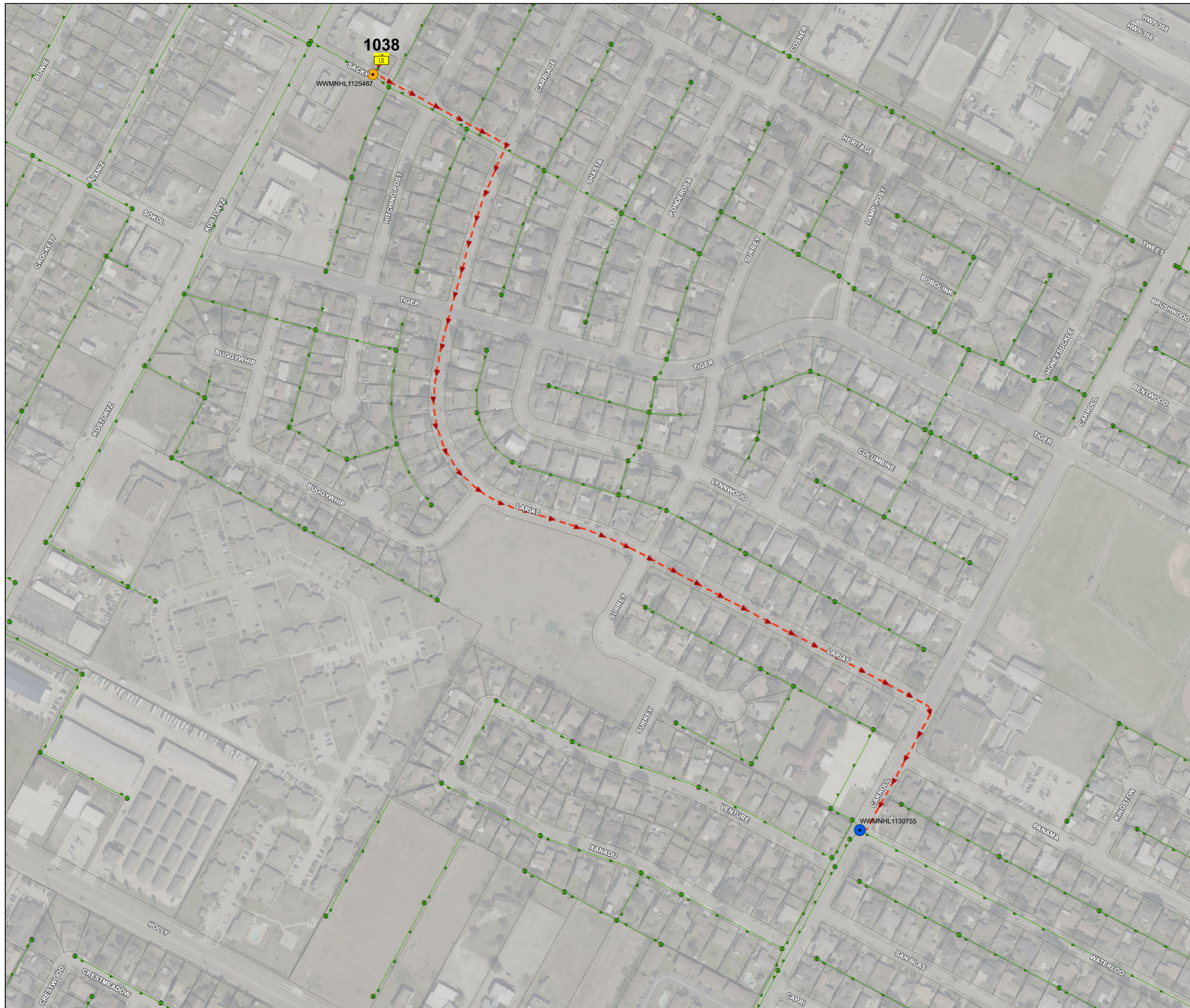
Suction flow from inlet manhole and decant at discharge manhole



WW-LS1037

LIFT STATION RESPONSE PLAN
LS NAME: Lexington LS ID: 1037 LS#: 25





LIFT STATION DATA	
BASIN	GREENWOOD WWTP
PUMP HP	25
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

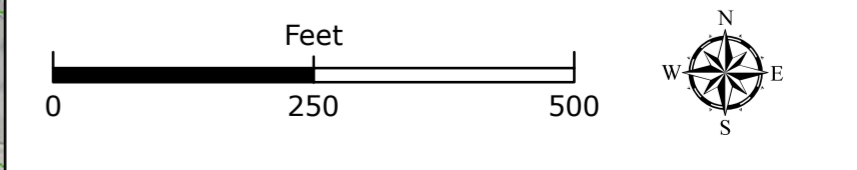
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	1.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1125467

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1130755

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Discharge to Kostoryz L.S.



WW-LS1038

**LIFT STATION RESPONSE PLAN
LS NAME: Sacky LS ID: 1038 LS#: 27**





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	10
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

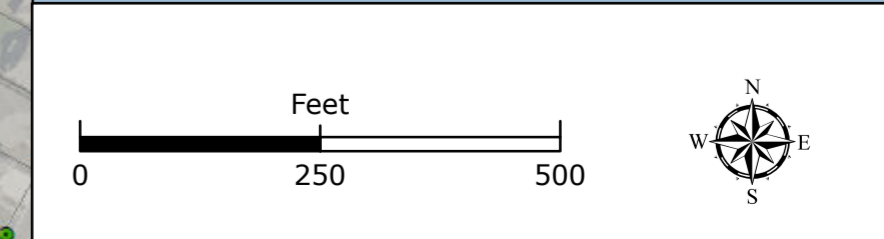
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	14.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL434253239

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL15246556

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

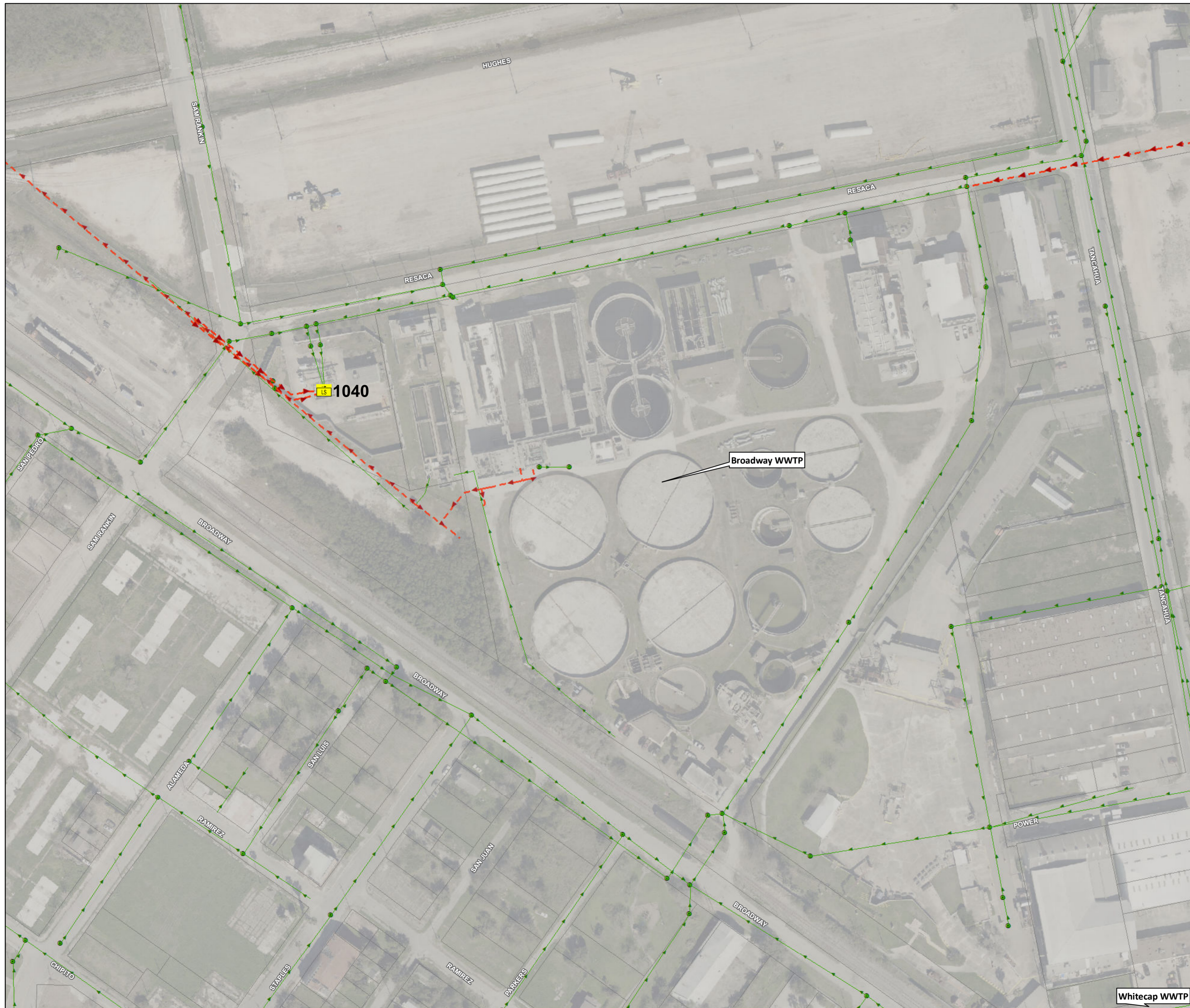
Suction flow from wetwell and decant into discharge manhole.



WW-LS1039

LIFT STATION RESPONSE PLAN
LS NAME: Bay Drive LS ID: 1039 LS#: 46





LIFT STATION DATA	
BASIN	BROADWAY WWTP
PUMP HP	215
NUMBER OF PUMPS	6
ALTERNATE SERVICE?	YES
PERMANENT GENERATOR?	YES
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	YES

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	0.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	None

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	BROADWAY WWTP

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

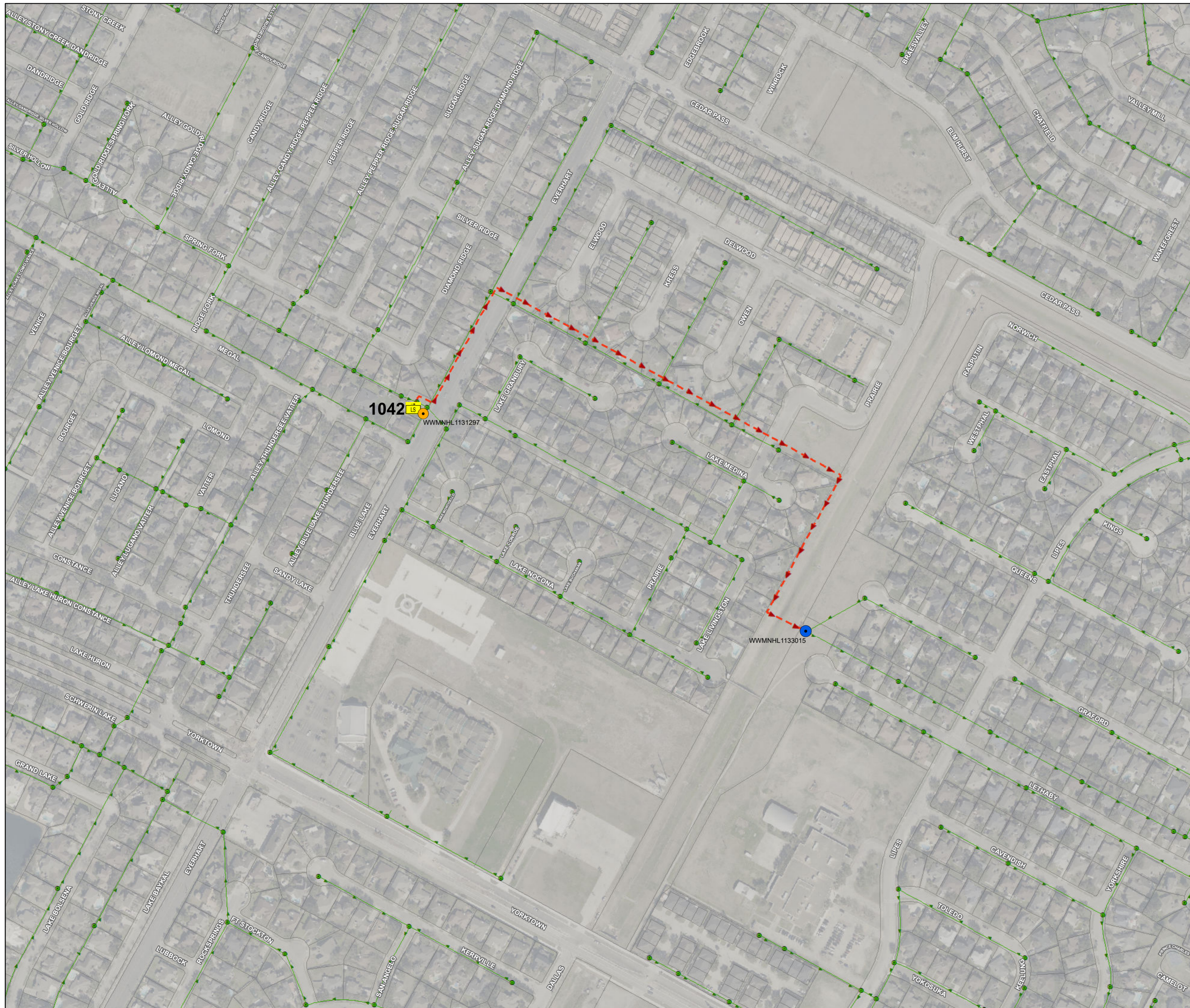
1. Flows suctioned from manhole will be decanted at the Broadway WWTP headworks.
2. Verify all redundant power supply transfers have occurred.
3. Permanent generators installed at Lift station.

0 150 300 Feet

WW-LS1040

**LIFT STATION RESPONSE PLAN
LS NAME: Resaca LS ID: 1040 LS #: 37**





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	20
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

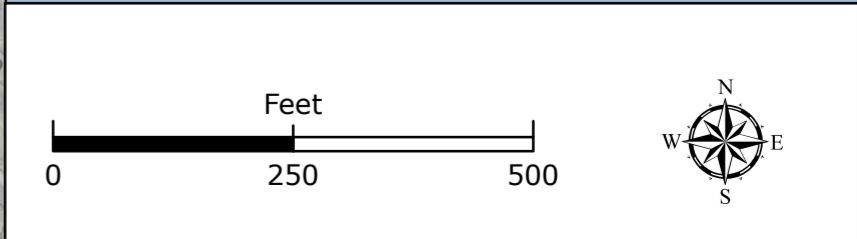
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	0.85 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1133748 WWMNHL1131297

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1133015

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.



WW-LS1042

LIFT STATION RESPONSE PLAN
LS NAME: The Lakes LS ID: 1042 LS#: 55





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	10
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

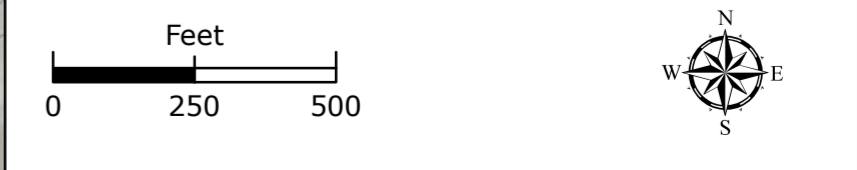
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	11 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL289555907

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1131690

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

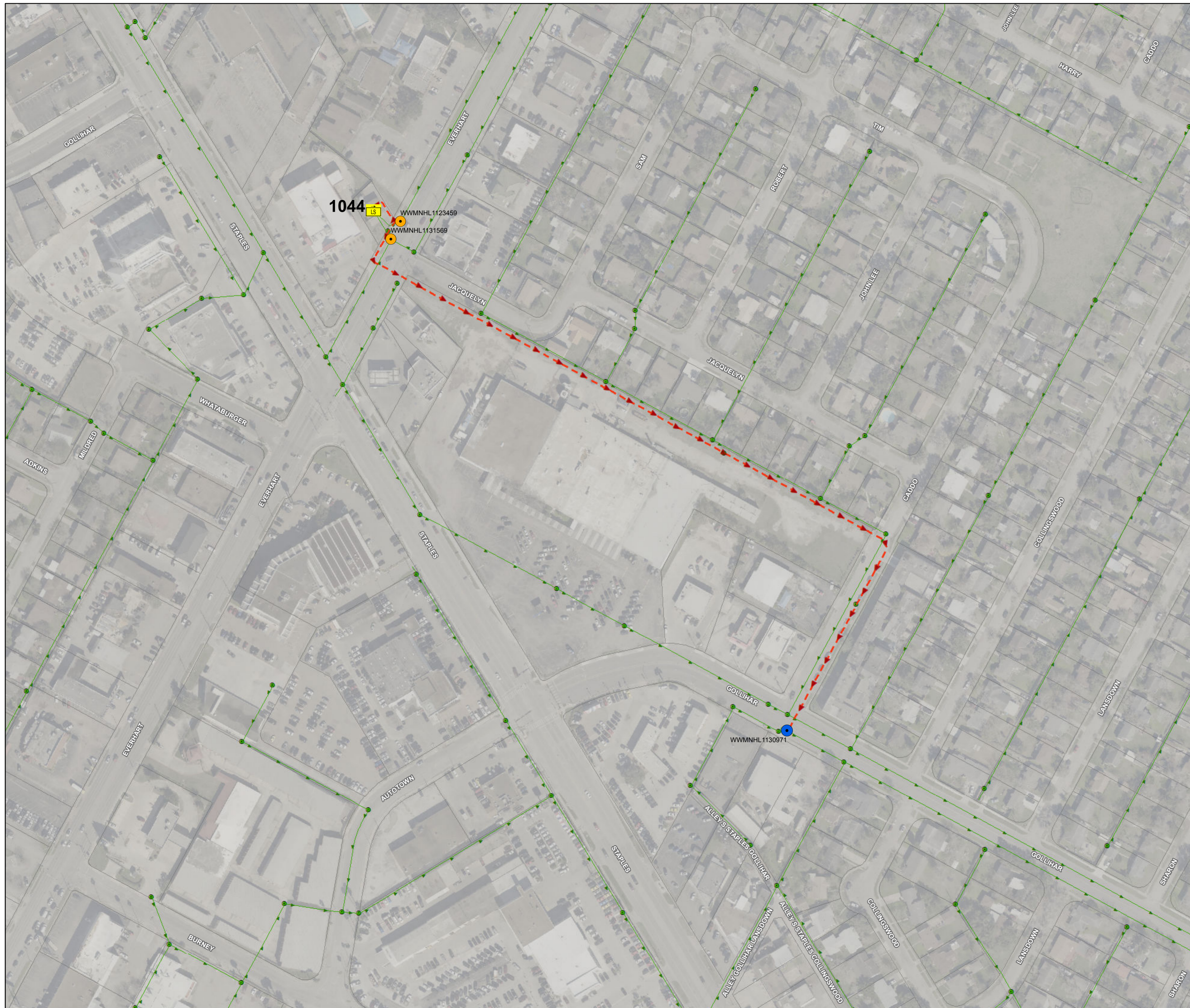
Suction flow from wetwell and decant into discharge manhole.



WW-LS1043

LIFT STATION RESPONSE PLAN
LS NAME: Wooldridge II LS ID: 1043 LS#: 48





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	1-25 HP, 2-150 HP
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

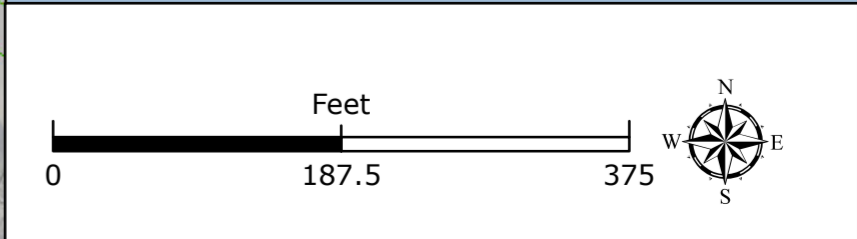
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2.35 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1131569 WWMNHL1123459

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1130971

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

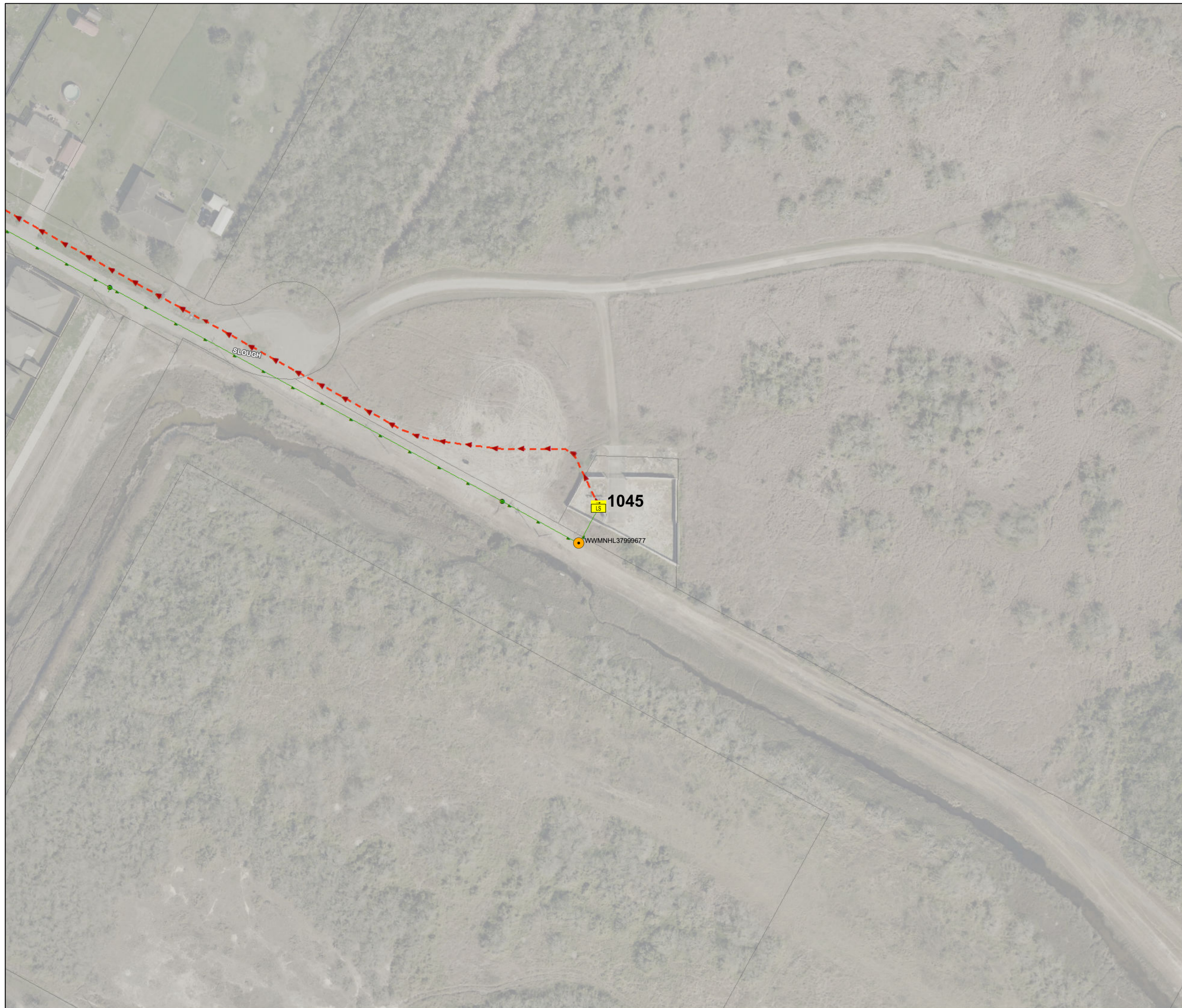
Suction flow from wetwell and decant into discharge manhole.



WW-LS1044

**LIFT STATION RESPONSE PLAN
LS NAME: Everhart/Staples LS ID: 1044 LS#: 49**





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	7.5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

WW-LS1045

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL37999677

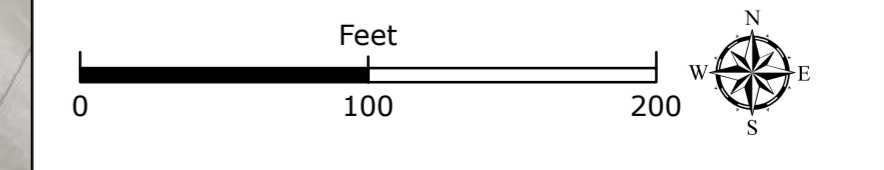
VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL15373420

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.

LIFT STATION RESPONSE PLAN
LS NAME: Slough LS ID: 1045 LS#: 51





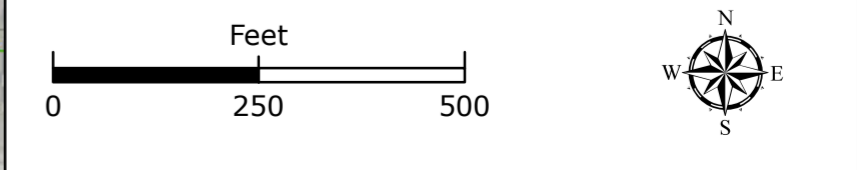
LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	3
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	None

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1120567

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

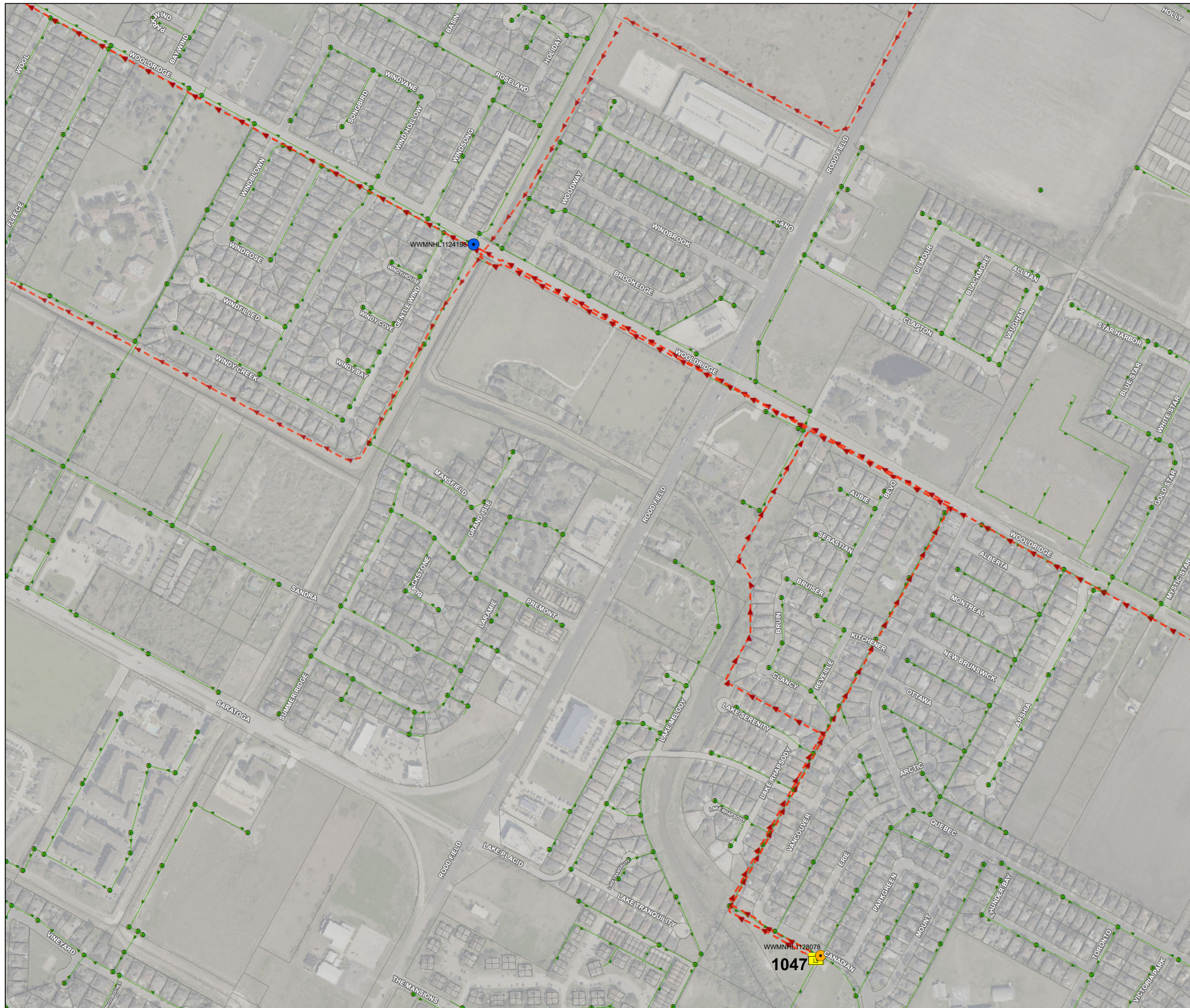
NOTES	
Suction flow from wetwell and decant at manhole on North West Blvd.	



WW-LS1046

LIFT STATION RESPONSE PLAN
LS NAME: Highway 77 LS ID: 1046 LS#: 7





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	30
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	YES
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1128078 WWMNHL1130933

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1124198

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Discharge to Woolldridge L.S.

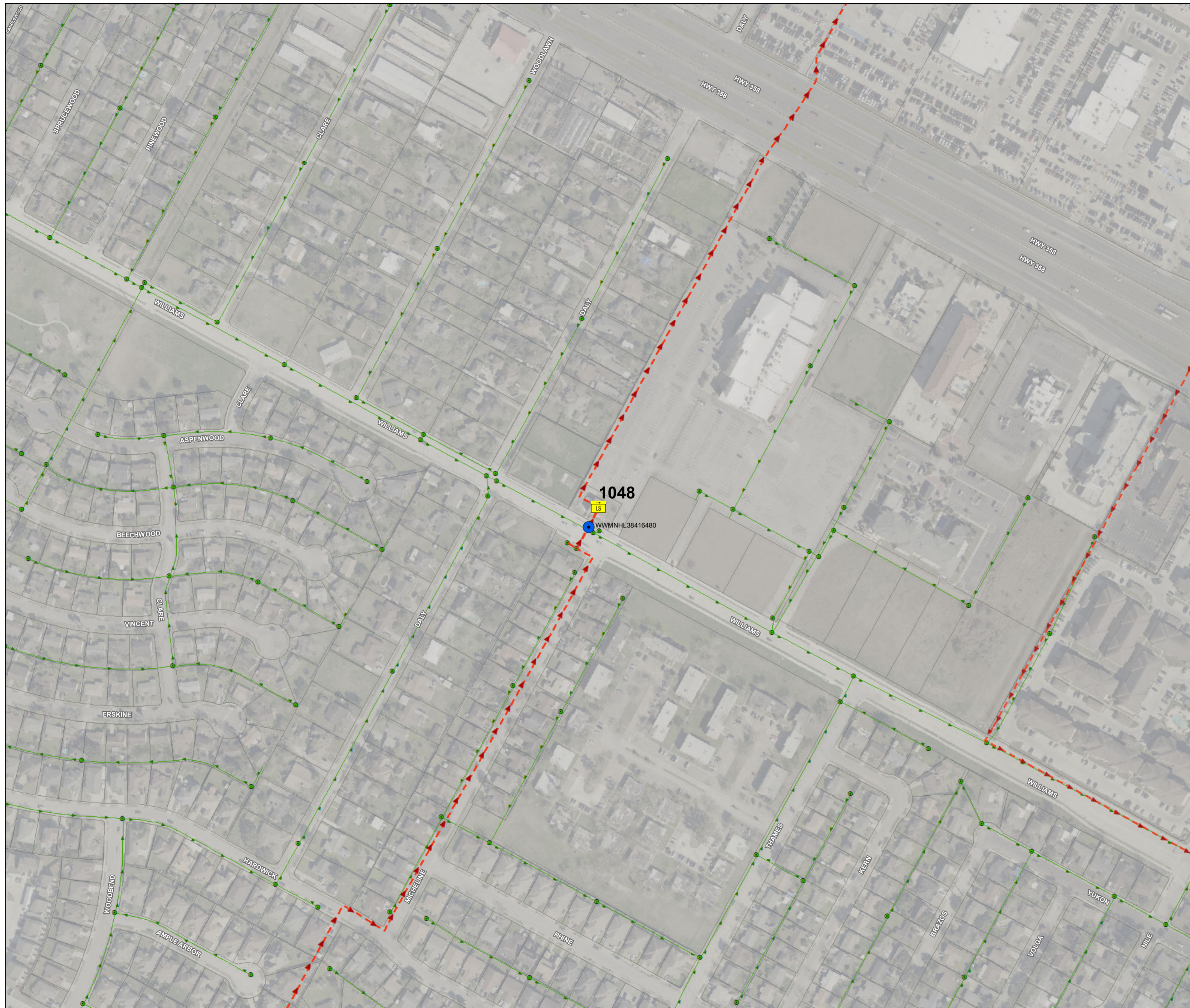
Scale: 0 250 500 Feet

WW-LS1047

LIFT STATION RESPONSE PLAN

LS NAME: Greenfields By The Bay LS ID: 1047 LS#: 68





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	1-60 HP, 4-500 HP
NUMBER OF PUMPS	5
ALTERNATE SERVICE?	YES (SEE NOTES)
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

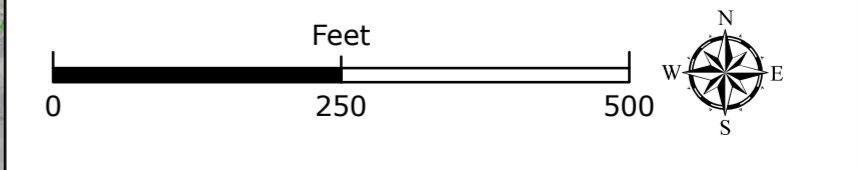
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	None

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	WWMNHL38416480

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

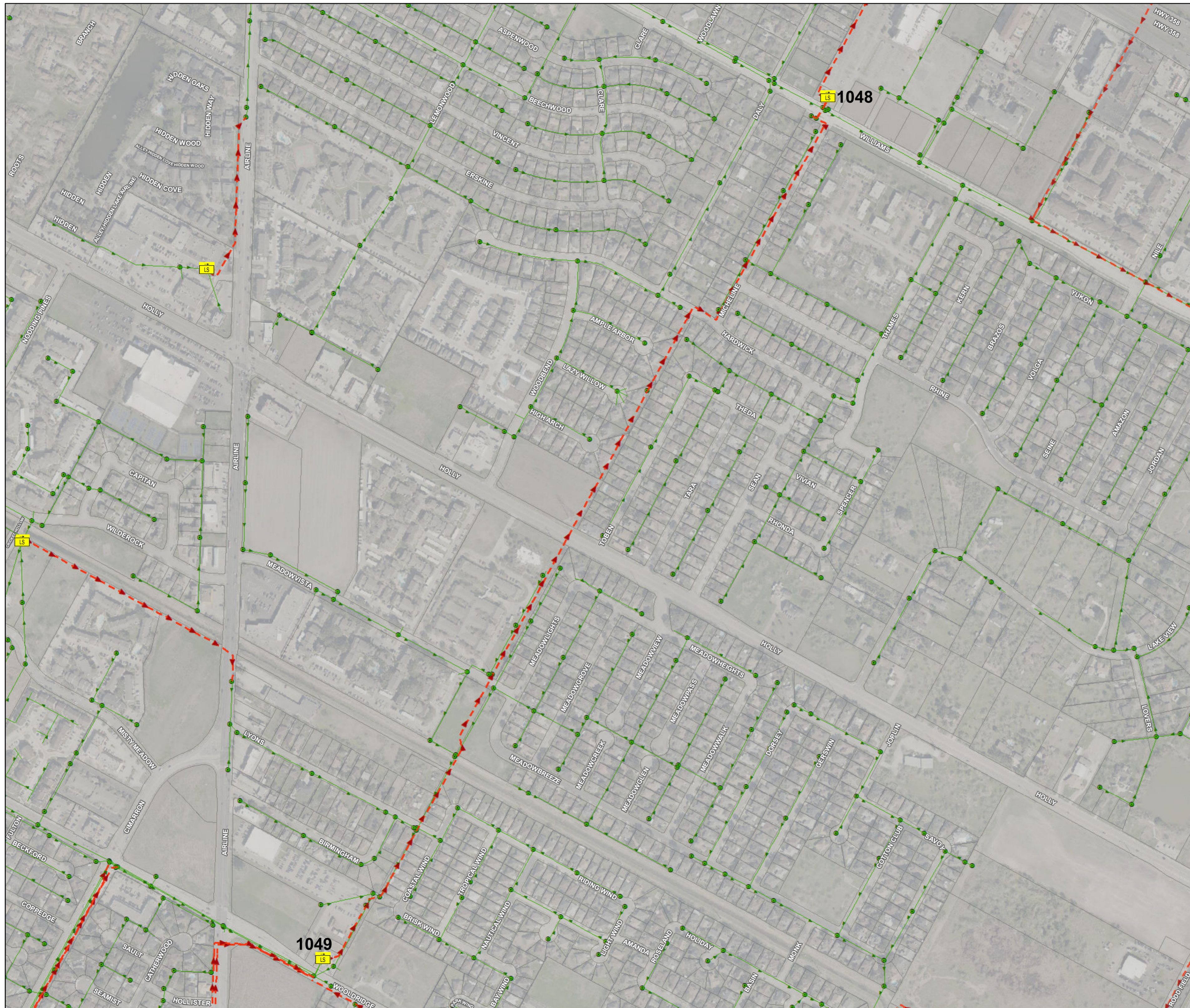
Bypasses itself into Oso WWTP.



WW-LS1048

**LIFT STATION RESPONSE PLAN
LS NAME: Williams LS ID: 1048 LS#: 62**





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	1-75 HP, 3-250 HP
NUMBER OF PUMPS	4
ALTERNATE SERVICE?	YES (SEE NOTES)
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	YES

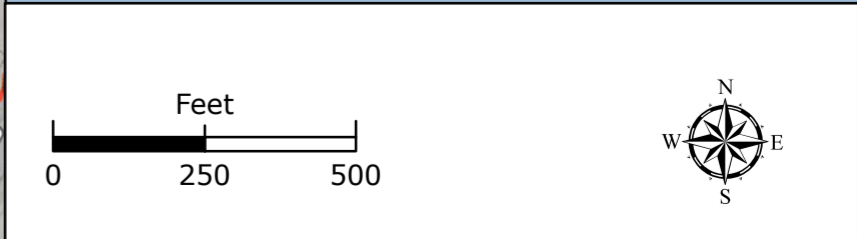
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	1.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1131690

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	WW-LS1048

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

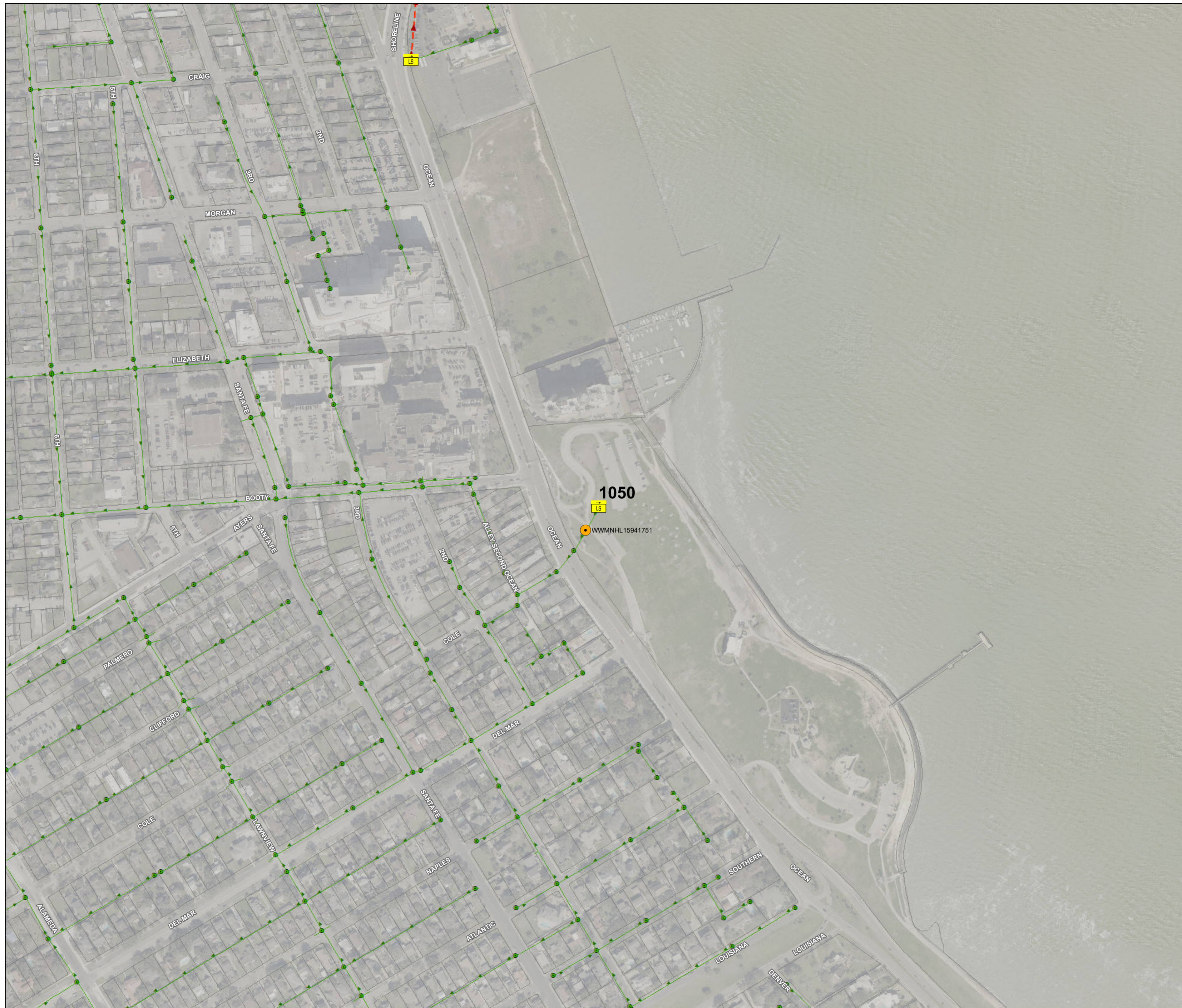
Permanent bypass pump in place.



WW-LS1049

LIFT STATION RESPONSE PLAN
LS NAME: Wooldridge LS ID: 1049 LS#: 61





LIFT STATION DATA	
BASIN	BROADWAY WWTP
PUMP HP	5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

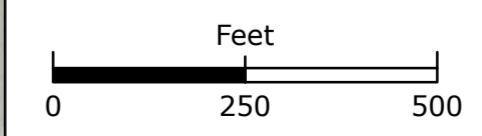
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL15941751

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	None

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

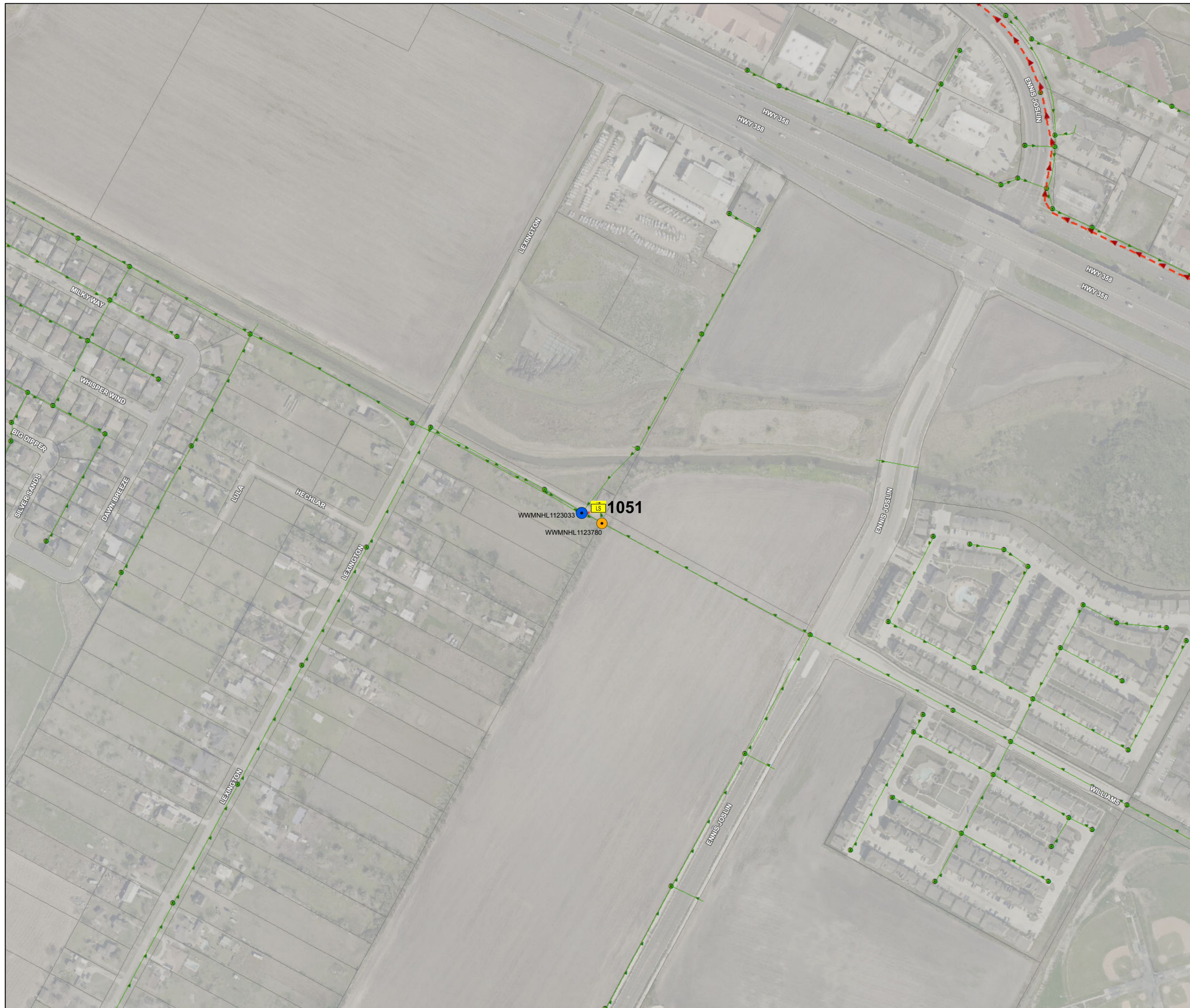
Suction flow from wetwell and decant into discharge manhole.



WW-LS1050

**LIFT STATION RESPONSE PLAN
LS NAME: Cole Park LS ID: 1050 LS#: 45**





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	10
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

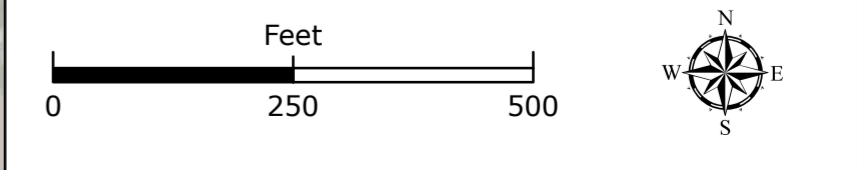
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1123780

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1123033

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.



WW-LS1051

**LIFT STATION RESPONSE PLAN
LS NAME: Perry Place LS ID: 1051 LS#: 67**





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	45
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	1.7 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1132896 WWMNHL1134082

VECTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	4
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1121044

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

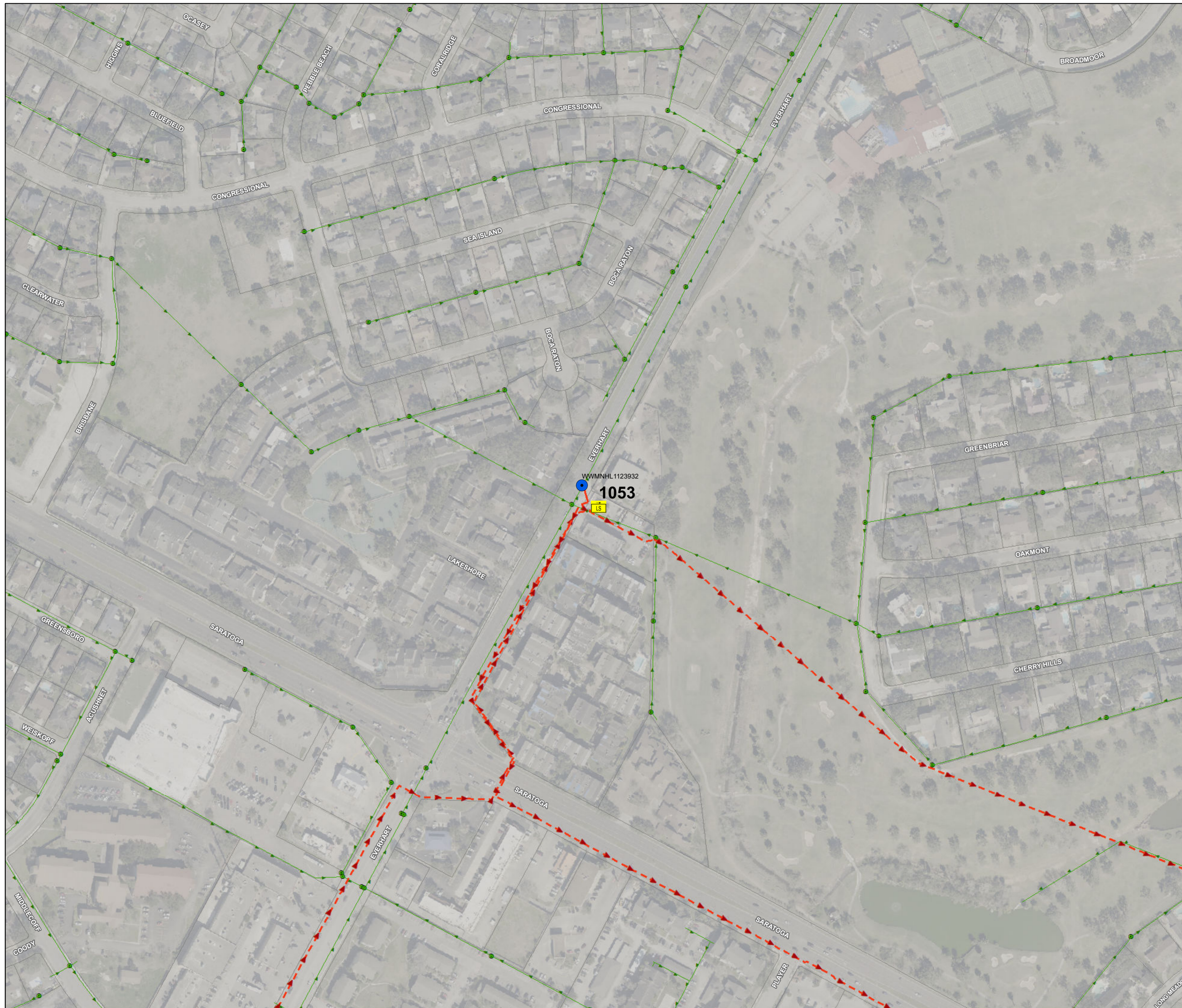
- Suction flow from wetwell and decant into discharge manhole.
- Under normal operation discharges into Wooldridge L.S.

0 250 500 1,000 Feet

WW-LS1052

LIFT STATION RESPONSE PLAN
LS NAME: Station #5 LS ID: 1052 LS#: 56





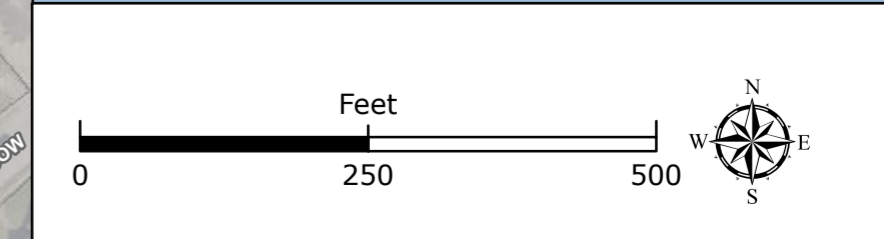
LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	75
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	YES
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	1.15 Hrs
OVERFLOW MANHOLE MAXIMO ID	None

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1123932

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES	
Verify Generator is started and transfer load.	



WW-LS1053

LIFT STATION RESPONSE PLAN

LS NAME: Country Club Estates LS ID: 1053 LS#: 54





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	YES
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

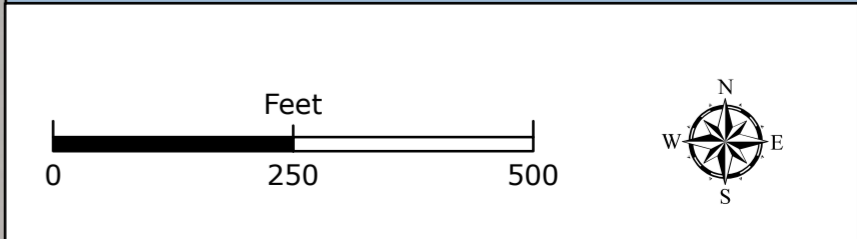
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	1.85 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1134896

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1132954

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

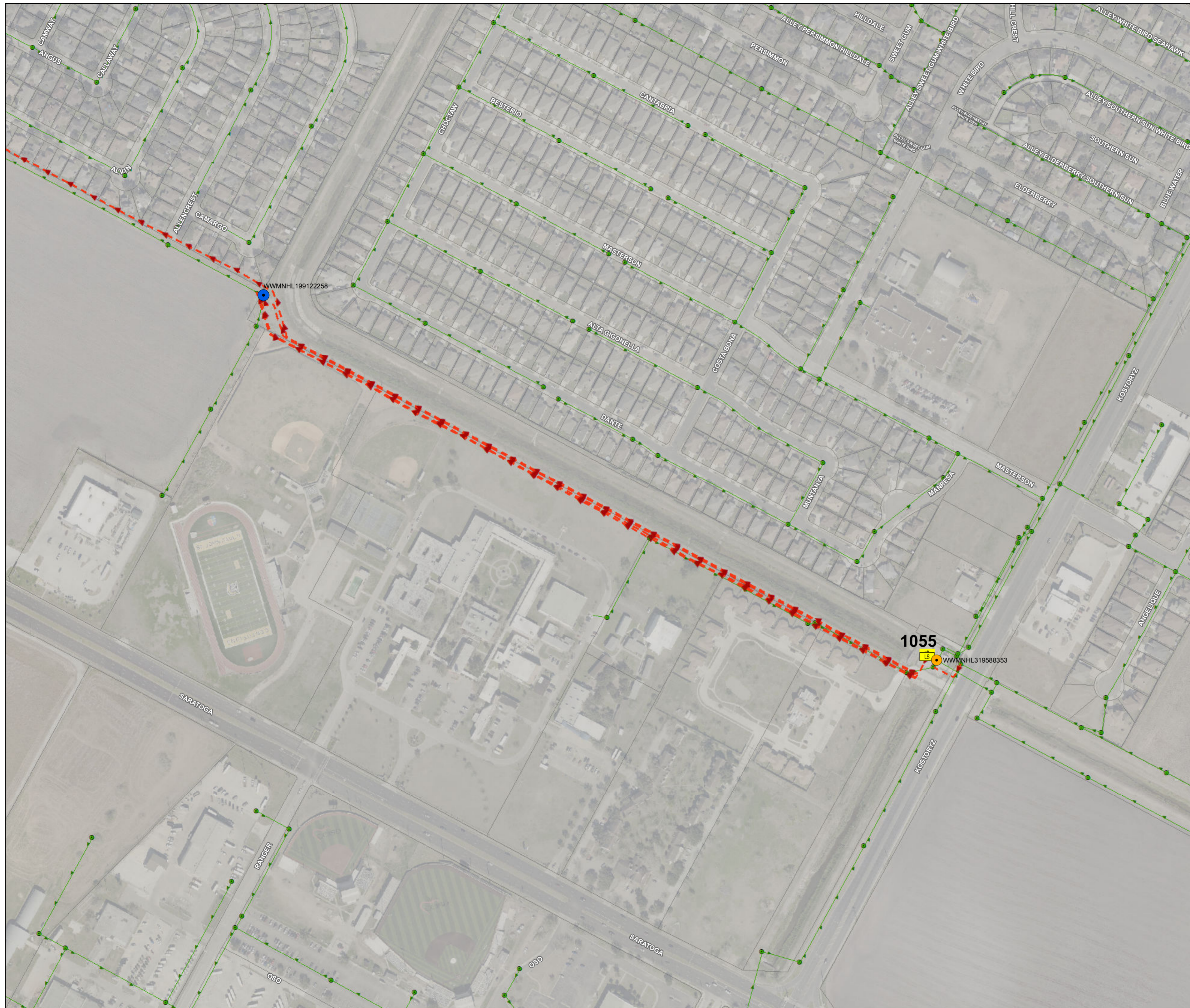
1. Permanent generator on site.
2. Suction flow from wetwell and decant into discharge manhole.



WW-LS1054

LIFT STATION RESPONSE PLAN
LS NAME: Buckingham LS ID: 1054 LS#: 57





LIFT STATION DATA	
BASIN	GREENWOOD WWTP
PUMP HP	35
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	YES
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

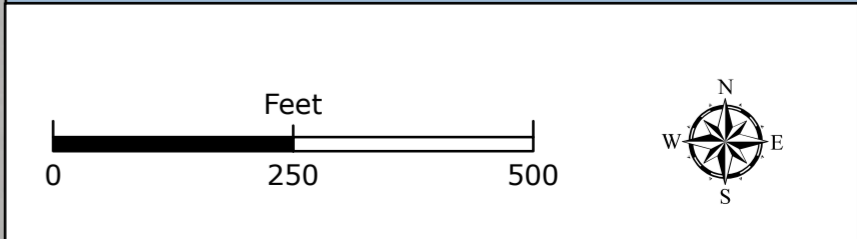
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL319588353

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	WWMNHL199122258

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

1. Permanent generator on site.
2. Verify Generator is started and transfer load.



WW-LS1055

LIFT STATION RESPONSE PLAN
LS NAME: Kostoryz LS ID: 1055 LS#: 28





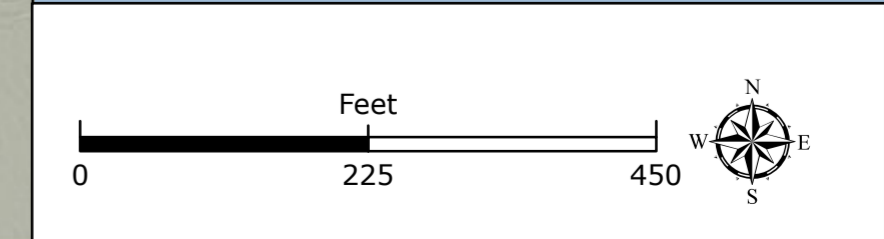
LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1130506

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1130513

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

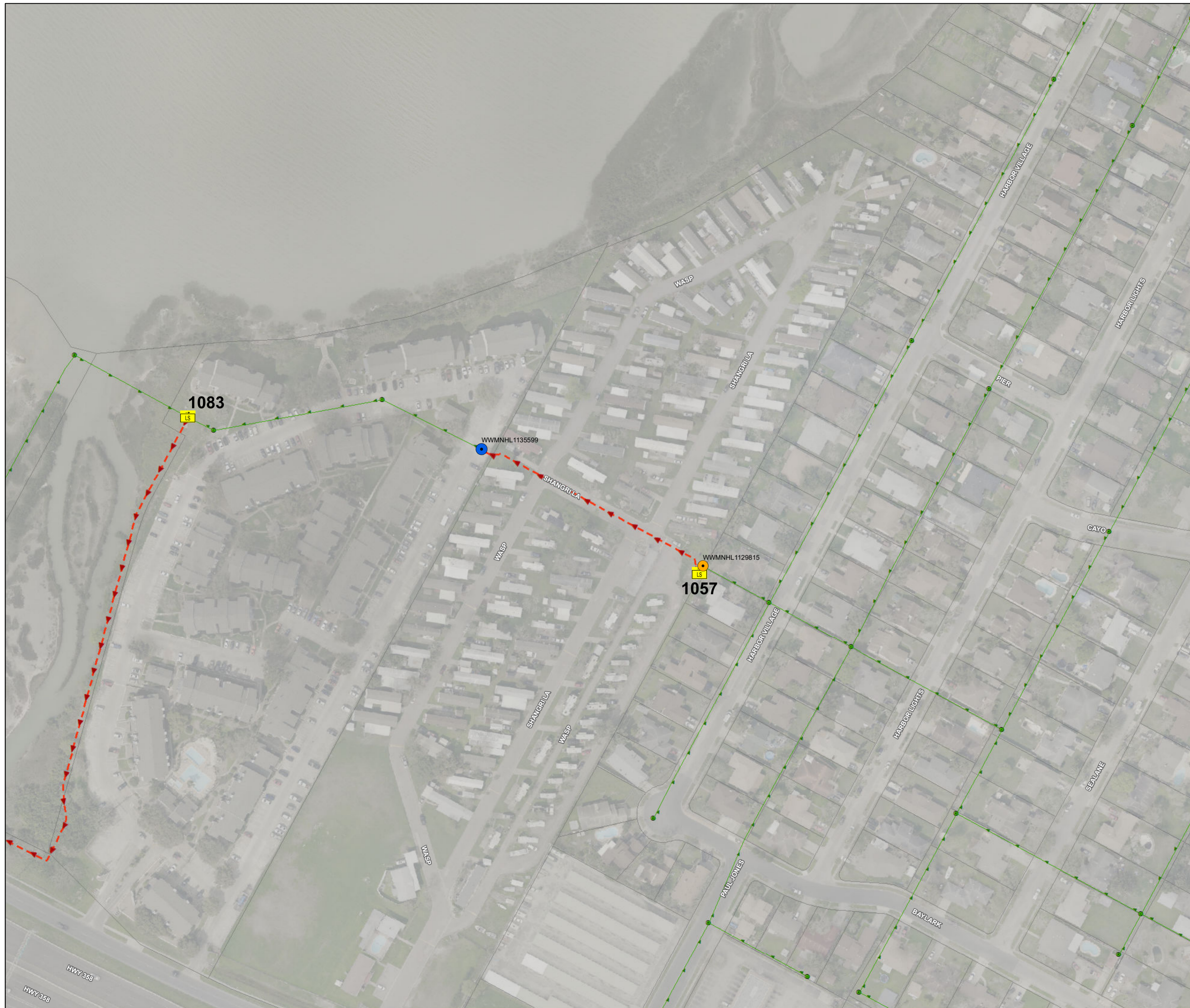
NOTES
Suction flow from wetwell and decant at Oso WWTP.



WW-LS1056

LIFT STATION RESPONSE PLAN
LS NAME: Pelican Bay LS ID: 1056 LS#: 66





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	10
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

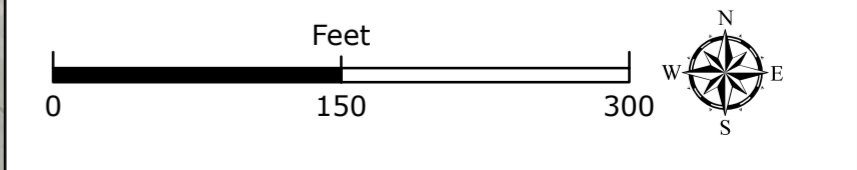
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1129815

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	4
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1135599

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and discharge into Sugar Tree L.S.



WW-LS1057

LIFT STATION RESPONSE PLAN
LS NAME: Anchor Harbor LS ID: 1057 LS#: 70





LIFT STATION DATA	
BASIN	LAGUNA MADRE WWTP
PUMP HP	7.5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

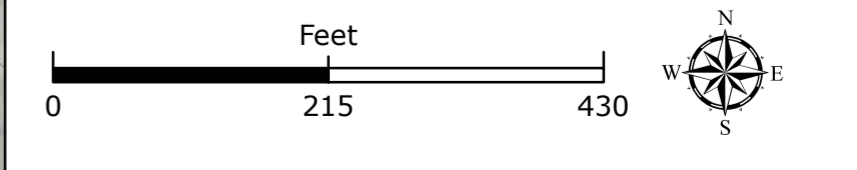
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	18.45 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL18747181

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1131839

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.



WW-LS1058

LIFT STATION RESPONSE PLAN
LS NAME: Walmart LS ID: 1058 LS#: 73





LIFT STATION DATA	
BASIN	LAGUNA MADRE WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

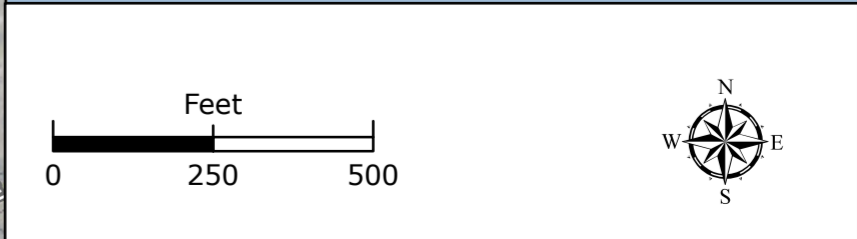
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2.35 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1123725 WWMNHL1132461

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WW-LS1060

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

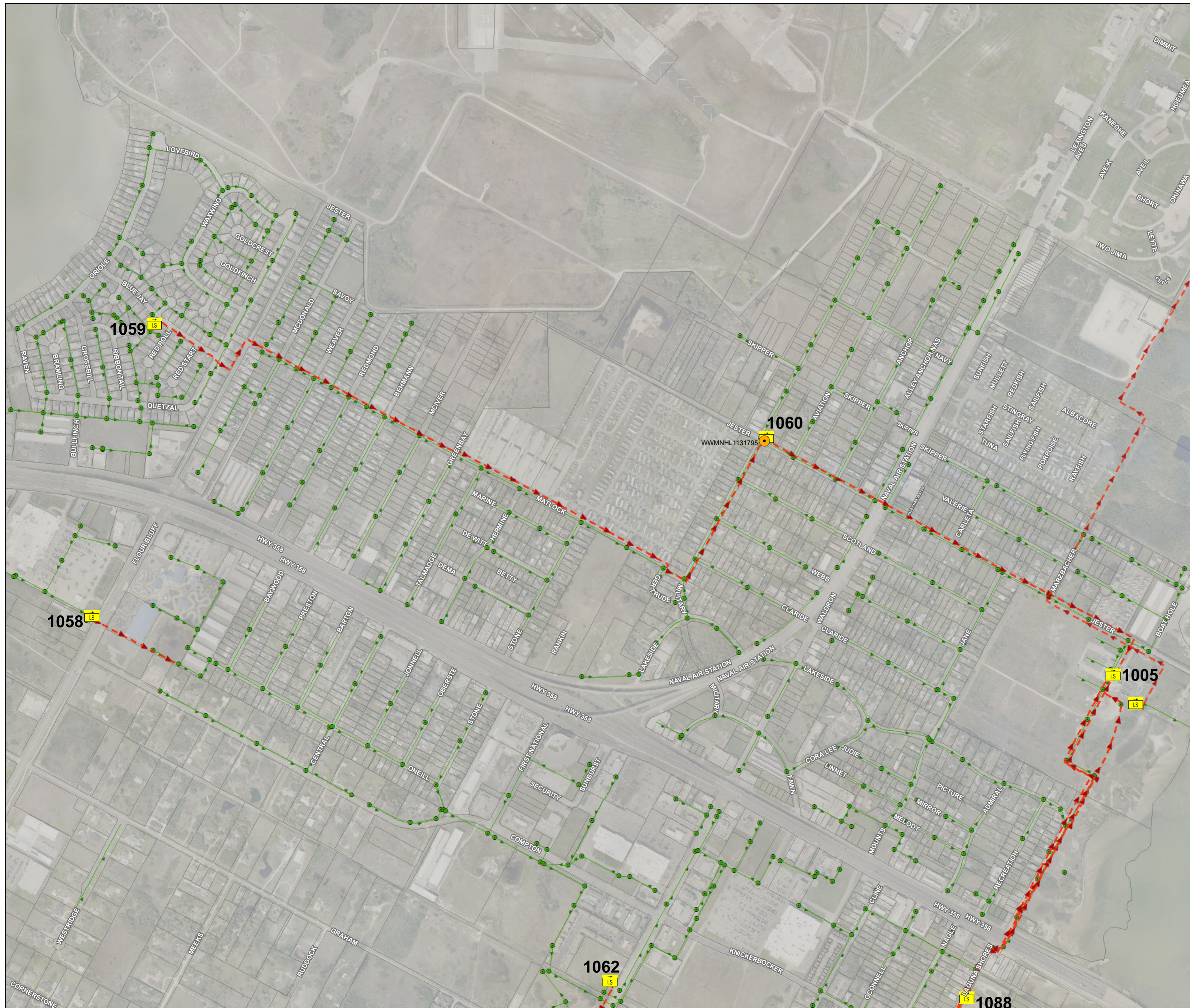
Suction flow from inlet manhole and decant at Military/Jester L.S.



WW-LS1059

**LIFT STATION RESPONSE PLAN
LS NAME: Turtle Cove LS ID: 1059 LS#: 72**





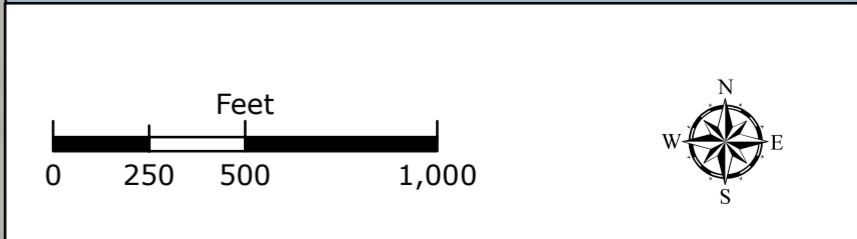
LIFT STATION DATA	
BASIN	LAGUNA MADRE WWTP
PUMP HP	50
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2.25 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1131795

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	WWTP1005 WWLS1059

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

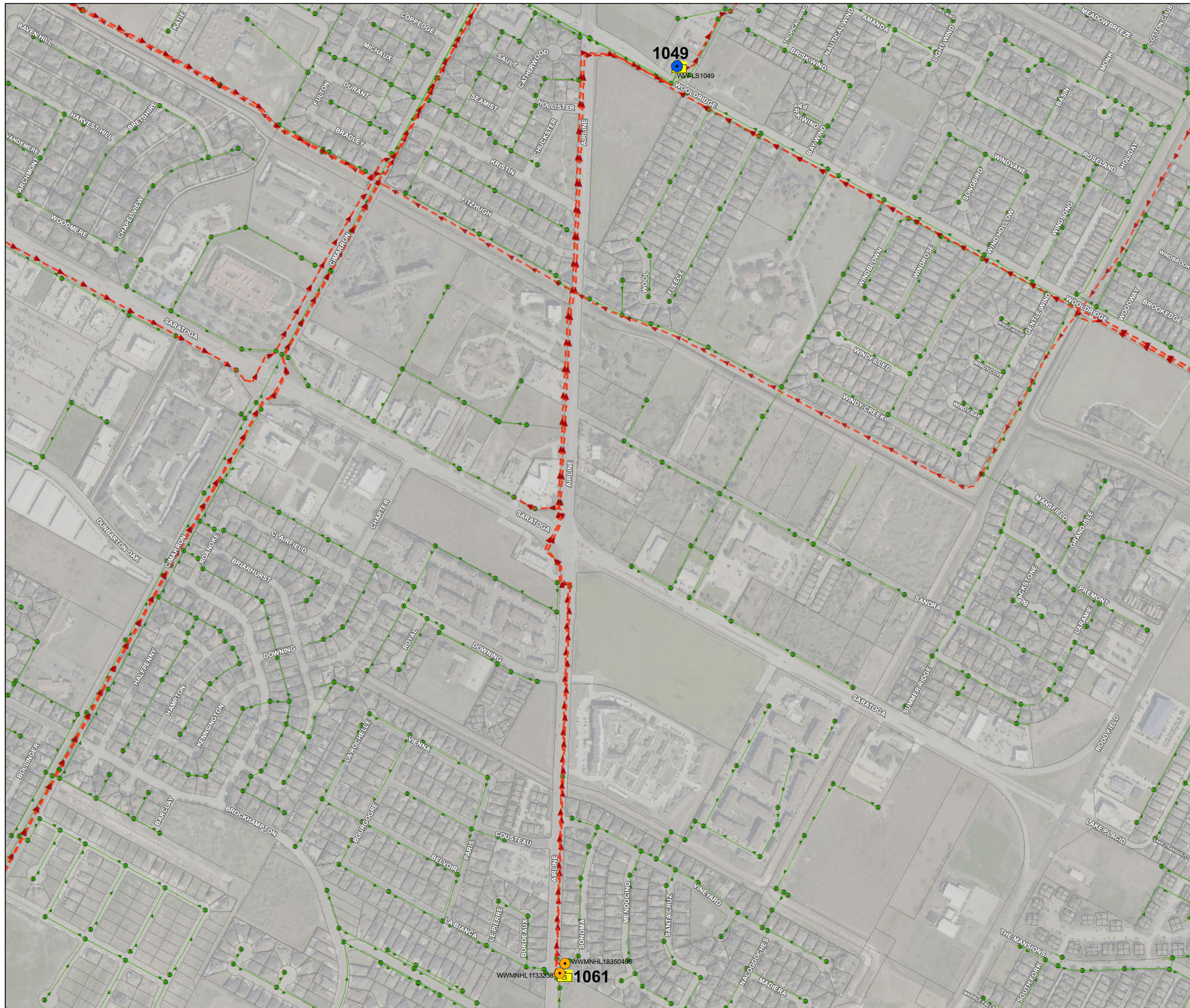
NOTES	
1. Reduce flow from Turtle Cove L.S. or turn off one pump. 2. or Suction flow from wetwell and decant at Laguna Madre WWTP.	



WW-LS1060

LIFT STATION RESPONSE PLAN
LS NAME: Military/Jester LS ID: 1060 LS#: 78





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	10.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL18350406 WWMNHL1133238

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WW-LS1049

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Discharge to Wooldridge L.S.



WW-LS1061

**LIFT STATION RESPONSE PLAN
LS NAME: Airline LS ID: 1061 LS#: 60**





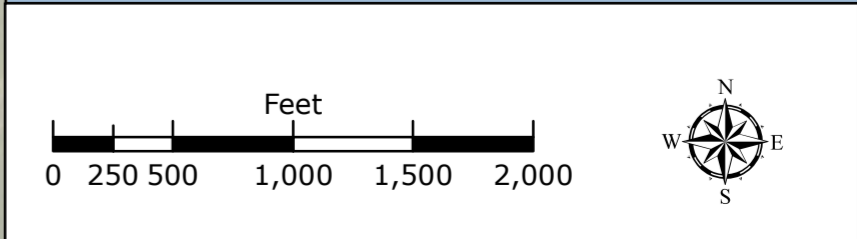
LIFT STATION DATA	
BASIN	LAGUNA MADRE WWTP
PUMP HP	35
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	4.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL445863133

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	WW-LS1007

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES	
Suction flow from wetwell and decant at Laguna Madre WWTP.	



WW-LS1062

LIFT STATION RESPONSE PLAN
LS NAME: Waldron Road LS ID: 1062 LS#: 76





LIFT STATION DATA	
BASIN	LAGUNA MADRE WWTP
PUMP HP	10
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

WW-LS1063

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	3 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL14100473

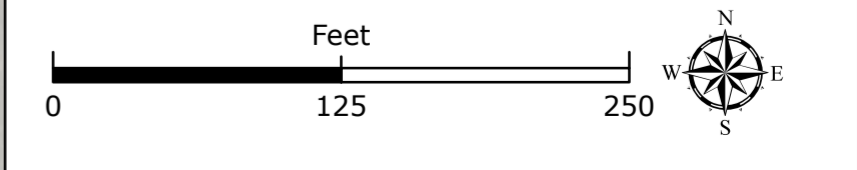
VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1129959

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.

**LIFT STATION RESPONSE PLAN
LS NAME: Purdue LS ID: 1063 LS#: 77**





LIFT STATION DATA	
BASIN	LAGUNA MADRE WWTP
PUMP HP	5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

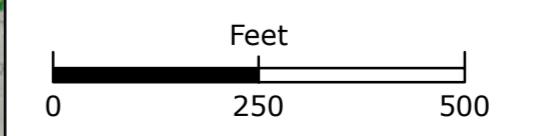
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1131147

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1121087

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.



WW-LS1064

LIFT STATION RESPONSE PLAN
LS NAME: Rhetta Place LS ID: 1064 LS#: 75





LIFT STATION DATA	
BASIN	LAGUNA MADRE WWTP
PUMP HP	18
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

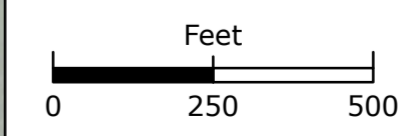
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	3.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1132801

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WW-LS1007

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

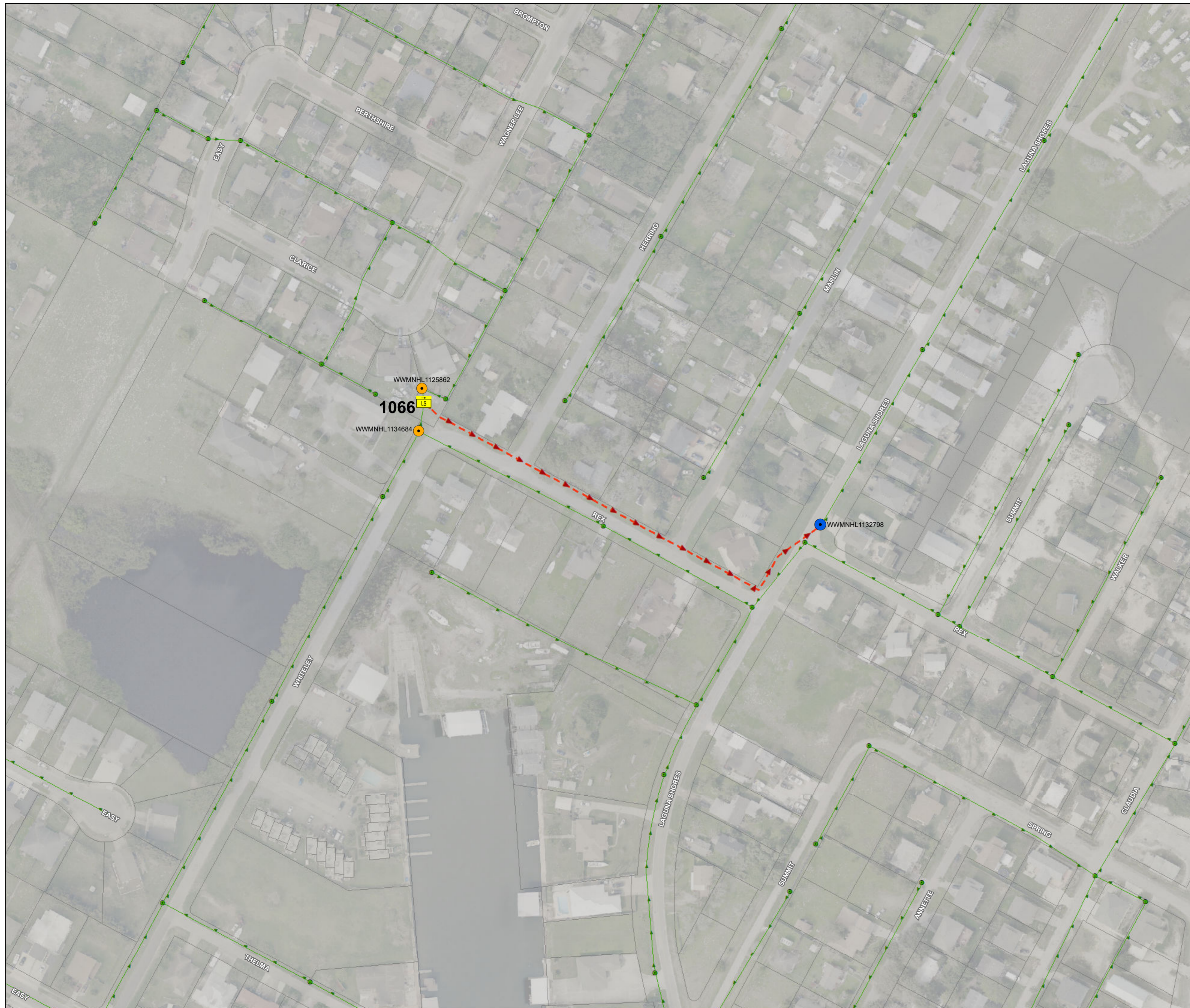
Discharge to Laguna Shores L.S.



WW-LS1065

**LIFT STATION RESPONSE PLAN
LS NAME: Riviera LS ID: 1065 LS#: 82**





LIFT STATION DATA	
BASIN	LAGUNA MADRE WWTP
PUMP HP	5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

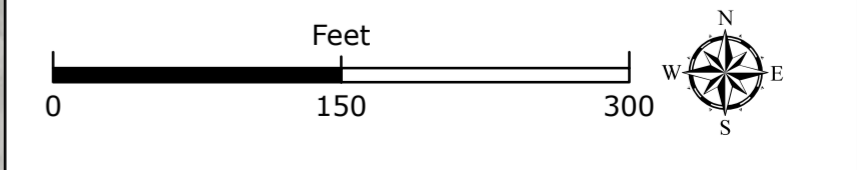
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	1 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1125862 WWMNHL1134684

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1132798

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.



WW-LS1066

**LIFT STATION RESPONSE PLAN
LS NAME: Rex LS ID: 1066 LS#: 83**





LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

WW-LS1067

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	3.65 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1126825

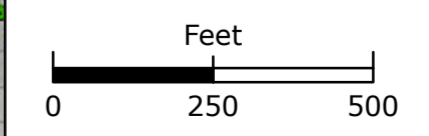
VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1132112

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.

LIFT STATION RESPONSE PLAN
LS NAME: Kennedy Causeway LS ID: 1067 LS#: 84





LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	10
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

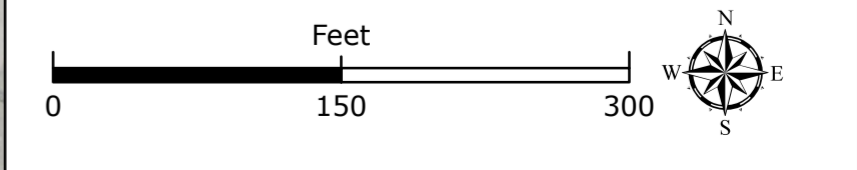
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	4-6 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1129808 WWMNHL18359654

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1129813

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

None



WW-LS1068

LIFT STATION RESPONSE PLAN
LS NAME: Seahorse LS ID: 1068 LS#: 85





LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

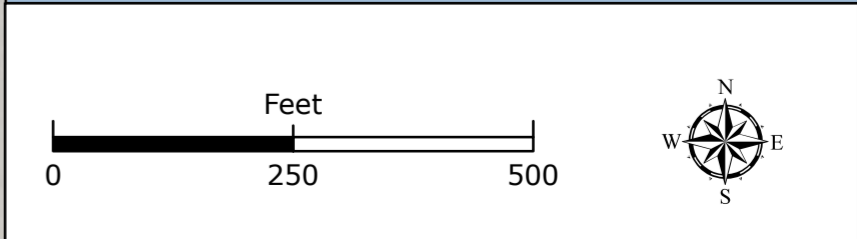
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	0.85 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1133122

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1126387

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.



WW-LS1069

LIFT STATION RESPONSE PLAN
LS NAME: Jackfish LS ID: 1069 LS#: 87





LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1121811

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1130886

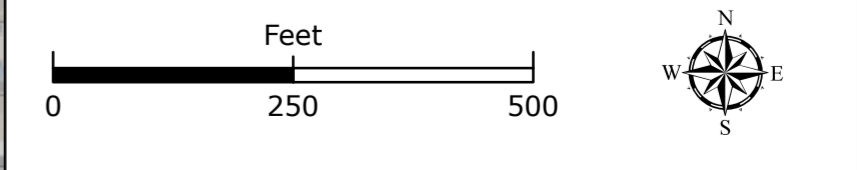
LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

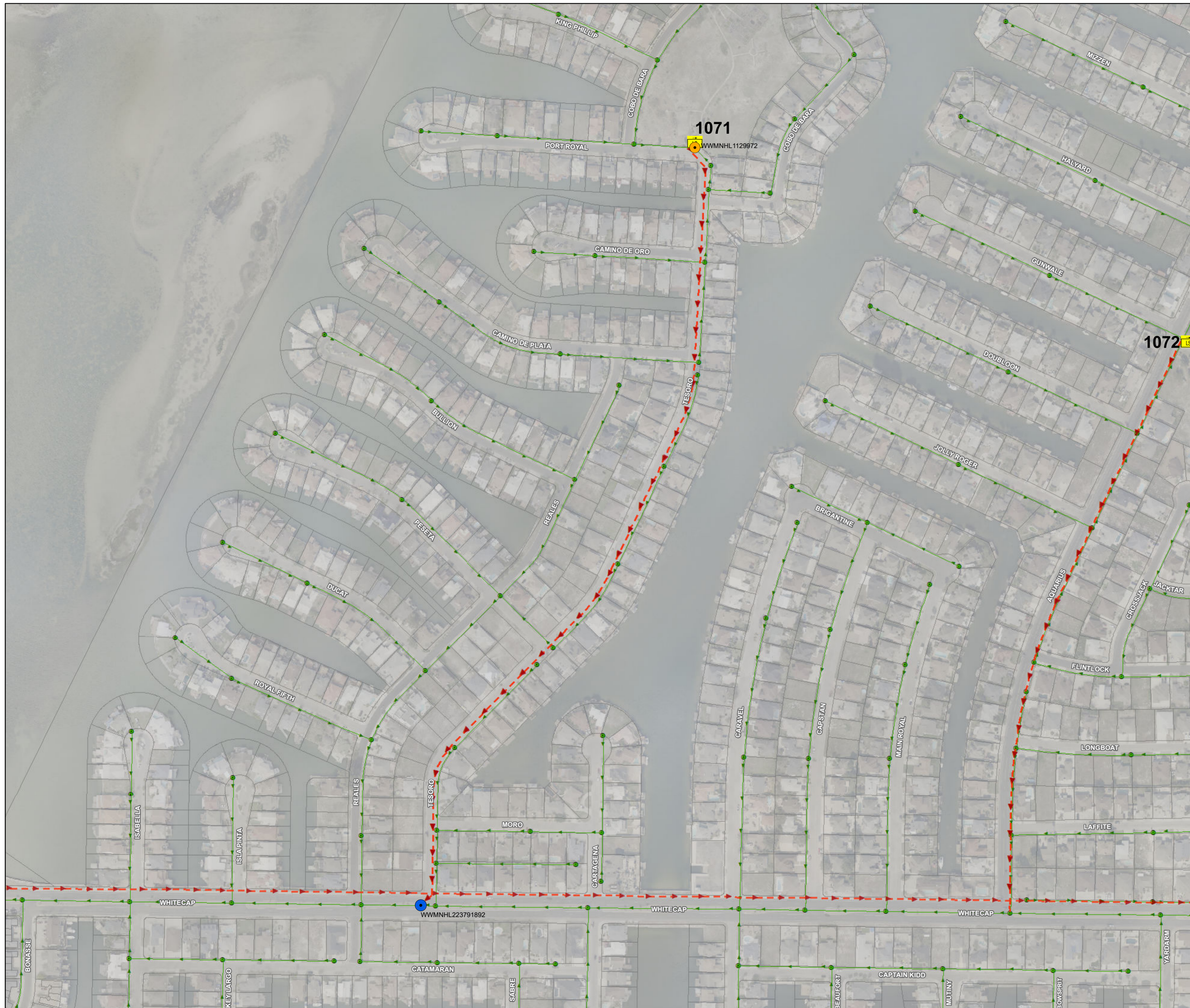
NOTES

Suction flow from wetwell and decant into discharge manhole.

WW-LS1070

LIFT STATION RESPONSE PLAN
LS NAME: Swordfish LS ID: 1070 LS#: 86





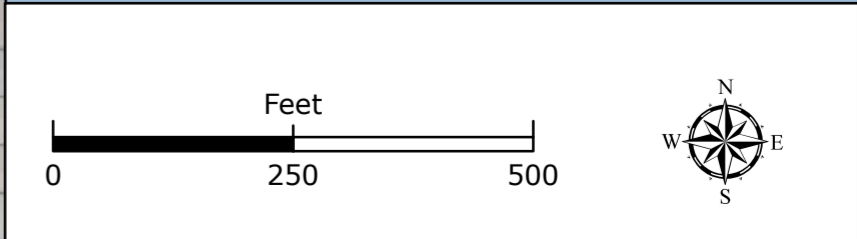
LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1129972

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL223791892

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

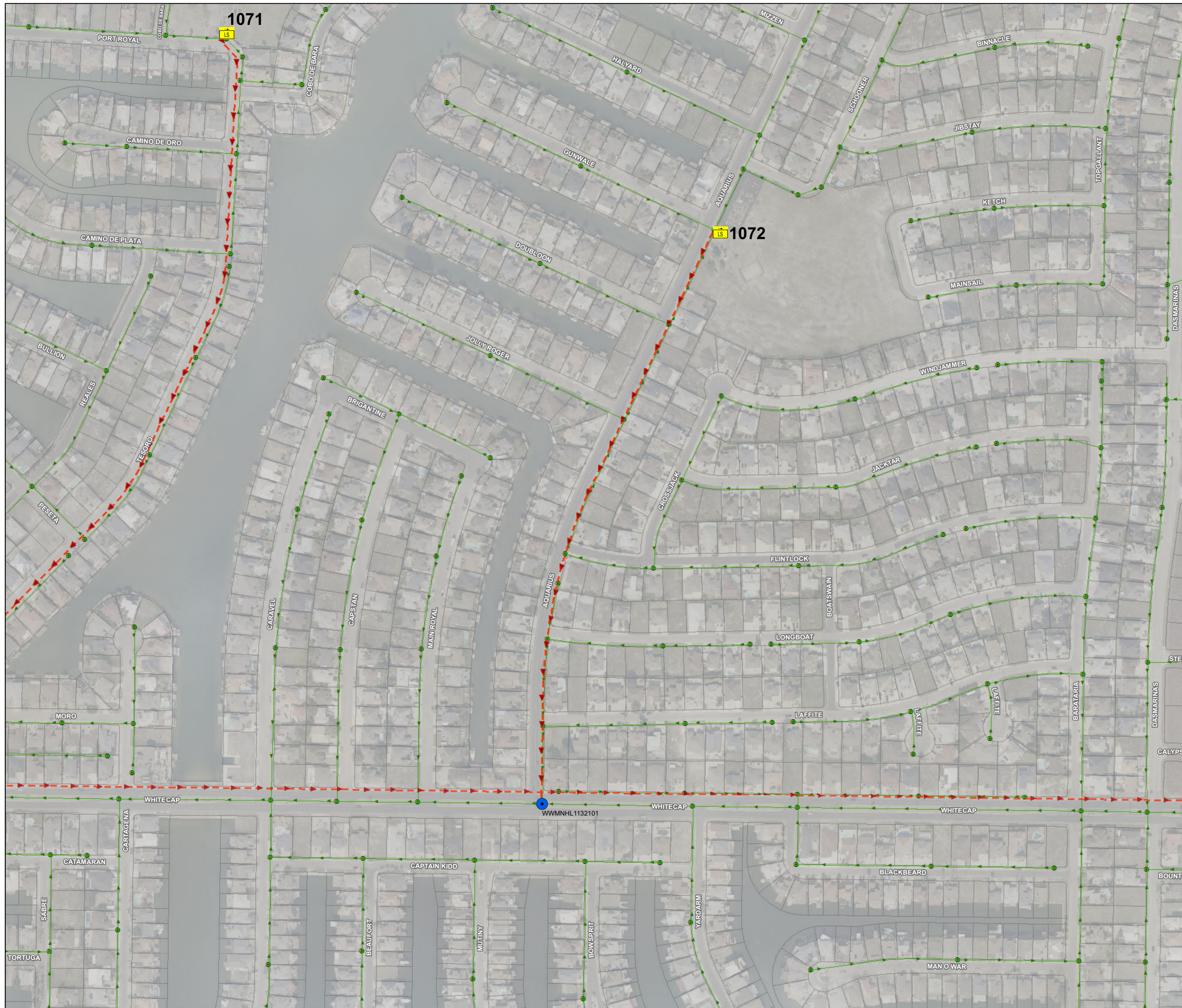
NOTES	
Suction flow from wetwell and decant at Whitecap WWTP.	



WW-LS1071

LIFT STATION RESPONSE PLAN
LS NAME: Tesoro LS ID: 1071 LS#: 90





LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	30
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

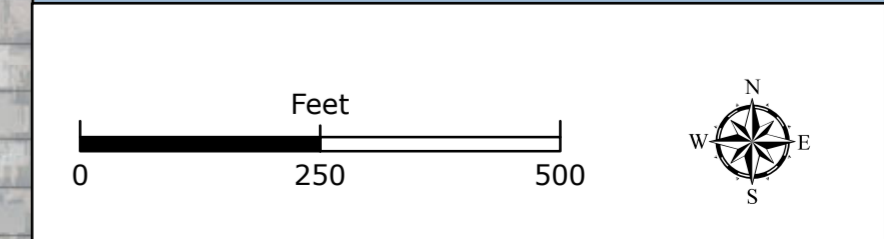
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	1.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	None

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1132101

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.



WW-LS1072

LIFT STATION RESPONSE PLAN
LS NAME: Aquarius LS ID: 1072 LS#: 92





LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

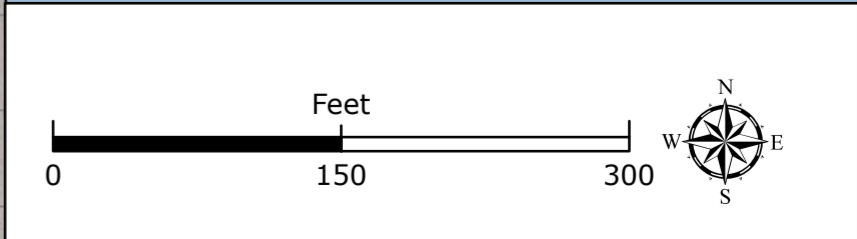
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	0.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1120148

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	4
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1128525

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.

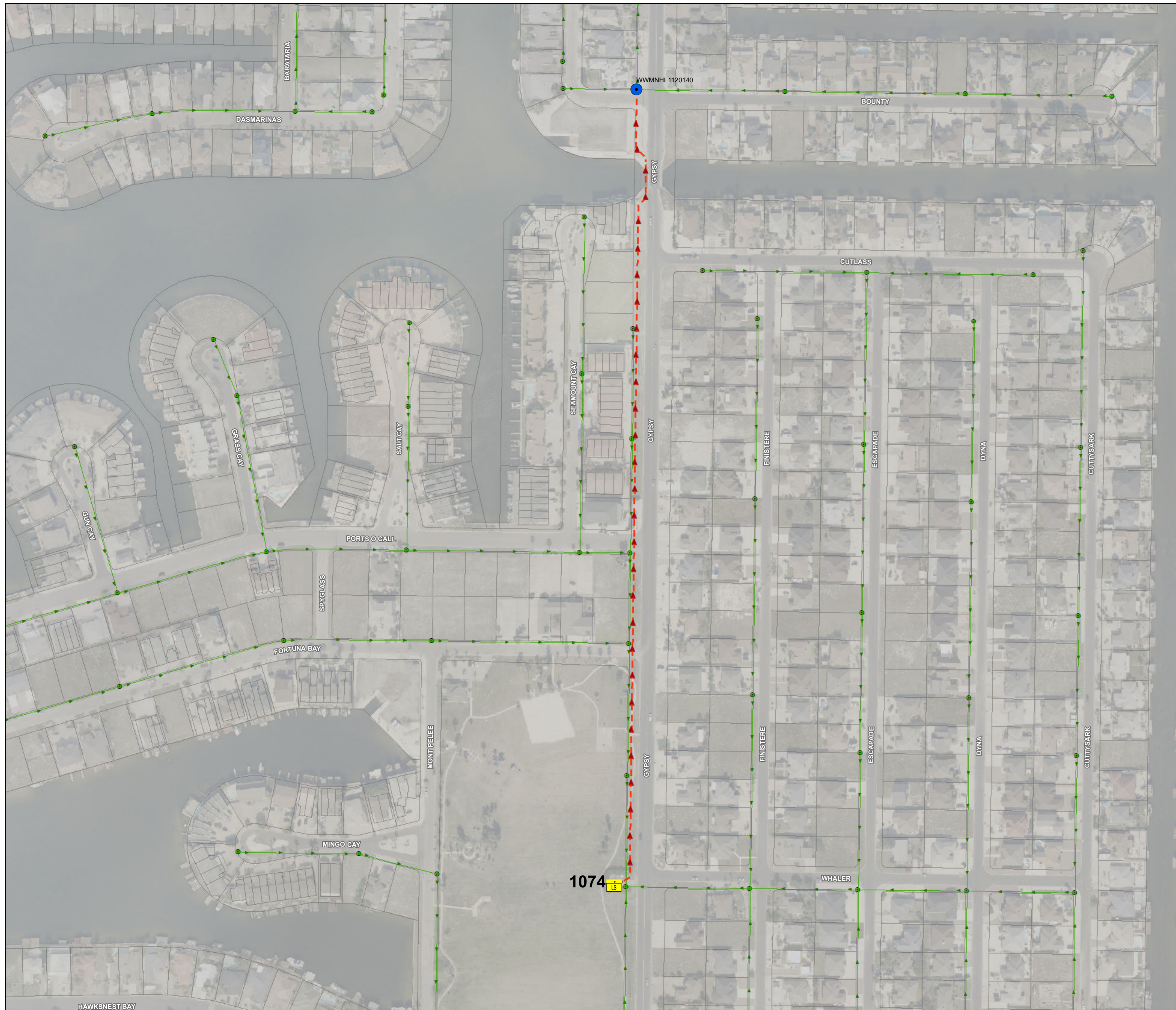


WW-LS1073

LIFT STATION RESPONSE PLAN

LS NAME: Padre Island Section 4 LS ID: 1073 LS#: 97





LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	10
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

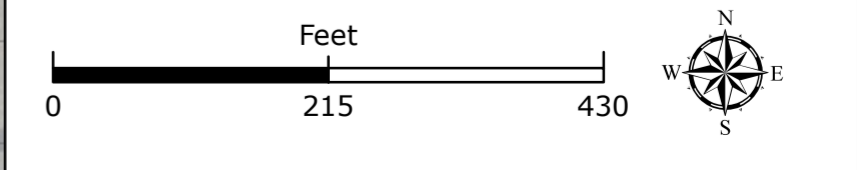
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	4.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	None

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1120140

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.



WW-LS1074

**LIFT STATION RESPONSE PLAN
LS NAME: Gypsy LS ID: 1074 LS#: 96**





LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

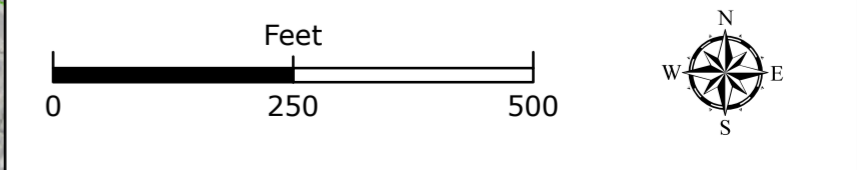
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL15548315 WWMNHL1124523

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1131733

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

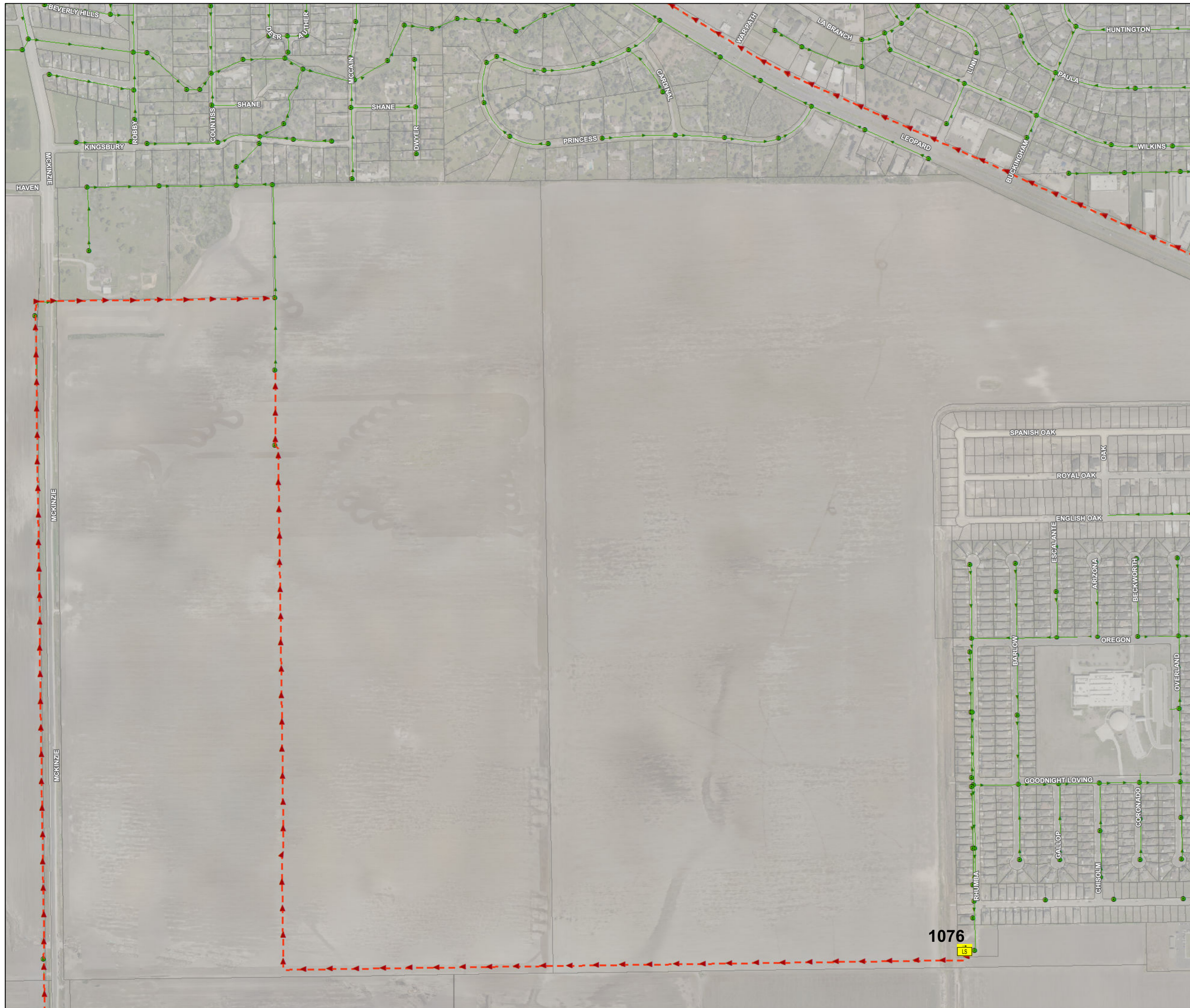
Suction flow from wetwell and decant into discharge manhole.



WW-LS1075

LIFT STATION RESPONSE PLAN
LS NAME: Cumana LS ID: 1075 LS#: 93





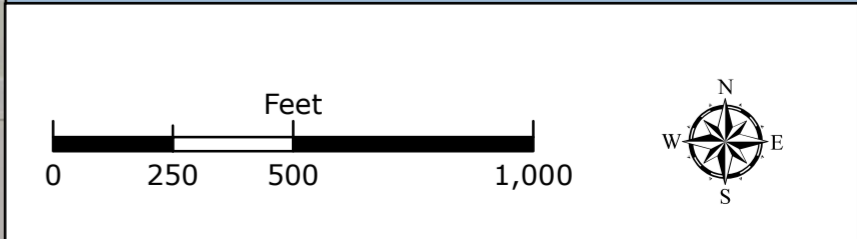
LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	
NUMBER OF PUMPS	0
ALTERNATE SERVICE?	
PERMANENT GENERATOR?	
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	Hrs
OVERFLOW MANHOLE MAXIMO ID	

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	0
DISCHARGE MANHOLE MAXIMO ID	WWMNHL435448789

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES



WW-LS1076

LIFT STATION RESPONSE PLAN
LS NAME: LS ID: 1076 LS#: 14





LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	44
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

WW-LS1077

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2.25 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1133978

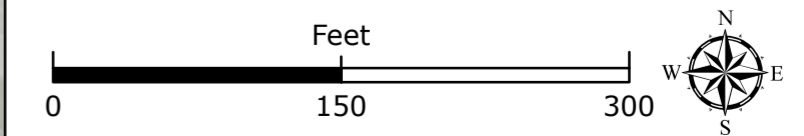
VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	None

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.

LIFT STATION RESPONSE PLAN
LS NAME: Sharpsburg LS ID: 1077 LS#: 5





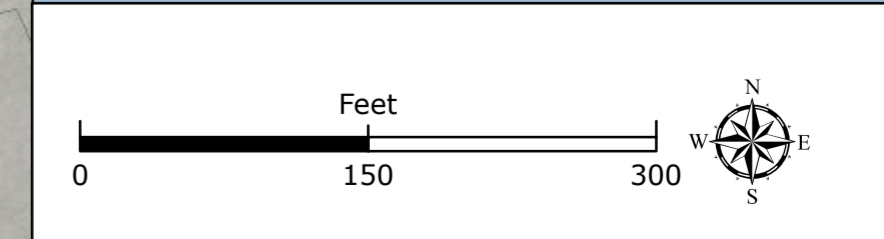
LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	3
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	16.25 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1120267

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	1
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1127831

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES	
1. If both Cynthia L.S. and Ramos L.S. are out, decant at Sharpsburg L.S. 2. Flows suctioned from wetwell will be decanted at Sharpsburg L.S.	



WW-LS1078

LIFT STATION RESPONSE PLAN
LS NAME: Ramos LS ID: 1078 LS#: 4





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	3
NUMBER OF PUMPS	1
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

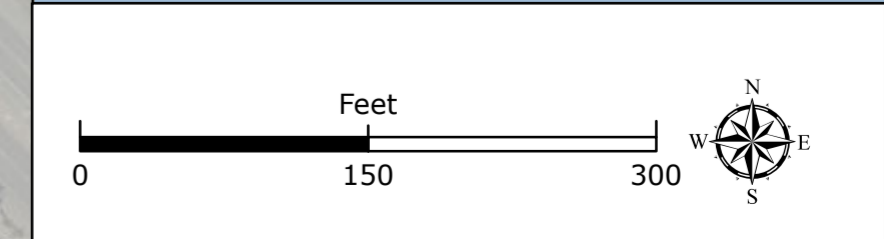
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1130006

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1125602

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.



WW-LS1079

**LIFT STATION RESPONSE PLAN
LS NAME: Oleander LS ID: 1079 LS#: 47**





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	47
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWWNL29833684

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWWNL434253211

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.



WW-LS1080

**LIFT STATION RESPONSE PLAN
LS NAME: Starry LS ID: 1080 LS#: 50**





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	10
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

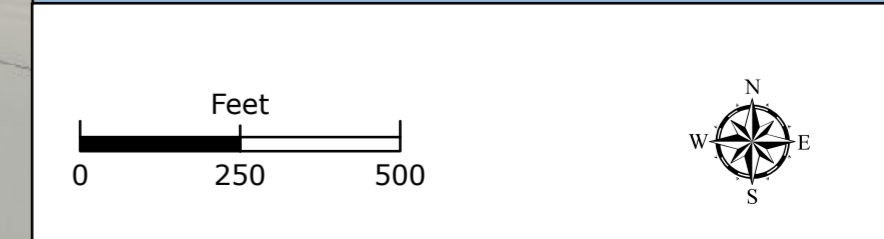
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	1.1 Hrs
OVERFLOW MANHOLE MAXIMO ID	None

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	None

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant at Oso WWTP.



WW-LS1081

LIFT STATION RESPONSE PLAN
LS NAME: TAMUCC LS ID: 1081 LS#: 65





LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	3
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

WW-LS1082

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	12.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1120268 WWMNHL1121814

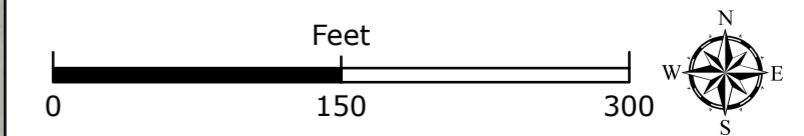
VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	1
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1126087

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

1. If both Cynthia L.S. and Ramos L.S. are out, decant at Sharpsburg L.S.
2. Flows suctioned from wetwell will be decanted at Sharpsburg L.S.

**LIFT STATION RESPONSE PLAN
LS NAME: Cynthia LS ID: 1082 LS#: 3**





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

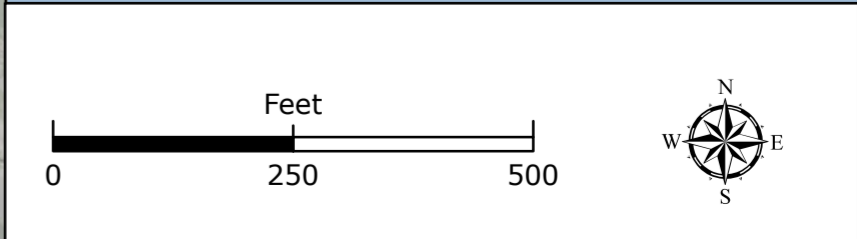
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	0.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1121814 WWMNHL1130990

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	4
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1130513

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

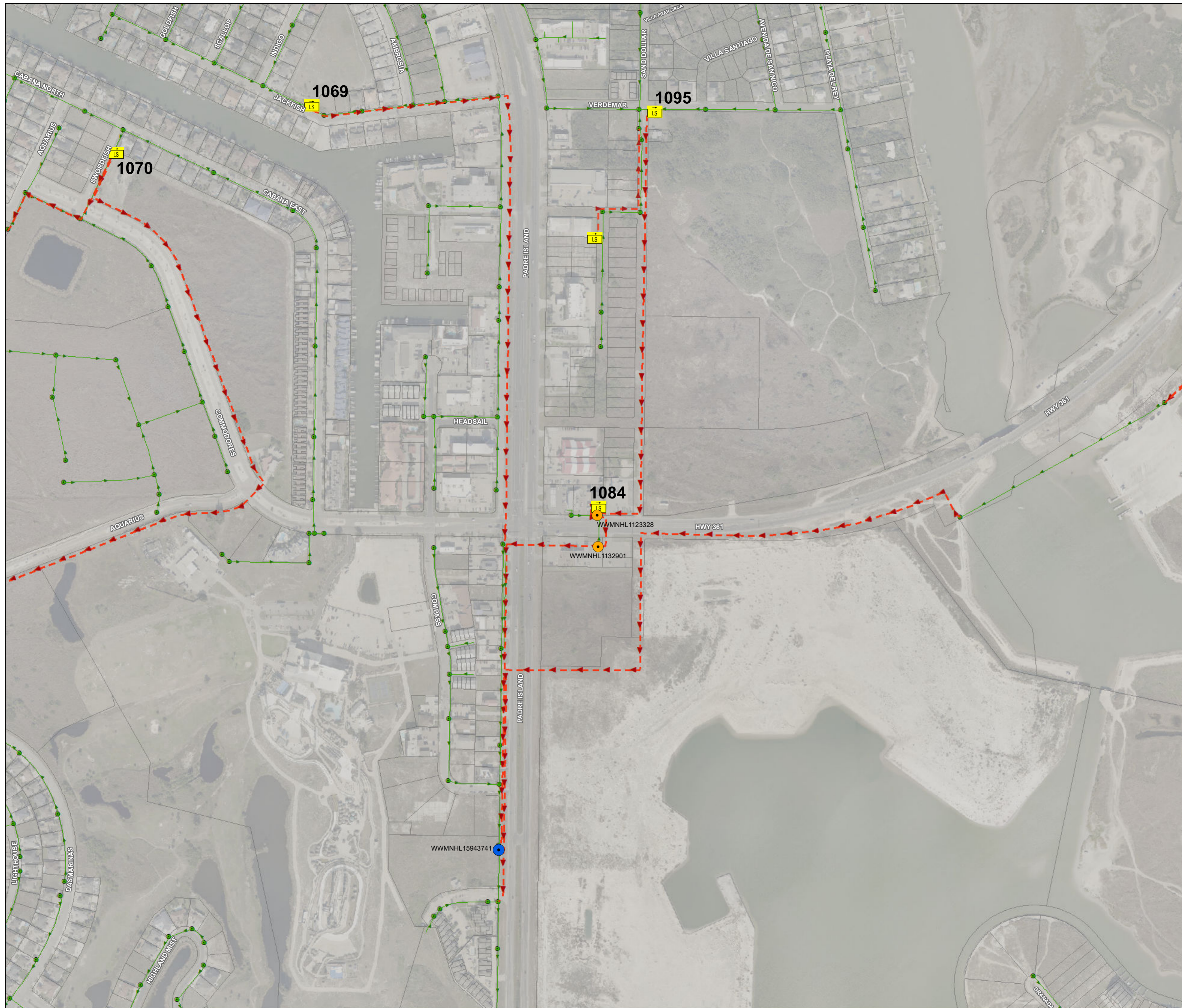
Suction flow from inlet manhole and decant at discharge manhole.



WW-LS1083

LIFT STATION RESPONSE PLAN
LS NAME: Sugar Tree LS ID: 1083 LS#: 69





LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	30
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

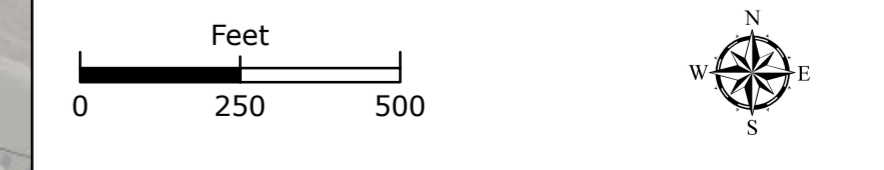
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	5.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1123328 WWMNHL1132901

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWLS1095 WWMNHL15943741

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.



WW-LS1084

LIFT STATION RESPONSE PLAN
LS NAME: Park Road 53 LS ID: 1084 LS#: 14





LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

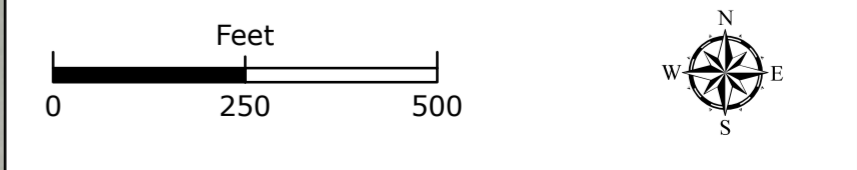
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	0.6 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1122893

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1120148

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.



WW-LS1085

LIFT STATION RESPONSE PLAN
LS NAME: Leeward LS ID: 1085 LS#: 99





LIFT STATION DATA	
BASIN	LAGUNA MADRE WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

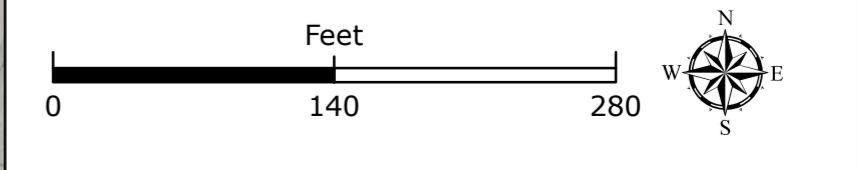
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1128265

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	Verification needed

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

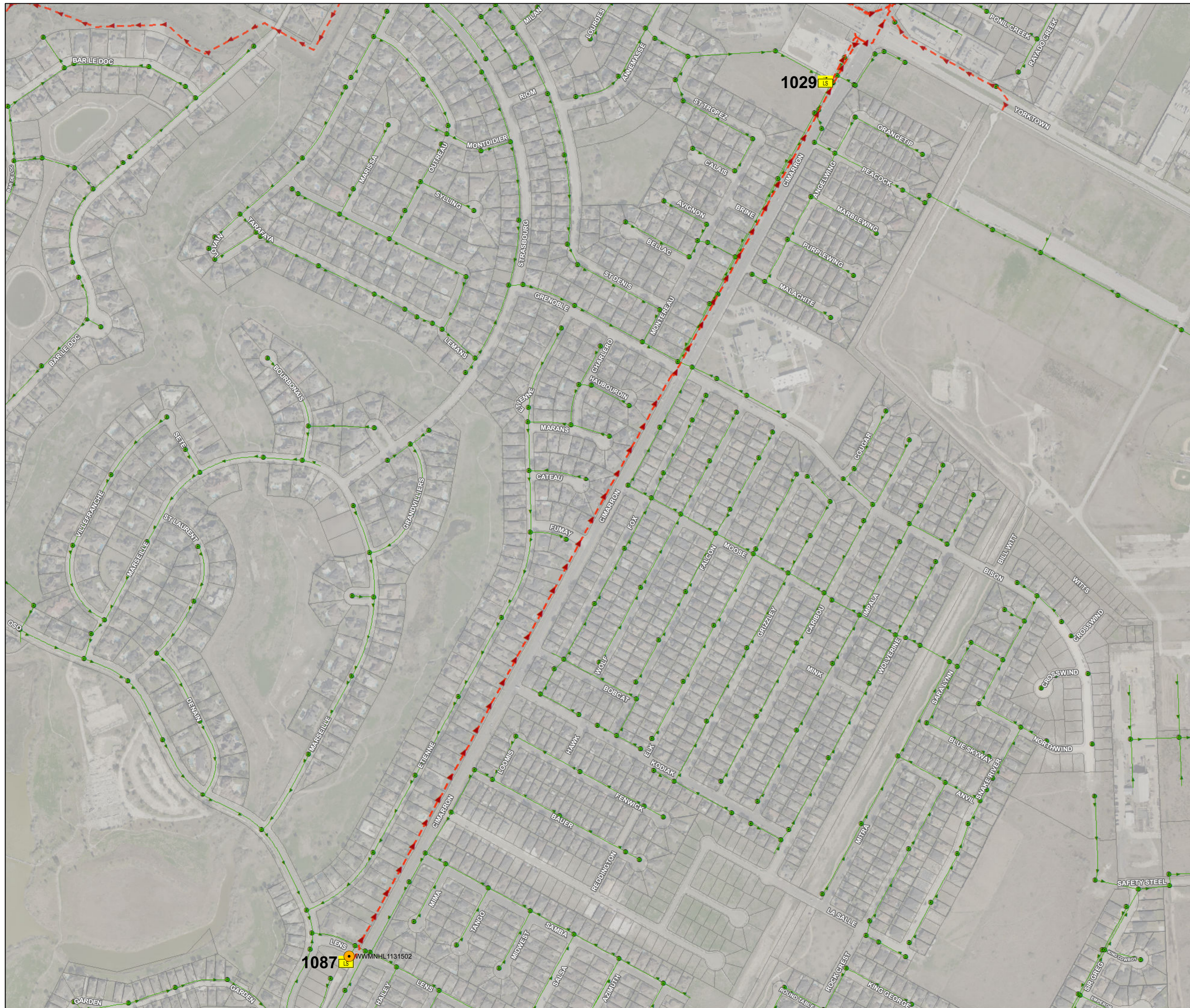
Suction flow from wetwell and decant into discharge manhole.



WW-LS1086

LIFT STATION RESPONSE PLAN
LS NAME: Flour Bluff LS ID: 1086 LS#: 74





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	10
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

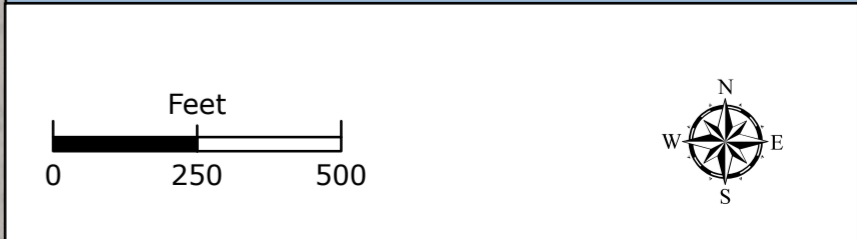
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	1.25 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1131502

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WW-LS1029

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Discharge to Cimmaron L.S.



WW-LS1087

LIFT STATION RESPONSE PLAN
LS NAME: Kings Crossing LS ID: 1087 LS#: 59





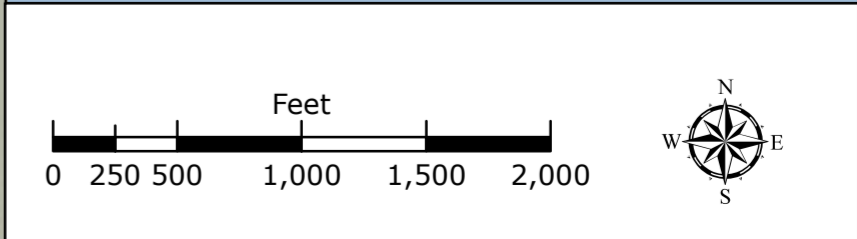
LIFT STATION DATA	
BASIN	LAGUNA MADRE WWTP
PUMP HP	2.6
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1128703

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WW-LS1007

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

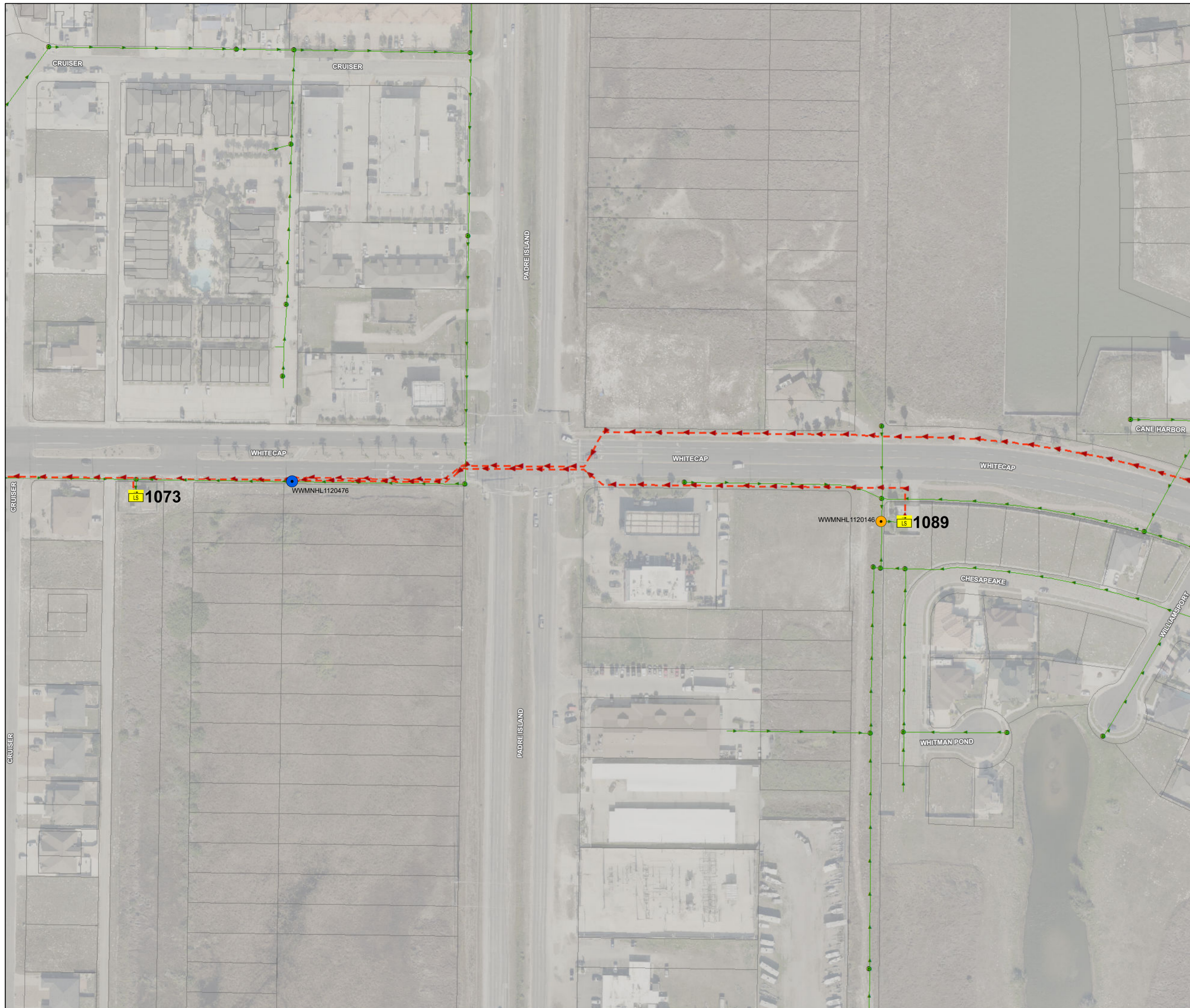
NOTES	
Suction flow from wetwell and decant at Laguna Madre WWTP.	



WW-LS1088

LIFT STATION RESPONSE PLAN
LS NAME: Gateway Park LS ID: 1088 LS#: 80





LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

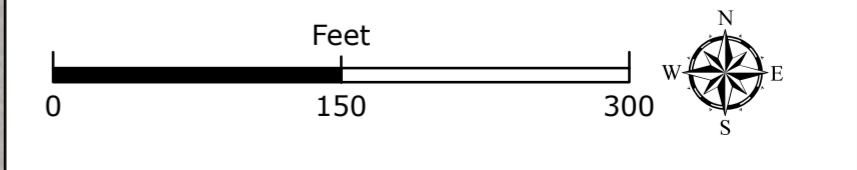
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	3.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1120146

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1120476

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.

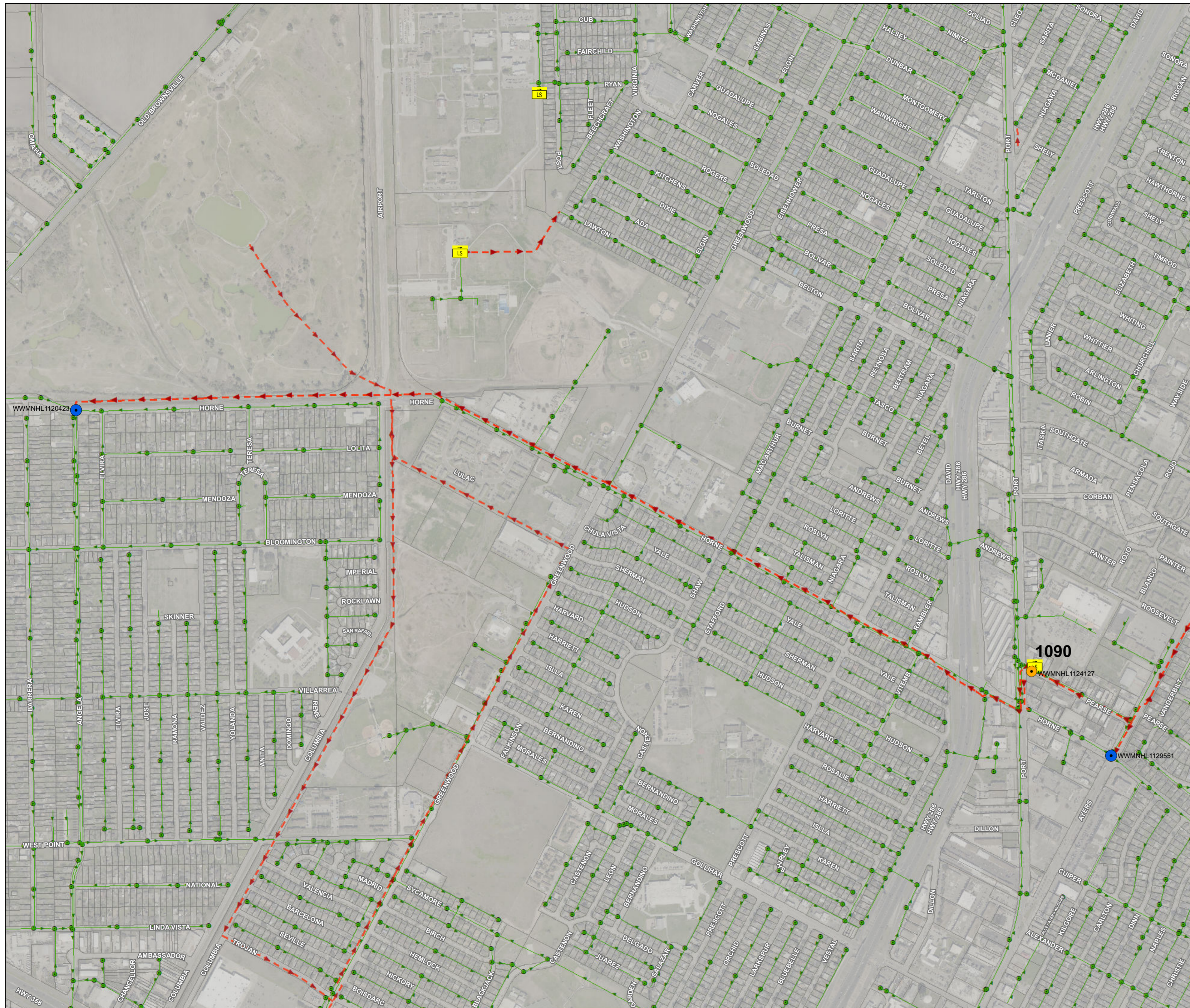


WW-LS1089

LIFT STATION RESPONSE PLAN

LS NAME: Lake Padre South LS ID: 1089 LS#: 98





LIFT STATION DATA	
BASIN	GREENWOOD WWTP
PUMP HP	4-77 HP, 2-25 HP
NUMBER OF PUMPS	6
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

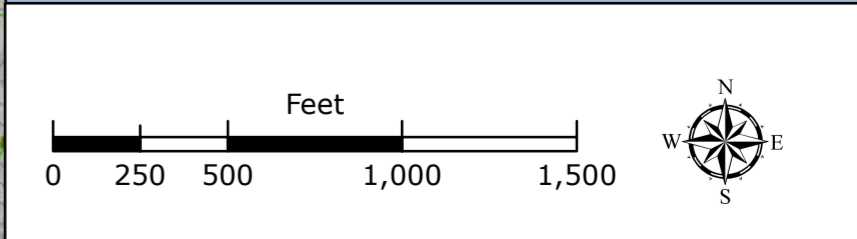
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	0.75 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1124127

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1120423 WWMNHL1129551

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

1. Divert by gravity to Kostoryz L.S.
2. Or divert back to Arcadia L.S.



WW-LS1090

**LIFT STATION RESPONSE PLAN
LS NAME: Port/Pearse LS ID: 1090 LS#: 23**





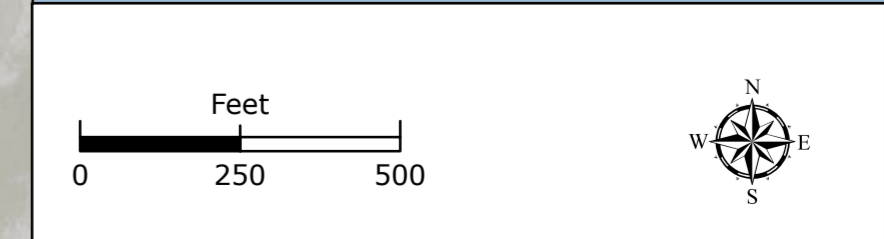
LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	10
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2.25 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1129248

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1128368

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

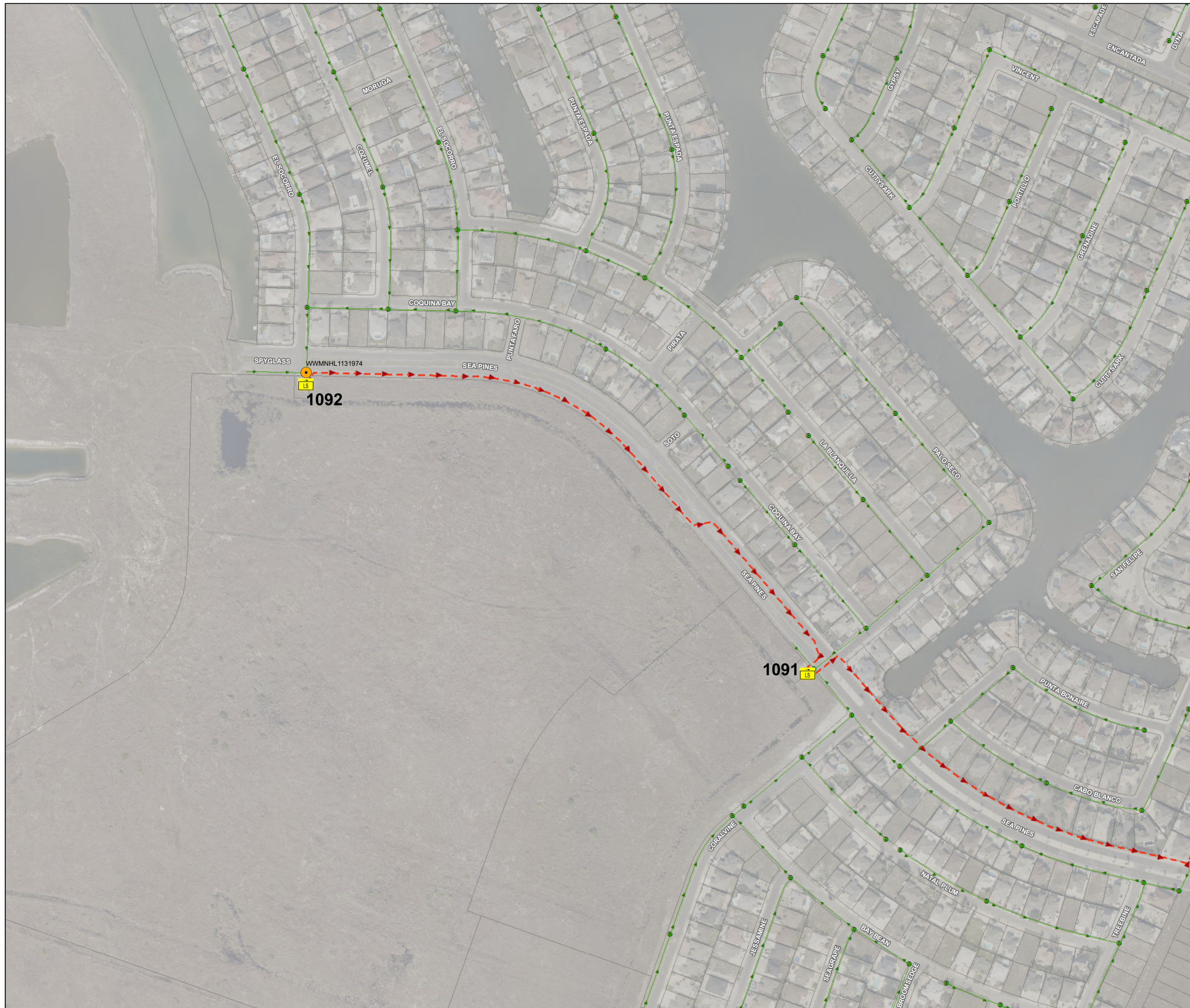
NOTES	
Suction flow from wetwell and decant into discharge manhole.	



WW-LS1091

LIFT STATION RESPONSE PLAN
LS NAME: Sea Pines LS ID: 1091 LS#: 95





LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

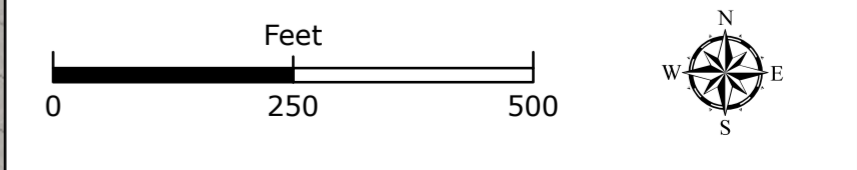
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	15.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1131974

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WW-LS1091

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

None



WW-LS1092

LIFT STATION RESPONSE PLAN
LS NAME: Coquina Bay LS ID: 1092 LS#: 94





LIFT STATION DATA	
BASIN	GREENWOOD WWTP
PUMP HP	10
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

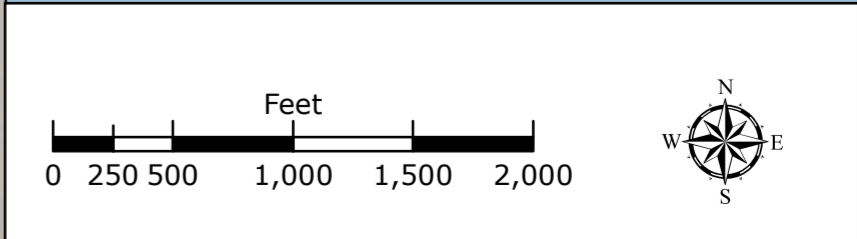
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2.25 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL14376078

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WW-LS1003

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Discharge to Greenwood WWTP P.S.

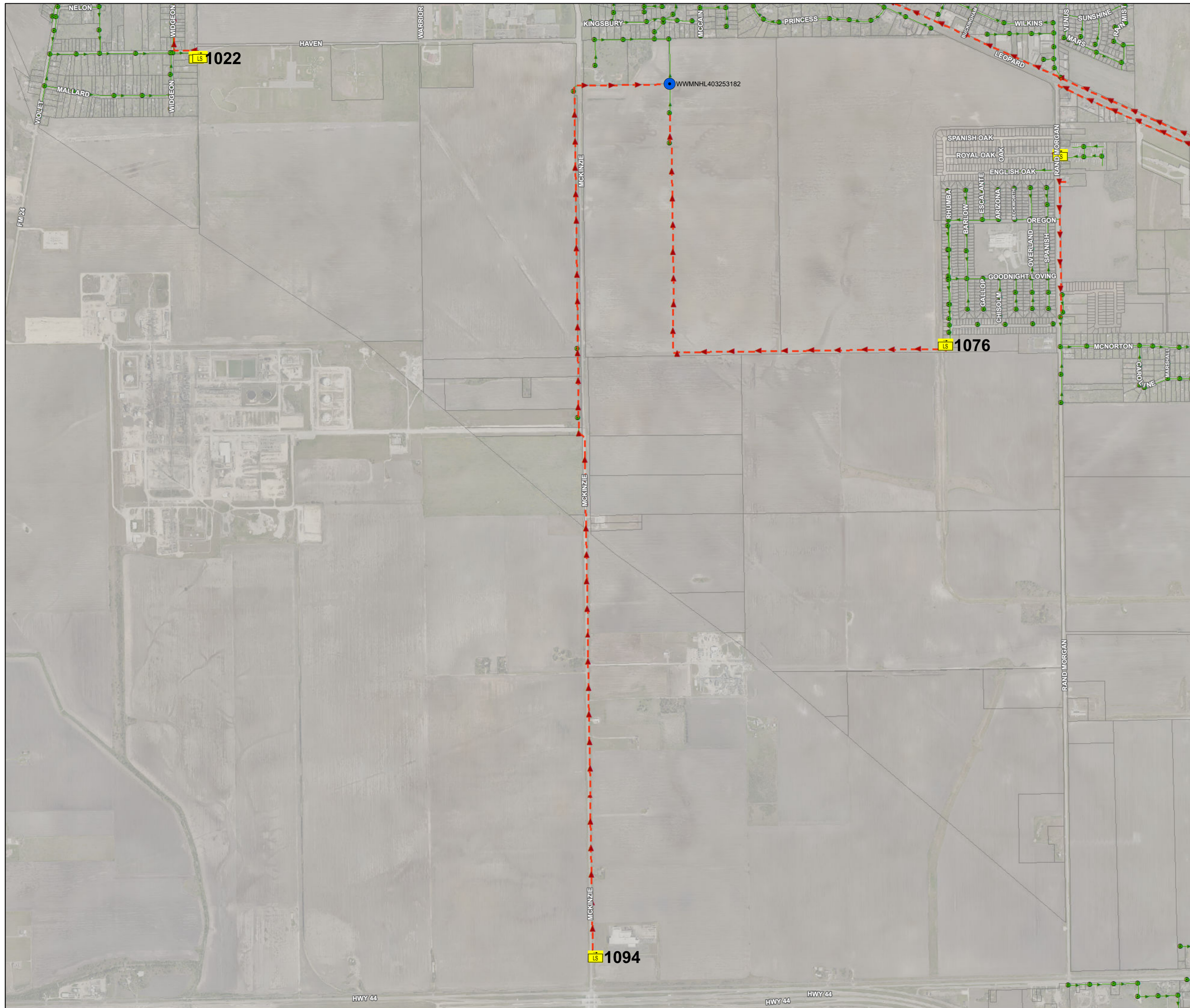


WW-LS1093

LIFT STATION RESPONSE PLAN

LS NAME: Coastal Meadows LS ID: 1093 LS#: 21





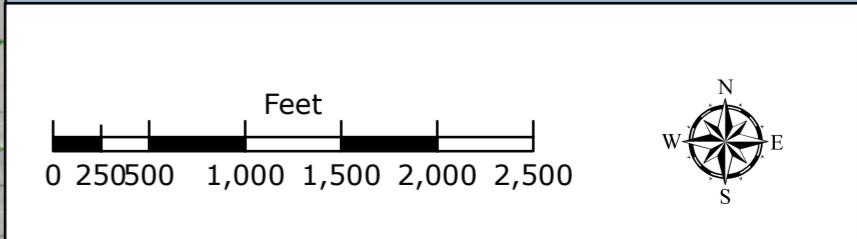
LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	10
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	None

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL403253182

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES	
Suction flow from wetwell and decant into discharge manhole.	



WW-LS1094

LIFT STATION RESPONSE PLAN
LS NAME: Dietrich LS ID: 1094 LS#: 13





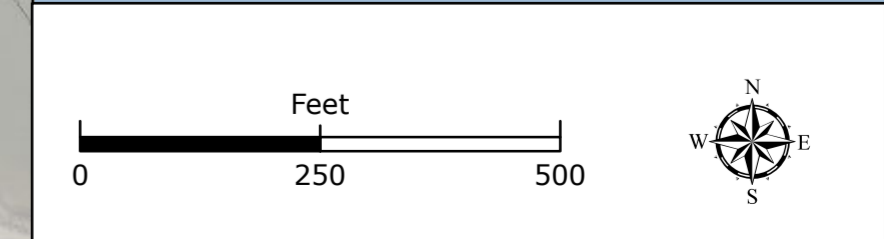
LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	7.5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	6.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1131432

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WW-LS1084

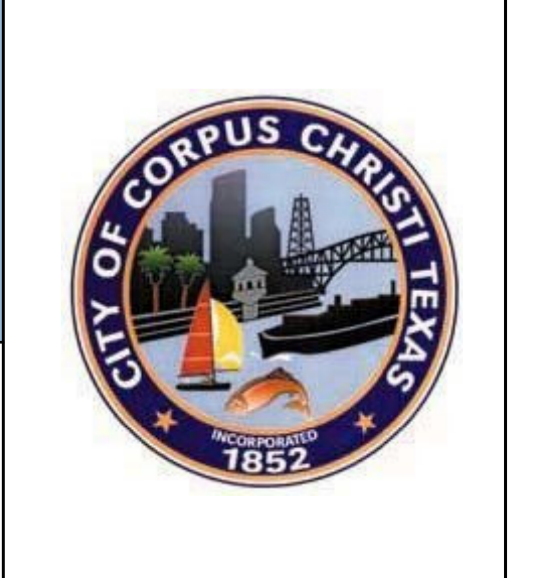
LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

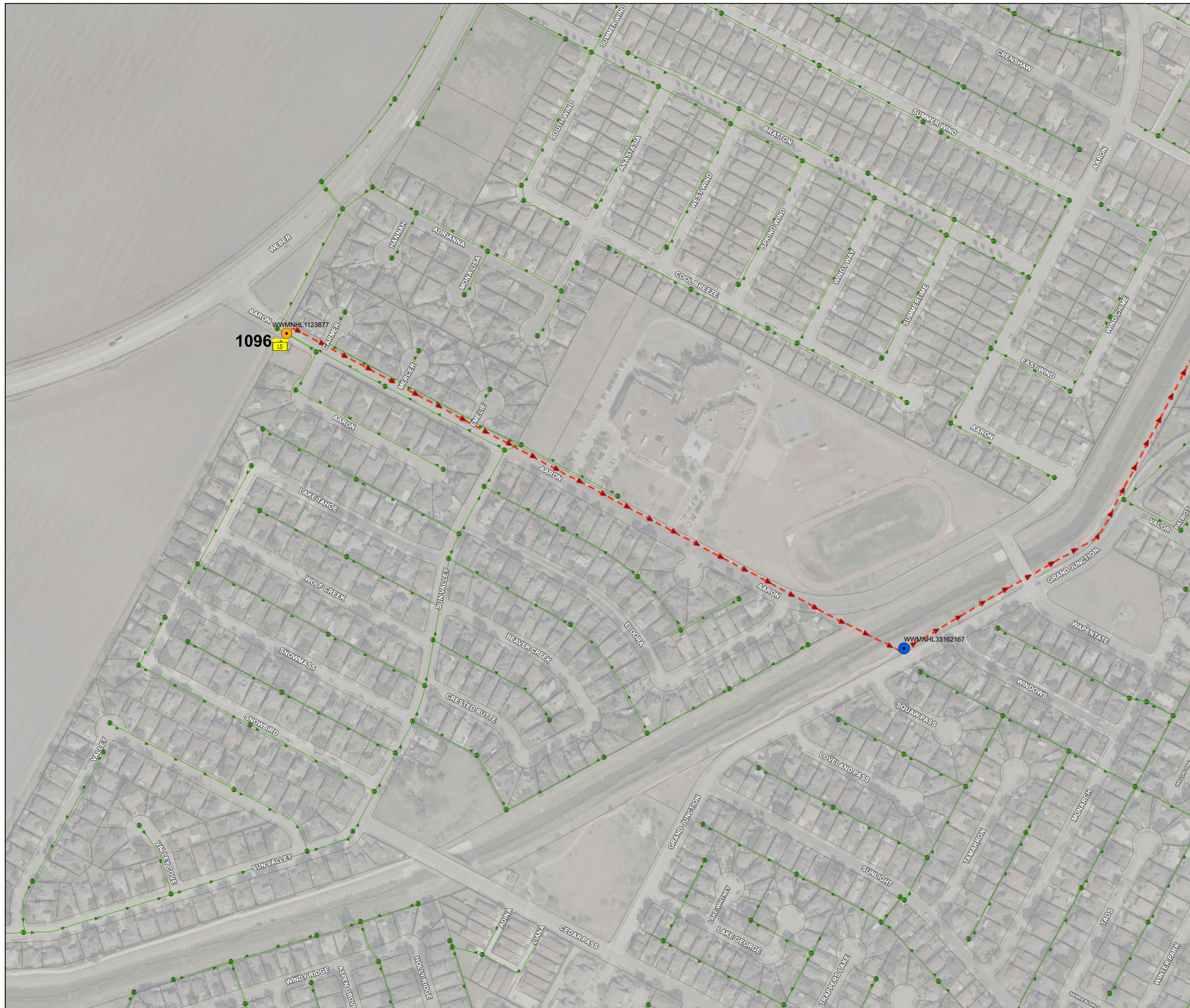
NOTES
Suction flow from wetwell and decant into discharge manhole.



WW-LS1095

LIFT STATION RESPONSE PLAN
LS NAME: Verde Mar LS ID: 1095 LS#: 88





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

WW-LS1096

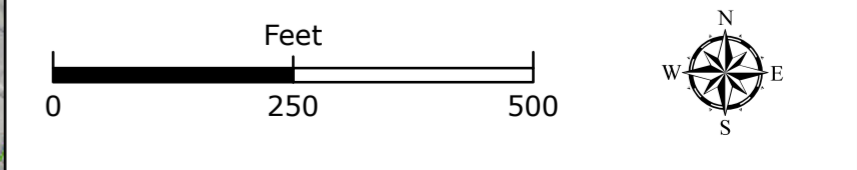
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2.25 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1123877

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL33162167

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwell and decant into discharge manhole.



LIFT STATION RESPONSE PLAN
LS NAME: Webers Glen LS ID: 1096 LS#: 53





LIFT STATION DATA	
BASIN	BROADWAY WWTP
PUMP HP	3
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

WW-LS1097

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1124314

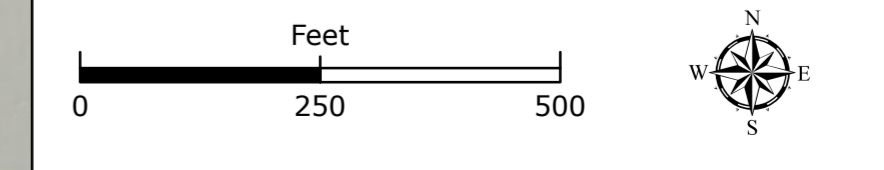
VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1132864

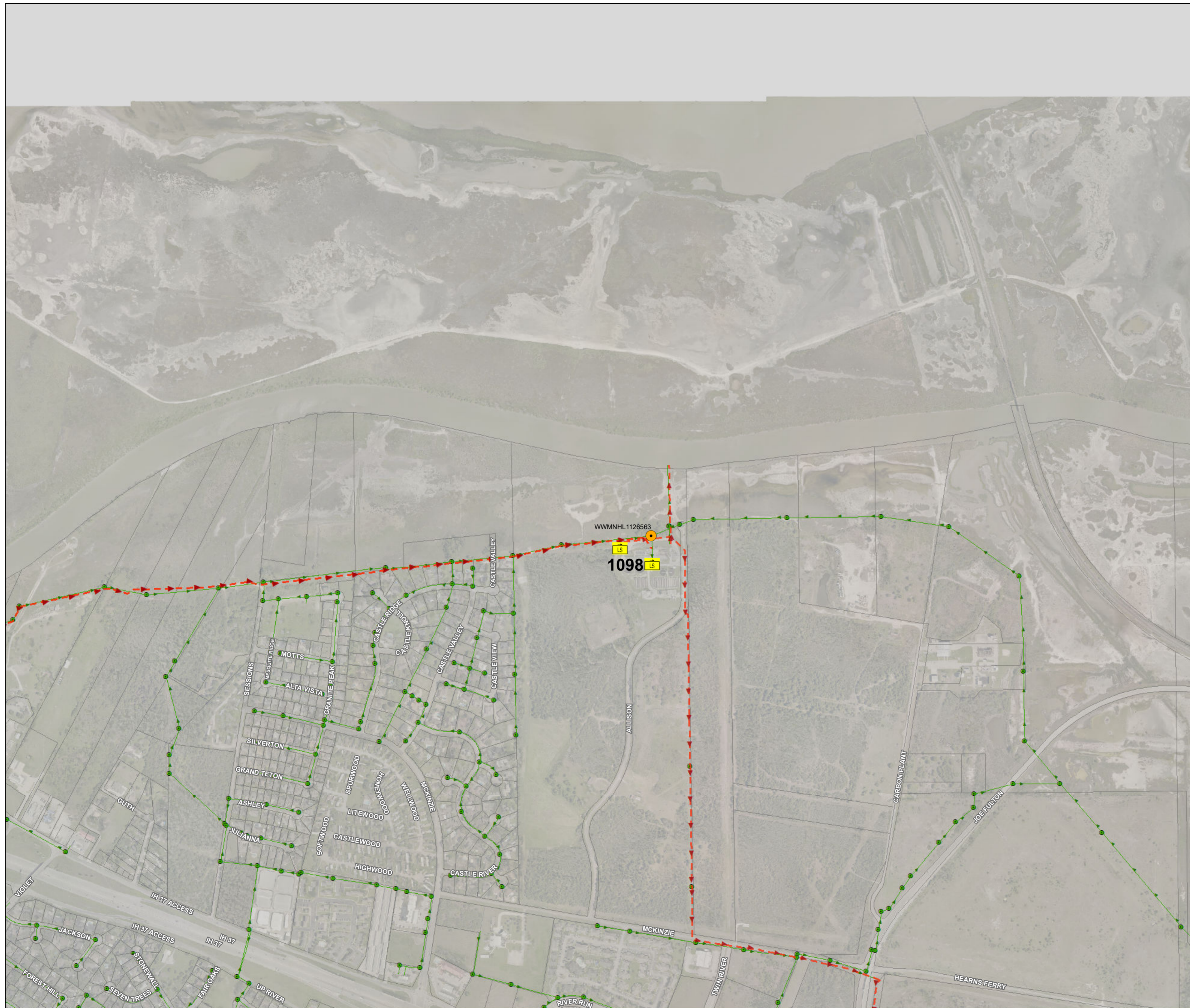
LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

None

LIFT STATION RESPONSE PLAN
LS NAME: Rincon North "B" LS ID: 1097 LS#: 31





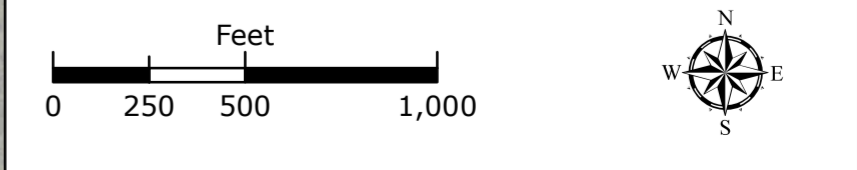
LIFT STATION DATA	
BASIN	ALLISON WWTP
PUMP HP	150
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	YES (SEE NOTES)
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	0.5 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1126563

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	WW-LS1098

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES	
1. Bypass into Allison WWTP headworks. 2. Verify second power source started and transfer load.	



WW-LS1098

LIFT STATION RESPONSE PLAN
LS NAME: Allison WWTP LS ID: 1098 LS#: 9





LIFT STATION DATA	
BASIN	BROADWAY WWTP
PUMP HP	3
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

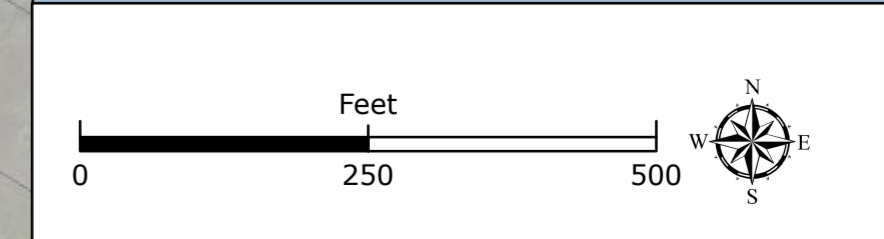
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1125253

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1134698

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

None

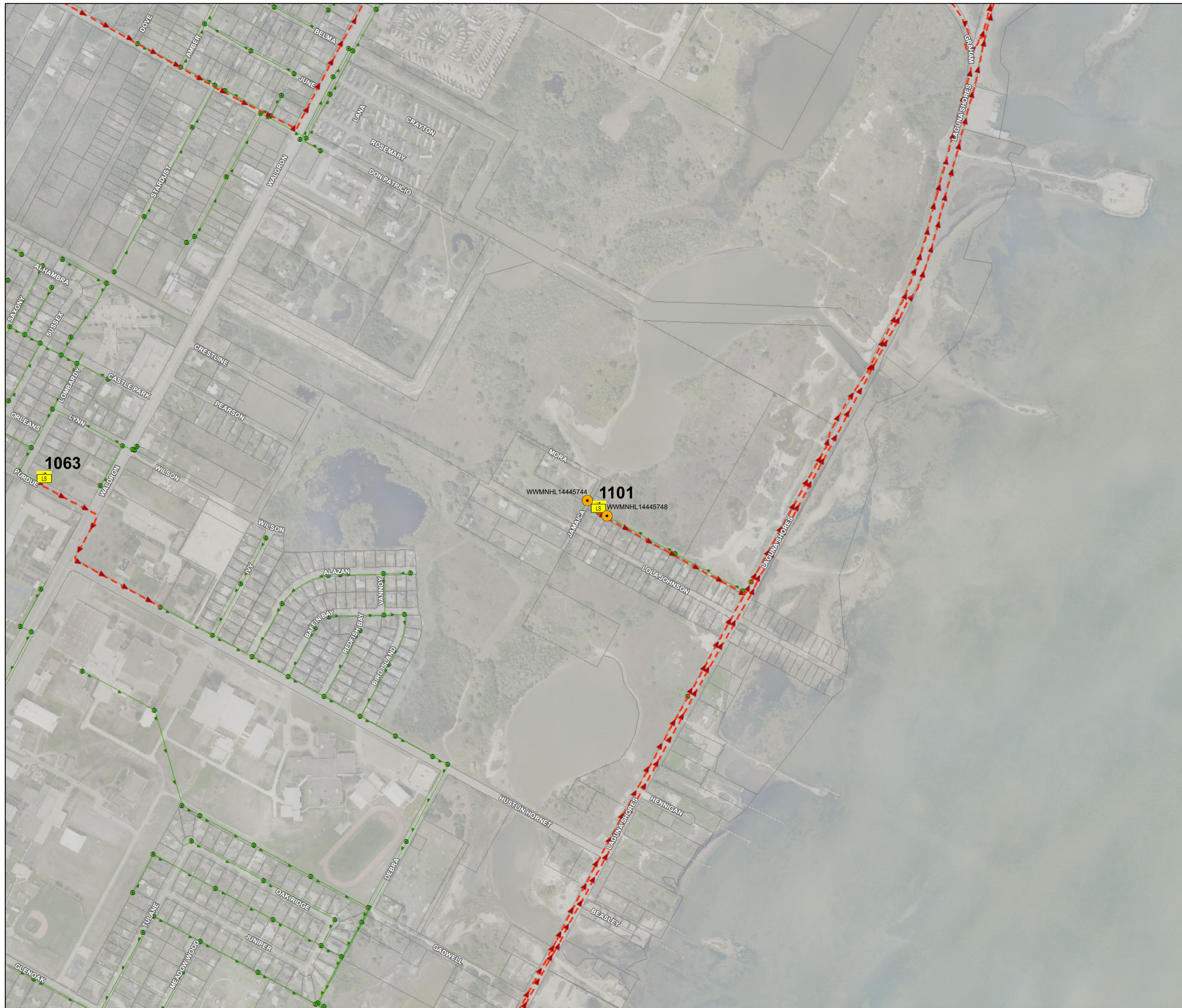


WW-LS1099

LIFT STATION RESPONSE PLAN

LS NAME: Rincon North "A" LS ID: 1099 LS#: 32





LIFT STATION DATA	
BASIN	LAGUNA MADRE WWTP
PUMP HP	30
NUMBER OF PUMPS	3
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	YES
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

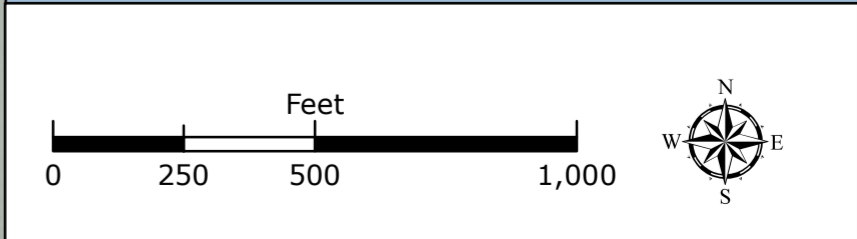
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	>24 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL14445744 WWMNHL14445748

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	Verification needed

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

1. Verify generator is started and transfer load.
2. Suction flow from wetwell and decant at Waldron Road L.S.



WW-LS1101

LIFT STATION RESPONSE PLAN
LS NAME: Jamaica LS ID: 1101 LS#: 71





LIFT STATION DATA	
BASIN	GREENWOOD WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

WW-LS1102

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	12 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL18746477

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL14376078

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

None

LIFT STATION RESPONSE PLAN
LS NAME: Rose Acres LS ID: 1102 LS#: 29





LIFT STATION DATA	
BASIN	WHITECAP WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

WW-LS1103

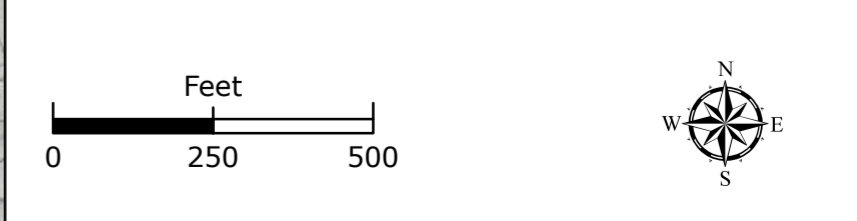
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	3 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL43614921

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1132112

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

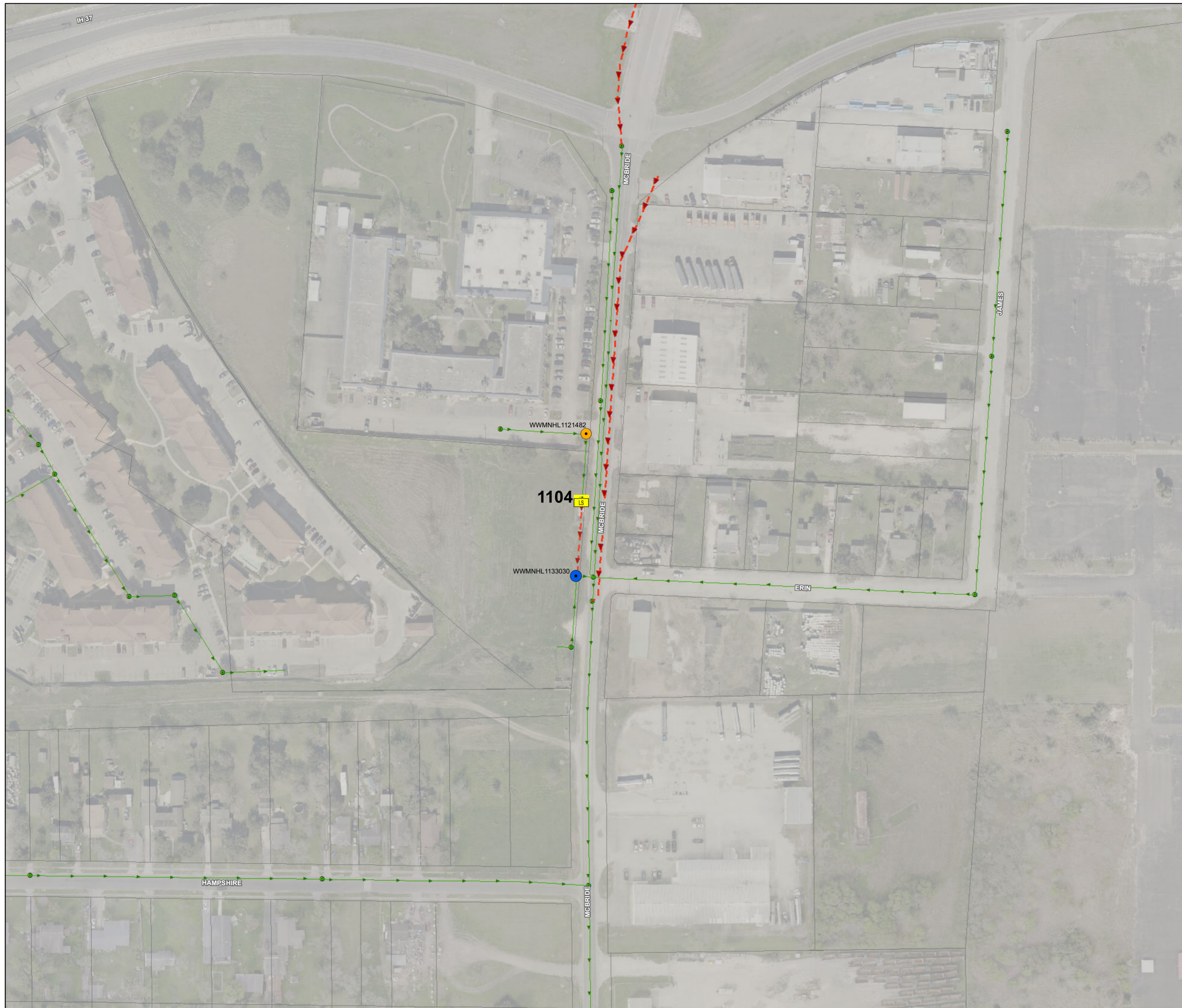
NOTES

No Notes



LIFT STATION RESPONSE PLAN
LS NAME: Kennedy Causeway II LS ID: 1103 LS#: 102





LIFT STATION DATA	
BASIN	GREENWOOD WWTP
PUMP HP	2.5
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

WW-LS1104

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2.4 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1121482

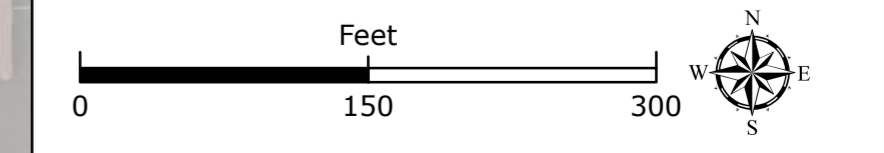
VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	2
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1133030

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

No Notes

LIFT STATION RESPONSE PLAN
LS NAME: Charlie's Place LS ID: 1104 LS#: 101





LIFT STATION DATA	
BASIN	GREENWOOD WWTP
PUMP HP	20
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	NO
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	NO

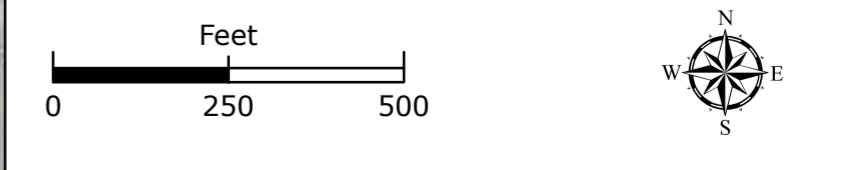
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	6 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL39174824

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	3
DISCHARGE MANHOLE MAXIMO ID	WWMNHL1127641

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

No Notes



WW-LS1106

LIFT STATION RESPONSE PLAN

LS NAME: Westpoint Crossing LS ID: 1106 LS#: 103





LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	1-75 HP, 1-125 HP
NUMBER OF PUMPS	2
ALTERNATE SERVICE?	YES (SEE NOTES)
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	YES

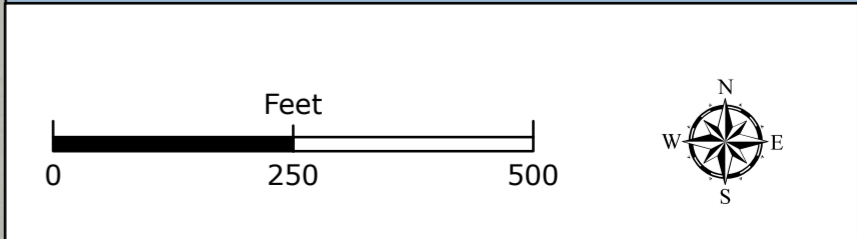
ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2 Hrs
OVERFLOW MANHOLE MAXIMO ID	WWMNHL1123134

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	WW-LS1202

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES

Suction flow from wetwells to headworks.



WW-LS1201

LIFT STATION RESPONSE PLAN

LS NAME: Oso WWTP #1 LS ID: 1201 LS#: 63





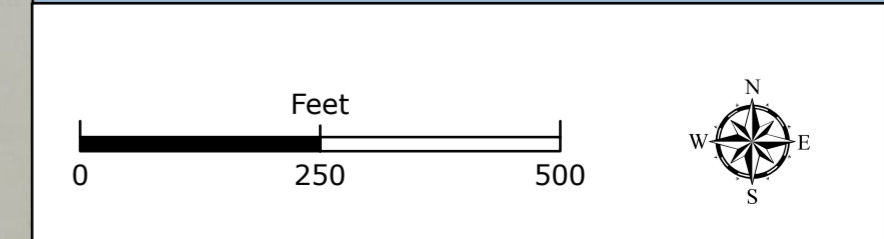
LIFT STATION DATA	
BASIN	OSO WWTP
PUMP HP	2-50 HP, 2-125 HP
NUMBER OF PUMPS	4
ALTERNATE SERVICE?	YES (SEE NOTES)
PERMANENT GENERATOR?	NO
CONNECTION POINT FOR PORTABLE GENERATOR AND/OR PORTABLE PUMP	YES

ESTIMATED TIME TO OVERFLOW	
ESTIMATED TIME	2 Hrs
OVERFLOW MANHOLE MAXIMO ID	None

VACTOR/VACUUM VEHICLE RESPONSE	
NUMBER OF VEHICLES NEEDED	5
DISCHARGE MANHOLE MAXIMO ID	WW-LS1201

LEGEND	
	Discharge Manhole
	Overflow Manhole
	Lift Station
	Force Main
	Gravity Main

NOTES
Suction flow from wetwells to headworks.



WW-LS1202

LIFT STATION RESPONSE PLAN
LS NAME: Oso WWTP #2 LS ID: 1202 LS#: 64



APPENDIX C
EMERGENCY CONTACT NUMBERS

Emergency Telephone Numbers

Emergency Phone Numbers	Primary Number	Secondary Number
Emergency	911	
Key City Personnel		
Director of Water Utilities	361-826-1874	
Assistant Director of Wastewater	361-826-1876	
Assistant Director of Utilities Infrastructure	361-826-3111	
Engineering Design Manager	361-826-1805	
Corpus Christi/Nueces County Public Health District	361-826-7200	
Power Company: AEP	866-223-8508	
Gas Company: (Emergency 911)	361-826-2489	
Police Dept: (Emergency 911)	361-886-2600	
State Hwy Patrol:	361-698-5500	512-424-2000
Traffic Engineering:	361-826-3540	
Federal Bureau of Investigation:	713-693-5000	
Fire Department:(Emergency 911)	361-826-3932	
Ambulance Service:	911	
Texas Emergency Management Agency:	361-688-5613	361-438-5388

TCEQ **24-Hour State Warning Point of Contact:**
Telephone: 361-825-3100
FAX: 361-825-3101

TCEQ Regional Office-14
 NRC Bldg., Suite 1200
 6300 Ocean Drive., Unit 5839
 Corpus Christi, TX 78412-5839



Parks & Wildlife: 24 Hour Communication Center 512-389-4848 281-842-8100

Region 6 EPA : **24 Hour Spill Reporting Number: 214-665-6595**

United States Environmental Protection Agency
 Region VI
 1455 Ross Avenue
 Dallas, Texas 75201
 Attn: Water Enforcer



Spill Notification Telephone Contacts

TCEQ:

24-Hour State Warning Point of Contact:

Telephone: 361-825-3100

Telephone: (Emergency/After Hours) 361-537-7911

FAX: 361-825-3101

TCEQ Regional Office-14
NRC Bldg., Suite 1200
6300 Ocean Drive., Unit 5839
Corpus Christi, TX 78412-5839



Region 6 EPA

Region 6, 24 Hour Spill Reporting Number: 214-665-6595

United States Environmental Protection Agency
Region VI
1455 Ross Avenue
Dallas, Texas 75201
Attn: Water Enforcer

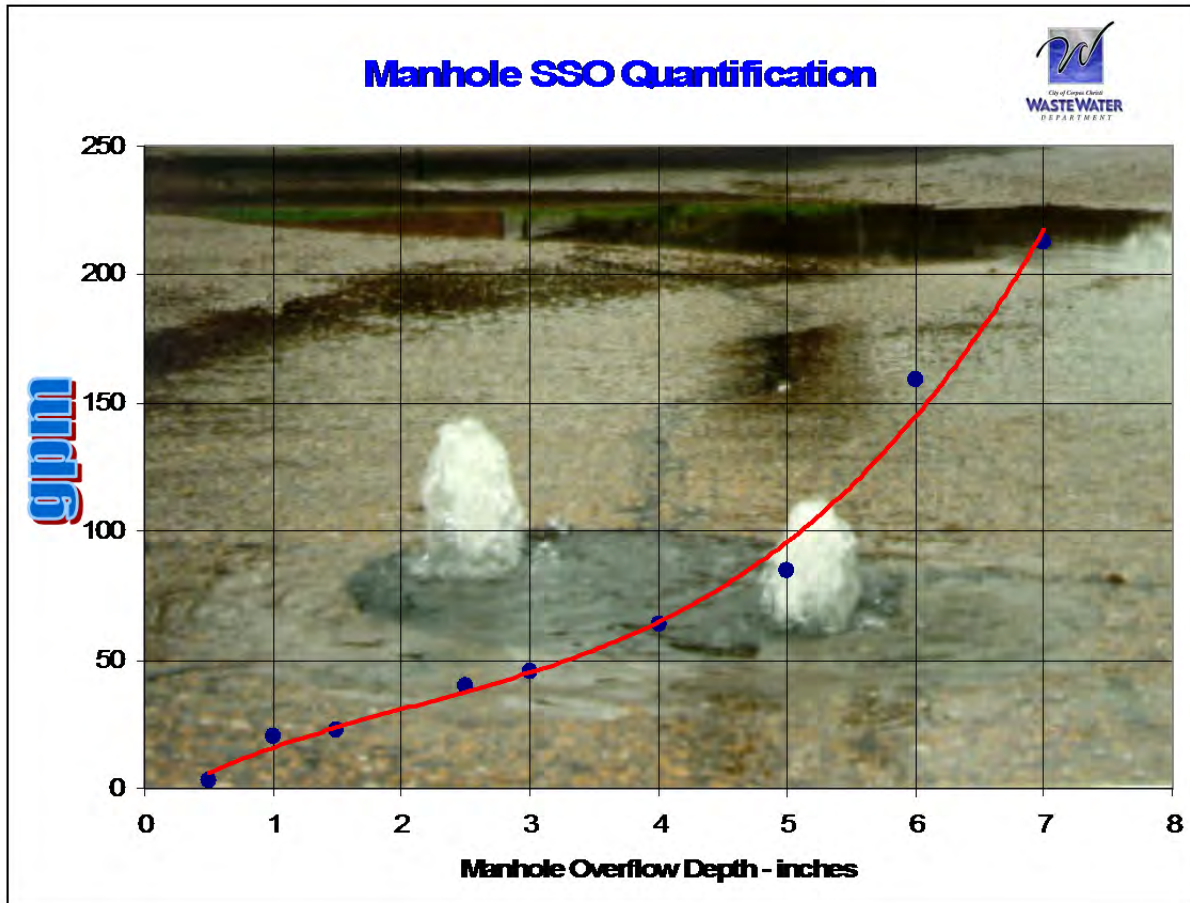


Key City Contact Personnel:

Name	Mobile Phone	Office Phone
1. 24 Hour Call Center		361-826-2489
2. Work Coordinator	361-815-0953	361-826-1839
3. Utilities System Manager	361-815-1268	361-826-1828
4. Operations Superintendent	361-816-8916	361-826-1214
5. Engineering Design Manager	361-446-1560	361-826-1805

APPENDIX D
SITE DISINFECTION AND SSO QUANTIFICATION

Estimating Sanitary Sewer Overflow Volume and HTH Disinfection Requirement



Volume of SSO = length x width x depth x 7.48 = gallons

Spill area = 20 feet by 30 feet = 600 sq.ft.

Depth of spill = 3 inches = 0.25 feet

Volume = 20 x 30 x 0.25 x 7.48 = 1,122 gallons

Disinfection with HTH = 12 ounces per 100 square feet

Area = 600 sq.ft.

HTH = 600/100 x 12 ounces = 6 x 12 = 72 ounces of HTH (or 4.5 lbs)

CAUTION: EXCESSIVE USE OF HTH CHLORINE CAN CAUSE FISH KILL OR OTHER NEGATIVE IMPACTS TO THE ENVIRONMENT.

Spill Documentation and Spill Volume Calculation Guidance
Source: City of San Diego

SANITARY SEWER FLOW RATES FOR SPILL DETERMINATIONS

Depth of Flow (inches)	Pipe Size								
	6	8	10	12	15	18	21	24	30
1	15	20	25	30	35	40	45	50	100
2	50	60	70	80	85	95	105	125	145
3	90	110	125	135	150	175	185	210	230
4	125	160	180	200	235	260	285	320	350
5	155	190	240	280	315	360	380	445	470
6	180	260	310	355	415	455	500	555	630
7		290	370	425	495	570	620	695	770
8		320	430	500	600	680	760	815	1010
9			465	575	690	800	890	965	1260
10			490	625	775	905	1005	1120	1360
11				685	870	1020	1135	1275	1490
12				715	935	1130	1260	1410	1630
13					1020	1240	1415	1580	1870
14					1070	1345	1520	1690	2110
15					1105	1425	1650	1850	2220
16						1495	1760	1990	2560
17						1550	1880	2110	2730
18						1595	1980	2285	2940
19							2050	2410	3100
20							2115	2530	3330
21							2160	2630	3510
22								2700	3780
23								2765	3900
24								2820	4040
									4130
									4200
									4250
									4320
									4370
									4400

Gallons per Minute @ V=2.0 feet per second (ft/sec) and n=0.013; Adjust accordingly for flat or steep sloped sewers.



City of San Diego
Metropolitan Wastewater Department

Reference Sheet for Estimating Sewer Spills from Overflowing Sewer Manholes

All estimates are calculated in gallons per minute (gpm)

Wastewater Collection Division
(619) 654-4160



5 gpm



25 gpm



50 gpm



100 gpm



150 gpm



200 gpm



225 gpm



250 gpm



275 gpm

All photos were taken during a demonstration using metered water from a hydrant in cooperation with the City of San Diego's Water Department.

rev. 4/99

D.2.2.B Volume of SSO at Manhole

Length x Width x Depth x 7.48 = gallons
Spill area = 20 feet by 30 feet = 600 sq. ft.
Depths of spill = 3 inches = 0.25 feet
Volume = 20 x 30 x 0.25 x 7.48 = 1,122 gallons

D.2.3 WET WEATHER OVERFLOW CALCULATION:

The following can be used to help in estimating the rate of loss of flow out of manholes. As this is an estimate, judgment by the observing person and/or estimator must always be used.

All calculations are based on an estimate of the size of the opening involved, the velocity of flow through the opening, and the duration of time the overflow occurred. In most all occurrences, the opening size and velocity will change over an event from low to high back to low. Judgment on an average condition must thus be attempted to reach a realistic rate of loss.

D.2.3.A. Loss through vent holes

1. Size of opening:

Assume holes at 1- inch diameter

$$\text{Area} = (\text{number of holes}) (\pi) (D^2/4) (1\text{ft}^2/144)$$

$$\text{Area} = (\text{number of holes}) (3.14) (1/4) (1/144)$$

$$\text{Area} = (\text{number of holes}) (0.0055\text{ft}^2/\text{hole})$$

2. Velocity Plume Guide

Velocity through holes, based on Velocity Head = $(\text{Velocity}^2/2g)$

<u>Plume height</u>	<u>Velocity</u>
1-inch	2.0 ft/sec
2-inch	3.3 ft/sec
3-inch	4.0 ft/sec
4-inch	4.6 ft/sec
5-inch	5.2 ft/sec
6-inch	5.7 ft/sec

3. Time = convert to minutes

$$\text{Volume (Gal.)} = (\text{Area}) (\text{Velocity}) (\text{Time}) (448 \text{ gpm/cfs})$$

Example: Top with six hole, flow through holes makes a one-inch high plume, last for 4 hours, 15 minutes

$$\text{Volume} = (6 \text{ holes} \times 0.0055 \text{ ft}^2/\text{hole}) (2\text{ft}/\text{sec}) (255 \text{ min}) (448 \text{ gpm}/\text{cfs})$$

$$\text{Volume} = (0.033) (2) (255) (448) = 7540 \text{ gallons}$$

D.2.3.B. Loss around edge of non-vented cover

1. Size of opening:

As the weight of manhole lid will generally hold it in place until internal pressures exceed 0.4 pounds/sq. in., loss occurs through imperfections, grit, etc. between the lid and manhole frame. Observations are generally a vertical ring of water from side gap between the lid and frame of approximately 1/4 inch width.

$$\text{Area} = (\pi) (D) (1/4 \text{ inch}) (1/12 \text{ in}/\text{ft})$$

$$= (3.14) (2\text{ft}) (1/4) (1/12)$$

$$\text{Area} = 0.131 \text{ ft}^2$$

2. Velocity through gap

(see vertical plume guide above, D.3.A.2.)

3. Time - convert to minutes

Example: Manhole with 4-inch plume around edge for 2 hours, 15 minutes

$$\text{Volume (Gal.)} = (\text{Area}) (\text{Velocity}) (\text{Time}) (448 \text{ gpm}/\text{cfs})$$

$$= (0.131 \text{ ft}^2) (4.6 \text{ ft}/\text{sec}) (135) (448)$$

$$= 36,445 \text{ gallons}$$

D.2.3.C. Loss from tilted cover

1. Size of opening:

Some estimate has to be made in the field concerning how much gap exists in order to do this calculation. For the following amounts of lift of one side, the areas are as follows:

$$A = (\pi) (D) (\text{in of lift}) (1/12 \text{ ft}/\text{in}) (1/2)$$

$$A = (3.14) (2\text{ft}) (\text{in. of lift}) (1/12) (1/2)$$

$$A = 0.262 (\text{in. of lift})$$

<u>Lift (inches)</u>	<u>Area (ft²)</u>
1	0.262
2	0.524
3	0.786
4	1.048

2. Velocity through opening

This must be estimated from visual observation. A low rate would be 2/ft/sec, moderate rate at 4 to 5 ft/sec, high rates up to 7 ft/sec. Over 7 ft/sec, the lid will

probably blow off the manhole. The gap (lift) will generally increase with higher velocity as well.

3. Time - convert to minutes

$$\text{Volume (Gal.)} = (\text{Area}) (\text{Velocity}) (\text{Time}) (448 \text{ gpm/cfs})$$

Example: Field observation of 2-inch gap and velocity of 4 ft/sec for a period of 3 hours, 30 minutes.

$$\begin{aligned}\text{Volume (Gal.)} &= (0.524 \text{ ft}^2) (4\text{ft/sec}) (210\text{min}) (448) \\ &= 197,192 \text{ gallons}\end{aligned}$$

D.2.3.D. Loss from Manhole without a lid in place

If no cover exists, an estimate of the average height the water column (plume) extends above the top of the manhole frame must be made. Use the height to velocity estimate from (A) above to estimate the velocity. Be sure to adjust the height estimate downward for the affects of debris around the edge of the rim which will cause the height to be incorrectly high.

$$\text{Area} = (\pi) (D^2/4) = (3.14) (2^2/4) = 3.14 \text{ ft}^2$$

Velocity - from field observation of water column height

Time - convert to minutes

$$\text{Volume (Gal.)} = (\text{Area}) (\text{Velocity}) (\text{Time}) (448 \text{ gpm/cfs})$$

Example: A manhole without a lid was observed to have an overflow with a 3 - inch high column of water for a period of 6 hours, 10 minutes

$$\begin{aligned}\text{Volume (Gal.)} &= (3.14) (4.0 \text{ ft /sec}) (370) (448) \\ \text{Volume} &= 2,081,946 \text{ gallons}\end{aligned}$$

D.2.3.E. Other

1. Generally approach of estimating a cross sectional area where the flow is leaving and a velocity of flow can be used to determine a rate. This can be applied to any situation.
2. Several observations over an event to estimate the area and velocity are better than a single observation. The overflow examples above assume a constant rate over the period which will estimate volumes too high. As an example, if an hour at the beginning and end of each event is assumed for the flow to build up from zero to maximum and back to zero, a calculation could be done as follows:

Example: A manhole with a cover tilted open 2 inches with an estimated velocity of 4 ft/sec at its worst rate of loss for two hours and about 1-inch tilt with a velocity of 2 ft/sec observed at two other occasions over a 7 hour total event.

Worst case: 2 hours, 2 inch tilt, 4 ft/sec

Other times: 1 inch tilt, 2 ft/sec, time unknown

Total overflow time: 7 hours

Divide total of 7 hours into several periods

1st hour: Start to 1-inch tilt, 2 ft/sec

$$\begin{aligned}\text{Volume (Gal.)} &= (\text{Area}) (\text{Velocity}) (\text{Time}) (448) \times 50\% \\ &= (0.262) (2) (60) (448) (0.50) \\ &= \underline{7,043 \text{ gallons}}\end{aligned}$$

7th hour: 1-inch tilt, 2 ft/sec down to end

Same as above situation

$$\text{Volume} = \underline{7,043 \text{ gallons}}$$

5 remaining hours:

2 hours at 2-inch tilt, 4 ft/sec

3 hours at 1-inch tilt, 2 ft. sec

$$\begin{aligned}\text{Volume} &= (0.524) (4 \text{ ft/sec}) (120 \text{ min}) (448) \\ &= \underline{112,681 \text{ gallons}}\end{aligned}$$

$$\begin{aligned}\text{Volume} &= (0.262) (2 \text{ ft/sec}) (180 \text{ min}) (448) \\ &= \underline{42,255 \text{ gallons}}\end{aligned}$$

$$\text{Event Total} = 7,043 + 7,043 + 112,681 + 42,255 = \underline{169,022 \text{ gallons}}$$

APPENDIX E
GUIDE TO CITY SERVICES
EXAMPLE NOTIFICATION LETTERS

GUIDE TO CITY SERVICES

Area Code for Corpus Christi is 361

AIRPORT

Administration 289-0171

ANIMAL CARE

General Information 826-2489

Barking Dogs 886-2530

Dead Animals 826-2489

After 5:00 Emergency Only 886-2600

BUILDING INSPECTIONS

Permits/Inspections 826-3240

- Electrical
- Plumbing
- Building
- Construction
- Mechanical
- Signs
- Driveways

CITY

Council / City Secretary 826-3105

- Boards / Commissions
- Elections
- Live & On Demand Video Streaming

City Manager 826-3220

Customer Service Center 826-2489

CODE ENFORCEMENT

826-2489

- Abandoned Vehicles
- Enforcement of Signs
- High Weeds
- Zoning Violations
- Substandard Housing
- Trash
- Vacant / Occupied Lots

CUSTOMER CALL CENTER

826-2489

DEVELOPMENT SERVICES

826-3240

ONLINE SERVICE CENTER

826-4090

- Online Forms, Applications, Payments, Registrations
- FAQs, Service Requests, Questions and Comments

EMERGENCY MANAGEMENT

Administration 826-1100

EMERGENCY MEDICAL SERVICES (EMS)

Administration 826-3900

Billing 826-3942

ENGINEERING

826-3500

- City Construction Projects
- Drainage Improvements

Traffic Signs	826-2489
Lights / Traffic Signals	826-2489
Traffic Signal Problems	826-2489
After 7 PM Weekends & Holidays	886-2600

ENVIRONMENTAL PROGRAMS

Administration	826-4066
Air Quality	826-4066
Water / WW / Storm Water	826-4066
Solid Waste / Haz Mat	826-4066

FINANCIAL SERVICES

Administration	826-3160
Accounts Payable	826-3668
Central Cashiering	826-3343

FIRE

Administration	826-3900
Fire Prevention	826-3930
- Inspections	- Permits
Fire Suppressions Headquarters	826-3900
Local Emergency Planning Committee (LEPC)	826-3960

GAS

Administration	885-6900
Gas Leaks	826-2489
New Services	826-2489
Gas Lights & Grills / Rebates	885-6922
Gas Supply	885-6900
Call Before You Dig	1-800-344-8377
Petroleum Inspection	826-3961
Fueling Services	885-6900

HEALTH

General Information	826-7200
Breast & Cervical Cancer Services	826-7287
<u>Vital Records</u>	826-7229
WIC	826-1355
Immunization Clinic	826-7238
TB Control	826-7247
Food Safety / Sanitation / Adult Care Facilities	826-7273
- <u>Complaints</u>	- Food Handlers Cards
- <u>Food Manager Permits</u>	

<u>HOUSING & COMMUNITY DEVELOPMENT</u>	826-3044
- Low Income Aid - Relocation Assistance	
<u>HUMAN RELATIONS</u>	826-3190
Discrimination Complaints / Info	
<u>HUMAN RESOURCES (employment)</u>	826-3300
- Health Benefits	
- <u>Jobs</u>	
<u>LIBRARIES</u>	826-7000
<u>MARINA</u>	826-3980
<u>MAYOR'S OFFICE</u>	826-3100
<u>MUNICIPAL COURT</u>	886-2500
<u>Judicial Department</u>	886-2500
Prosecutor's Office	886-2530
<u>MUSEUM</u>	826-4650
<u>PARKS & RECREATION</u>	
Administration	826-3461
<u>Golf Courses</u>	
Gabe Lozano	826-8016
Oso Golf Course	826-8011
<u>Recreation Centers</u>	826-3461
Joe Garza	882-1408
Lindale	855-0392
Oak Park	883-3912
Oso	991-3700
Solomon Coles	884-9552
<u>Senior Community Services</u>	826-3150
Meals on Wheels	826-3150
<u>Senior Citizen Centers</u>	
Broadmoor	826-3138
Ethel Eyerly	826-2330
Garden Center	980-9354
Greenwood	826-1368
Lindale	854-4508
Northwest	241-3956
Oveal Williams	826-2305
Zavala	826-3099
<u>Tennis Centers</u>	
H.E.B. Tennis Center	882-6013
Al Kruse Tennis Center	883-6942

PERMITS (OTHER)

<u>PERMITS-DEVELOPMENT SERVICES</u>	826-3240
Peddler	
Commercial Solicitor	
Itinerant Merchant	
Coin-operated Amusement Machines	
Interstate Commerce Registration	
<u>PERMITS-PARKS & RECREATION</u>	826-3417
Inflatable Games in City Parks/Park Facilities	
Pony Ride in City Parks/Park Facilities	
Petting Zoo in City Parks/Park Facilities	
Special Event Agreement & Permit Form	
Use of Alcohol in City Park/Park Facility	
Indemnity Form	
<u>PERMITS-TRAFFIC/STREETS</u>	
Neighborhood Event	
Parade Permit	
ROW	
Special Event - Temporary Street Closure	
PLANNING & DEVELOPMENT	
Zoning Info / Applications	826-3240
Platting	826-3240
<u>POLICE</u>	886-2600
Administration	886-2615
Burglar Alarm Permits	886-2739/877-413-8308
Citizen Programs	886-2568
Criminal Investigators	886-2840
Crime Stoppers	888-TIPS
Noise Complaints	886-2600
Red Light Camera Tickets	887-0481
Taxicab Permits	826-3558
Vehicle Impound	826-1996
<u>PUBLIC INFORMATION</u>	826-3211
<u>PURCHASING</u>	826-3160
- Bid Information	- Supplier Packet
RENTAL FACILITIES	
Convention Center / American Bank Center	826-4100
Multicultural Center (Heritage Park)	826-3410
Museum	826-4664
RISK MANAGEMENT	826-3680
<u>STORM WATER</u>	826-2489
After 7 PM Weekends & Holidays	885-6942

- Major/Minor Drainage Ditches
- Clogged Storm Drain
- Blowing of Grass Clippings
- Curb & Gutter
- Street Sweeping
- Flooding St. Alley

STREET OPERATIONS

Street Repairs 826-2489

SOLID WASTE SERVICES

Garbage / Heavy Brush / Recycling Collection and Schedules 826-2489

Illegal Dumping 826-2489

Brush Hotline 826-1969

[J.C. Elliott Transfer Station](#) 826-1631

[Cefe Valenzuela Landfill](#) 826-1631

Hauler Permit 826-1965

TRAFFIC ENGINEERING

- Sidewalk - Traffic Obstruction

- Request for Traffic Signs

Visual Obstruction 826-2489

Street Lamps Outage 826-2489

Request for Signal Problems 826-2489

Neighborhood / School Signs 826-2489

UTILITIES BILLING

Gas, Water, Wastewater Services 826-2489

- Customer Service / Billing / Credit & Collections

Taps 826-3240

VECTOR CONTROL

- Mosquito Control / Honeybee Control

After Hours 911

WASTEWATER

Sewer Clog / Backup / Overflow 826-2489

Odor Complaints 826-2489

After 7 PM Weekends & Holidays 885-6942

WATER

Main Line Repairs 826-2489

After 7 PM Weekends & Holidays 885-6942

OTHER NUMBERS

AEP / CPL Customer Service 1-877-373-4858

American Bank Center 826-4100

[Better Business Bureau](#) 852-4949

Border Patrol / US Customs	879-4400
<u>Chamber of Commerce</u>	881-1800
<u>Convention & Visitors Bureau</u>	881-1888
Corpus Christi Housing Authority	889-3300
Department of Public Work	888-0490
Economic Development Corp	882-7448
<u>Education Service Center</u>	561-8400
Federal Courthouse	888-3142
<u>Grande Communications</u>	334-4600
IRS	903-1919
<u>MHMR</u>	886-6900
Main Post Office	886-2236
Metro Ministries	887-0151
<u>National Weather Service</u>	289-1861
Nueces Co. Appraisal District	881-9978
Nueces Co. Courthouse	888-0111
- Auto License Dept	888-0230
- District Attorney	888-0410
- Jail	887-2300
Nueces Co. Juvenile Court	855-7303
Nueces Co. Tax Assessor	888-0230
Nueces Co. Voter Registration	888-0404
<u>Port of Corpus Christi Authority</u>	882-5633
Public Utility Commission	1-888-782-8477
Regional Transportation Authority	883-2287
Bus Route Information	289-2600
Social Security Office	1-866-613-2859
Tx Attorney General's Office	851-5024
Tx Dept of Human Services	
- 4410 Dillon Lane	857-8060
- 5155 Flynn Parkway	855-9924
Tx Dept of Public Safety	698-5625
- Drivers License Division	698-5625
Tx Dept of Transportation	808-2300
- Expressways & Underpass Areas	
Tx Dept of Protective & Regulatory Srv.	512-438-5948
Tx Electric Choice	1-866-797-4839
- email: info@powertochoose.org	
Tx Division of Emer. Management	512-424-2208

<u>Texas State Aquarium</u>	881-1200
Time Warner Communications	877-830-5629
U.S. Federal Courthouse	888-3142
<u>USS Lexington</u>	888-4873

AREA SCHOOL DISTRICTS

Calallen ISD	242-5600
<u>Corpus Christi ISD</u>	886-9200
Flour Bluff ISD	694-9200
<u>Tuloso Midway ISD</u>	903-6400
West Oso ISD	806-5900



Example

FOR IMMEDIATE RELEASE
(Date, Time)
NEWS BULLETIN-ADVISORY
for
(Name of affected surface water)

(Lift station failure, collapsed pipe, mechanical breakdown, lightning, local flooding, contractor, etc.) near the intersection of _____ and _____ has caused a sewage overflow into the (Creek, Bay, etc.). Repair efforts are underway.

Discharge of untreated sewage to (Creek, Bay, etc.) may adversely affect the quality of the surface waters. Citizens are advised to avoid swimming or fishing in the areas where warning signs are posted.

The waters of (Creek, Bay, etc.) in the vicinity of the overflow are being tested and monitored by the City to determine the extent of pollution. Additional advisories will be issued on the status of the water quality and when it is safe to resume normal use of the (Creek, Bay, etc.).

For additional information reported to the Texas Commission on Environmental Quality (TCEQ) refer to the attached notification.

**Contact: City of Corpus Christi Public Information Office at
361-826-3211**



NEWS RELEASE



City of Corpus Christi | 1201 Leopard St. | Corpus Christi, TX 78401 | (361) 826-2489

City Contact: Kim Womack | Communication Director | (361) 834-6257 | kimw@cctexas.com

Power Outage Results in Wastewater Overflow

March 19, 2016

A power outage near the intersection of Saratoga Boulevard and Greenwood Drive has caused a sewage overflow into the La Volla Creek (Oso Creek Tributary No. 10) from the lift station at the City of Corpus Christi's (the "City's") Greenwood Wastewater Treatment Plant, at approximately 3:00 AM on Saturday, March 19, 2016.

It is estimated that the spill resulted in a discharge of approximately 250,000 gallons of domestic wastewater into the adjacent area. City crews responded to the spill area and the City has contacted appropriate officials, including the Texas Commission on Environmental Quality's Regional office.

The waters of La Volla Creek in the vicinity of the overflow will be tested and monitored by the City to determine the extent of pollution. Additional advisories will be issued on the status of the water quality and when it is safe to resume normal use of the La Volla Creek.

Discharge of untreated sewage to La Volla Creek may adversely affect the quality of the surface waters. Citizens are advised to avoid swimming or fishing in the areas where warning signs are posted.

This spill does not affect the City of Corpus Christi customer's drinking water.

The City is required by 30 Tex. Admin. Code Section 319.303(c) to issue the following precautionary statements:

(1) Persons using private drinking water supply wells located within 1/2-mile of the spill site or within the potentially affected area should use only water that has been distilled or boiled at a rolling boil for at least one minute for all personal uses including drinking, cooking, bathing, and tooth brushing. Individuals with private water wells should have their well water tested and disinfected, if necessary, prior to discontinuing distillation or boiling.

(2) Persons who purchase water from a public water supply may contact their water supply distributor to determine if the water is safe for personal use.

(3) The public should avoid contact with waste material, soil, or water in the area potentially affected by the spill.

(4) If the public comes into contact with waste material, soil, or water potentially affected by the spill, they should bathe and wash clothes thoroughly as soon as possible.

###

FOR IMMEDIATE RELEASE

May 13, 2015, 8:30AM

NEWS BULLETIN-ADVISORY

for

La Volla Creek

Local flooding near the intersection of Saratoga Boulevard and Greenwood Drive has caused a sewage overflow into the La Volla Creek (Oso Creek Tributary No. 10, downstream of the Saratoga Boulevard Bridge to Oso Creek) from a wastewater line near the City of Corpus Christi's (the "City's") Greenwood Wastewater Treatment Plant, estimated during the morning hours of Tuesday, May 12, 2015.

The City was notified of the spill at about 9:00 AM on Tuesday, May 12, 2015. It is estimated that the spill resulted in a discharge of approximately 198,000 gallons of domestic wastewater into the adjacent area. City crews responded to the spill area and the City has contacted appropriate officials, including the Texas Commission on Environmental Quality's Regional office.

The waters of La Volla Creek in the vicinity of the overflow will be tested and monitored by the City to determine the extent of pollution as weather conditions allow. Additional advisories will be issued on the status of the water quality and when it is safe to resume normal use of the La Volla Creek.

Discharge of untreated sewage to La Volla Creek may adversely affect the quality of the surface waters. Citizens are advised to avoid swimming or fishing in the areas where warning signs are posted.

The City is required by 30 Tex. Admin. Code Section 319.303(c) to issue the following precautionary statements:

(1) Persons using private drinking water supply wells located within 1/2-mile of the spill site or within the potentially affected area should use only water that has been distilled or boiled at a rolling boil for at least one minute for all personal uses

including drinking, cooking, bathing, and tooth brushing. Individuals with private water wells should have their well water tested and disinfected, if necessary, prior to discontinuing distillation or boiling.

(2) Persons who purchase water from a public water supply may contact their water supply distributor to determine if the water is safe for personal use.

(3) The public should avoid contact with waste material, soil, or water in the area potentially affected by the spill.

(4) If the public comes into contact with waste material, soil, or water potentially affected by the spill, they should bathe and wash clothes thoroughly as soon as possible.

For further information, contact: DeAnna McQueen, Public Information Officer, at **361-443-1427**.

###

Texas Commission on Environmental Quality
Public Notification Form for Wastewater Discharges

Information about the Discharge

An unauthorized discharge or spill of wastewater has occurred from:

Wastewater Treatment Facility: _____ Collection System: _____

Facility Name:

Person to contact for information:

Location of spill(s):

Estimated date and time of spill(s):

Estimated volume of spill(s):

Type of Spill:

Description of the area potentially affected, including down gradient and lateral distance from spill(s) site:

Suspected cause of spill(s):

List of Actions Taken Including but, not Limited to:

Notification of

Appropriate local government officials: _____

TCEQ Regional Office: _____

Containment of spill:

Increased monitoring of water supply systems:

Initiation of cleanup activities:

Precautionary Statements:

1. Persons using private drinking water supply wells located within $\frac{1}{2}$ mile of the spill site or within the potentially affected area should use only water that has been distilled or boiled at a rolling boil for at least one minute for all personal uses including drinking, cooking, bathing, and tooth brushing. Individuals with private water wells should have their well water tested and disinfected, if necessary, prior to discontinuing distillation or boiling.
2. Persons who purchase water from a public water supply may contact their water supply distributor to determine if the water is safe for personal use.
3. The public should avoid contact with waste material, soil, or water in the area potentially affected by the spill.
4. If the public comes into contact with waste material, soil, or water potentially affected by the spill, they should bathe and wash clothes thoroughly as soon as possible.



Example

FOR IMMEDIATE RELEASE

(Date, Time)

NEWS BULLETIN CLOSING NOTICE

for

(Name of affected surface water)

(Lift station failure, collapsed pipe, mechanical breakdown, lightning, local flooding, etc.) near the intersection of _____ and _____ has caused a sewage overflow into the (Creek, Bay, etc.) near _____. The system failure caused the discharge of approximately _____ gallons of sewage to (Creek, Bay, etc.), resulting in the need for restricted public access.

City personnel were rapidly mobilized to take immediate and effective action to minimize the environmental impact. The repairs were completed (or ongoing) in (hours, days).

The City worked in cooperation with the Texas Commission on Environmental Quality and Corpus Christi/Nueces County Public Health District in monitoring the water quality and environmental effects of the sewage overflow on (Creek, Bay, etc.). As a result, the impacts of the accidental sewage discharge were minimized. The water quality in (Creek, Bay, etc.) is continuing to be monitored to ensure there are no threats to public health and the environment.

For additional information reported to the Texas Commission on Environmental Quality (TCEQ) refer to the attached notification.

**Contact: City of Corpus Christi Public Information Office at
361-826-3211**

Texas Commission on Environmental Quality
Public Notification Form for Wastewater Discharges

Information about the Discharge

An unauthorized discharge or spill of wastewater has occurred from:

Wastewater Treatment Facility: _____ Collection System: _____

Facility Name:

Person to contact for information:

Location of spill(s):

Estimated date and time of spill(s):

Estimated volume of spill(s):

Type of Spill:

Description of the area potentially affected, including down gradient and lateral distance from spill(s) site:

Suspected cause of spill(s):

List of Actions Taken Including but, not Limited to:

Notification of

Appropriate local government officials: _____

TCEQ Regional Office: _____

Containment of spill:

Increased monitoring of water supply systems:

Initiation of cleanup activities:

Precautionary Statements:

1. Persons using private drinking water supply wells located within $\frac{1}{2}$ mile of the spill site or within the potentially affected area should use only water that has been distilled or boiled at a rolling boil for at least one minute for all personal uses including drinking, cooking, bathing, and tooth brushing. Individuals with private water wells should have their well water tested and disinfected, if necessary, prior to discontinuing distillation or boiling.
2. Persons who purchase water from a public water supply may contact their water supply distributor to determine if the water is safe for personal use.
3. The public should avoid contact with waste material, soil, or water in the area potentially affected by the spill.
4. If the public comes into contact with waste material, soil, or water potentially affected by the spill, they should bathe and wash clothes thoroughly as soon as possible.



City of
Corpus
Christi

**WASTEWATER
DEPARTMENT**

PO Box 9277
Corpus Christi
Texas 78469-9277
Phone 361-826-1800
Fax 361-826-1715
www.cctexas.com

Dear Resident,

We are very sorry you have recently been inconvenienced by a wastewater back-up in your home. If you would like to file a claim against the city for the damages, please contact the City's Risk Management Department at 826-3300 and ask for a claims representative.

The Risk Management Department reviews all property damage claims filed against the City of Corpus Christi. The City of Corpus Christi is self-insured. Claims for damages are investigated and decided based on the laws that govern municipalities in the State of Texas. Under these laws, a property owner may recover property damages if negligent operation or Use of a motor vehicle or motor driver equipment caused the damages. There are very limited grounds for a citizen to recover property losses resulting from the performance or non-performance of wastewater services.

If you have experienced damages to your property from wastewater overflows and you have a homeowner's insurance policy, you should contact your agent immediately for further assistance. The City of Corpus Christi does not endorse any cleaning companies; however, you may search the internet or yellow pages for firms that can provide or assist in cleanup. Search under categories such as: cleaning, water damage emergency services, cleaning remediation and water damage restoration. The attached information summarizes the causes and preventive measures in preventing backups.

If you would like to discuss general issues about your wastewater service, please feel free to call the Wastewater Department at 826-1800 during regular business hours, Monday thru Friday, 8:00 a.m. to 5:00 p.m. We continue in our efforts to improve the quality of service provided to our 74,000 customers. Wastewater personnel are available to respond to service interruptions seven days a week between 7 a.m. and 11 p.m. For wastewater service problems, please call 826-City (826-2489).

The Wastewater Department regrets any inconvenience this may have caused.

Sincerely,

Wastewater Department





City of
Corpus
Christi

**WASTEWATER
DEPARTMENT**

PO Box 9277
Corpus Christi
Texas 78469-9277
Phone 361-826-1800
Fax 361-826-1715
www.cctexas.com

DEALING WITH SEWERS & PREVENTING BACKUPS

A sewer backup can create a stressful and emotional situation for the resident. In some cases, it may cause health and safety concerns as well as property loss. A proper response to a sewer backup can greatly minimize property damage and diminish the threat of illness.

The City of Corpus Christi makes every effort to be responsive to residents' needs and concerns when a sewer backup occurs. The City of Corpus Christi have crews whose main duty is to inspect, clean and maintain sewers. Unfortunately, because a sewer is not a closed system, many things that are put into the sewer can clog the system. Large amounts of grease from homes and disposable diapers are two common items that may cause problems. Another problem is tree roots, which can grow into and obstruct the system.

While the city has adopted rules prohibiting the discharge of any substance likely to cause a sewer obstruction, and we try to educate the public about the problems they cause, there is really no way to absolutely prevent this from happening. Many factors can cause backups and they are beyond the scope of normal maintenance. Many homeowners' insurance policies exclude damage resulting from sewer backups. However, some insurance companies do provide sewer backup coverage. If you are concerned about the possibility of a sewer backup and want to confirm that you are covered, we urge you to check with your home insurer regarding the availability of sewer backup insurance, and include cleanup costs as well as repairs and replacement. The City cannot guarantee that a public system will not backup. Items such as disposable diapers and grease (as well as toys and clothing) that are placed into the system by residents and businesses can cause unavoidable backups despite regular maintenance and cleaning of lines.

CONTACT INFORMATION:

We continue in our efforts to improve the quality of service provided to our customers. Wastewater personnel are available to respond to service interruptions seven days a week. For wastewater service problems, please call 826-City (826-2489).

