



## **Training Program for Wastewater Operators in the Baffin Bay Watershed**

Final Report

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The views expressed herein are those of the authors and do not necessarily reflect the views of CBBEP or other organizations that may have provided funding for this project.

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## Executive Summary

From May 1st, 2023, through March 31st, 2025, the Nueces River Authority (NRA) has served as a contractor for the Coastal Bend Bays & Estuaries Program (CBBEP) on the Training Program for the Wastewater Operator in the Baffin Bay Watershed. The objective of the Training Program was to collaborate with the five wastewater operators in the Baffin Bay watershed to provide recommendations and guidance.

Throughout this process, the NRA monitored improvements via physical inspections, supervised use of equipment, and effluent sampling at each facility. The project aimed to support participating purveyors by engaging with operations personnel and city administrators to identify and address infrastructure and operational needs. The NRA contacted all five wastewater purveyors and established relationships with the operators at each of the cities and utilities.

Over the course of two years, the NRA worked closely with the operators, providing valuable insights and recommendations to enhance their operations.

### ❖ Locations

- City of Agua Dulce
- City of Premont – switch in November 2023 City of Kingsville (Nueces River Authority went into contract with the City of Premont to Operate their wastewater treatment plant)
- City of Riviera
- City of Robstown
- San Diego MUD

## **Background / Objective**

This project aims to provide an educational training program for wastewater operators, expanding on the Wastewater Treatment Outreach Phase 1 and Phase 2 programs initiated in 2020. Since the inception of the outreach program, the NRA has identified a strong need for properly trained personnel at most wastewater facilities in the region. Consequently, the NRA entered into contracts with three municipalities and water districts to operate their wastewater plants, significantly improving discharge management from these facilities. Several other municipalities have expressed interest in NRA's assistance but face funding or employment challenges.

Since FY2020, the NRA and CBBEP have collaborated to offer wastewater treatment plant outreach and assistance programs in the Baffin Bay Watershed. Concerns arising through this process underscored the necessity for comprehensive training programs throughout the region. Under an approved Training Program, the NRA will provide bi-monthly assessments and operational support at five wastewater facilities discharging into the primary tributaries of Baffin Bay. We will assist in training existing operators to enhance procedures at each plant, at no cost to the municipalities. The knowledge imparted through this program will substantially benefit the communities and current operators. Furthermore, we believe this initiative will foster proactive leadership within the systems, contributing to the protection of Baffin Bay.

## Outcomes / Lesson Learned

The overall training programs were highly successful. The operators we worked with acquired valuable skills and experience.

The program commenced with instructions on properly cleaning their testing equipment and taking accurate samples. This is critical in wastewater operations because knowing where improvements are needed requires understanding your current standing within permit parameters. We reviewed data from bench sheets and verified calibrations for pH. Additionally, we examined chlorine data and discussed appropriate chlorine dilution procedures, including the completion of TCEQ documentation.

Subsequently, we focused on plant operations. Operators were trained in maintaining proper sludge levels in the clarifiers, which is crucial for removing bad or dead bacteria while preserving beneficial active bacteria. We also addressed optimal oxygen levels in the aeration basins, as maintaining adequate dissolved oxygen levels is vital to effective wastewater treatment. Furthermore, we provided guidance on proper wasting practices to ensure peak performance of the weirs.

Lastly, we covered educational classes available for maintaining current TCEQ licenses. We highlighted the benefits of organizations such as the Water Environment Association of Texas (WEAT) for continuing education, enabling operators to continually enhance their expertise.

Among the many insights gained through this initiative, it became evident that many operators work independently, often disconnected from the cities they serve. Wastewater plants typically receive little attention from the general public, except when issues arise. Providing support to these operators has had a significant positive impact on both themselves and the facilities they manage. It demonstrated that they are not alone and that their contributions are vital. Proper wastewater operation has substantial environmental implications affecting everyone. There are approximately 65 wastewater plants in the Nueces Basin, and we believe similar programs would benefit all. For the plants currently involved in this initiative, we plan to conduct quarterly follow-ups to address any questions and offer ongoing encouragement.

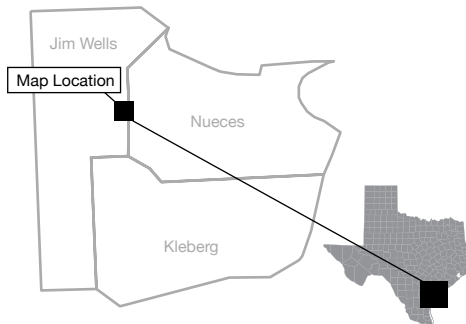
## Recommendations

Based on these findings, NRA recommends the following:

- Introduce the operators to the Water Environmental Association of Texas (WEAT) online training program. This program offers operators the opportunity to learn online.
- The Nueces River Authority (NRA) is currently collaborating with the Texas Commission on Environmental Quality (TCEQ), Water Environment Association of Texas (WEAT), and Texas Water Conservation Association (TWCA) to develop a local high school and trade school training initiative aimed at increasing the number of licensed operators in the community.
- The decision makers and staff members of the water purveyors in the region are dedicated individuals who care about the environment; however, they are unfamiliar with and often intimidated by the process of securing funding. Even if they identify a grant or loan source, the application process can be overwhelming for most people in this area. Additionally, funds are required for engineering assessments, feasibility studies, and preliminary reports to remain competitive in the grant process.
- The Nueces River Authority will continue to monitor and support the operators in their efforts.
- Collaborate with various utilities within the project area to foster a regional approach to wastewater facilities. This region would benefit from the establishment of one or more regional treatment plants. A recurring issue identified through this project is the lack of operational, process, and preventative maintenance management. Developing regional treatment facilities could result in significant improvements in water quality by (a) reducing discharge points, (b) enhancing the quality of wastewater treatment, and (c) pooling resources to maintain one centralized plant instead of multiple scattered plants.
- Include the possibility of an engineered wastewater wetland. This solution offers a cost-effective method of treating wastewater discharge before it enters creeks, rivers, or streams.
- NRA recommends a second phase of the WWTP Assistance Program to tackle the grant and funding challenges identified during this project. As part of the enabling statute, NRA can offer financing options, including "conduit financing," which allows entities to use NRA as a means to secure funding for projects. This approach enables an entity to carry the debt as an operational and maintenance item within their annual budget, thereby circumventing the approvals typically needed for capital improvement loans. NRA's experienced staff will leverage their expertise in grant/loan application processes to benefit this project.

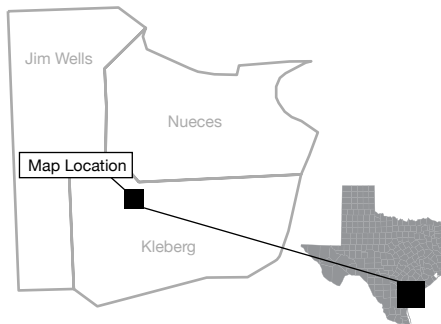
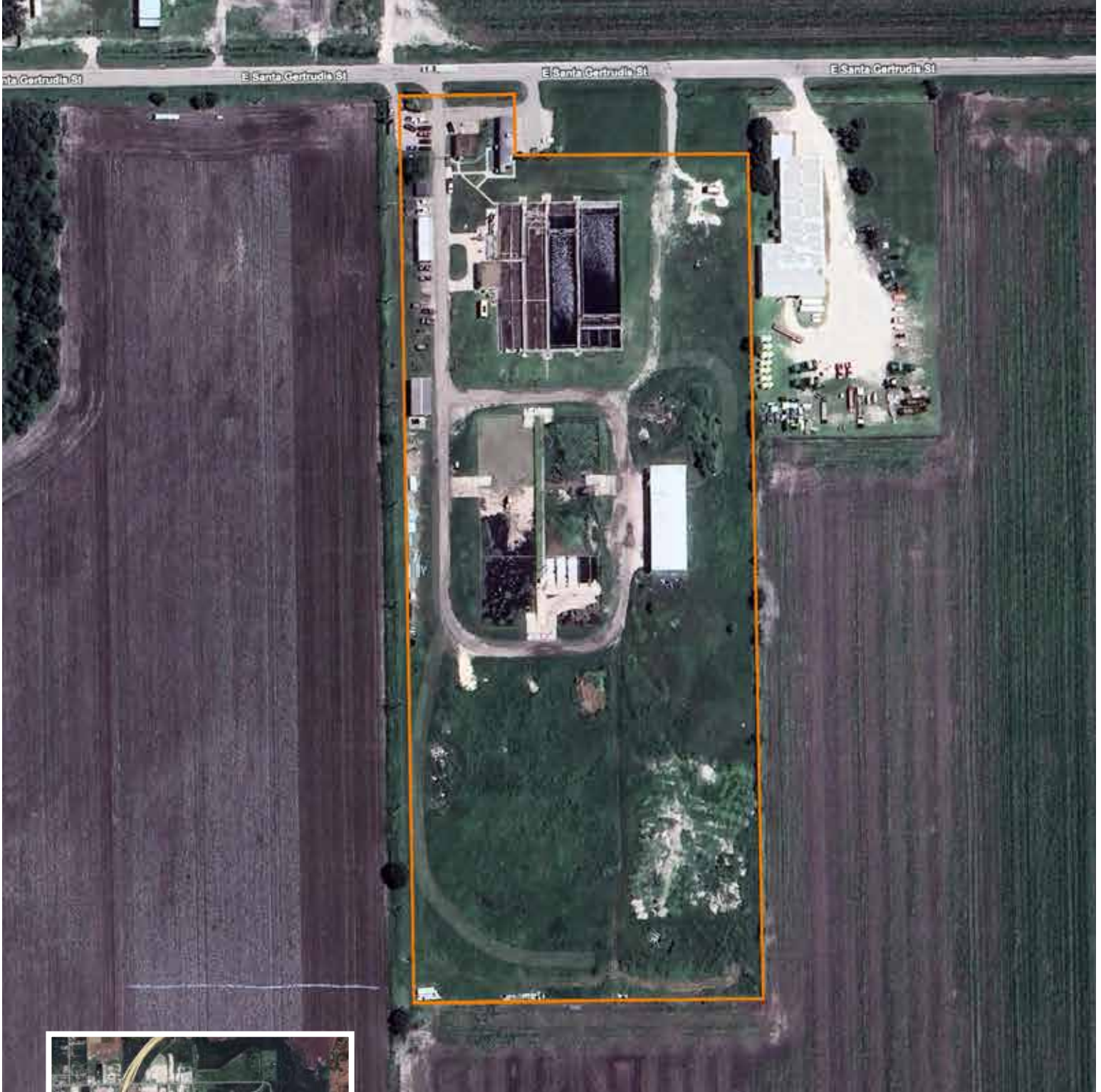
# City of Agua Dulce Wastewater Treatment Facility

located approximately 450 feet southeast of the intersection of State Highway 44 East and Farm-to-Market Road 70, in Nueces County, Texas 78330

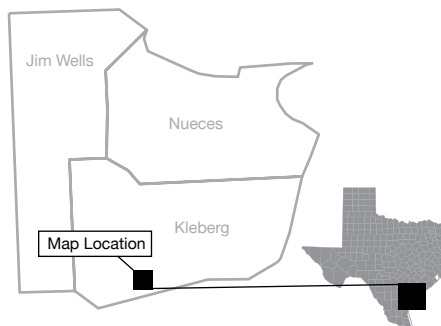


# City of Kingsville 3.0 MGD Wastewater Treatment Facility

Located at 2801 East Santa Gertrudis Street, in the City of Kingsville, Kleberg County, Texas 78363

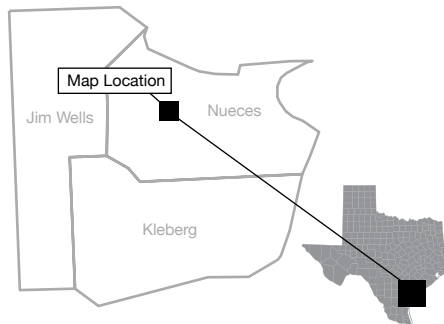


**Riviera WCID Wastewater Treatment Facility**  
located at 400 West Live Oak Avenue in Kleberg County, Texas 78379



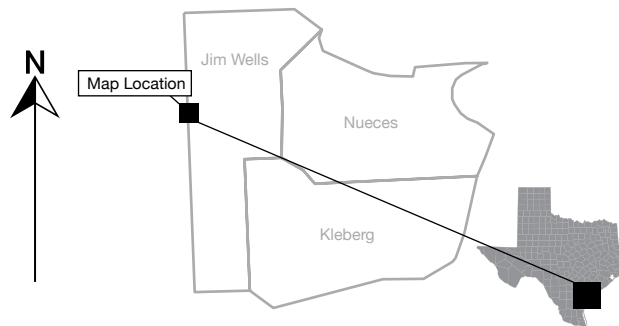
# City of Robstown Wastewater Treatment Facility

located at 1250 North U.S. Highway 77, Robstown in Nueces County, Texas 78380



# San Diego MUD 1 Wastewater Treatment Facility

located at 709 County Road 111, San Diego, in Duval and Jim Wells County, Texas 78384



**CBBEP**  
**PROGRESS REPORT**

**Project Title: Training Program for Wastewater Operators in the Baffin Bay Watershed**

**Contract #: 2337**

**Reporting Period: May-July 2023**

**Month/Year: May 2023**

**Task 1: Primary Monthly Visit**

<b>Facility</b>	<b>Date</b>	<b>Task(s) Completed</b>
1. City of Agua Dulce	5/4/23	Returned pocket colorimeter (DR300) that was taken from facility in April for possible refurbishment; trained the operator on sight on how to perform preventive maintenance on equipment as well as introduced the DR900 as a potential upgrade for the facility.
2. San Diego M.U.D.	5/4/23	Demonstrated the use of the Hach DR900 and the proper calibrations needed for dependable/accurate readings; explained the importance of documentation and offered suggestions to properly document data.
3. City of Riviera	5/5/23	Initial visit made for introductions/purpose of the program; met with operators and was shown the current equipment used along with any calibration/data records.
4. City of Premont	5/5/23	Initial visit made for introductions/purpose of the program; met with operators and was shown the current equipment used along with any calibration/data records.
5. City of Robstown	5/4/23	Initial visit made for introductions/purpose of the program; met with operators and was shown the current equipment used along with any calibration/data records.

**Task 2: Secondary Monthly Visit**

<b>Facility</b>	<b>Date</b>	<b>Task(s) Completed</b>
1. City of Agua Dulce	5/23/23	Operator participated in hands on training with the DR900.
2. San Diego M.U.D.	5/24/23	Operator participated in hands on training with the DR900.
3. City of Riviera	5/25/23	Cleaned equipment and verified that it was being properly used/maintained.
4. City of Premont	5/25/23	Cleaned equipment and verified that it was being properly used/maintained.
5. City of Robstown	5/23/23	Cleaned and re-calibrated equipment to verify accuracy. Explained to the operators the effect of improper calibrations with regards to data obtained.

Month/Year: **June 2023**

**Task 1: Primary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	6/8/23	Created and introduced documents to better assist with calibration records. Explained the need for the documentation as required by TCEQ when performing onsite assessments. (Calibration logs for pH/chlorine attached)
2. San Diego M.U.D.	6/8/23	Created and introduced documents to better assist with calibration records. Explained the need for the documentation as required by TCEQ when performing onsite assessments. (Calibration logs for pH/chlorine attached)
3. City of Riviera	6/9/23	Operators not available due to a leak within the system; unable to assist this visit.
4. City of Premont	6/9/23	Cleaned equipment and verified that it was being properly used/maintained; Operators performed hands on measurements with the DR900. Introduced calibration logs and explained the purpose/need for the calibration data.
5. City of Robstown	6/8/23	Created and introduced documents to better assist with calibration records. Explained the need for the documentation as required by TCEQ when performing onsite assessments. (Calibration logs for pH/chlorine attached)

**Task 2: Secondary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	6/27/23	Reviewed the calibration/measurement of pH and how to verify the effectiveness of the calibration and the pH probe. Operators were unaware of methods to verify accuracy of the probe.
2. San Diego M.U.D.	6/28/23	Reviewed the calibration/measurement of pH and how to verify the effectiveness of the calibration and the pH probe. Operators were unaware of methods to verify accuracy of the probe.
3. City of Riviera	6/29/23	Reviewed the calibration/measurement of pH and how to verify the effectiveness of the calibration and the pH probe. Operators were unaware of methods to verify accuracy of the probe.
4. City of Premont	6/29/23	Reviewed the calibration/measurement of pH and how to verify the effectiveness of the calibration and the pH probe. Operators were unaware of methods to verify accuracy of the probe.
5. City of Robstown	6/27/23	Reviewed the calibration/measurement of pH and how to verify the effectiveness of the calibration and the pH probe. Operators were unaware of methods to verify accuracy of the probe.

Month/Year: July 2023

**Task 1: Primary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	7/06/23	Begin assessing the equipment used to measure Dissolved Oxygen and how to properly maintain/calibrate probes. This included proper storage between use.
2. San Diego M.U.D.	7/06/23	Begin assessing the equipment used to measure Dissolved Oxygen and how to properly maintain/calibrate probes. This included proper storage between use.
3. City of Riviera	7/07/23	Begin assessing the equipment used to measure Dissolved Oxygen and how to properly maintain/calibrate probes. This included proper storage between use.
4. City of Premont	7/07/23	Begin assessing the equipment used to measure Dissolved Oxygen and how to properly maintain/calibrate probes. This included proper storage between use.
5. City of Robstown	7/05/23	Begin assessing the equipment used to measure Dissolved Oxygen and how to properly maintain/calibrate probes. This included proper storage between use.

**Task 2: Secondary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	7/27/23	Created and introduced measurement logs for dissolved oxygen. Explained that dissolved oxygen is one of the most important monitoring measurements for plant operations. (Calibration log for DO attached)
2. San Diego M.U.D.	7/28/23	Created and introduced measurement logs for dissolved oxygen. Explained that dissolved oxygen is one of the most important monitoring measurements for plant operations. (Calibration log for DO attached)
3. City of Riviera	7/26/23	Created and introduced measurement logs for dissolved oxygen. Explained that dissolved oxygen is one of the most important monitoring measurements for plant operations. (Calibration log for DO attached)
4. City of Premont	7/26/23	Created and introduced measurement logs for dissolved oxygen. Explained that dissolved oxygen is one of the most important monitoring measurements for plant operations. (Calibration log for DO attached)
5. City of Robstown	7/27/23	Created and introduced measurement logs for dissolved oxygen. Explained that dissolved oxygen is one of the most important monitoring measurements for plant operations. (Calibration log for DO attached)

**CBBEP**  
**PROGRESS REPORT**

**Project Title: Training Program for Wastewater Operators in the Baffin Bay Watershed**

**Contract #: 2337**

**Reporting Period: August-October 2023**

**Month/Year: August 2023**

**Task 1: *Primary Monthly Visit***

<b>Facility</b>	<b>Date</b>	<b>Task(s) Completed</b>
1. City of Agua Dulce	8/15/23	Reviewed data from bench sheets and verified calibrations for pH. Measured a sample (pH buffer 8) to verify the accuracy of the calibration. Asked if they had any input/questions regarding calibration. For pH, stressed the 15-minute limit from the time of collection to the time sample was measured. Introduced analyzing duplicates as quality control.
2. San Diego M.U.D.	8/15/23	Reviewed data from bench sheets and verified calibrations for pH. Measured a sample (pH buffer 8) to verify the accuracy of the calibration. Asked if they had any input/questions regarding calibration. For pH, stressed the 15-minute limit from the time of collection to the time sample was measured. Introduced analyzing duplicates as quality control.
3. City of Riviera	8/17/23	Reviewed data from bench sheets and verified calibrations for pH. Measured a sample (pH buffer 8) to verify the accuracy of the calibration. Asked if they had any input/questions regarding calibration. For pH, stressed the 15-minute limit from the time of collection to the time sample was measured. Introduced analyzing duplicates as quality control.
4. City of Premont	8/16/23	Reviewed data from bench sheets and verified calibrations for pH. Measured a sample (pH buffer 8) to verify the accuracy of the calibration. Asked if they had any input/questions regarding calibration. For pH, stressed the 15-minute limit from the time of collection to the time sample was measured. Introduced analyzing duplicates as quality control.
5. City of Robstown	8/15/23	Reviewed data from bench sheets and verified calibrations for pH. Measured a sample (pH buffer 8) to verify the accuracy of the calibration. Asked if they had any input/questions regarding calibration. For pH, stressed the 15-minute limit from the time of collection to the time sample was measured. Introduced analyzing duplicates as quality control.

**Task 2: *Secondary Monthly Visit***

<b>Facility</b>	<b>Date</b>	<b>Task(s) Completed</b>
1. City of Agua Dulce	8/29/23	Reviewed chlorine data and asked the question: "what would you do if the meter reading is flashing?". Explained this and demonstrated how to accurately dilute a sample and then ensure the dilution was factored into the reading recorded. Higher than normal chlorine standard was prepared to properly demonstrate chlorine dilutions.
2. San Diego M.U.D.	8/29/23	Reviewed chlorine data and asked the question: "what would you do if the meter reading is flashing?". Explained this and demonstrated how to accurately dilute a sample and then ensure the dilution was factored into the reading recorded. Higher than normal chlorine standard was prepared to properly demonstrate chlorine dilutions.
3. City of Riviera	8/30/23	Reviewed chlorine data and asked the question: "what would you do if the meter reading is flashing?". Explained this and demonstrated how to accurately dilute a sample and then ensure the dilution was factored into the reading recorded. Higher than normal chlorine standard was prepared to properly demonstrate chlorine dilutions.

4. City of Premont	8/30/23	Reviewed chlorine data and asked the question: "what would you do if the meter reading is flashing?". Explained this and demonstrated how to accurately dilute a sample and then ensure the dilution was factored into the reading recorded. Higher than normal chlorine standard was prepared to properly demonstrate chlorine dilutions.
5. City of Robstown	8/29/23	Reviewed chlorine data and asked the question: "what would you do if the meter reading is flashing?". Explained this and demonstrated how to accurately dilute a sample and then ensure the dilution was factored into the reading recorded. Higher than normal chlorine standard was prepared to properly demonstrate chlorine dilutions.

Month/Year: [September 2023](#)

**Task 1: Primary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	9/6/23	Reviewed data obtained from dissolved oxygen measurements and explained the requirements of measuring a duplicate for these readings. Asked if they knew the minimum allowed reading for dissolved oxygen for their permit. Will introduce permit requirements next month.
2. San Diego M.U.D.	9/7/23	Reviewed data obtained from dissolved oxygen measurements and explained the requirements of measuring a duplicate for these readings. Asked if they knew the minimum allowed reading for dissolved oxygen for their permit. Will introduce permit requirements next month.
3. City of Riviera	9/8/23	Reviewed data obtained from dissolved oxygen measurements and explained the requirements of measuring a duplicate for these readings. Asked if they knew the minimum allowed reading for dissolved oxygen for their permit. Will introduce permit requirements next month.
4. City of Premont	9/8/23	Reviewed data obtained from dissolved oxygen measurements and explained the requirements of measuring a duplicate for these readings. Asked if they knew the minimum allowed reading for dissolved oxygen for their permit. Will introduce permit requirements next month.
5. City of Robstown	9/6/23	Reviewed data obtained from dissolved oxygen measurements and explained the requirements of measuring a duplicate for these readings. Asked if they knew the minimum allowed reading for dissolved oxygen for their permit. Will introduce permit requirements next month.

**Task 2: Secondary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	9/26/23	Allowed the operators to show/demonstrate their daily routine once they have collected a sample and then proceed to begin reading measurements.
2. San Diego M.U.D.	9/26/23	Allowed the operators to show/demonstrate their daily routine once they have collected a sample and then proceed to begin reading measurements.

3. City of Riviera	9/28/23	Allowed the operators to show/demonstrate their daily routine once they have collected a sample and then proceed to begin reading measurements.
4. City of Premont	9/27/23	No operator available.
5. City of Robstown	9/26/23	Allowed the operators to show/demonstrate their daily routine once they have collected a sample and then proceed to begin reading measurements.

**Month/Year: October 2023 (Month of Document/Permit Training)**

**Task 1: *Primary Monthly Visit***

Facility	Date	Task(s) Completed
1. City of Agua Dulce	10/10/23	Because of third party contractors, many operators do not understand where, how or when their data gets submitted. Introduced the form used by TCEQ to input for their monthly Discharge Monitoring Reports (DMR). Briefly explained each area and will train operators in the future to fully understand the data they are inputting for TCEQ. Discussed permit requirements for the City of Agua Dulce and consequences of not meeting requirements. Gave input/examples on major findings as well as small technical findings that can potentially lead to violations if corrective action is not taken.
2. San Diego M.U.D.	10/10/23	Because of third party contractors, many operators do not understand where, how or when their data gets submitted. Introduced the form used by TCEQ to input for their monthly Discharge Monitoring Reports (DMR). Briefly explained each area and will train operators in the future to fully understand the data they are inputting for TCEQ. Discussed permit requirements for San Diego MUD and consequences of not meeting requirements. Gave input/examples on major findings as well as small technical findings that can potentially lead to violations if corrective action is not taken.
3. City of Riviera	10/12/23	Because of third party contractors, many operators do not understand where, how or when their data gets submitted. Introduced the form used by TCEQ to input for their monthly Discharge Monitoring Reports (DMR). Briefly explained each area and will train operators in the future to fully understand the data they are inputting for TCEQ. Discussed permit requirements for the City of Riviera and consequences of not meeting requirements. Gave input/examples on major findings as well as small technical findings that can potentially lead to violations if corrective action is not taken.
4. City of Premont	10/1/2023	Nueces River Authority has been contracted by the City of Premont to oversee operations for water and wastewater utilities.
5. City of Robstown	10/12/23	Because of third party contractors, many operators do not understand where, how or when their data gets submitted. Introduced the form used by TCEQ to input for their monthly Discharge Monitoring Reports (DMR). Briefly explained each area and will train operators in the future to fully understand the data they are inputting for TCEQ. Discussed permit requirements for the City of Robstown and consequences of not meeting requirements. Gave input/examples on major findings as well as small technical findings that can potentially lead to violations if corrective action is not taken.

**Task 2: Secondary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	10/24/23	Presented the current Enforcement/Agreed Order for the City of AD which allows them to not only know what needs correction at the plant, but also so they can become more familiar with the technicalities and understand how their data and daily operational duties are used for regulatory agencies and for them to see the amount of funds their system will be responsible for if not remedied. Gave the plant three weeks' notice to allow them to do a self-assessment of their plant prior to November's second visit. November's first visit will be a Q&A type visit in preparation of a "mock" plant inspection.
2. San Diego M.U.D.	10/24/23	Presented the current Enforcement/Agreed Order for the City of AD which allows them to not only know what needs correction at the plant, but also so they can become more familiar with the technicalities and understand how their data and daily operational duties are used for regulatory agencies and for them to see the amount of funds their system will be responsible for if not remedied. Gave the plant three weeks' notice to allow them to do a self-assessment of their plant prior to November's second visit. November's first visit will be a Q&A type visit in preparation of a "mock" plant inspection.
3. City of Riviera	10/27/23	Presented the current Enforcement/Agreed Order for the City of AD which allows them to not only know what needs correction at the plant, but also so they can become more familiar with the technicalities and understand how their data and daily operational duties are used for regulatory agencies and for them to see the amount of funds their system will be responsible for if not remedied. Gave the plant three weeks' notice to allow them to do a self-assessment of their plant prior to November's second visit. November's first visit will be a Q&A type visit in preparation of a "mock" plant inspection.
5. City of Robstown	10/27/23	Presented the current Enforcement/Agreed Order for the City of AD which allows them to not only know what needs correction at the plant, but also so they can become more familiar with the technicalities and understand how their data and daily operational duties are used for regulatory agencies and for them to see the amount of funds their system will be responsible for if not remedied. Gave the plant three weeks' notice to allow them to do a self-assessment of their plant prior to November's second visit. November's first visit will be a Q&A type visit in preparation of a "mock" plant inspection.

**CBBEP**  
**PROGRESS REPORT**

**Project Title: Training Program for Wastewater Operators in the Baffin Bay Watershed**  
**Contract #: 2337**  
**Reporting Period: November 2023 - January 2024**

**Month/Year: November 2023**

**Task 1: Primary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	11/15/2023	Reviewed documented data and verified calibrations for pH/Dissolved Oxygen. Checked that current documentation clearly showed the sample time/measurement time readings; questioned the operators regarding their sampling frequency for each month; asked to explain/observe sampling technique; questioned operators if they knew their permit limits with regards to pH, D.O., and chlorine; discussed monthly DMR.
2. San Diego M.U.D.	11/15/2023	Reviewed documented data and verified calibrations for pH/Dissolved Oxygen. Checked that current documentation clearly showed the sample time/measurement time readings; questioned the operators regarding their sampling frequency for each month; asked to explain/observe sampling technique; questioned operators if they knew their permit limits with regards to pH, D.O., and chlorine; discussed monthly DMR.
3. City of Riviera	11/16/2023	Reviewed little documentation and suggested they keep all records onsite at the plant for inspection purposes due to the use of third-party contractors onsite.
4. City of Kingsville	11/06/2023	Contact being made/scheduled with the City of Kingsville WWTP.
5. City of Robstown	11/16/2023	Reviewed documented data and verified calibrations for pH/Dissolved Oxygen. Checked that current documentation clearly showed the sample time/measurement time readings; questioned the operators regarding their sampling frequency for each month; asked to explain/observe sampling technique; questioned operators if they knew their permit limits with regards to pH, D.O., and chlorine; discussed monthly DMR.

**Task 2: Secondary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	11/29/2023	Introduced the collection process for proper <i>E.coli</i> sampling using aesthetic techniques.
2. San Diego M.U.D.	11/29/2023	Assisted operator with changing a membrane cap for the dissolved oxygen meter and re-calibrated the probe after this maintenance was performed.
3. City of Riviera	11/28/2023	Operator not on-site; gates locked.
4. City of Kingsville	11/28/2023	Initial visit/introduction and explanation of the program.
5. City of Robstown	11/30/2023	Observed/discussed daily process lab procedures. Reviewed current calibration standards vs. what is being documented. Discussed the importance of valid documentation. (15 min window for pH needs to be documented)

Month/Year: **December 2023**

**Task 1: Primary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	12/13/2023	Observed sampling technique by operator that was introduced/demonstrated in November visit; few minor corrections to be fixed to the process; reviewed "training paperwork" for filling out chain of custody.
2. San Diego M.U.D.	12/20/2023	Reviewed calibration for the dissolved oxygen probe and verified measurements for weekly DO.
3. City of Riviera	12/19/2023	Observed operator calibrating/measuring dissolved oxygen; made minor adjustments to procedure; discussed documentation any/all maintenance performed not only at plant but also to meters/probes.
4. City of Kingsville	12/19/2023	Plant tour and review of current equipment/logs used for monitoring plant activities. City of Kingsville utilizes UV disinfection so operator approach will be different from the other plants due to operators analyzing samples in-house.
5. City of Robstown	12/13/2023	Minor lab discussions began until plant operators called away for an offsite collection system issue.

**Task 2: Secondary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	12/20/2023	Discussed the plant's sampling frequency along with time constraints (i.e.: 15min for measuring pH from time of collection, and bacterial sample hold times)
2. San Diego M.U.D.	12/27/2023	Gate locked; no access to plant.
3. City of Riviera	12/28/2023	Reviewed all data obtained and discussed documentation. Discussed the current permit and asked if they were aware of permit limits. Discussed who performs monthly DMR submissions. Will review what a monthly DMR shall consist of.
4. City of Kingsville	12/28/2023	Began firsthand with a review of all methods being performed at the plant's lab as well as review of historical data and maintenance for UV bulbs, etc.
5. City of Robstown	12/27/2023	Reviewed all bench paperwork for sampling, monthly operations, etc.; made verbal suggestions but will follow-up with newly created forms for documenting daily data.

Month/Year: January 2024

**Task 1: Primary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	1/08/2024	Observed operator perform sampling for weekly lab submission.
2. San Diego M.U.D.	1/08/2024	Observed operator collect samples for weekly lab submission as well as take measurements (pH/DO) of the collected sample(s).
3. City of Riviera	1/09/2024	Gate locked; no access to plant.
4. City of Kingsville	1/09/2024	Observed the plant's method for analyzing Biochemical Oxygen Demand (BOD) and reviewed all supporting data that accompanies this test method. Made notes/suggestions to improve traceability/documentation of the test method.
5. City of Robstown	1/10/2024	This WWTP collects 24hr composite samples for regulatory purposes. Reviewed the process since the current method was being performed incorrectly (using inadequate measuring techniques). Revised the current composite sheet to assist the operators to accurately measure/composite their samples. (Revised form included). These revised sheets will begin to be utilized on February 1, 2024.

**Task 2: Secondary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	1/30/2024	Operators installing a pump at a lift station; no training on this visit.
2. San Diego M.U.D.	1/30/2024	Demonstrated how to properly collect samples for <i>E.coli</i> so that no contamination is incurred during the collection process to provide false positives.
3. City of Riviera	1/31/2024	Observed operator collect samples for weekly lab submission for CBOD/TSS as well observed measurements taken for pH/DO.
4. City of Kingsville	1/31/2024	Observed the plant's method for analyzing Total Suspended Solids (TSS). Reviewed all supporting data such as balance calibrations, oven temperatures, and calculations.
5. City of Robstown	1/17/2024	Discussed the importance of utilizing a microscope to identify good/bad bacteria in the wastewater plant's aeration basins. Will begin training on identifying wastewater microorganisms using a microscope.

**CBBEP**  
**PROGRESS REPORT**

**Project Title: Training Program for Wastewater Operators in the Baffin Bay Watershed**

**Contract #: 2337**

**Reporting Period: February-April 2024**

**Month/Year: February 2024**

**Task 1: *Primary Monthly Visit***

<b>Facility</b>	<b>Date</b>	<b>Task(s) Completed</b>
1. City of Agua Dulce	2/6/24	Operators demonstrated how they determine sludge levels in clarifiers; discussions over how they determine if sludge is too old (bad/dead bacteria) and remedies to fix using process control.
2. San Diego M.U.D.	2/6/24	Reviewed calibration logs for dissolved oxygen/pH; suggested using a known buffer (8) to use once a month to verify probe accuracy. Discussed the proper way to store probes while not in use. Observed operators working around plant.
3. City of Riviera	2/8/24	Contract operator had issues with another system and was a no-show to the plant.
4. City of Kingsville	2/8/24	Observed sample collection for Ammonia (proper preservation) and calibration //method for testing for ammonia.
5. City of Robstown	2/5/24	Reviewed composite sample prep to ensure correct sample aliquots are blended before being submitted to lab.

**Task 2: *Secondary Monthly Visit***

<b>Facility</b>	<b>Date</b>	<b>Task(s) Completed</b>
1. City of Agua Dulce	2/13/24	30 min settleable solids and MLSS (Mixed Liquor Suspended Solids) process discussed with operators.
2. San Diego M.U.D.	2/21/24	Requested copies of lab reports so we could discuss the data and what the numbers mean with regards to the plant's permit.
3. City of Riviera	2/23/24	Missed operator at plant; no personnel on site to train.
4. City of Kingsville	2/23/24	Reviewed all data that is generated by the plant's operators; future visits will include more traceable documentation that pertains to each sample.
5. City of Robstown	2/13/24	Operators showed plant status/progress due to operational suggestions made by NRA.

Month/Year: **March 2024**

**Task 1: Primary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	3/6/24	Reviewed calibrations from prior visit to verify if training is retained.
2. San Diego M.U.D.	3/6/24	Training included discussions with operators about the importance of record keeping/documentation and answered any questions staff had regarding documentation.
3. City of Riviera	3/7/24	Reviewed calibrations for daily readings (Dissolved oxygen, pH, daily flow) since documents were unavailable on prior visits; discussed netDMRs and who submits
4. City of Kingsville	3/7/24	Review of data continued on this visit; minor corrections pointed out to the operators are being explained clearly while citing either standard methods, CFR40, or the Texas Register. This is the only facility who performs their own lab analysis for weekly samples so more emphasis will be spent on lab in-house procedures.
5. City of Robstown	3/6/24	Update was asked to the operator regarding the use of their microscope; was informed it was not working and had not been used for a while.

**Task 2: Secondary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	3/19/24	Review of lab reports and how to interpret data. Discussed a user-friendly method for determining data that is to be submitted monthly as part of the plant's NetDMR.
2. San Diego M.U.D.	3/19/24	Observed sample collection and recording of data.
3. City of Riviera	3/20/24	Visit at plant was brief due to operator needing to leave but got to discuss a little more on netDMRs and documentation.
4. City of Kingsville	3/20/24	Bringing in my own standard methods book (23 <sup>rd</sup> edition), showed the operators how to properly and effectively utilize this book for lab procedures.
5. City of Robstown	3/13/24	Reviewed plant calibrations and measurements

Month/Year: April 2024

**Task 1: Primary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	4/4/24	Spreadsheet introduced to operators to show their monthly data which includes daily averages, daily loads, etc). This eliminates calculation error performed by pencil and gets the operator more familiar with what their numbers mean and if they have any exceedances for the month.
2. San Diego M.U.D.	4/2/24	Spreadsheet introduced to operators to show their monthly data which includes daily averages, daily loads, etc). This eliminates calculation error performed by pencil and gets the operator more familiar with what their numbers mean and if they have any exceedances for the month.
3. City of Riviera	4/10/24	Discussion with contract operator if he was wanting to view the spreadsheet created show monthly data which includes daily averages, daily loads, etc).
4. City of Kingsville	4/10/24	Spreadsheet introduced to operators to show their monthly data which includes daily averages, daily loads, etc). This eliminates calculation error performed by pencil and gets the operator more familiar with what their numbers mean and if they have any exceedances for the month.
5. City of Robstown	4/4/24	Worked independently on this visit to gather information (model #) of the plant's microscope; making sure it works, etc. Lamp has been requested to order. Once the lamp is received, training on using microscope to identify good/bad bacteria in the plant will begin.

**Task 2: Secondary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	4/29/24	Operators working on plant so just observed them wasting, cleaning weirs at plant.
2. San Diego M.U.D.	4/29/24	No training; got to observe ops working at lift station.
3. City of Riviera	4/30/24	Missed operator at plant; no personnel on site to train.
4. City of Kingsville	4/30/24	Began making minor adjustments to the lab operations with regards to sample traceability, calibration, standardization, and proper reporting (reporting limits, etc)
5. City of Robstown	4/18/24	Discussions with operators; no access is given to them to utilize the netDMR spreadsheet that was created. Request will be made to allow operators to have access to weekly data from samples submitted to testing lab for CBOD, TSS, and Ammonia.

**CBBEP**  
**PROGRESS REPORT**

**Project Title: Training Program for Wastewater Operators in the Baffin Bay Watershed**

**Contract #: 2337**

**Reporting Period: May-July 2024**

**Month/Year: May 2024**

**Task 1: *Primary Monthly Visit***

<b>Facility</b>	<b>Date</b>	<b>Task(s) Completed</b>
1. City of Agua Dulce	5/07/24	Observed operators perform routine duties (wasting into drying beds).
2. San Diego M.U.D.	5/07/24	Discussed the importance of documentation and how it can help for onsite inspections.
3. City of Riviera	5/10/24	Unable to enter the plant; no operator present.
4. City of Kingsville	5/10/24	Discussed daily operations and observed operators performing daily routine.
5. City of Robstown	5/08/24	New lead operator at plant; providing an overview of the program.

**Task 2: *Secondary Monthly Visit***

<b>Facility</b>	<b>Date</b>	<b>Task(s) Completed</b>
1. City of Agua Dulce	5/22/24	Discussed the requirements for obtaining licenses for wastewater operators; training classes, etc.
2. San Diego M.U.D.	5/24/24	Visited with operators and observed their operational daily routine.
3. City of Riviera	5/30/24	Assisted with the safe handling of chlorine tank exchange; discussed safety aspect of handling chlorine cylinders.
4. City of Kingsville	5/30/24	Observed the operators perform their daily routine including sample collection, sample measurement, and documenting results.
5. City of Robstown	5/22/24	Review of records from previous management/operators.

Month/Year: June 2024

**Task 1: Primary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	6/07/24	Worked on equipment calibrations.
2. San Diego M.U.D.	6/07/24	Worked on equipment calibrations and properly collecting samples aseptically for bacteriological analysis. Explained the importance of careful collecting when using sterile containers.
3. City of Riviera	6/05/24	Reviewed permit requirements regarding annual sludge testing.
4. City of Kingsville	6/05/24	Requested to review prior years' documentation.
5. City of Robstown	6/05/24	Discussed timelines for completing annual permit requirements.

**Task 2: Secondary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	6/26/24	Observed operators perform daily plant operations/ equipment calibrations.
2. San Diego M.U.D.	6/26/24	Discussed new operator training requirements in place for renewing and/or applying for new license.
3. City of Riviera	6/25/24	Operators were performing maintenance on drying beds.
4. City of Kingsville	6/25/24	Made suggestions to plant operators regarding the need to document lot#s and exp dates for buffers/standards.
5. City of Robstown	6/25/24	Observed operators perform equipment calibrations.

Month/Year: July 2024

**Task 1: Primary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	7/10/24	Assessed any/all plant & lab results for impact from rain due to TS Beryl.
2. San Diego M.U.D.	7/10/24	Assessed any/all plant & lab results for impact from rain due to TS Beryl.
3. City of Riviera	7/09/24	Assessed any/all plant & lab results for impact from rain due to TS Beryl.
4. City of Kingsville	7/09/24	Assessed any/all plant & lab results for impact from rain due to TS Beryl.
5. City of Robstown	7/12/24	Assessed any/all plant & lab results for impact from rain due to TS Beryl.

**Task 2: Secondary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	7/25/24	Operators continuing to adjust operations due to high flow into plant.
2. San Diego M.U.D.	7/25/24	Plant operators collected samples; observed sample technique and asked questions to the operators during; minor explanations given with regards to collecting for E.coli samples.
3. City of Riviera	7/30/24	Plant operator available for a few minutes before being called out to an offsite job.
4. City of Kingsville	7/30/24	Observed operators perform equipment calibration and made minor adjustments to procedure.
5. City of Robstown	7/30/24	Operators continuing to adjust operations due to high flow into plant.

**CBBEP**  
**PROGRESS REPORT**

**Project Title: Training Program for Wastewater Operators in the Baffin Bay Watershed**

**Contract #: 2337**

**Reporting Period: August 2024 – October 2024**

**Month/Year: August 2024**

**Task 1: Primary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	8/8/2024	Assessed plant, labs and INI after heavy rain fall event 8/6/24
2. San Diego M.U.D.	8/8/2024	Assessed plant, labs and INI after heavy rain fall event 8/6/24
3. City of Riviera	8/9/2024	Assessed plant, labs and INI after heavy rain fall event 8/6/24
4. City of Kingsville	8/9/2024	Assessed plant, labs and INI after heavy rain fall event 8/6/24
5. City of Robstown	8/6/2024	Assessed plant, labs and INI after heavy rain fall event 8/6/24

**Task 2: Secondary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	8/21/2024	Assessed any/all plant & labs result
2. San Diego M.U.D.	8/21/2024	Assisted operator with changing a membrane cap for the dissolved oxygen meter and re-calibrated the probe after this maintenance was performed.
3. City of Riviera	8/22/2024	Operator not on-site; gates locked.
4. City of Kingsville	8/22/2024	Observed/discussed daily process lab procedures. Reviewed current calibration standards vs. what is being documented. Discussed the importance of valid documentation. (15 min window for pH needs to be documented)
5. City of Robstown	8/23/2024	Observed/discussed daily process lab procedures. Reviewed current calibration standards vs. what is being documented. Discussed the importance of valid documentation. (15 min window for pH needs to be documented)

**Month/Year: September 2024**

**Task 1: Primary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	9/5/2024	Assessed plant, labs and INI after heavy rain fall event over the week weekend. Rain falls over 5 inches over 48 hour period
2. San Diego M.U.D.	9/5/2024	Assessed plant, labs and INI after heavy rain fall event over the week weekend. Rain falls over 5 inches over 48 hour period
3. City of Riviera	9/6/2024	Assessed plant, labs and INI after heavy rain fall event over the week weekend. Rain falls over 5 inches over 48 hour period
4. City of Kingsville	9/6/2024	Assessed plant, labs and INI after heavy rain fall event over the week weekend. Rain falls over 5 inches over 48 hour period
5. City of Robstown	9/4/2024	Assessed plant, labs and INI after heavy rain fall event over the week weekend. Rain falls over 5 inches over 48 hour period

**Task 2: Secondary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	9/19/2024	Reviewed all bench paperwork for sampling, monthly operations, etc.; made verbal suggestions but will follow-up with newly created forms for documenting daily data.
2. San Diego M.U.D.	9/19/2024	Reviewed all data obtained and discussed documentation. Discussed the current permit and asked if they were aware of permit limits. Discussed who performs monthly DMR submissions. Will review what a monthly DMR shall consist of.
3. City of Riviera	9/6/2024	Reviewed all data obtained and discussed documentation. Discussed the current permit and asked if they were aware of permit limits. Discussed who performs monthly DMR submissions. Will review what a monthly DMR shall consist of.
4. City of Kingsville	9/20/2024	Reviewed all bench paperwork for sampling, monthly operations, etc.; made verbal suggestions but will follow-up with newly created forms for documenting daily data.
5. City of Robstown	9/18/2024	Reviewed all bench paperwork for sampling, monthly operations, etc.; made verbal suggestions but will follow-up with newly created forms for documenting daily data.

Month/Year: [October 2024](#)

**Task 1: Primary Monthly Visit**

<b>Facility</b>	<b>Date</b>	<b>Task(s) Completed</b>
1. City of Agua Dulce	10/08/2024	Site visit by Travis Pruski and John Bryum – Talked about upcoming assessment in January 2025, assessed after rain events issues caused over weekend rain
2. San Diego M.U.D.	10/08/2024	Site visit by Travis Pruski and John Byrum – Looked into infiltration issues after rain events issues caused over weekend rain
3. City of Riviera	10/09/2024	Site visit by Travis Pruski and John Byrum with County officials about Regional Wastewater plant assessment
4. City of Kingsville	10/09/2024	Site visit by Travis Pruski and John Byrum with County officials about Regional Wastewater plant assessment. City needs expansion / new plant for southern growing region
5. City of Robstown	10/08/2024	Site visit by Travis Pruski and John Bryum – They have a new operator on site and walked thru the plant

**Task 2: Secondary Monthly Visit**

<b>Facility</b>	<b>Date</b>	<b>Task(s) Completed</b>
1. City of Agua Dulce	10/29/2024	Site Visit by Travis Pruski, Chris McFarlane and Kristen Freeze – Introductions and Kristen over looked plant. Great to get new eyes in the project
2. San Diego M.U.D.	10/29/2024	Site Visit by Travis Pruski, Chris McFarlane and Kristen Freeze – Introductions and Kristen over looked plant. Great to get new eyes in the project
3. City of Riviera	10/29/2024	Site Visit by Travis Pruski, Chris McFarlane and Kristen Freeze – Introductions and Kristen over looked plant. Great to get new eyes in the project
4. City of Kingsville	10/29/2024	Site Visit by Travis Pruski, Chris McFarlane and Kristen Freeze – Introductions and Kristen over looked plant. Great to get new eyes in the project
5. City of Robstown	10/29/2024	Site Visit by Travis Pruski, Chris McFarlane and Kristen Freeze – Introductions and Kristen over looked plant. Great to get new eyes in the project

**CBBEP**  
**PROGRESS REPORT**

**Project Title: Training Program for Wastewater Operators in the Baffin Bay Watershed**

**Contract #: 2337**

**Reporting Period: November 2024 - January 2025**

**Month/Year: November 2024**

**Task 1: *Primary Monthly Visit***

Facility	Date	Task(s) Completed
1. City of Agua Dulce	11/07/2024	Kristian Freeze and Chris McFarlane did site visit – David Pena Operator did not show nor return phone call. Operator not on-site; gates locked.
2. San Diego M.U.D.	11/05/2024	Looked at both racetracks and talk foaming issues. Adjusted the agitators turn rate
3. City of Riviera	11/06/2024	Ponds needed dredging, took samples of sludge
4. City of Kingsville	11/06/2024	Aeration chambers are down for routine maintenance . Observed and made suggestions
5. City of Robstown	11/07/2024	Looked at Aeration Chamber and changing Oxygen pumping Levels

**Task 2: *Secondary Monthly Visit***

Facility	Date	Task(s) Completed
1. City of Agua Dulce	11/20/2024	Looked at Racetrack Sludge levels. Recommended have track pumped and gave names of company we worked with
2. San Diego M.U.D.	11/19/2024	Looked at both racetracks sludge levels. Both are high at the turns. Gave name of companies that can help.
3. City of Riviera	11/21/2024	Brought in dredging team to take look at possible options
4. City of Kingsville	11/21/2024	Aeration Chamber still down from Maintenance. Talked about how to bring online this week.,
5. City of Robstown	11/20/2024	Looked at results from changing aeration chamber oxygen levels and made adjustments

**Month/Year: December 2024**

**Task 1: *Primary Monthly Visit***

Facility	Date	Task(s) Completed
1. City of Agua Dulce	12/11/2024	Clarifier not running. Electrical issues with team to get running again.
2. San Diego M.U.D.	12/04/2024	Had issues with Chlorine Connect Chamber. Found clog in line and help replace it.
3. City of Riviera	12/10/2024	Worked with operator and TCEQ on sludge DMR reports.
4. City of Kingsville	12/10/2024	Kingsville started major repairs and cleaning
5. City of Robstown	12/11/2024	Saw great improvements with aeration chamber talked about signs and how make adjustments of oxygen

**Task 2: Secondary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	12/23/2024	Looked at Electrical panels and switches. Recommended 2 companies we have work with before to replace old equipment
2. San Diego M.U.D.	12/17/2024	Talked about lift Station issues and management. They were having several issues in town.
3. City of Riviera	12/18/2024	Had Magne Flow team onsite to talk about project like we did in Bishop
4. City of Kingsville	12/18/2024	Talked about UV Bulb cleaning and maintenance. They say biggest issues and expense for the system
5. City of Robstown	12/23/2024	Worked with bringing down clarifier and how to slowly bringing it back online. It will take a couple weeks to get the pressure levels right between the 2 systems

Month/Year: January 2025

**Task 1: Primary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	1/08/2025	Looked at drying beds. Made recommendations on cleaning options for easier work.
2. San Diego M.U.D.	1/03/2025	Work with operator and TCEQ about BOD and DMR reporting.
3. City of Riviera	1/07/2025	Went over dredging cost and possible funding sources.
4. City of Kingsville	1/07/2025	Brought in a UV operator specialist. Made suggestions on improve they can make. Will need to take to city manger to cover expense.
5. City of Robstown	1/08/2024	Made final adjustments on bringing the second clarifier back online and working with first clarifier. Everything working well now.

**Task 2: Secondary Monthly Visit**

Facility	Date	Task(s) Completed
1. City of Agua Dulce	1/28/2025	Noone was on site.
2. San Diego M.U.D.	1/14/2025	Showed who to grease Clarifier rotators
3. City of Riviera	1/29/2025	Observed operator collect samples for weekly lab submission for CBOD/TSS as well observed measurements taken for pH/DO.
4. City of Kingsville	1/29/2025	Had talks with Interim City Manager and City Engineers about Regional a New Southside plant. Possible growth and bringing in Riviera and Ricardo.
5. City of Robstown	1/28/2025	Look over BOD reporting. Plant making permit for the last couple months for the first time in a long time.