

# FINAL REPORT

**Project Name:** San Benito Wetlands Project – Phase II

**Contract:** 16-076-000-9120

**Reporting Period:** 10/01/2015 –09/30/2017

**Task 1: Design and Permitting**

- **Provide a brief description of status of the task:**  not started  in progress  completed
- **Describe major accomplishments for this reporting period (include names of staff working on each task, dates and locations of events/presentations/meetings and dates for milestones/deliverables completed.)**

The Texas Water Resources Institute (TWRI) entered into an agreement with the City of San Benito to construct the project on City property and sub-contracted with the City to complete project construction and conduct water quality monitoring. The City hired Coym, Rehmet and Gutierrez Engineering to design the wetland project. The engineer’s proposal was submitted to the City Council in June 2016. TWRI submitted the wetland construction plans to the Texas General Land Office for review and approval in September 2016. TWRI and the City obtained all necessary local, state, and federal permits, including a Texas Commission on Environmental Quality Permit to Discharge Wastes.

- **List the deliverable(s)/milestone(s) for the project and provide the date completed/submitted to the GLO.**

| Deliverable Name                                 | Date Due         | Date Submitted   |
|--|------------------|------------------|
| Construction plans                               | October 30, 2016 | October 21, 2016 |
| Permits  | August 30, 2016  | August 18, 2016  |
| Contract(s)/agreement(s) with City of San Benito | August 30, 2016  | August 9, 2016   |

- **Were there any problems or obstacles encountered during this reporting period (e.g., delays, remedial action taken, schedule revision).**  Yes  No If yes, please explain:

**Task 2: Construction**

- **Provide a brief description of status of the task:**  not started  in progress  completed
- **Describe major accomplishments for this reporting period (include names of staff working on each task, dates and locations of events/presentations/meetings and dates for milestones/deliverables completed.)**

TWRI sub-contracted with the City to complete pipe installation. The City conducted site visits in June 2016 to prepare the site for construction. The City created a caliche road to ease construction and installed 1,600 linear feet of piping to extend the existing piping system to the highest wetland cell to utilize all 14 outdated cells in the treatment of wastewater. The City completed trenching and cut-off valve installation and backfilled the trench in August 2016. The City cut channels into some of the rock berms of the wetland cells to enhance flow and create viewing/look-out points. Two islands were created in two separate cells. The City installed an additional pump to fill the ponds. Custom valves and flanges were fabricated to fit within the existing effluent discharge system. The newly installed pump was activated, and the ponds were filled in July 2017. TWRI has observed a variety of wildlife in the ponds. The City removed a section of the berm separating Phase II from Phase I, allowing the effluent to flow through all 14 continuous ponds before being discharged into the Arroyo Colorado.

The City utilized caliche to expand the trails around the wetlands and construct a road to connect the south and east sides of

the wetland cells with the main road. Native plants were identified for planting at the site. CMP signage was installed.

- **List the deliverable(s)/milestone(s) for the project and provide the date completed/submitted to the GLO.**

| Deliverable Name  | Date Due           | Date Submitted   |
|---|--------------------|------------------|
| Report on repairs and renovations, invasive species removal, species and acreage of native vegetation planted, and volunteer restoration events | September 30, 2017 | October 13, 2017 |
| Photos before, during, and after construction, including pipe installation, repairs and renovations, invasive species removal, and plantings    | March 31, 2017     | March 31, 2017   |
| Photos of installed temporary CMP signage   | March 31, 2017     | April 28, 2017   |
| Photos of installed permanent CMP signage   | April 30, 2017     | April 28, 2017   |

- **Were there any problems or obstacles encountered during this reporting period (e.g., delays, remedial action taken, schedule revision).**  Yes  No If yes, please explain:

**Task 3: Monitoring**

- **Provide a brief description of status of the task:**  not started  in progress  completed
- **Describe major accomplishments for this reporting period (include names of staff working on each task, dates and locations of events/presentations/meetings and dates for milestones/deliverables completed.)**

The City conducted daily water quality monitoring of treated effluent leaving the wastewater treatment and water flowing from the final cell. Monitoring was conducted to evaluate pollutant loads and evaluate the project’s success.

- **List the deliverable(s)/milestone(s) for the project and provide the date completed/submitted to the GLO.**

| Deliverable Name                | Date Due           | Date Submitted   |
|---------------------------------|--------------------|------------------|
| Report on monitoring activities | September 30, 2017 | October 13, 2017 |

- **Were there any problems or obstacles encountered during this reporting period (e.g., delays, remedial action taken, schedule revision).**  Yes  No If yes, please explain:

**Task 4: Education and Outreach**

- **Provide a brief description of status of the task:**  not started  in progress  completed
- **Describe major accomplishments for this reporting period (include names of staff working on each task, dates and locations of events/presentations/meetings and dates for milestones/deliverables completed.)**

TWRI held public workshops on September 23 and 30 2017 at the San Benito Wetlands site. During the workshops, TWRI presented information about the ten acres of new wetland habitat, its impact on water quality, and the tree planting activity. Participants were divided into 2-3 person planting teams. Fifteen people participated in the September 23, 2017 workshop, and thirty-two people participated in the September 30, 2017 workshop. TWRI presented on August 27, 2017 during the City of San Benito Chamber of Commerce’s monthly “Coffee with San Benito” meeting that brings the city commission and community members together to discuss issues, concerns, and city projects. Approximately 20 people attended, including the new Mayor, three city commission members, a Cameron County Constable, and members of the local newspapers. On September 28, 2017, the Valley Morning Star published an article about the project. The article is available at [http://www.valleymorningstar.com/news/local\\_news/article\\_e5db0688-a4bd-11e7-9aa9-4b57b590b771.html](http://www.valleymorningstar.com/news/local_news/article_e5db0688-a4bd-11e7-9aa9-4b57b590b771.html).

The University of Texas – Rio Grande Valley civil engineering students conducted a forensic investigation of the pole barn and deemed it not suitable for renovation. The students recommended demolition of the structure before it collapses. As a result, local

volunteer groups designed and painted seven homemade interpretative signs to display at the project site. Additionally, TWRI installed interpretative signage to educate the public about birds, wetlands, and plants. TWRI worked with Keep San Benito Beautiful, South Texas Chapter - Master Naturalist, and Master Gardeners volunteers on the signage content.

- **List the deliverable(s)/milestone(s) for the project and provide the date completed/submitted to the GLO.**

| Deliverable Name  | Date Due           | Date Submitted   |
|---|--------------------|------------------|
| Photos of student outreach event(s) and workshops   | September 30, 2017 |                  |
| Report on workshops and student outreach, including event dates, number of participants, and activities conducted, with monthly progress report | September 30, 2017 | October 12, 2017 |
| Workshop information, including photo and video clips   | September 30, 2017 | October 12, 2017 |
| Design layout for interpretive signage  | March 31, 2017     |                  |
| Photographs of installed interpretive signage, painted metal sheets, and renovated barn   | September 30, 2017 |                  |

- **Were there any problems or obstacles encountered during this reporting period (e.g., delays, remedial action taken, schedule revision).**  Yes  No If yes, please explain:

The project encountered issues with installing the educational panels on the pole barn. The pole barn was in a bad state of disrepair and ended up being torn down. Instead of installing the interpretive signage on the pole barn, TWRI decided to install the signage as free-standing panels. However, there have been major delays with the manufacturer completing the signage and it won't be installed until August 2018.

#### Task 5: Project Reporting

- **Provide a brief description of status of the task:**  not started  in progress  completed
- **Describe major accomplishments for this reporting period (include names of staff working on each task, dates and locations of events/presentations/meetings and dates for milestones/deliverables completed.)**

TWRI prepared and submitted reports, deliverables, and requests for reimbursement as required in the contract.

- **List the deliverable(s)/milestone(s) for the project and provide the date completed/submitted to the GLO.**

| Deliverable Name  | Date Due           | Date Submitted   |
|---|--------------------|------------------|
| Monthly progress reports and requests for reimbursement | September 30, 2017 | October 13, 2017 |
| Final report  | September 30, 2017 | October 13, 2017 |
| Project closeout form                                   | September 30, 2017 | October 13, 2017 |

- **Were there any problems or obstacles encountered during this reporting period (e.g., delays, remedial action taken, schedule revision).**  Yes  No If yes, please explain:

Photos of Completed Construction







•• A grant project of the Texas General Land Office,  
Texas Coastal Management Program  
and the Coastal Coordination Advisory Committee



Funded by the Coastal Zone Management Act of 1972 as amended, Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, and managed by the Texas General Land Office.  
For more information about the CMP grant program, please call the Texas General Land Office at 1,800,998,6GLO.