

Texas AgriLife Extension Service

Sheldon Lake State Park Prairie Wetland Restoration

FY 10 CWA 319(h)

TSSWCB Project 10-05

Quarter no. 9 From 10-1-12 Through 12-31-12

I. Abstract

The quarter was marked by the continued drought condition which prohibited most planting. The Team had one fortunate day of planting in late December. With winter settling into the region, we anticipate additional rain to fill the ponds and saturate the surrounding areas.

This quarter shows our efforts to present on the Sheldon project, as we were able to present both at the regional (Galveston Bay) Council meeting and the annual meeting for ecological professionals at the Texas Society for Ecological Restoration.

Extension also spent a significant effort working with Park staff and TPWD Regional specialist to coordinate appropriate signage at the Park regarding the wetland restoration. The Park is in the midst of executing its master plan which includes boardwalks and associated signage, and Extension wants to take advantage of the process for the Master Plan to complete the wetland signage.

II. Overall Progress and Results by Task

Task 1 – Project Administration and Coordination

Subtask 1.1: AgriLife Extension will prepare electronic quarterly progress reports (QPRs) for submission to the TSSWCB. QPRs shall document all activities performed within a quarter and shall be submitted by the 15th of January, April, July and October. QPRs shall be posted on the project website and distributed to all project partners.

The following actions have been completed during this reporting period:

- A. Texas AgriLife Extension Service (Extension) per this document completes the ninth quarterly report submittal.

82% complete (11 quarterly reports total for project)

Subtask 1.2: AgriLife Extension will perform accounting functions for project funds and will submit appropriate Reimbursement Forms to TSSWCB at least quarterly.

The following actions have been completed during this reporting period:

- A. Extension has submitted a quarterly invoice for the previous quarter.

82% complete

Subtask 1.3: AgriLife Extension will host coordination meetings or conference calls, at least quarterly, with project partners to discuss project activities, project schedule, communication needs, deliverables, and other requirements. AgriLife Extension will develop lists of action items needed following each project coordination meeting and distribute to project personnel.

The following actions have been completed during this reporting period:

- A. Extension resubmitted an additional amendment to accommodate recent changes in budget categories. The proposed amendment was submitted to TSSWCB for review.

82% complete (11 scheduled coordination meetings total)

Subtask 1.4: AgriLife Extension will attend and participate in public meetings as appropriate in order to communicate project goals, activities, and accomplishments to affected parties. Such meetings may include, but are not limited to, Galveston Bay Council and subcommittee meetings, Clean Rivers Program Basin Steering Committee and Coordinated Monitoring meetings, Texas Forest Service Wetland/BMP Coordinating Committee meetings, TMN Gulf Coast Chapter meetings, and watershed stakeholder meetings for certain TMDLs and WPPs.

The following actions have been completed during this reporting period:

- A. Project Manager attended the following meetings:
- i. Wetland Field Day at Sheldon Lake State Park, October 18, 2012
 - ii. Texas Master Naturalist State Meeting, Navasota, October 26, 2012
 - iii. Galveston Bay Council Quarterly Meeting, October 31, 2012
 - iv. Texas Chapter Meeting of Society for Ecological Restoration, November 3, 2012
 - v. Natural Resources Uses Subcommittee meeting, Galveston Bay Estuary Program, November 28, 2012

82% complete

Subtask 1.5: AgriLife Extension will develop (Months 1-3), host and maintain (Months 4-36) a project webpage for the public dissemination of project materials.

The following actions have been completed during this reporting period:

- A. Extension currently hosts and updates the Wetland Restoration Team NING website with up-to-date information regarding the project. (<http://wetlandteam.ning.com>), and the Sheldon Lake SP restoration project webpage for the Texas Coastal Watershed Program (<http://agrilife.org/urbannature/sheldon-lake-prairie-wetland-restoration-project/>).

82 % complete

Subtask 1.6: AgriLife Extension will develop and disseminate project informational materials, including, but not limited to, flyers, brochures, letters, news releases, and other appropriate promotional publications. TSSWCB must approve all announcements, letters and publications prior to distribution.

The following actions have been completed during this reporting period:

- A. Extension distributed both the Wetland Team brochure and the Sheldon Lake SP project flyer of the Coastal Restoration series during each of the attended meetings/events this quarter. Additionally, a draft copy of the new restoration brochure has completed its initial internal review.

82% complete

Subtask 1.7: AgriLife Extension will develop a Final Report.

The following actions have been completed during this reporting period:

- A. No activity to report this quarter.

0% complete

Task 2 – Wetland Plant Propagation

Subtask 2.1: AgriLife Extension will collect local native wetland plants (within 50 mile radius of Sheldon Lake SP) to restore the wetland site. Collection will be conducted using ecologically sound methodologies to ensure the integrity of native wild populations.

The following actions have been completed during this reporting period:

- A. Approximately 320 *Carex hyalinolepis* wetland plants were rescued from phase 1, pond 2 as part of the restoration effort this quarter. Additionally, several pounds of seed mix (native *Juncus* and *Rhynchospora* spp.) were processed for future seedball or direct hand transplanting (see attached “plant tally 9qtr TSSWCB”).

82 % complete

Subtask 2.2: AgriLife Extension will propagate all collected native wetland plants. All plants will remain on Sheldon Lake SP.

The following actions have been completed during this reporting period:

- A. The Wetland Restoration Team finished removing the remaining viable material from the grow-out ponds and reorganized the material in place to accommodate future collection material.

82 % complete

Subtask 2.3: AgriLife Extension will work with TMN to train Wetland Restoration Team members to be mentors for the restoration process. Training will include classroom and field instruction as well as practicals (i.e. outdoor labs).

The following actions have been completed during this reporting period:

- A. AgriLife completed 12 Wetland Team workdays within this quarter, where each workday focused on restoration training/ restoration Best Management Practices (e.g. invasive control, and seed preparation) aspects for the Sheldon Lake SP project.

82% complete

Task 3 – Wetland Restoration

Subtask 3.1: AgriLife Extension will train and organize with TMN to prepare mentors for completing restoration (planting) of constructed site.

The following actions have been completed during this reporting period:

- A. Extension has conducted 10 Wetland Team training workdays (workdays without students) as part of the ongoing wetland team mentor training for the Master Naturalist volunteers (see attached “signin_9qtr_2012.pdf”). We additionally hosted two workdays with students from YES Prep Brays Oaks.

Due to drought conditions, the Team members mainly focused on eradication of invasive species on-site within phase 2 and 3 of the restoration.

82 % complete

Subtask 3.2: AgriLife Extension and TPWD will produce an engineering design for this restored wetland system. The design will include a description specifying physical dimensions and functionality such as total area, through-flow, water depth(s), type and amount of vegetation, and the maintenance, recreational, educational infrastructure to be installed at the site. The drawings will also include detailed descriptions of the materials used in the construction of the wetland system and all its structures and the location, density and type of vegetation of all vegetated areas in the wetland. The design shall be consistent with NRCS conservation practice standards for Wetland Restoration (657) and Constructed Wetland (656).

The following actions have been completed during this reporting period:

- A. Extension request the TPWD staff provide the final piece for this deliverable: through-flow amounts. No further information has been provided.

96% complete

Subtask 3.3: *AgriLife Extension will include in the Final Report maps that delineate the contributing watershed for the restored wetland and a description of current and historic land use of the wetland and its contributing watershed.*

The following actions have been completed during this reporting period:

- A. Extension requested several times to schedule the investigation into the contributing watershed.

17% complete

Subtask 3.4: *TPWD shall obtain all necessary local, state, and federal permits that apply before the restoration is conducted. Texas water rights permits and Clean Water Act § 401/404 permits may be required.*

The following actions have been completed during this reporting period:

- A. Extension received digital copies of all documents/permits associated with the project.

100% complete

Subtask 3.5: *AgriLife Extension and TPWD will develop (Months 1-12) an operation and maintenance plan for the restored wetland. TPWD will implement (Months 13-36+) the O&M plan for the designed life of the restored wetland. The O&M plan shall be consistent with NRCS Conservation Practice Standards for Wetland Restoration (657) and Constructed Wetland (656).*

The following actions have been completed during this reporting period:

- A. Extension advertised and selected a graduate student to complete the O&M Manual as part of the project.

65% complete

Subtask 3.6: *AgriLife Extension and TMN will plant the constructed restoration site with trained mentors and student volunteers under the guide of the trained mentors.*

The following actions have been completed during this reporting period:

- A. Extension has conducted 12 Wetland Team workdays as part of the ongoing wetland team mentor training for the Master Naturalist volunteers, of which two workday were with local students from YES Prep Brays Oaks.

82% complete

Subtask 3.7: AgriLife Extension will conduct vegetation transects to determine wetland plant stand establishment. Criteria for determining stand establishment shall be consistent with the engineering design (Subtask 3.2) and NRCS Conservation Practice Standards.

The following actions have been completed during this reporting period:

- A. Photopoint monitoring was completed during this quarter (October and December). Additionally, the December vegetation monitoring cycle was completed.

82 % complete

Task 4 – Outreach and Education

Subtask 4.1: AgriLife Extension and TPWD will conduct 4 field days at the restored wetland site (2 per year) to highlight the innovative construction methods and utility of the restored wetland. Targeted audiences should include 1) other entities in the Galveston Bay area considering conducting wetland restoration, 2) TPWD staff from other State Parks, and 3) media including TV and newspapers.

The following actions have been completed during this reporting period:

- A. Extension hosted and completed its 3rd Wetland Field Day at Sheldon Lake State Park on October 18, 2012. Extension also set the date for the final Field Day in Spring 2013 (April 11, 2013).

75% complete

Subtask 4.2: AgriLife Extension will make presentations on the restored wetland at local and regional meetings, including 1) GBEP meetings, 2) TSSWCB Southeast and South Central Texas Regional Watershed Coordination Steering Committee, and 3) HGAC NRAC, CRP, and BIG meetings.

The following actions have been completed during this reporting period:

- A. Extension provided a brief update and solicitation of the Sheldon project at the Galveston Bay Council meetings, October 31, 2012; and the Natural Resources Uses subcommittee meeting on November 28, 2012. Extension attended the TSSWCB WCSC meeting, as well, in December 2012.

82 % complete

Subtask 4.3: AgriLife Extension and TPWD will explore the applicability of enrollment of this restored wetland system in the Wetland Reserve Program, a USDA Farm Bill program. AgriLife Extension will develop outreach materials promoting participation in WRP targeted to entities in the Galveston Bay area.

The following actions have been completed during this reporting period:

- A. No further work completed on this task.

90% complete

Subtask 4.4: TPWD will develop and install interpretive signage at Sheldon Lake SP highlighting the restored wetland system. TPWD will develop educational materials for distribution to visitors (general public and youth) at Sheldon Lake SP highlighting the restored wetland system.

The following actions have been completed during this reporting period:

- A. Extension has communicated and encouraged the Park and regional staff to move forward on the signage for Sheldon related to the wetland restoration. Extension has been included in the online review process for the signage to be created for the entire Park.

25% complete

Subtask 4.5: TPWD will 1) publish an article on this project in the quarterly TPWD Wetland News, and 2) produce a short program on this project for TPW-TV.

The following actions have been completed during this reporting period:

- A. No further progress on this task.

10% complete

III. Related Issue/Current Problems and Favorable or Unusual Developments.

This quarter was marked by the continued dry conditions which prevent the Team from planting in the restored ponds. However, the Team is resourceful enough to find appropriate propagation work and invasive control—all of which are designated goals within the O&M for the restored area.

IV. Project Work for Next Quarter

Task 1. Extension will submit 10th quarterly report for the project and complete 91% of this subtask. Extension expects to coordinate with TSSWCB project manager regarding additional outreach materials to be produced for the project (e.g. “Local Native Plants in Coastal Prairie Wetland restoration”).

Task 2. Extension expects to submit documentation of volunteer hours and effort showing hours spent in propagation or collection of native plant materials. Extension expects to collect native wetland plants and directly plant them into excavated basins or the grow-out ponds at the Park; however, this is contingent on rainfall. Extension expects to conduct workdays which involves some training for the Wetland Restoration Team.

Task 3. Extension will conduct a second round of interviews for an appropriate graduate student to complete the O&M manual based on the approved outline from the Park. Extension will conduct quarterly vegetation and photopoint monitoring cycles.

Task 4. Extension will attend additional meetings to present on the Sheldon Lake State park restoration method. Extension will work to organize and prepare for the next Field Day on April 11, 2013. Extension will contact TPWD Austin staff about the TPWD article and short program. Extension will also be in coordination with TPWD Regional specialist to ensure the signage developed and established will be consistent with our needs.