

Section 6 (Texas Traditional) Report Review

Form emailed to FWS S6 coordinator (mm/dd/yyyy): 6/9/2010

TPWD signature date on report: Yes

Project Title: Design for high quality habitat for the Comanche Springs Pupfish (*Cyprinodon elegans*)

Final or Interim Report? Final

Grant #: TX E-90-R

Reviewer Station: Austin ESFO

Lead station concurs with the following comments: NA (reviewer from lead station)

Interim Report (check one):

- ☐ Acceptable (no comments)
 - ☐ Needs revision prior to final report (see comments below)
 - ☐ Incomplete (see comments below)
-

Final Report (check one):

- ☒ Acceptable (no comments)
 - ☐ Needs revision (see comments below)
 - ☐ Incomplete (see comments below)
-

Comments:

[Click here to enter text.](#)

FINAL REPORT

As Required by

THE ENDANGERED SPECIES PROGRAM

TEXAS

Grant No. TX E-90-R

Endangered and Threatened Species Conservation

Design for high quality habitat for the Comanche Springs Pupfish (*Cyprinodon elegans*)

Prepared by:

Mark Lockwood



Carter Smith
Executive Director

Clayton Wolfe
Division Director, Wildlife

31 May 2010

FINAL REPORT

STATE: Texas **GRANT NUMBER:** TX E-90-R

GRANT TITLE: Endangered and Threatened Species Conservation

REPORTING PERIOD: 6 Sep 07 to 31 May 2010

PROJECT TITLE: Design for high quality habitat for the Comanche Springs Pupfish
(*Cyprinodon elegans*)

OBJECTIVE(S):

To produce a managed wetland in one year that will provide an isolated, high quality, sustainable refuge for Comanche Springs pupfish (*Cyprinodon elegans*), Pecos gambusia (*Gambusia nobilis*), and three candidate invertebrate species at Balmorhea State Park.

Summary Of Progress:

Please see Attachment A.

Significant Deviations: None.

Location: Reeves County, Texas.

Cost: available upon completion of grant.

Prepared by: Craig Farquhar

Date: 4 June 2010

Approved by: 

Date: 4 June 2010

C. Craig Farquhar

ATTACHMENT A

FINAL REPORT

Comanche Springs pupfish Refuge at Balmorhea State Park, Reeves County, Texas

Principal Investigator

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Summary of actions under Section 6 grant

The initial Section 6 grant covered the development of planning documents for a new ciénega at Balmorhea State Park. Funds remained from that grant at the completion of those documents. A second grant application was submitted to transfer the remaining funds into the construction phase of the project. That funding was awarded in February 2009 with the following outline of activities.

TASK No.	DATE	DESCRIPTION
1.	1 February 2009	Begin construction phase of project
2.	Day 1-Day 14	Excavation and construction of ciénega portion
3.	Day 60-Day 75	Transfer fish and associated organisms from concrete canal to new ciénega
4.	Day 80-Day 90	Remove concrete canal
5.	Day 100-Day 120	Site preparation (grading) and canal construction
6.	Day 120-Day 160	Concrete work at inlet and outlet
7.	Day 160-Day 200	Completion of designed system

There was a delay in the beginning of the construction phase as paperwork to extend the grant was completed through Texas Parks and Wildlife and the U.S. Fish and Wildlife Service. As a result construction did not start until late May. The Texas Department of Transportation (TxDOT) has joined the project as a partner and provided equipment and manpower for the surface grading.

Task 2

The TxDOT equipment crew began construction of the ciénega on 11 May and it was completed on 25 May 2009. At that time it was filled with water to begin development of an environment that would sustain fish.

Task 3

The initial plan was to transfer fish in late July in accordance with above time schedule and in agreement with the Biological Opinion written by Nathan Allen. However conditions within the pond were not optimal for introducing fish. Through consultation with Gary Garrett (TPWD) and Nathan Allen (USFWS) and it was decided to postpone transferring fish until 14 September 2009.

Task 4

The removal of the old concrete canal began on 17 September and was completed on 9 October 2009.

Task 5

Site grading began on 12 October 2009 and was completed 22 April 2010.

Task 6

Concrete and rock work was completed during March 2010.



Figure 1
Balmorhea SP - Comanche Springs pupfish Refuge project
rock work at inlet - 12 March 2010



Figure 2
Balmorhea SP - Comanche Springs pupfish Refuge project
Concrete flume in outflow canal - 28 April 2010

Task 7

The ciénega, including all concrete work and lining of inflow and outflow canals was completed on 28 April 2010. Consistent water flow that stabilized the environment in the ciénega was achieved on that date.

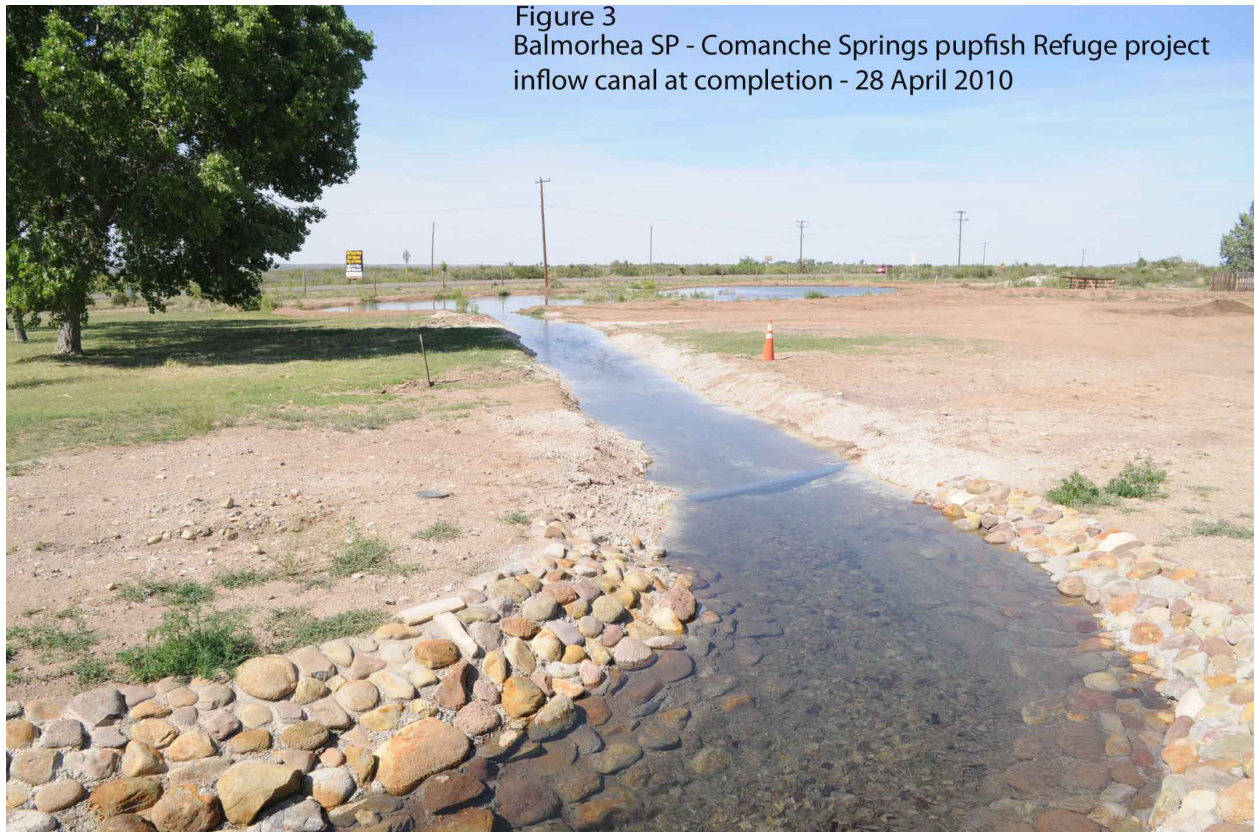


Figure 4 Balmorhea SP - Comanche Springs pupfish Refuge project
ciénega and inflow canal at completion - 28 April 2010

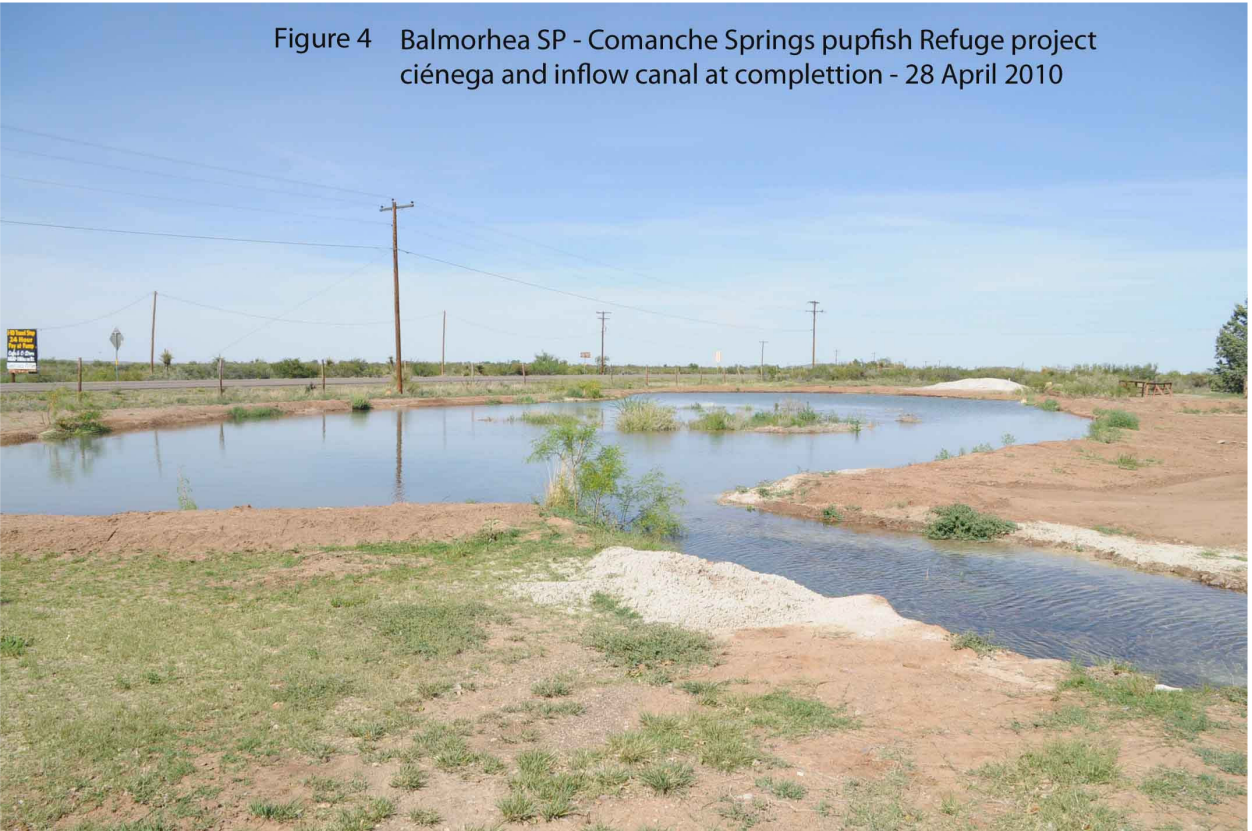


Figure 5
Balmorhea SP - Comanche Springs pupfish Refuge project
outflow canal at completion - 28 April 2010



Delays

There were several deviations from the initial expectations outlined in the grant application. The first was a delay in completing Federal and state paperwork that postponed starting of the project. The second was the environmental conditions in the ciénega in July that necessitated the postponement of transferring the fish until mid-September. The final deviation involves environmental conditions and the availability of the TxDOT work crew to complete the surface grading. The result s of these delays postponed the completion of the project by approximately four months.

Conclusions

The project that was funded under this Section 6 grant was completed successfully. The new ciénega provides improved habitat for the Comanche Springs Pupfish and other rare species found in the San Solomon Springs system.