

## Work Task C25: Imperial Ponds Native Fish Research

FY07 Estimates	FY07 Actual	Cumulative Accomplishment Through FY07	FY08 Approved Estimate	FY09 Proposed Estimate	FY10 Proposed Estimate	FY11 Proposed Estimate
\$0	\$0	\$0	\$225,000	\$225,000	\$225,000	\$225,000

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**Start Date:** FY08

**Expected Duration:** FY11

**Long-term Goal:** Species research, backwater restoration.

**Conservation Measures:** RASU2, BONY2.

**Location:** Reach 5, Imperial National Wildlife Refuge, AZ.

**Purpose:** Monitor six ponds created as native fish refugia on Imperial NWR to ascertain the overall success of each pond in producing viable populations of native fish, and evaluate the role and contribution of various structures and features developed within the ponds in attaining this success.

**Connections with Other Work Tasks (past and future):** The RASU and BONY to be stocked into the ponds are provided through B1, B2, B3, B4, and B5. Ponds were developed under E14, and additional monitoring support will be provided through F5.

**Project Description:** This activity will monitor and evaluate the development of native fish refugia in six newly constructed ponds on Imperial NWR. Pond construction incorporated design features such as riprap, spawning gravels, hummocks, and increased depth, all thought to provide suitable habitat for life cycle completion by BONY and RASU. The experimental design of this research program will evaluate the role and importance of each of these features toward accomplishing successful communities of native fishes. The design includes an initial fish stocking strategy for the ponds, and a monitoring program for selected features of the habitat and fish. The work will be directed by native fish experts who will interpret all field data and make recommendations as appropriate to guide the overall operation and future management of the ponds for native fish refugia.

A fishery coordination and advisory team will be formed with representatives from the USFWS, Reclamation, AGFD, and ASU. This team will meet on-site, quarterly throughout the period of study to keep all parties abreast of ongoing activities.

**Previous Activities:** This is a new start for FY08.

**FY07 Accomplishments:** N/A

**FY08 Activities:** This task was a new start for FY08. Preliminary monitoring of pond temperature, conductivity, pH, and dissolved oxygen began in September (FY07) and will continue at fixed water quality stations within each pond on a monthly basis in FY08. Two ponds will be stocked with RASU in November 2007 and two ponds will be stocked with BONY in December 2007. Preliminary trials of various fish monitoring techniques will be conducted in FY08 including but not limited to imaging sonar, swimming transects, hoop netting, and remote PIT-tag scanning. Monitoring of spawning activity and larval collecting will be conducted in the spring, and the first abundance estimate will be made using a mark-recapture event in the autumn.

**Proposed FY09 Activities:** Research activities begun in FY08 will continue.

**Pertinent Reports:** A progress report will be developed annually and will be posted to the LCR MSCP Web site. The study plan is available upon request.