

## Work Task B7: Lake-side Rearing Ponds

FY07 Estimates	FY07 Actual	Cumulative Accomplishment Through FY07	FY08 Approved Estimate	FY09 Proposed Estimate	FY010 Proposed Estimate	FY11 Proposed Estimate
\$150,000	\$136,000	\$571,641	\$175,000	\$175,000	\$175,000	\$150,000

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**Start Date:** FY05

**Expected Duration:** FY16 decision point

**Long-term Goal:** Maintain fish-rearing capability, provide RASU and BONY for the LCR MSCP Fish Augmentation Program, and accomplish species research.

**Conservation Measures:** RASU3, RASU4, RASU5, RASU6, BONY3, BONY4, and BONY5.

**Location:** Reach 2, Lake Mohave, AZ/NV.

**Purpose:** Operate and maintain fish grow-out areas along the Lake Mohave shoreline to contribute to RASU brood stock development.

**Connections with Other Work Tasks (past and future):** Activities are related to B2 and B4, as fish for grow-out ponds will come from Willow Beach NFH and Dexter NFH. In addition, some of the fish-rearing research activities outlined in C10 and C11 may be conducted at these ponds.

**Project Description:** Lake Mohave is operated by Reclamation as a re-regulation reservoir. It operates annually within a 15-foot vertical elevation range, filling to an elevation of 645.5 feet msl by mid-May and lowering to an elevation of 630.5 feet msl in October. Desert washes, which flow into the reservoir, deposit sediment and create wash fans. Wave actions have redistributed and shaped these sediment deposits into sandbars and in some areas these sandbars isolate the lower portions of the washes from the lake proper. There are at least 10 such sandbars that have ponds behind them when the lake is full. Reclamation and its partners in the Lake Mohave NFWG have been using these lakeside ponds since 1993 as rearing and grow-out areas for RASU and BONY. The ponds are stocked with juvenile fish as the reservoir fills in the spring (typically stocked in March). Reclamation staff monitor the fish throughout the growing season. This includes periodic fertilization with alfalfa pellets and ammonium nitrates to sustain algae blooms and plankton production, removal of weeds and debris, installing and maintaining floating windmills or solar well pumps to mix the water and provide sufficient oxygen levels, and routine monitoring of physical, chemical, and biological parameters. The ponds are normally harvested in the fall as the lake elevation declines. The fish from these ponds are then released into Lake Mohave.

**Previous Activities:** These ponds have been in use since 1993 and more than 28,000 RASU have been reared and repatriated to Lake Mohave.

**FY07 Accomplishments:** In an effort to expedite development of RASU brood stock, the Lake Mohave NFWG has requested that the target size for repatriation be increased to 500 mm TL (approximately 20 inches). In response to this request, lakeside ponds received approximately 1,000 large RASU (375-425 mm TL) from Willow Beach NFH in February and March 2007. Fish harvest was conducted in late May and again in October with an overall survival of approximately 60%. Due to reproduction and recruitment in the ponds, only a small percentage of the fish actually reached target size of 500 mm TL. However, most of the fish harvested exceeded 450 mm TL. Results are summarized in Table 1.

**Table 1. 2007 Lake Mohave Backwaters Summary**

<b>Ponds</b>	<b># Stocked</b>	<b>Mean Length @ Stocking</b>	<b># Harvested</b>	<b>Mean Length @ Harvest*</b>	<b>% Harvested</b>
Yuma*	210	419	96	497	46
Nine Mile	50	388	28	424	56
Willow	40	388	58	443	65
Nevada Egg	30	388	20	427	67
Dandy	199	419	169	454	84
Arizona Juvenile	206	419	98	447	48
Nevada Larvae	51	388	35	428	69
N. Chemehueve	204	419	136	460	67
S. Sidewinder	24	388	16	411	67
<b>Total</b>	<b>1,014</b>	<b>402</b>	<b>656</b>	<b>443</b>	<b>63</b>

\*Represents fish that were stocked and does not include volunteer spawn fish.

In 2007, 913 volunteer spawn YOY razorback suckers were transferred from other backwaters to Yuma Cove.

**FY08 Activities:** Lakeside ponds will continue to be used for RASU brood stock maintenance and development.

**Proposed FY09 Activities:** Lakeside ponds will continue to be used for RASU brood stock maintenance and development.

**Pertinent Reports:** The *2007 Fish Augmentation Summary* is under development and will be posted to the LCR MSCP Web site.