

## Work Task B2: Willow Beach National Fish Hatchery

FY13 Estimate	FY13 Actual Obligations	Cumulative Expenditures Through FY13	FY14 Approved Estimate	FY15 Proposed Estimate	FY16 Proposed Estimate	FY17 Proposed Estimate
\$609,000	\$615,852.78	\$2,545,886.57	\$300,000	\$325,000	\$325,000	\$325,000

**Contact:** Ty Wolters, (702) 293-8463, [twolters@usbr.gov](mailto:twolters@usbr.gov)

**Start Date:** FY05

**Expected Duration:** FY55

**Long-term Goal:** Fish augmentation.

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

**Location:** Reach 2, Willow Beach, Arizona.

**Purpose:** Annually contribute RASU and BONY to the LCR MSCP Fish Augmentation Program.

**Connections with Other Work Tasks (past and future):** Willow Beach NFH receives larval RASU from B1, and BONY from B4. Fish from Willow Beach are reared at Achii Hanyo (B3). Some fishery research actions described in Section C may be ongoing at this facility, including Razorback Sucker Rearing Studies (C10), and Development and Evaluation of Measures to Reduce Transport of Quagga Mussel During Fish Transfer and Stocking Activities (C30).

**Project Description:** Willow Beach NFH is managed by the USFWS. The hatchery receives funding from the LCR MSCP for rearing of RASU and BONY for the Fish Augmentation Program. There are three primary tasks at the hatchery:

1. **Receive fish to be reared.** Willow Beach NFH annually receives wild RASU larvae collected from Lake Mohave, and fingerling BONY (25-75 mm TL) from SNARRC (B4).
2. **Provide fish to other hatcheries.** Initially, Willow Beach NFH was to provide fingerling RASU to Bubbling Ponds SFH to be further reared and ultimately stocked into reaches 3-5, provide fingerling RASU from wild-caught larvae to SNARRC for further rearing and eventual repatriation to Lake Mohave, and provide juvenile BONY to Achii Hanyo Rearing Station for further rearing and ultimately for stocking into reaches 3-5. Due to the current infestation of quagga mussels, Willow Beach NFH is only delivering fish to Achii Hanyo and Lake Mead SFH.

3. **Annually rear RASU for release to Lower Colorado River.** Willow Beach NFH will rear 8,000 subadult RASU to 300 mm TL for stocking into reaches 2-5, and rear up to 1,000 RASU greater than 400 mm for repatriation to Lake Mohave.

**Previous Activities:** This coldwater hatchery began operation in 1962 to produce rainbow trout for recreational fishing. Between 1994 and 1997, the USFWS and Reclamation cooperatively added solar heating systems to the hatchery, converting 50 percent of its rearing capacity to warmwater fish production. Each year since 1996, the hatchery has received wild RASU larvae, reared juvenile RASU, and repatriated fish back to Lake Mohave.

During January 2007, the exotic quagga mussel was discovered in Lake Mead, and was subsequently found at Willow Beach NFH. Larval RASU that were to be transferred to Bubbling Ponds SFH were not collected (B1) and no RASU were delivered to waters outside the lower Colorado River corridor. Quagga mussels have not severely impacted the maintenance or operation of the facility; however, they continue to have an impact on delivery of fish. Fish transport protocols were tested under C30.

**FY13 Accomplishments:** During 2013, 24,924 RASU larvae were received from Lake Mohave, 900 RASU juveniles were stocked to lake-side rearing ponds (B7), and 15,236 RASU were repatriated into Lake Mohave (Reach 2). A total of 1,013 FY11 RASU were transferred to Achii Hanyo Rearing Station (B3) for further grow out. The majority of funds were for salary and consumable materials (fish feed, medicines, chemicals, etc.). In addition, FY13 funds were pre-obligated to initiate services including, the installation of another ground water well and the installation of a pump in an existing well on station. The increased expenditures in FY13 correspond to taking advantage of these opportunities. This project is expected to be completed in FY14. A new agreement was completed that will increase number of >300 mm size RASU to 8,000 each year.

**FY14 Activities:** Willow Beach NFH will receive RASU larvae from Lake Mohave, and continue to rear and distribute RASU and BONY currently on station. This includes 1,197 RASU of the 2009 year class, 5,871 RASU of the 2010 year class, 10,399 of the 2011 year class, 14,181 RASU of the 2012 year class, and 19,549 RASU of the 2013 year class.

As noted above, in FY14 a second pump with associated electrical parts will be installed on an existing well and a third well and pump will be installed. Well water would supply Willow Beach NFH with pathogen-free water, thereby helping eliminate quagga mussel from this facility.

**Proposed FY15 Activities:** The hatchery will continue to receive RASU larvae from Lake Mohave and to rear and distribute RASU and BONY for the LCR MSCP Fish Augmentation Program.

**Pertinent Reports:** Annual administrative reports are available upon request.