

## Work Task E15: Backwater Site Selection

FY05 Estimate	FY05 Actual	Cumulative Accomplishment Through FY05	FY06 Approved Estimate	FY07 Proposed Estimate	FY08 Proposed Estimate	FY09 Proposed Estimate
\$0	\$0	\$0	\$200,000	\$430,000	\$775,000	\$400,000

**Contact:** Nathan Lenon, (702) 293-8015

**Start Date:** FY06 **Expected Duration:** FY10

**Long-term Goal:** Habitat creation

**Conservation Measures:** BONY2, RASU2, and FLSU1

**Location:** Reaches 3-6; California, and Nevada, River Mile 22-276, AZ, CA, and NV

**Purpose:** To establish and validate a consistent standardized technique for evaluating and selecting backwaters with the highest probability of success, based on their biological and physical attributes. The technique will then be used to inventory backwaters in Reaches 3-6. This inventory is expected to identify potential backwater creation sites, develop conceptual restoration approaches, estimate the relative cost of habitat creation, and estimate the habitat credit potential of the backwater. This would generate a list of potential sites to be developed as habitat which would be sequenced into the Work Plan process based on habitat creation goals and budget constraints.

**Connections with Other Work Tasks (past and future):** E16 is used with this work task to identify projects for habitat creation.

**Project Description:** Reclamation is developing a standardized technique for evaluating and selecting backwaters for habitat creation, considering biological attributes and other program considerations (e.g., cost, land ownership, and feasibility).

The backwater inventory process will be completed in two phases. The first phase, scheduled to start in FY06 and completed in FY08, is the inventory and evaluation of backwaters in Reaches 5 and 6. The second phase, scheduled to start in FY07 and completed in FY09, is the inventory and evaluation of backwaters in Reaches 3 and 4. Projected activities in FY10 are minimal and intended to close out the backwater inventory process. Upon completion of the inventory and evaluation, backwaters selected for restoration will be addressed under site specific Work Tasks.

For planning purposes, each phase of the backwater inventory process is divided into three steps. The first step is the inventory of existing backwaters. Basic information which can be obtained without visiting the sites will be used to make these determinations. This information includes backwater size and connectedness to the river, and willingness of the landowner/manager to participate in the program.

During the second step, approximately 30 backwaters will be visited during the summer, with one site visit to each backwater. Physical and biological data will be collected to generate biological ranking scores and habitat opportunity rankings as described in the *Draft Guidelines for the Screening and Evaluation of Potential Conservation Areas*. Trip reports will be completed for review by the LCR MSCP Program Manager and a technical work group. The estimated cost for the initial site visit, sampling effort, and bathymetry is \$12,500 per backwater.

In the third step, habitat assessments will be completed for the final high priority 4-5 sites, which would include four quarterly monitoring trips. These sampling and assessment methodologies will be included in the updated *Draft Guidelines for the Screening and Evaluation of Potential Conservation Areas*. At the conclusion of these assessments, final reports will be completed and reviewed by a technical work group. The estimated cost for one year of quarterly sampling is \$50,000 per backwater.

**FY05 Accomplishment:** This was a new start in FY06.

**FY06 Activities:** In FY06, Reclamation will complete the *Draft Guidelines for the Screening and Evaluation of Potential Conservation Areas*, which will include guidelines specific to selecting backwaters. To validate the model for accuracy and applicability, Reclamation will apply these guidelines to approximately six sites with known histories of razorback sucker introductions, which will include those with high, moderate, and poor success rates to determine whether the draft guidelines are appropriate for selecting sites with a high probability for success.

Using in-house staff and data resources, Reclamation will complete the backwater inventory data review of Reach 5 and 6 backwaters and generate the list of approximately 30 backwaters for site visits to be conducted during summer FY07. An integrated GPS-sonar system was procured to facilitate the data collection for this effort.

**Proposed FY07 Activities:** The Model Validation Report will be finalized. At that time, Reclamation will update the parameters and/or values for generating the biological rating for backwaters, as appropriate.

Reclamation will conduct helicopter surveys in Reach 5 and 6 to determine the degree of permanence of the proposed 30 backwaters selected and use this information to finalize the list for site visits. Right-of-entry permits will be developed with the appropriate landowners to allow for the initial site visits. Site visits will be conducted in the summer of FY07.

Reclamation will complete the data review of Reach 3 and 4 backwaters and generate the list of backwaters for site visits in summer of FY08, using in-house staff and data resources.

**Pertinent Reports:** *Draft Guidelines for the Screening and Evaluation of Potential Conservation Areas* will be posted on the LCR MSCP website.