Work Task G1: Data Management

FY09 Estimates	FY09 Actual	Cumulative Accomplishment Through FY09	FY10 Approved Estimate	FY11 Proposed Estimate	FY12 Proposed Estimate	FY13 Proposed Estimate
$450,000	$337,661.19	$959,469.78	$650,000	$700,000	$950,000	$950,000

Contact: Jeremy Dandron, (702) 293-8378, jdandron@usbr.gov

Start Date: FY07

Expected Duration: FY55

Long-term Goal: Data management will be an ongoing task for species research, system monitoring, habitat creation, post-development monitoring, and habitat maintenance programs.

Conservation Measures: All

Location: System-wide

Purpose: Develop and maintain an accessible, multi-disciplinary, spatially referenced, relational database to consolidate, organize, document, store, and distribute scientific information related to the LCR MSCP.

Connections with Other Work Tasks (past and future): Database management is integral in the successful completion of work tasks undertaken for Fish Augmentation (Section B), Species Research (Section C), System Monitoring (Section D), Habitat Creation (Section E), Post-Development Monitoring (Section F), Adaptive Management (Section G), and Habitat Maintenance (Section H).

Project Description: To fully implement the LCR MSCP, a database management system is being developed to manage data collected through the species research, system monitoring, habitat creation, post-development monitoring, adaptive management, and habitat maintenance programs. Database design, initial implementation, and maintenance are funded through this work task.

Previous Activities: All RASU and BONY tagging and stocking data have been included in the Lower Colorado River Native Fishes database maintained by ASU in Tempe, Arizona. Arizona State University received a federal grant in FY04 to continue this work for four years. Reclamation accounted for these funds in its request for financial credit. The LCR MSCP Database Management Framework Requirements Analysis was completed in FY06, and outlined several options for implementing an accessible, multi-disciplinary, spatially referenced, relational database to consolidate,

organize, document, store, and distribute scientific information related to the LCR MSCP. This analysis will be used to develop the implementation strategy for the LCR MSCP database management system.

FY09 Accomplishments: New Internet Web page templates were completed under MSCP visual identity guidelines; these Web pages will increase functionality for public and partner access. A support agreement was established with the Reclamation Geospatial Information Systems group to support geospatial software and hardware. Hardware was purchased and software was installed for geospatial data and imagery. The Reclamation information technology office approved the design of the MSCP centralized Database Management System (DBMS) architecture. The internal intranet/document/calendar management system has been tailored to fit the future needs of the LCR MSCP.

FY10 Activities: Database design and implementation of a centralized DBMS will continue in an annually phased approach for all project and species databases. Onsite database and software development for centralized database modules will begin. Additional hardware will be purchased to increase data storage for the implementation of the centralized database. The design and development of a geo-document Web map interface will begin. The geo-document interface will allow SharePoint users to view documents from a geospatial Web map. The intranet/document/calendar management system will be maintained and modified, tailoring it to the future needs of the LCR MSCP. The new Internet Web site and Web map interface will be implemented, maintained, and updated to increase functionality and usability for public and partner access. Updated geospatial imagery will be acquired and implemented for Internet and intranet use. The development of remote data collection from field data loggers will begin. The automatic collection of remote data into a centralized database will allow for the secure transmission of data with integrated quality control. The native fish database will continue to be maintained off site until the fish section of the LCR MSCP database is fully functional. Development of a new Web interface for the fish database will also begin and will be accessible through LCR MSCP's Web site.

Proposed FY11 Activities: Database and software development will be conducted in FY11. Database design and implementation of a centralized Database Management System (DBMS) will continue in an annually phased approach for all project and species databases. The planning, acquisition, and data modules for the MSCP centralized database will begin development. All data modules will be phased in according to priority for the implementation of the HCP. Data modules consist of an application for input of data (data entry) within a centralized database, to include quality assurance and quality control. Data modules will also include tools for data analysis and data extraction for reporting. The intranet/document/calendar management system (SharePoint 2010) will be upgraded and modified to work with all data modules. All technical information on data management will be accessible through the application/database design and development documents and the project management plan. The development of the geo-document Web map interface will continue and will allow SharePoint users to view documents within a geospatial Web map. The development of remote data collection from field data loggers

will continue. The automatic collection of remote data into a centralized database will allow for the secure transmission of data with integrated quality control.

Pertinent Reports: *Draft LCR MSCP Database Management Framework Requirements Analysis* is available upon request from the LCR MSCP.