

Work Task G1: Data Management

FY12 Estimates	FY12 Actual Obligations	Cumulative Expenditures Through FY12	FY13 Approved Estimate	FY14 Proposed Estimate	FY15 Proposed Estimate	FY16 Proposed Estimate
\$700,000	\$728,250.63	\$2,358,562.19	\$950,000	\$800,000	\$800,000	\$800,000

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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: This project provides data management and GIS staff support to manage all aspects of the Program related to the database, data collection, applications development, and software management. 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: Hardware was purchased to increase data storage for the implementation of the centralized database. The intranet/document/calendar management system was maintained and modified, for future needs of the LCR MSCP. Implementation of remote data collection from field data loggers began at Beal Lake. The automatic collection of remote data into a centralized database allows for the secure transmission of data with integrated quality control to support mission critical projects. The native fish database was maintained.

Database design and implementation of a centralized Database Management System (DBMS) was completed. The planning, acquisition, and data modules for the LCR MSCP centralized database have been completed. 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. On an annual phased approach all project and species projects will be incorporated into the database.

FY12 Accomplishments: The Minckley Library project was completed in March of FY12. The library is now available as searchable database housing over 11,000 total documents. Documents include a variety of literature types and were digitized and organized using bibliographic software. Error checking was performed to ensure consistency and accuracy when accessing the database, and individual electronic copies of all documents have been received and serve as a backup to the database.

The new LCR MSCP website was completed. The native fish database continued to be maintained. The intranet/document/calendar management system (SharePoint 2010) was upgraded. The LCR MSCP data management requirements document was developed to provide standards for metadata to contractors.

Reclamation staff toured three large natural resource program's sites and met with data management stewards from each program to identify the various program's data standards, processes and lessons learned to improve LCR MSCP data management.

It was determined in FY12 that the entire planning area needed to be delineated in terms of standardizing locations where data collection would be conducted using past and present site naming conventions. This delineation was completed in June of 2012, and will be updated as needed throughout the Program term. Developed and deployed data structures and MS Access forms for Bird Monitoring for 2012 collection protocols. The data structures and MS Access forms for the 2011 and 2012 Vegetation Monitoring data collection protocols were revised.

Revised master LCR MSCP SQL Database to reflect current schema environment and built collection data import process. Developed and maintained Developer program and project documentation. Developed and deployed FTP protocols for LCR MSCP form deployment and contractor data retrieval. Assisted Contractors and Project Managers in the development of quality assurance queries and reporting.

Mobile data loggers and software for collection of data in the field was acquired. These units are expected to standardize all data collection across LCR MSCP projects and programs. Development of mobile forms/data dictionaries using Pathfinder Office to collect data while in the field began. The development of remote sensing data collection from field data loggers will continue.

FY13 Activities: The native fish database continued to be maintained. Update and maintenance of the LCR MSCP website will continue. The planning, acquisition, and data modules for the LCR MSCP centralized database development will continue.

Database implementation will continue for all projects. Continue to support current MS Access forms, queries and reports as needed.

Develop, test, and implement mobile forms for use in the field. These forms will initially be used with the vegetation monitoring project. The next program expected to use these is the yellow-billed cuckoo and southwestern willow flycatcher projects. The development and support of remote data collection from data loggers will continue. The LCR MSCP Data Management Plan will be drafted. Support mobile data logger's import and quality assurance process.

In FY13, development of quality assurance for the SQL database with full audit trail capabilities will begin. Investigate and support quality assurance process analysis tools.

Proposed FY14 Activities: The FY14 budget estimate has been lowered to reflect actual costs. The native fish database will continue to be maintained. The planning, acquisition, and data modules for the LCR MSCP centralized database development will continue. Update and maintenance of the LCR MSCP website will continue. The development of remote data collection from field data loggers will continue. The development of the LCR MSCP Data Management Plan will be finalized and implemented.

Pertinent Reports: N/A