

## FY 2002 DMG Budget Proposal Desert Water Resources

### Goals and Objectives:

The ultimate goal of the program is to develop recommendations for the long-term management and protection of the desert's water resources. The program objectives are to monitor water and water-dependent biological resources, map wetland and riparian habitats, assess threats to water and water-dependent biological resources, and to prepare comprehensive reports to aid land managers.

### Tasks with fully funded program:

- 1) Data compilation and synthesis: Begin compilation and organization of existing hydrologic data into spatial database. Merge with existing GIS.
- 2) Develop conceptual model: Develop preliminary conceptual model based on available data and current understanding of regional and local ground-water systems.
- 3) Develop monitoring programs:
  - (a) Water chemistry/quality (ground water, springs, surface water).
  - (b) Water levels (establish ground-water level monitoring in selected locations).
  - (c) Discharge of selected springs.
  - (d) Water use (pumping from selected wells and diversions from springs).
  - (e) Surface-water gaging (flow rate and frequency at selected sites).
- 4) Water budget: Begin compilation of components of water budget for selected ground-water flow system (recharge, discharge, and change in storage).
- 5) Climate: Evaluate the role of climate on water budgets.
- 6) Spring-survey biological synopsis. Consolidate existing distribution data for significant, unique, or rare water dependent plant and animal species. Consolidate existing ecological data that would demonstrate the dependence of biological systems on stable water supplies.
- 7) Develop National Wetland Inventory maps of wetland and riparian habitats in the California desert; develop a GIS data base.
- 8) Threat synopsis: Develop preliminary synopsis of threats that have the potential to degrade, impact, or affect water and water-dependent biological resources in the desert.

### Budget for fully funded program:

	USGS	BLM	FWS	NPS	Total
FY 2002	500	600	230	600	1,730
FY 2003	500	600	230	600	1,730
FY 2004	500	600	230	600	1,730

**Tasks that can be completed with NO direct funding for program:**

- 1) FWS has obtained funding from OMB to complete NWI mapping in the California desert. Remaining maps in Joshua Tree National Park will be completed in fiscal year 2001. FY 02 priorities will be completion of maps in the (1) West Mojave Planning Area; (2) the Mojave National Preserve; and (3) other areas. Digitized wetland maps for the California desert area could possibly be completed as early as the end of fiscal year 2003.
- 2) Death Valley and Joshua Tree National Parks and the Mojave National Preserve can continue inventory of wetland sites, including water-dependent biological resources, with existing staff and program funding. The DMG data-collection protocols and computer data base should be used. Under a special project, Mojave National Preserve has received \$50,000 for fiscal years 2002 and 2003 to begin a wetlands inventory.
- 3) BLM could begin their assessment of Proper Functioning Condition (PFC) of desert wetland areas. Additional hydrologic and biologic data collection, in addition to the PFC data, would conform to DMG protocols and the data stored in the DMG computer data base.
- 4) USGS will be available for limited technical assistance and advice to the management agencies. One-on-one training in hydrologic data collection will be available to NPS and BLM personnel utilizing USGS field staff.
- 5) NPS will take the lead in conducting a training class in on water rights for Federal land managers.
- 6) All participating agencies in this program could provide financial backing and attend a conference on desert springs planned by the Desert Research Institute in Las Vegas during the spring of 2002. The land management agencies could prepare one or more posters to be presented at the conference that highlight issues with desert wetlands and desert water rights.
- 7) An inter-agency team of managers and water specialists (from local and regional staff) should be established to address the benefits of an interagency water study and to evaluate funding options (due date 12/1/01).

**Note:** USGS will have overall lead for the program, in coordination with NPS, BLM, and FWS.