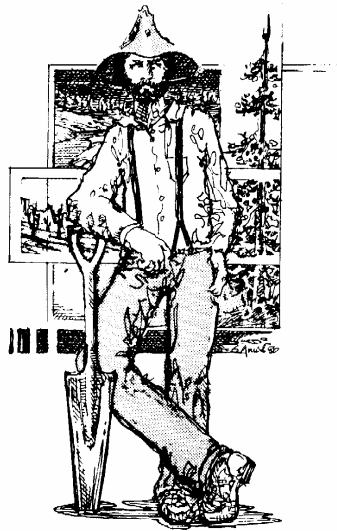


MIDDLE OWENS RIVER PROJECT RIPARIAN AREA INVENTORY 2000 CONDITIONS

Prepared for:

LADWP and Inyo County



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EXECUTIVE SUMMARY

The Middle Owens River Project (MORP) riparian area follows the Owens River from the bottom of Pleasant Valley Reservoir down to the Los Angeles Aqueduct diversion. The MORP riparian area is 14,735 acres and includes 78.3 linear miles of the Owens River channel.

Existing information pertinent to vegetation resources in the MORP area was reviewed and assembled. Mapping was conducted from high-resolution (2 foot pixels) digital orthophotos viewed at 1:2,000 to 1:6,000 scales. Map units denote areas of distinctive soil, hydrologic and vegetative character. Field descriptions of soil, hydrologic and vegetative attributes were conducted for 43 parcels in 10 study areas. Vegetative, soil and hydrologic criteria were used to determine the wetland status of map units. Wetlands have hydric soil, wetland hydrology and hydrophytic vegetation. The accuracy of mapping was assessed. This report is compiled as digital WORD (doc) and ADOBE (pdf) files on DVD. ACCESS tabular data, ARC-VIEW shapefiles and TIFF images are also compiled on disk.

The distributions of landtypes, water regimes, and vegetation types are influenced by valley form, channel/floodplain morphology, and hydrologic variables. These three parameters were used to define five reach types in the MORP riparian area: 1) *confined shallow tuff canyon, graded* (Reach 1); 2) *unconfined shallow tuff canyon, graded* (Reach 2); 3) *alluvial/lacustrine valley, graded* (Reaches 3 and 5); 4) *alluvial/lacustrine valley, incised* (Reaches 4 and 7); and 5) *alluvial/lacustrine valley, impounded* (Reach 6). Reach types corresponded with distinctive assemblages of landtypes, water regimes and vegetation types. Reaches are expected to respond to management applications in distinctive manners and can serve as an integrated unit for interpretations guiding adaptive management.

The MORP riparian area was divided into 6,518 parcels, each consisting of a dominant landtype, water regime and vegetation type. Five major landtypes were identified based on soil, morphology and position relative to environmental gradients. The *channel landtype* includes permanently and semi-permanently flooded stream courses. The *floodplain landtype* includes low surfaces influenced by contemporary stream processes; surfaces were typically less than 2 feet above alluvial groundwater level; hydric soil was evident. The *low terrace landtype* includes historic floodplains that have been left high-and-dry by channel incision; surfaces were typically 2 to 5 feet above alluvial groundwater level; except in the vicinity of springs, flowing wells, and other unique water sources, hydric soil was not evident. *High terraces* were typically greater than 5 feet above alluvial groundwater level; except in unique hydrologic settings, hydric soil was not present. *Alluvial fans* occur where low order streams intersect higher order streams; except in unique hydrologic settings, hydric soil was not present.. The *reservoir basin landtype* corresponds with areas principally influenced by reservoir management.

Water regimes identified in the MORP riparian area were based on the frequency and duration of flooding, and/or depth to saturated conditions. *Permanently flooded, saturated, and high water table regimes* were flooded or saturated near the surface and wetland hydrology was present. *Low and very low water table regimes* were not flooded or saturated near the surface and wetland hydrology was absent.

Vegetation types were identified based on community physiognomy and species composition. Vegetation types were classified to association and/or series. Major vegetation types that comprised at least 1 percent of the MORP riparian area were *water*, *alkali marsh (bulrush-cattail)*, *wet alkali meadow (saltgrass-rush)*, *alkali meadow (saltgrass)*, *alkali meadow (saltgrass-alkali sacaton)*, *coyote willow/creeping wildrye-saltgrass*, *coyote willow-rose*, *rose*, *Goodding-red willow/creeping wildrye-saltgrass*, *rabbitbrush-NV saltbush/saltgrass-alkali sacaton*, *rabbitbrush-NV saltbush*, and *barren (abandoned agriculture)*. Hydrophytic vegetation was dominant in all of these major vegetation types. Hydric soil, wetland hydrology and hydrophytic vegetation definitive of wetland were present in about 4,056 acres (27.5 percent) of the MORP riparian area.

The goal was to achieve an overall map accuracy of 95 percent. An assessment of preliminary mapping in spring 2003 indicated that the overall accuracy was about 90 percent. Problem areas were identified and mapping was refined at larger scales. The overall accuracy of final mapping is expected to approach the 95 percent goal.