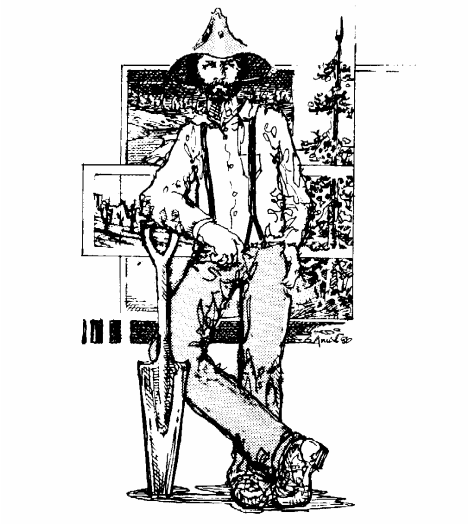
BLACKROCK WATERFOWL MANAGEMENT AREA AND VICNITY VEGETATION INVENTORY 2000 CONDITIONS

Prepared for:

LADWP and Inyo County



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EXECUTIVE SUMMARY

This vegetation inventory of the Blackrock Waterfowl Management Area and vicinity (BWMA) is one component of a more comprehensive inventory of wetland/riparian resources in Owens Valley. It is intended to serve as a baseline and a planning tool for future project implementation and monitoring.

The BWMA is between the Los Angeles Aqueduct and the lower Owens River riparian corridor. The southern boundary is south of Mazourka Canyon Road, about where drainage through the BWMA and the 1872 fault line intersect the Owens River riparian corridor. The BWMA is 20,461 acres. The BWMA was divided into 7 management units: Twin Lakes (2,901 acres), Drew (827 acres), Waggoner (1,555 acres), Winerton (1918 acres), Thibaut (4,735 acres), Goose Lake (6,789 acres), and Billy Lake (6,789 acres).

Existing information was reviewed and, when appropriate, integrated with the current study. Existing information includes hydrologic data measured by DWP, soil mapping prepared by the NRCS, Greenbook mapping and vegetation characterization, vegetation mapping from 1993 photos, spring mapping conducted by Ecosystems Sciences (ES), Inyo County Water Department (ICWD) vegetation monitoring transects, Type E vegetation monitoring conducted by Resource Consultants, Inc. (RCI), well monitoring conducted by DWP, and vegetation transect data collected by Garcia and Associates (GANDA) for the LORP Monitoring Database.

Vegetation, landtype and water regime were mapped at 1:2,000 to 1:6,000 scales from digital orthophotos dated 2000 and a color infrared (CIR) satellite image provided by Space Imaging. Field reconnaissance and descriptions were conducted. The accuracy of mapping was evaluated. Existing information was integrated as appropriate. The report is provided as both WORD and ADOBE (pdf) files. The pdf file includes numerous links from maps to photographs, other maps, and/or tabular summaries. Access files, images, and shapefiles are also provided. The database is document in APPENDIX A.

Four landtypes were identified. The *spring drainage* landtype includes shallow, divergent swales that originate in the vicinity of Blackrock and Little Blackrock Springs. *Fault basins* are narrow depressions that formed along the 1872 fault line, some of which are actively managed to sustain waterfowl habitat. *Lacustrine land* is characterized by flat to broadly concave surfaces with fine-textured, alkali soil. *Eolian land* has a veneer of loose, wind-blown sand ranging from a foot to several meters that overlays fine-textured lacustrine sediment. Landtypes are a principal determinate of hydrologic and vegetative character.

Seven water regimes were identified. The *permanently flooded* regime includes ponds in the BWMA. The *saturated* regime includes marsh vegetation, mostly in spring drainage, fault basin and lacustrine landtypes. *Intermittently flooded* areas are flooded for brief periods in response to local runoff, irrigation runoff, and/or water spreading activities. The *high water table* regime includes areas that, under year 2000 water management, were saturated within the rooting depth of herbaceous vegetation (1 to 2 feet) for at least part of the growing season. The *low water table regime* included areas saturated within the rooting depth of shrubs (2-5 feet). The *very low*

water table regime included areas with groundwater below the dominant rooting depth of shrubs (> 5 feet). *Irrigated lands* acres were also identified.

Twenty (20) vegetation and miscellaneous types were distinguished by community physiognomy and species composition. Vegetation types were identified to the association and/or series level. Vegetation and miscellaneous types are: *water, alkali marsh series (bulrush-cattail association, wet alkali meadow series (saltgrass-rush association), wet alkali meadow series (reedgrass association), alkali meadow series (saltgrass association), alkali flat series (saltgrass-alkali forb association), pasture series (irrigated meadow association), coyote willow series (coyote willow-rose association), Goodding-red willow series (Goodding-red willow/creeping wildrye-saltgrass and Goodding-red willow/scrub associations), rabbitbrush-NV saltbush/saltgrass-alkali sacaton, Great Basin mixed scrub, desert sink scrub, NV saltbush-rabbitbrush scrub, tamarisk series (tamarisk/alkali flat, tamarisk/saltgrass, and tamarisk/scrub associations, abandoned agriculture, slicks,* and *cut/fill*..

Jurisdictional wetlands are areas with hydrophytic vegetation, wetland hydrology and hydric soil. The vast majority of wetland in the BWMA is "man-induced wetland" that is sustained by managed water releases from the aqueduct and Blackrock Ditch. The jurisdictional status of man-induced wetland is dictated by the current Corps regulations and policy and should be determined through consultation with the Corps of Engineers. A preliminary status was assigned to combinations of vegetation type, landtype and water regime. Hydrophytic vegetation was present throughout most of the BWMA. Hydric soil was present in areas with permanently flooded, saturated, high water table and some intermittently flooded regimes. All areas with permanently flooded and saturated regimes, and most areas with high water table regime were assigned wetland status. Intermittently flooded areas were assigned wetland status only where the flooding was frequent enough to cause a significant change in vegetation towards more hydric components. Intermittently flooded dry alkali meadow in the Thibaut area was assigned wetland status; intermittently flooded desert sink scrub was not. The status of intermittently flooded slicks was "not determined". Some slicks in the Thibaut area are flooded frequently and may merit wetland status; other slicks in the Twin Lakes area are rarely flooded and may not merit wetland status. Areas with low and very low water were assigned upland status. Irrigated areas, mostly in the Thibaut and Billy Lake units were assigned upland status. The area assigned wetland status in the BWMA was 1,138 acres (6 percent); the status of 847 acres (4 percent) was not determined; the remaining 18,567 acres (90 percent) was upland.

The overall accuracy of labels assigned to map units in the BWMA was estimated to be greater than 90 percent. Inclusions of contrasting types are common to all delineations.