

# A Biological Management Plan for Rio Bosque Wetlands Park



City of El Paso, Texas  
University of Texas at El Paso

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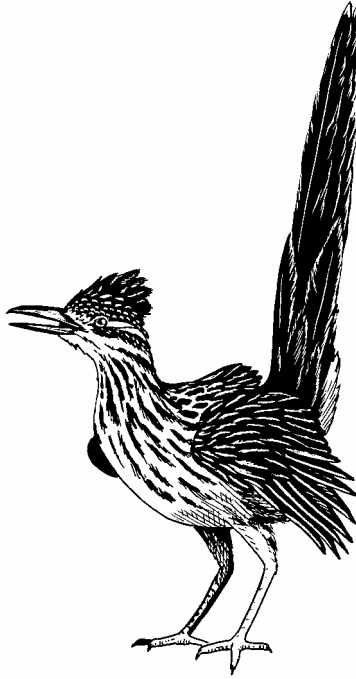
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Greater Roadrunner  
*Geococcyx californianus*

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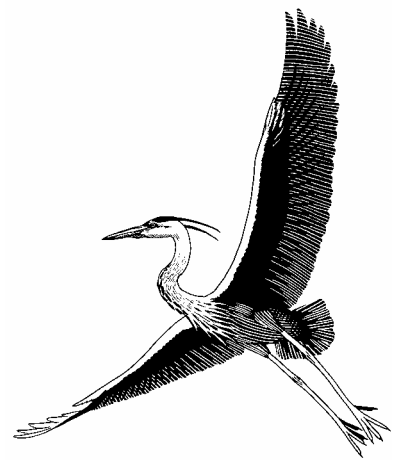
# Introduction

Rio Bosque Wetlands Park is a large park located along the Rio Grande at the southeast edge of the city of El Paso. It is the site of a long-range project to establish meaningful examples of the native wetland and riparian habitats historically found along the Rio Grande in the El Paso region.

Rio Bosque Wetlands Park provides a unique opportunity to the El Paso area. Because past alterations to the Rio Grande resulted in the loss of native vegetation, the park will become one of the few places in the region with a cottonwood-willow bosque, representative of the river's historic riparian vegetation. Other areas of the park will be vegetated with native upland plant species or will be managed as moist-soil areas to provide food for migrating waterfowl.

In addition to providing a wildlife refuge, Rio Bosque Wetlands Park was established to provide a venue for public recreation and education. The park will have valuable wetland and riparian habitat for animals, it will provide public open space for hiking and biking, and it will offer educational opportunities for both school children and the general public. In addition, efforts to restore terrestrial and aquatic habitats provide research opportunities for students of all ages.

The following management plan begins with a description of the historic conditions of the Rio Grande floodplain so as to articulate what we are *'trying to restore to.'* Then the park's current conditions are described, which are a consequence of the management of the river for irrigation and flood control purposes. Next, a vision for the future of the park is presented, along with six specific goals for realizing that vision. The final section, which constitutes the majority of the management plan, presents detailed management recommendations for attaining the six goals.



Great Blue Heron  
*Ardea herodias*

# Part One

## Regional Context

### Climate

(National Weather Service) El Paso County is located at high elevation in the Chihuahuan Desert of West Texas. Consequently, the climate is arid with hot summers and cool winters, but 90°+ summer days are tempered by cool summer nights in the 60's. On average, there are 12-13 days with temperatures greater than 100°F. Average annual rainfall is 8.81 inches, which falls in a monsoonal pattern with 80% of the annual precipitation accumulating between April and October, mostly as high intensity thunderstorms. Normally, the first freeze occurs around November 13<sup>th</sup> and the last around March 21<sup>st</sup>.

### Geology

(Cornell 2001) About 35 million years ago, a system of extensional, or 'pull-apart' stresses began, generating one of the most important local geological features, the Rio Grande Rift. The North American Tectonic Plate is being pulled apart in this region by the rift that begins in Colorado, near Leadville, extends southerly through New Mexico to El Paso, and then dies out in Mexico. One product of the tensional forces and rifting has been the formation of numerous elongate basins, separated from one another by mountains. Local examples include the Hueco Mountains, the Hueco Bolson (or basin), the Franklin Mountains, and the Mesilla Bolson.

As the mountains uplifted, the mountain sediments began to accumulate in the basins, and this process continues to this day. Additional sediment was carried into the area by the ancestral Rio Grande which, for a few million years, emptied into Lake Cabeza de Vaca, a large, intermittent lake occupying the sites of the present-day basins. Eventually, the Rio Grande broke through the bolson wall, draining the lake and exposing the lakebed and the various accumulating accumulated sediments.







For current information about Rio Bosque Wetlands Park  
please visit our website at  
<http://www.cerm.utep.edu/riobosque/>