

Hueco Bolson Groundwater Conditions and Management in the El Paso Area

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Review Panel

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1.0 INTRODUCTION

This report provides an overview of groundwater conditions and groundwater management of the El Paso portion of the Hueco Bolson. Since the beginning of the 20th century, El Paso Water Utilities (EPWU) has relied on the Hueco for municipal water supply. Concerns over the ability of the Hueco to meet the demands of a growing city have been raised to varying degrees since the 1920s.

The two significant groundwater management issues facing EPWU in the Hueco Bolson are declining groundwater levels and brackish groundwater intrusion into wells that had historically pumped fresh groundwater.

Since 1990, EPWU groundwater pumping in the Hueco has been reduced. The reduction in pumping has greatly reduced the annual groundwater storage decline as evidenced by the stabilization of groundwater levels in many areas of El Paso.

Brackish groundwater intrusion remains as an issue of concern, but as is developed in recently released reports and in this report, the intrusion will be better managed by the operation of wells for the Joint Desalination Facility (JDF). The JDF is a project being pursued by EPWU in cooperation with Fort Bliss, and should be operational in early 2006.

This report covers groundwater management of the El Paso portion of the Hueco Bolson. Specifically, the report covers:

- Overview of El Paso water supply
- Overview of the Hueco Bolson
- Groundwater management issues
- Past views of Hueco Bolson groundwater supply
- USGS groundwater flow model of the Hueco Bolson
- Groundwater management strategies

This report was prepared based on a lengthy Power Point presentation that was given to a panel of hydrogeologic experts:

- Dr. John Bredehoeft, The Hydrodynamics Group
- Dr. Robert Mace, Texas Water Development Board
- James Rumbaugh, Environmental Simulations, Inc.
- Robert Harden, Harden & Associates
- Jon Ford, Leonard Rice Engineers

This panel was convened by EPWU to review the recent work completed by EPWU. As part of that review, EPWU asked the panel to address specific questions regarding the modeling and interpretation of the modeling. Their report is attached to this report.