



CHAPTER ONE

INTRODUCTION

Water providers are responsible for providing reliable and safe drinking water supplies to their customers while maintaining adequate flows to meet pressure requirements in case of fire. During times of water shortage due to drought or climatic conditions, strategic planning to minimize public health and safety impacts on the community is a critical obligation of water providers.

A water provider has a responsibility to prepare for drought and adaptability to climate change by determining the potential impacts of these conditions on its water supply system and the community it serves and by developing plans to minimize those impacts. With this five-year update of the Plan, climate variability – as a planning factor – is a part of the Plan as its own scenario that must be assessed in terms of long range water resource planning and management.

The Plan is intended to help Tucson Water staff implement response and adaptive measures early to avoid the inevitable pitfalls of reactive, crisis-mode decision-making.

Historical Background

No single definition exists for drought (National Drought Mitigation Center, 2005). However, like the original Drought Preparedness and Response Plan, the Plan will adhere to the *Arizona Drought Preparedness Plan* definition of drought as a *sustained, natural reduction in precipitation that results in negative impacts to the environment and human activities*. As new information becomes available related to long-term drought and climate change the Plan will evaluate it for relevance to the Utility and address or incorporate it in future updates.

Although the entire state continues to experience some degree of drought, not all entities will react to, or be affected by drought conditions the same way. That especially holds true for water providers, each of whom must plan for its unique water supply and demand situation, delivery systems, and customer use patterns. In addition, jurisdictional issues may require consideration in drought and climate change planning. For example, Tucson Water is the largest municipal water provider in southeastern Arizona (estimated 2010 service area population: 705,000) and serves inside and outside the municipal boundaries (Figure 1.1). The Plan is enforceable outside the City limits as a condition of water service.

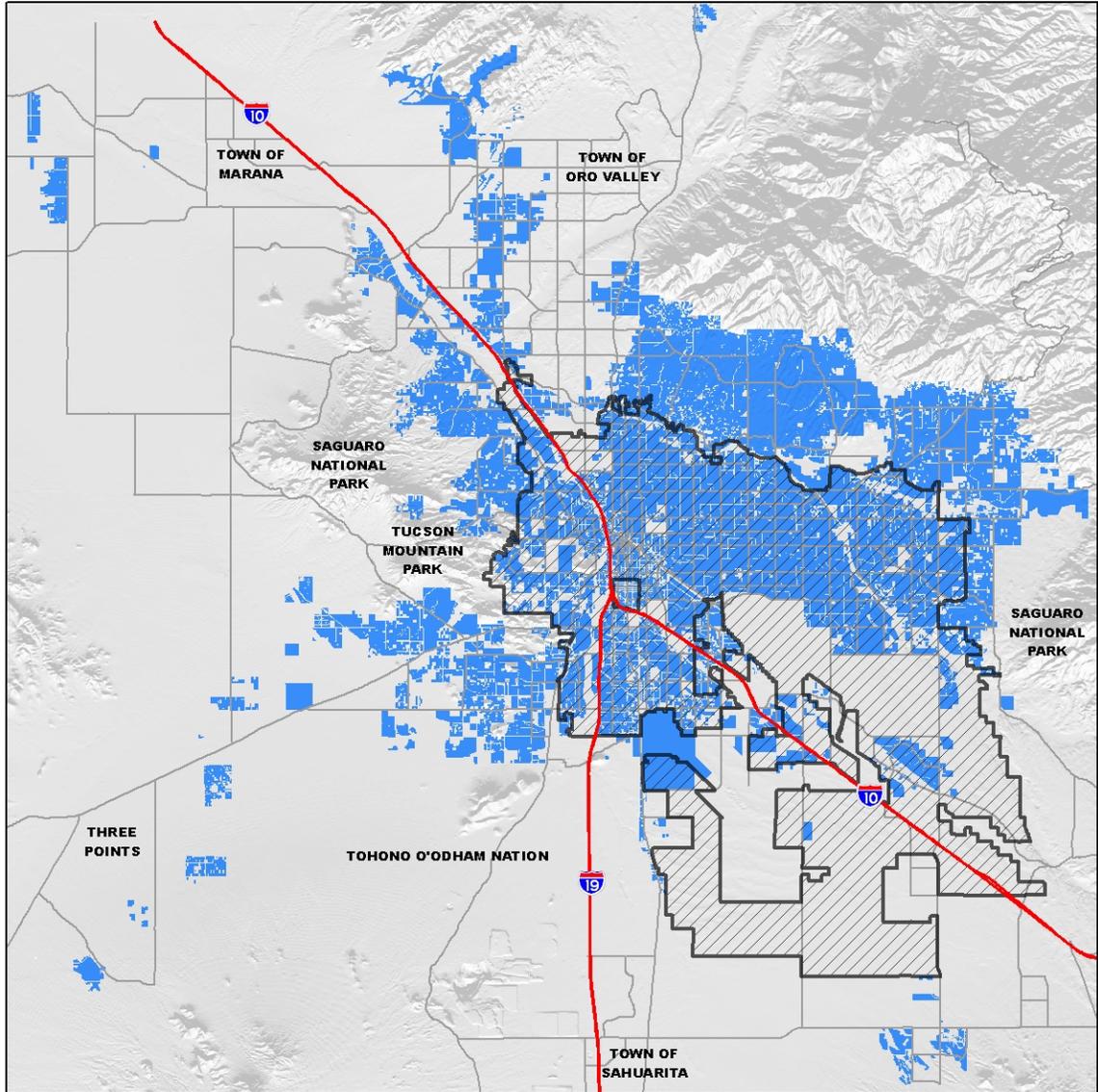


Figure 1.1: Tucson Water Service

The following chapters include the general information on water supplies available to Tucson Water, the water systems designed to deliver those supplies to customers, emergency supplies, and the process for review outlined in the original Drought Preparedness and Response Plan with any relevant updates. However, the "heart" of the Plan, Chapters Two and Four, provides the guidance and a decision-making framework for responsible water-resource management for drought response and adaptability to climate change.