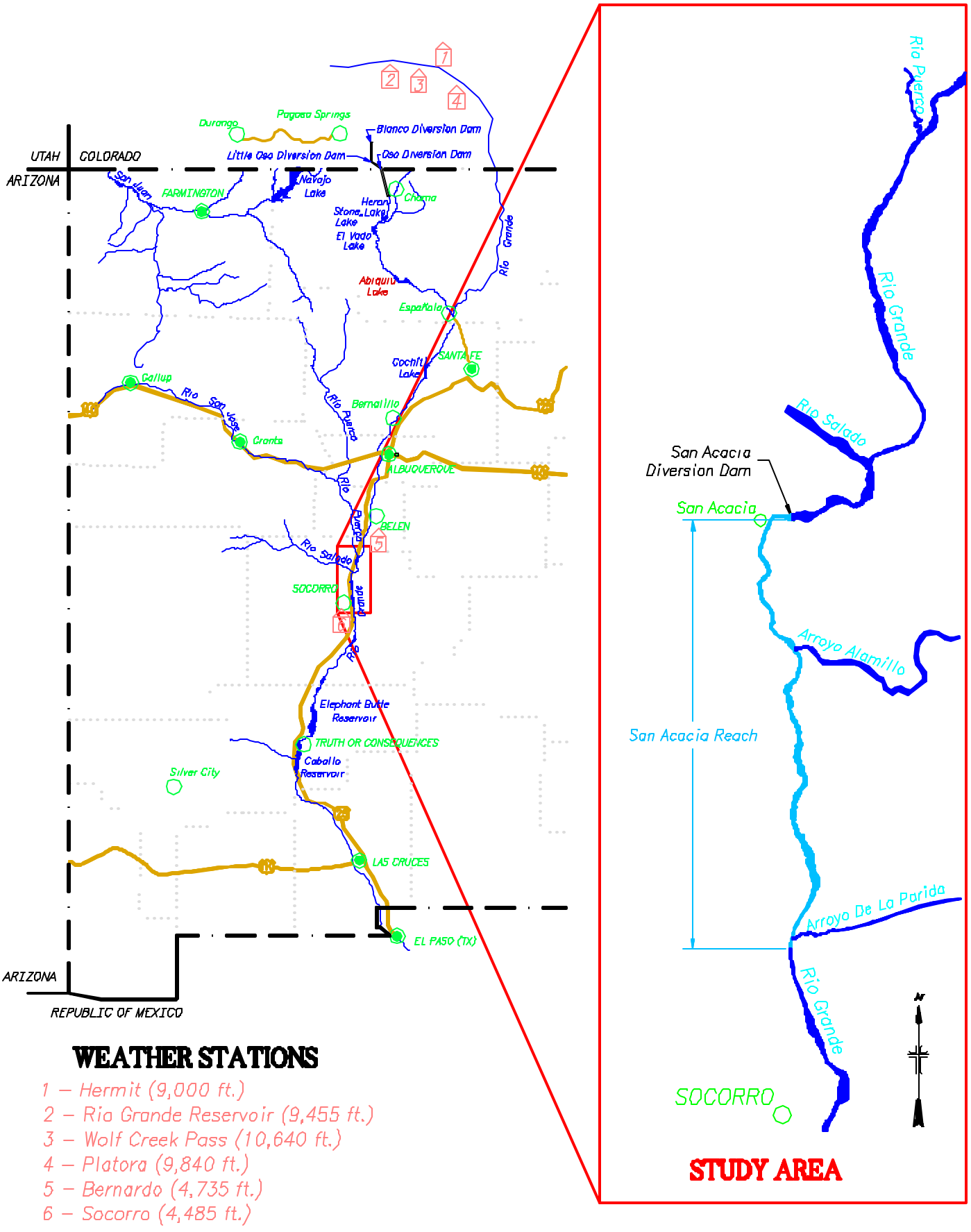
1.0 INTRODUCTION/PURPOSE OF STUDY

Since both wildlife and humans depend on the Rio Grande as a source of water, interest in the evolution of this river is extensive. Historically, human needs have dominated water management decisions along the Rio Grande, but recent listing of the Rio Grande silvery minnow and the southwestern willow flycatcher as endangered species has heightened the need to include wildlife needs in resource management decisions. The challenge for decision makers today is to produce management plans that are beneficial to both humans and wildlife. In order to make these decisions, they need to know how the Rio Grande has evolved and how it will continue to evolve with current management practices.

The San Acacia Reach (Figure 1) of the Rio Grande extends from the San Acacia diversion dam downstream to the bridge crossing the Rio Grande near Escondida (10.5 miles/17 km). Photos and maps dating back to the early 1900's provide a historic basis for comparisons of channel form and general characteristics. Channel surveys date from 1962 to 1999. The purpose of the study is to determine historic channel conditions of both the river and its floodplain, determine current conditions, understand how and why the channel evolved from the historic conditions, and predict future channel morphology under the current management regime.



WEATHER STATIONS

1 – Hermit (9,000 ft.)
2 – Rio Grande Reservoir (9,455 ft.)
3 – Wolf Creek Pass (10,640 ft.)
4 – Platora (9,840 ft.)
5 – Bernardo (4,735 ft.)
6 – Socorro (4,485 ft.)

Figure 1: Location map displaying San Acacia reach location and weather station locations.