

Sound Water Stewardship: Challenges & Opportunities

Lessons Learned from an Arizona Developer

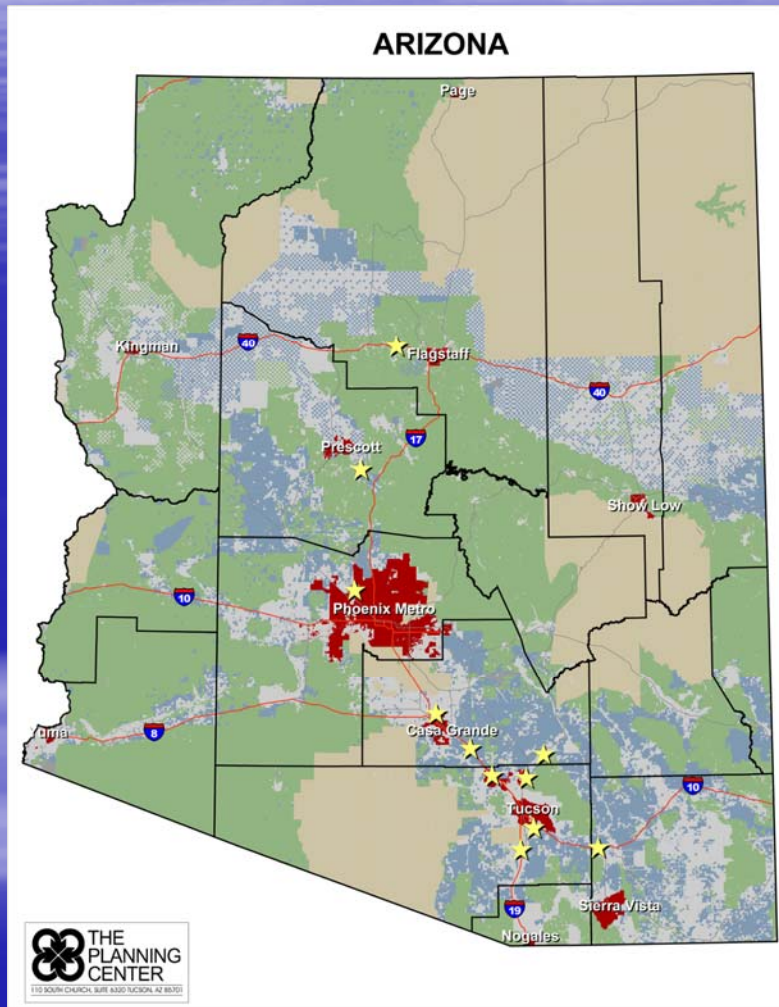
DIAMOND
VENTURES


Diamond Ventures: Who We Are

A real estate investment company with more than 20,000 acres in active development in 11 jurisdictions.

- Custom Home Communities
- Residential Subdivisions
- Master Planned Communities
- Commercial Shopping Centers
- Industrial Parks
- Office Complexes

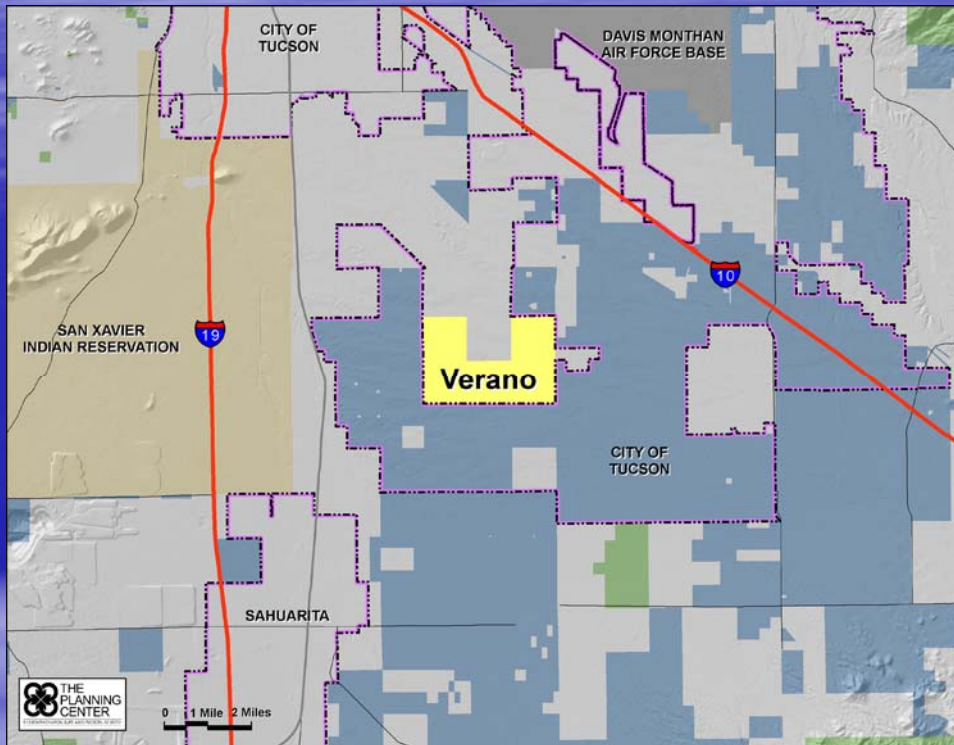
Diamond Ventures



- ★ Casa Grande
- ★ Marana
- ★ Oro Valley
- ★ Peoria
- ★ Sahuarita
- ★ Sedona
- ★ Tucson
- ★ Coconino
- ★ Cochise
- ★ Pima
- ★ Pinal

Initiating a Sound Water Program

Physical Reality



Project: Verano

Acres: 3,200

Land Use: Mixed-Use Master Plan
(up to 10,000 du)

Entitling jurisdiction: Pima

Water Provider: TBD

--DWID

--Tucson

--Private Utility

Wastewater Provider: TBD

--DWID

--Tucson

--Private Utility

Elements of Water/Wastewater program:

--Riparian Corridor Restoration—on-site effluent

--Project Specific Water Conservation Program

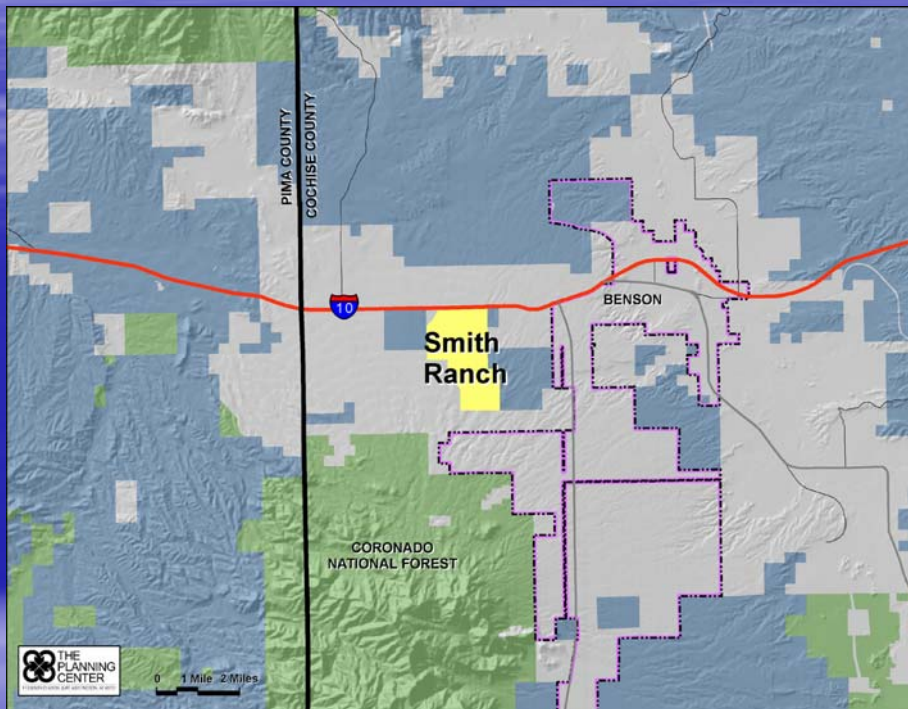
Initiating a Sound Water Program: Physical Reality

- Capacity Availability
- Transmission and Treatment
- Reuse Options

Lesson Learned: As Real Estate developers, we are focused on where we see the greatest opportunity for water management and savings. For us, that is clearly found in the tools and methodologies we employ in outdoor environment

Initiating a Sound Water Program

Political Reality



Project: Smith Ranch

Acreage: 2,000

Land Use: Master Plan

Commercial

Residential

Entitling jurisdiction: Cochise County

Water Provider: TBD/Private, Benson

Wastewater Provider: TBD/ Private, Benson

Elements of Water/Wastewater program:

- No golf courses allowed
- Native species of drought tolerant, xeriscape trees and shrubs mandatory
- Limitations on the amount of residential turf
- Drip Irrigation Systems required with rain and seasonal sensors
- Use of available gray water and reclaimed water in common area landscape
- Evaporative coolers as sole sources of cooling prohibited
- Storm water harvesting
- Natural open space recharge areas

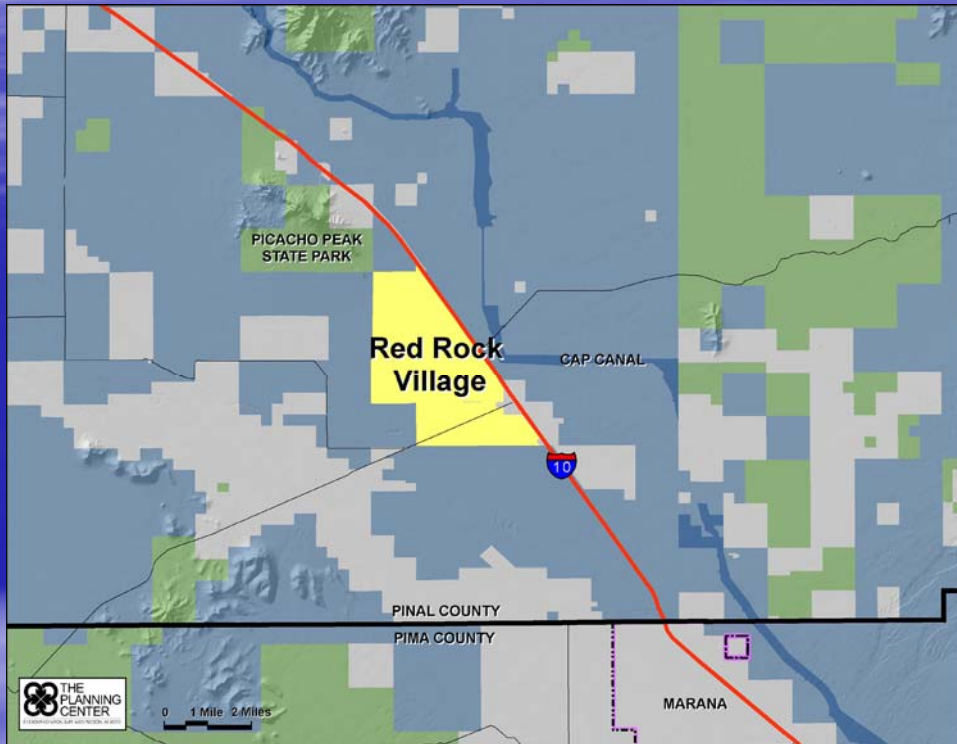
Initiating a Sound Water Program: Political Reality

- Entitling & adjacent jurisdictional requirements
- Super regulatory authority
- State regulatory requirements (ADWR – Non AMA)
- Neighboring community support/opposition

Lesson Learned: With Smith Ranch, we have learned what happens when a jurisdiction says, “We want you to go above and beyond the legal requirements to make this work.” Given the complex nature of assuring water for new development and neighboring public perceptions, sometimes the best efforts are not sufficient and you are faced with referendum challenges.

Initiating a Sound Water Program

Financial Reality



Project: Red Rock

Acreage: 1,300

Land Use: Mixed-Use Master Plan
(up to 4,000 du)

Entitling jurisdiction: Pinal County

Water Provider: Red Rock Utility
(a division of Diamond Ventures)

Wastewater Provider: Red Rock Utility
(a division of Diamond Ventures)

Elements of Water/Wastewater program:

- Creation of utility division required because of lack of service providers
- Effluent use for recreational amenities

Initiating a Sound Water Program: Financial Reality

- Cost of Infrastructure
- Cost of Long Term Operation & Maintenance
- Operating Profit/Loss

Lesson Learned: Private utility companies can successfully construct and operate state-of-the-art systems, particularly when extension of municipal provider systems is not a viable option.

From Our Perspective

- Challenges in the future will need to focus on identifying supply, transmission, treatment and re-use capacity, and correlate it against market demands and cost to construct.
- We believe the private sector in some cases is a viable entity to help construct and manage the sourcing.
- Water conservation, particularly limitations on turf and on-site reuse, is key.

The Bottom Line

Health, safety, welfare of the public and the reality of establishing long-term reliability to the water customer.

The future of sound water stewardship needs to involve not only the public stakeholders but also the private stakeholders in order to use every “Tool in the Toolbox”