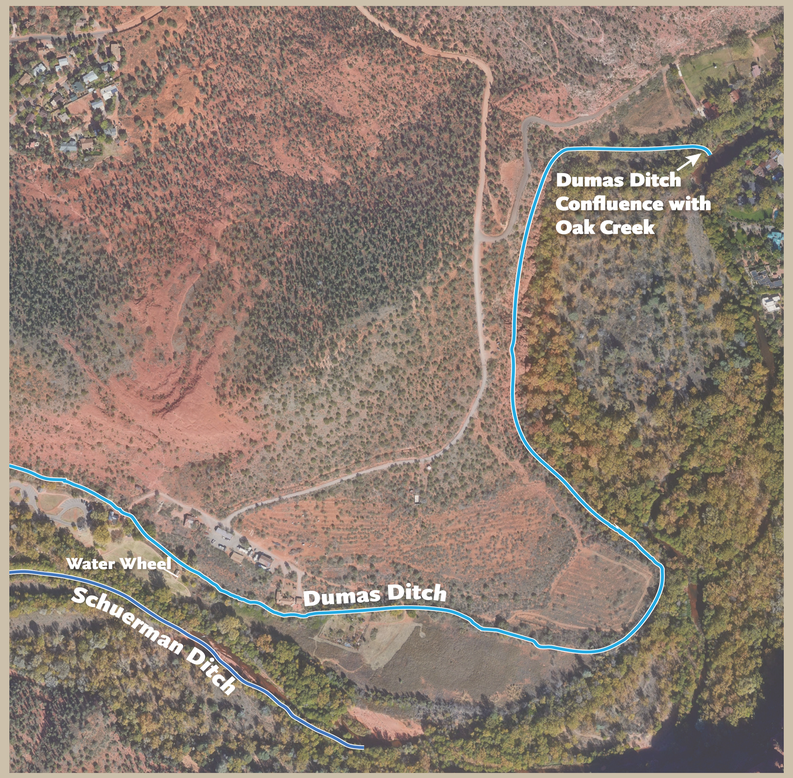
Putting Water to Work



Aerial image of Crescent Moon Ranch area showing historic irrigation ditches

Ditches allowed development to flow

here more than a century ago. Early owners of this property dug canals that tapped into Oak Creek and carried water across the ranch, supplying homes, irrigating fields, and, eventually, turning this water wheel.

Remains of two historic canals, the Schuerman and Dumas ditches, can be seen today at Crescent Moon Ranch. Both ditches, routing water elsewhere, still have active water rights.

By the mid-1900s, the Dumas Ditch became clogged and cracked from neglect. The U.S. Forest Service cleaned and repaired it in the 1980s, enabling water to flow through this historic canal once again.

The Dumas Ditch, a canal improved by David Dumas in the early 1900s, made agriculture on the ranch possible. The canal directly carried water to the lowest agricultural terrace, and decades later, water wheels made it possible to carry water to the upper terraces. The ditch traverses Crescent Moon from east to west before re-entering the creek downstream.

Andrew Baldwin, a local entrepreneur who bought the ranch in 1936, contracted the Fitz Water Wheel Company to build a 14-foot metal water wheel along the Dumas Ditch. The attached shed housed a generator that converted mechanical energy of the water turning the wheel into electricity for the Baldwin home, as well as for a pump that lifted creek water to higher fields and storage tanks.

Courtesy of Sedona Heritage Museum, Sedona, AZ

Andrew Baldwin's 14-foot water wheel (shown above) at Crescent Moon Ranch is known as an overshoot water wheel. The design, promoted by the Fitz Company, employs the force of gravity to allow water to fall from top to bottom to turn the wheel.

Courtesy of Sedona Heritage Museum, Sedona, AZ

The Dumas and Schuerman families worked together in the early 1900s to construct an elaborate irrigation system on their ranch. Erwin Schuerman (left) repairs a section of the 1,500 feet of galvanized pipe used in the system.

Parents: Watch children closely near ditch infrastructure. For safety, no swimming is allowed in the canals.