Green Tales

Water Conservation in a Desert Habitat

By Stuart A. Wells

The Phoenix Zoo in Phoenix, Ariz., is located in one of the most arid climates in the U.S. The average rainfall for Phoenix, Arizona, located in the heart of the Sonoran Desert, is 5 to 12 inches a year. Although other regions of the state receive more rainfall than Phoenix, collectively the entire state receives far less rain in a year than most places in the country receive in a given month. Also, Arizona has been in an official drought since 1996, which is the longest continuous drought on record for the Grand Canyon State.

Water is always on our minds here in the desert. As stewards of the land, and as a conservation-minded organization, the Phoenix Zoo set a goal to reduce its water usage as part of our green initiatives campaign in 2012. We have always monitored how much water we use at the Zoo; however, in January 2013, we determined that we would use total water use in the calendar year 2012 as our baseline. From that point, we began monitoring how much water we used each month and implemented specific water conservation initiatives with a goal of reducing water usage by 20 percent within three years. We made four primary adjustments:

• Treat irrigation leaks on grounds as a high priority to repair.
• Stop planting winter rye grass throughout the Zoo.
• Install timers on our animal misting systems.
• Invest in a 7,200-gallon rainwater catchment system at our Harmony Farm contact yard.

Our baseline of water usage for 2012 was 95,101,468 million gallons, and our annual water use for 2014 was 75,081,248 million gallons, for a total reduction of 20,020,220 million gallons of water during the first two years of the campaign. We were pleased to achieve our 20 percent reduction goal (21.1 percent, in fact) a year earlier than we had hoped. So far in 2015, we are on track to save an additional 3 to 5 million gallons compared to 2014 usage levels. Although this water use reduction represents a saving of more than $100,000 dollars, our primary goal for implementing this initiative was for water conservation. We feel that it is critical not just to talk about conservation but to demonstrate leadership in this arena by reducing our impact on the desert environment where we live and work. We are proud to have taken this important action toward becoming a greener organization.

Stuart A. Wells is the Director of Conservation and Science at the Phoenix Zoo.

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