



Putting WaterSense® to Work

# Office Complex Reduces Outdoor Water Use

*Sector: Office Buildings; Focus: Outdoor Water Use*

## Project Summary

The Granite Park office complex in Plano, Texas, has implemented water-efficient practices inside and out, including improvements to its landscape and irrigation system. As a result, it has significantly decreased its outdoor water use—and is winning awards in the process. Two buildings in the complex, Granite Park One and Two, have already earned LEED® Gold certification.

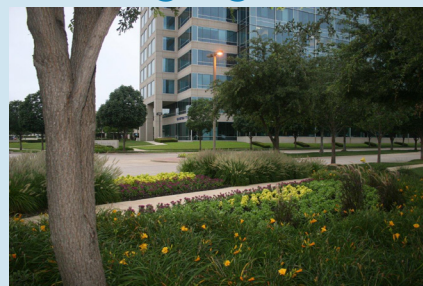
The Granite Park complex landscape is maintained by an irrigation professional certified through a program that has earned the U.S. Environmental Protection Agency (EPA) WaterSense label. The certified professional, Bruce Birdsong, is the president of Precision Landscape Management, and he leads a team of irrigation professionals overseeing approximately 372,000 square feet of landscape at the complex, maintaining plant health and landscape aesthetics while saving water.

When Precision Landscape Management took over grounds maintenance at the Granite Park office complex in 2008, Mr. Birdsong conducted an irrigation audit to determine the system's efficiency improvement potential. At that time, the system was controlled by traditional clock timers and lacked proper maintenance. To improve the efficiency of the system, the complex upgraded to weather-based irrigation controllers, which analyze local weather data and landscape conditions to program watering schedules based on plants' needs.<sup>1</sup>

In addition to installing new controllers, the landscape management firm initiated routine maintenance and repairs to the irrigation system: replacing broken sprinkler heads; positioning sprinkler heads to ensure adequate coverage; and installing pressure regulating nozzles to increase the uniformity of water applied. Rain and freeze sensors were also installed to prevent watering at unnecessary times.

After completing the new installations and repairs, Precision Landscape Management continued comprehensive, monthly inspections of irrigation system operation. The inspections consist of examining each sprinkler head to ensure it is functioning properly, looking for leaks, checking the coverage, and verifying that the scheduling technology is programmed properly.

## Case Study Highlights



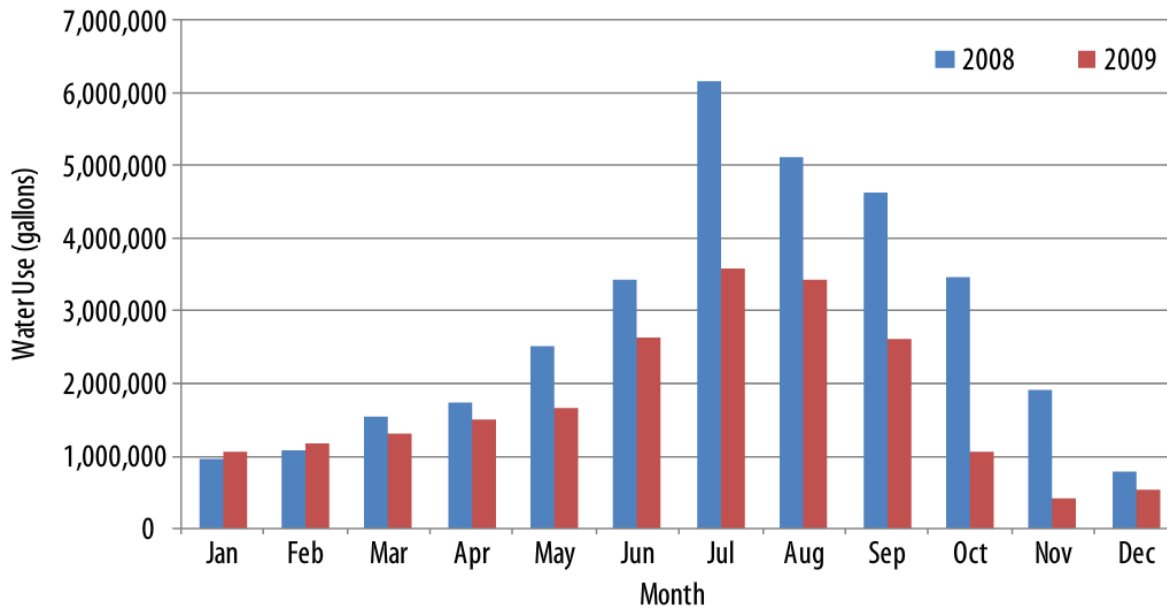
- **Facility name:** Granite Park One and Two
- **Location:** Dallas, Texas
- **Landscape size:** 372,00 square feet
- **Water savings:** 12.5 million gallons in 2009
- **Cost savings:** \$47,000 in 2009
- **Simple payback:** Less than 1.5 years

<sup>1</sup> Although not available at the time of installation, the WaterSense label is now available for weather-based irrigation controllers.

## Savings Summary

The Granite Park complex reduced irrigation water use by about 40 percent from the irrigation system upgrades and improvements in operation. Figure 1 displays the outdoor monthly water usage before and after the irrigation system retrofit.

Figure 1. Granite Park's Monthly Landscape Water Use



The Granite Park office complex saved nearly 12.5 million gallons of water and \$47,000 in 2009. Based on these savings, the project paid for itself in less than a year and a half, and Granite Park earned credits toward its LEED Gold certification. Beyond improving the bottom line and saving water, the resulting landscape is now both healthier and more attractive.

## Acknowledgements

The U.S. Environmental Protection Agency's (EPA's) WaterSense program acknowledges Precision Landscape Management President Bruce Birdsong for providing information for this case study.

## Learn More

To learn more about water efficiency in commercial and institutional buildings, visit the WaterSense website at [www.epa.gov/watersense/commercial-buildings](http://www.epa.gov/watersense/commercial-buildings) to access *WaterSense at Work* best management practices, tools, case studies, and more.