



## Phoenix Has Record-Breaking Heat Wave with 50 Days of 110-Degree Weather!

Phoenix has experienced an unprecedented heat wave, hitting its 50th day this year with temperatures reaching 110 degrees or higher this summer. The previous record for the most days at 110 degrees or higher in one year was 33, which occurred in 2011.

This has taken quite a toll on the plants, trees and Saguaro Cactus within the community. These conditions are very difficult on the landscaping and it really disturbs the normal process of *photosynthesis* (the process by which plants and trees convert sunlight into chemical energy or also known as complex sugars) in this extreme heat the process declines rapidly, resulting in breakdown of the tissue of the plants and trees. Photosynthesis occurs during daylight and the process of *respiration* occurs during both day and night. This is the action of the plants and trees converting the stored complex sugars into fuel to promote overall health and growth. When the photosynthesis is unable to replenish the used complex sugars for use during respiration the plants will decline and can eventually die. As we experienced the intense heat without out any monsoonal rains to help cool down nighttime temperatures plants and trees continued to decline and parrish.

As we managed through this season of extreme heat and drought, water allocations to all plants and trees within the community were adjusted automatically through our Smart Irrigation Controllers. However, when a plant is not in good health and is struggling to stay alive the additional water is not going to reverse the damage that we have experienced this past Summer.

Lastly when we experience the high intense heat as we did this past Summer it will cause sever water loss or also known as *desiccation* within the plants and trees. This is called transpiration which is the process of leaves releasing the water vapor into the atmosphere.

How do you maintain the overall health and appearance of the community?

- With our Smart Irrigation Controllers, the programming changes daily, based on the weather data from the onsite weather stations
- Remove by hand trimming out the dead branches of plants that are still partially surviving and showing signs of new growth.
- Remove any dead plants with the appearance of not recovering.
- Ensure that the watering times are maintained for late night early mornings prior to the sun coming up. In extreme heat conditions the evaporation transportation rates are accelerated, and the plants and trees lose out on the water as it evaporates.

- Create a strategic plan with the community association management team and board to replace the proper species of plants and trees for future enjoyment.

Where do we go from here: As we move forward during this beautiful time of year ProQual Landscaping will continue to maintain the community practicing the Sustainable Landscape Management process with the proper seasonal cutbacks. The process of SLM is to put the plants in the best position to be healthy and vibrant during what can be a very difficult Summer Season.

All of us at ProQual Landscaping wishes everyone from Mountain Park Ranch and happy and safe holiday season. And if you see us out on property please stop and wave hello as our crew is very proud and dedicated to the continued success at Mountain Park Ranch

Scott Murray  
Executive Vice President  
Mountain Park Ranch Asset Manager

