

POST-DROUGHT LANDSCAPING Best Management Practices (BMP)



Jim Blacketer, was featured as a panel speaker at the Community Association Institute Greater Inland Empire Chapter (CAI-GRIE) at "The Drought is Over, Our Water is Back, and Now What?" luncheon held on Thursday, August 17th at the DoubleTree Hotel in Ontario. Corona Branch Manager Blacketer, has vast knowledge of the landscape industry, holding key certifications such as Arborist, Certified Water Manager and Certified Landscape Irrigation Auditor. Following is a recap of his presentation on the best management practices for managing irrigation systems in a post-drought landscape environment.



POST-DROUGHT LANDSCAPING BEST MANAGEMENT PRACTICES (BMP)

With current regulations and water conservation measures in place, professional landscapers need to lead by example and promote and implement water conservation practices. Although we experienced a break in the drought cycle this past winter, we need to continue to think and act in long-range terms, as if the break in the drought cycle is not permanent.

We are the experts that community managers, homeowners, and the public in general, rely upon for setting the highest standards in water management and conservation.

The term 'Best Management Practices' (BMP) first appeared in 1977 when it was referenced in several sections of the US Clean Water Act. The expression is now used broadly by several disciplines, including water conservation, as a way to describe acceptable practices that have been determined to be the most effective and practical means for achieving an objective.

The three most effective BMPs in landscape management that are intended to help landscapes thrive while still saving water are

- 1.) the introduction of new plant palettes into traditional landscapes,
- 2.) retaining existing landscapes, and
- 3.) preserving trees, especially in turf removal areas.

Introduction of New Plant Palettes: A traditional palette of 'tried and true' ornamental plants have been used in Southern California in the past. These plants have proven themselves with their capacity to live long, have a fortitude to tolerate constant pruning, and the ability to look good. In doing so, they also require more water than other plants. Therefore, there has been a movement to introduce new plants into our landscape plant palettes because of the drought conditions and other related water conservation measures.

Terminology has been introduced to the industry to identify those plant materials that have an ability to survive under low water conditions and help to save water. Those terms include drought tolerant, native, and water friendly, to name a few. However, experience has shown that these identifications do not necessarily mean the same thing. Some non-native plants may be capable of adapting to low water

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conditions and thus be drought tolerant. While some native plants might struggle under these same conditions and not be drought tolerant.



It is best to consolidate the above terms and call these types of plant materials ‘low water use’ plants. The name fits, because the main purpose of introducing them is to conserve water. Low water using plants can come in a variety of shapes, sizes, and colors, and their place of origin may come from all parts of the world.

Because plant materials may vary greatly in their need for water, great care must be given when designing landscapes where we are introducing these new plants. Unless the newly introduced plant materials share the same moisture requirements as the existing plants, they must be planted in groups with similar water needs, and on separate irrigation zones to successfully survive. Exposure to sun and shade are also factors that must be taken into consideration when grouping plants. Best management practices for these plants include:

- ④ Choose plants that will work in your soil conditions and weather environment.
- ④ Install irrigation zones that properly water plants to match their needs. Plants with different water needs cannot be on the same irrigation zone.
- ④ Prune plants to enhance their natural form, many low water use plants cannot tolerate shearing. Many must be hand pruned.
- ④ Fertilize judiciously. Many low water use plants, especially natives, do not require high levels of fertilization.
- ④ Educate yourself and your communities on these new plants. Many of them have very different patterns of growth from the traditional ornamentals. They often have very short periods of what would be considered attractiveness.
- ④ Less can be better. Many of these new plants can be over-maintained. They have developed differently than ornamentals that need a lot of care. Less water, less fertilizer, less pruning.

Retaining Existing Landscapes: Second on the list of Best Management Practices is the desire to retain an existing ornamental landscape, but still conserve water as much as possible. Landscapers, both professional, and the average homeowner, often overwater. More plants die from over watering than under watering in managed landscapes. Existing landscape materials can be maintained at an acceptable level while using much less water.

Turf areas do not always need to be the ‘bad guy’ from a watering perspective. Turf does require more water than most planting areas. Turf can be maintained with 30% to 40% less water than normally applied with proper management. Both turf and plants can be trained to use less water over a period of time, initiating plant adaptability. Water is decreased in small increments, and plants are monitored for changes. Eventually, a point is reached where the plants or turf show signs of stress. The amount of reduction in water usage between where you initially started watering and this point is the potential water savings. It takes a little experimenting – trial and error – to see how much less water can be applied to landscapes while still maintaining their health and appearance.



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There are valid reasons for removing turf. Small areas of turf like parkway strips that are difficult to mow and irrigate properly, often serve little to no function other than aesthetics. These are great candidates for removal. However, turf areas such as parks, picnic areas, sports fields, and even residential backyards, do not need to be sacrificed, as they serve a very useful and necessary, tangible purpose.

Best Management Practices can help conserve water while keeping our existing landscapes healthy:

- Use warm season turfgrass, such as Bermuda, that use less water than cool season varieties. They also go dormant in the winter, saving even more water.
- Raise mower heights to the highest recommended settings for turfgrass varieties, and recycle clippings back onto turf.
- Use mulch in planters. Mulch helps soil to retain moisture and to control weeds. Natural mulch also helps condition soils as it breaks down, replenishing needed nutrients.
- Water turf more deeply and less frequently, which helps develop root system that more efficiently use water.
- Make use of smart controllers. Once properly programmed and managed, they help conserve water by making daily adjustments to the watering schedule based on current weather conditions.
- Prune shrubs less formally. Maintaining them at an acceptable, but more natural appearance will reduce stress and allow more water savings.



Preserving Trees: The third area of Best Management Practices is preserving trees in turf removal areas. Of all areas of our landscapes, trees are probably the most beloved, yet also the most abused with poor management. Mature trees have been hit particularly hard by the drought, and their loss can have dramatic effect on landscapes. They take a long time to mature, but can decline and die rapidly when their environment changes. Due to the drought and related watering restriction mandates in some communities, many mature trees, especially in parkways, have declined or died. Some water districts restricted the watering of turf on parkway strips, which unfortunately may have included mature trees that were also planted there. They have suffered due to stress caused by the reduction and lack of water, which can also introduce disease and pest infestation.

Mature trees are expensive to remove when they die, and can be expensive to replace with an adequate size tree to take its place if required. If replaced with a standard 24-inch box tree, it will take several years to mature and reach the same size as the tree being replaced.

Turf parkway strips are also popular with turf removal programs that call for the planting of low water use plants once the turf is removed. While the trees are to be retained, they often are not cared for during the turf removal process. Often, the water is turned off, the turf is killed off, and the trees do not receive adequate, if any water, resulting in damage to their root system. New plant materials are often installed in their root zone, creating competition for water and nutrients.



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Best Management Practices to help retain existing trees during turf removal projects are:

- ④ Confirm that trees to be retained are healthy and worthy of saving. During the drought, many trees went without adequate water and were irreparably harmed.
- ④ During turf removal projects, ensure that the trees are irrigated. Even if a temporary system is needed as turf areas are left to die.
- ④ Prune trees with a purpose. Get them on a pruning plan and prune according to International Society of Arboriculture (ISA) standards. Stressed trees should not be pruned until they recover and show signs of good health.
- ④ Do not fertilize stressed trees.
- ④ Do not top trees. Usually if a tree needs to be topped, it should be removed and replaced with an appropriate species. Topping can initiate decay and lead to poor structure.
- ④ Protect tree root zones during all turf removal activities. Cutting, trenching, and tearing through roots can severely affect tree health and stability.

There are many more Best Management Practices for all three of the areas mentioned. The purpose of this presentation is to highlight some of the most important issues. Several sources of valuable information on these topics can be found at the following websites:

Irrigation Association (IA): www.irrigation.org

California Landscape Contractors Association (CLCA): www.clca.org

International Society of Arboriculture (ISA): www.isa-arbor.com

American Society of Consulting Arborists (ASCA): www.asca-consultants.org

University of California Integrated Pest Management Program (UC IPM): <http://ipm.ucanr.edu/>

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