



## THE EFFECTS OF DROUGHT CONDITIONS ON LANDSCAPING

Drought conditions not only impact water budgets, but they also affect the health and survival of plants, turfgrass, and trees. The lack of precipitation causes established turf and plant materials to become stressed more than normal during the hot, dry, summer months.

Drought-resistant and native plant materials adapt to low precipitation conditions by decreasing their growth process and extending their dormancy periods. Prolonged drought conditions however, challenge this adaptation process.

Plants absorb water and nutrients from the soil through their root system. The fine, delicate root hairs extending out from a plant's roots are its primary means of acquiring moisture.

Under prolonged drought conditions, the lack of moisture causes the soil to shrink away from the plant's water-absorbing roots. This creates a void in the soil-to-plant moisture continuum, causing damage to the plant's root system.

As a result, plants become stressed and are unable to maintain healthy growth. This also makes them vulnerable to disease and insect infestation.

Plants in urban settings rely on irrigation as a supplement when water is not available through precipitation.

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## THE HEAT IS ON: Plants Under Stress

Plants invariably suffer from the effects of heat stress when they are exposed to prolonged periods of high temperatures. In addition to extreme heat, plant mortality will also be exacerbated by the effects of the ongoing drought conditions and current watering restrictions.

In this article we will look at the cause and effects of these stress factors and discuss protective measures.

Heat stress can occur when daytime temperatures climb into the 90s and above. Plants can only stabilize their tissue water content when an ample quantity of moisture is available, which is of prime importance during exposure to increased temperatures.



Succulent plants are well equipped to handle these conditions by conserving water in their "fleshy" leaves. However, most plants do not have the ability to cope with heat intensity, like succulents, when adequate moisture is not available.

Drought-tolerant, California-friendly, and drought-resistant labels have become household terms used to identify water-wise plant materials. Plants that fall into these categories have been proven to perform successfully under low water conditions.

Numerous resources are available to assist landscape designers and maintenance contractors, as well as homeowners, with selecting suitable plant materials for these extreme conditions.

Three of the most popular are; the BeWaterWise.com *California Friendly Garden Guide*, the *Sunset Western Garden Book*, and the book, *Landscape Plants for California Gardens*.

Each of these are general guidelines that identify the climate zones where plants grow their best, sun exposure tolerances, and the

range of moisture needs for thousands of plant species, as shown in the example.

However, knowledge and experience are important when selecting plant materials that perform best under these extreme conditions that Southern California has undergone over the past several years.

Heat stress consistently coincides with water scarcity. The symptoms are very similar and can be recognized by a show of wilting, which is a sign of plant water loss. Heat stress can also be recognized by leaf drop.

If the symptoms are ignored, the conditions will worsen and the plants will eventually dry up, turning brown before they die. Many plants will shed some of their foliage in an attempt to conserve water.

Monitoring soil moisture levels during heat wave periods is critical. However, try to avoid the temptation to over water. Some plants will begin to wilt regardless of how much moisture is in the soil. Instead, maintain a consistent soil moisture level, which will help to cool the soil and provide moisture replenishment to the plants.

Maintaining a two- to three-inch layer of mulch is crucial during peak summer temperatures. This will act as a barrier to help maintain soil moisture and to insulate the roots from extreme soil temperatures. It also minimizes moisture loss through evaporation.



Manually apply water to the mulch areas around the plants' root zones whenever possible. This will also aid in keeping soil temperatures manageable.

Following the plant reference books will help to reduce plant loss as above average temperatures and below normal precipitation continue to prevail in Southern California.

### Muhlenbergia

Poaceae  
PERENNIAL GRASSES

ZONES VARY BY SPECIES

FULLSUN OR LIGHT SHADE

LITTLE OR NO WATER  
TO MODERATE WATER

# THE IMPACT OF CALIFORNIA MINIMUM WAGE INCREASES

The California Minimum Wage Act became law in 2016, mandating annual increases in the minimum wage rate until it reaches \$15 per hour in 2022 (2023 for small businesses). Opponents argue that the increases will eliminate jobs and cause commodity costs to raise. Advocates of the wage hikes contend that consumer spending will rise as a result of increased earnings. Regardless of the final outcome, the changes will have a direct impact on labor costs.

The minimum wage increases will affect more than five million workers in California, approximately 38% of the state's workforce. Under the new law, increases from 2016 to 2022 will average over 7% per year, reaching an annual earnings income for minimum wage workers of \$31,200 from \$20,800. It should be noted that this number does not include additional mandated costs borne by the employer, such as healthcare insurance, workers compensation insurance, vacation pay, and sick leave, which are also subject to increase based on the rise in minimum wage. Continuing education, training, licensing, and certification costs are often absorbed by the landscape maintenance companies.



Landscape maintenance is a labor-intensive industry and the minimum wage increases will have a significant impact on the cost of labor for this sector.

Landscape maintenance workers are considered skilled-craft professionals, the majority of which work hourly, at minimum wage. However, the increases are likely to extend beyond the minimum wage workers.

Employers will be pressured to increase wages for other position levels in order to maintain pay-grade disparity. The landscape maintenance industry is labor-based, thus a reduction in the work force to offset the pay increases can lead to long-term consequences. Cutting back on maintenance service is potentially detrimental to the visual qualities of the community, which can have an effect on property values.

The minimum wage increases will ultimately impact HOA budgets,

since the majority of vendor contracts rely heavily on minimum wage employees. These services include, security, janitorial, landscape and pool maintenance services, which are crucial to the routine operations of a homeowner association.



Board members will be challenged in the coming years to balance the needs and services of their community while managing budgets and assessment levels acceptable to members of the community. Vendors will be equally challenged to maintain acceptable contract costs, without compromising service.

Environmental Concepts is a unique partner in the industry with leadership members that are and have also served in the capacity of both community managers and board members and can appreciate this challenge. While working with successful communities, along with our experiences, we can share that the following key strategies have worked when dealing with rising costs:

- **Communication** will not only meet your fiduciary and legal requirements, but it gives homeowners an opportunity to plan and provides them a background and open forum to have their opinions heard.
- **Partner with your key vendors** to determine how to better understand and forecast what the next several years may bring forward. This may not only include a rise in their base contract, but also other key costs.
- **Work with your Reserve Study Analyst** to determine your reserve funding level. If you are not at your desired funding level, establish a plan that will get you there over a course of 3, 5 or 7 years.
- **Partner with your Community Manager early in the process.** Each community has its own unique circumstances and should be evaluated in the partnership of your manager and management company.

We recognize the challenges our clients will face during this economic season and we look forward to partnering with you in anticipation of the impacts of the minimum wage increases.

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Drip irrigation was introduced decades ago as a method of improving irrigation efficiency and has regained popularity as a solution to reduce watering costs.

However, drip irrigation primarily targets the base of the plant at the main stock. Proper irrigation system installation and careful monitoring therefore, is required to prevent moisture deficit in the balance of the plant's root system.

Rainfall is also needed to flush the unwanted elements out of the soil that potentially cause damage to plant materials, and especially turfgrass. Lack of significant rain raises the level of salinity (salt) in the soil, which causes an imbalance in soil chemistry and results in stress and damage to landscape plant material and the environment.

Environmental Concepts understands the complexities and importance of balancing watering needs within the limitations of available resources and ever-tightening budget constraints.

By applying our knowledge and experience in water management, soil chemistry, and irrigation system design and maintenance, we work diligently to sustain the health and quality of plant materials at their highest levels for our customers.

