

Water, xeriscape and plants



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The Los Angeles area has been facing continuing droughts for some years now and water shortage has become the pet topic. The drought has been termed as the worst since 1970's. Yet despite this shortage, water usage in Los Angeles is the most wasteful in the US. The fact that the Los Angeles Department of Water and Power is the single largest municipal utility company in the US makes the point. The utility has been supplying water to over 4 million residents since 1902. Last year, The LADWP supplied over 200 billion gallons, translating to about 760 billion liters of clean water. This engaged about 7, 226 miles of pipes.

Homeowners are mostly responsible for the water wastage. This is mainly because they use the water uneconomically to irrigate the front yard grass. The situation is so grave that the California Governor, Arnold Schwarzenegger had to join the campaign and call for 20% water use reduction by all homeowners. There have been some scattered rainstorms of late but the drought is becoming even more severe. The Los Angeles Mayor has consequently announced increased water restrictions across the city and a punitive tiered water rate to deter homeowners using water wasteful.

The repercussions of perpetual droughts and the need to conserve water may finally be sinking into the Los Angeles homeowners though. Consequent to several campaigns by the municipality, water-rationing measures and tiered water costing, water wastage is reducing. For instance, there was a 17% reduction in water usage last summer according to the incumbent Mayor, Antonio Villaraigosa. The single-home residences reduced their usage by 20 % while multi-family units reduced usage by 8%. Government buildings in LA also reduced usage by 34%.

Despite that substantial reduction, the situation is still as grave. Urgent measures to conserve water are needed. The Metropolitan Water District, the main water supplier to Los Angeles and Southern California regions has already warned that it will be forced to reduce water deliveries with a 25% cut. Part of the measures adopted to curb the wasteful use of water in front yards is the restriction of sprinkler use to 2 days each week. If the drought persists, the two days will reduce to one. Homeowners should urgently seek means of reducing water wastage, before the worst happens.

Water Consumption Statistics

Over 26 billion gallons of clean water are used in the US every day. A recent study by the US Geological Survey found out that an average American requires almost 100 gallons of clean water daily. That is not even significant in water expenditure. Homeowners use six times this amount for irrigating their front yards. In Los Angeles, 60% of piped water is used by homeowners to irrigate their landscapes. Water conservation has become a priority issue in California right now and it is evident who the major culprits of water wastage are.

Homeowners need to understand and implement landscape water conservation techniques urgently. It is no longer about personal choice here, since the ability to pay for the water matters less. You may have the ability to pay for it today such that you use and deplete the minimal amount available. That means tomorrow, none will be supplied to you despite having the ability to pay for it.

If only homeowners, each in an independent decision, took up residential water conservation especially in landscape watering, we would need no policy to address the shortage and the shortage would not have any significant effects. To understand the importance of this statement, let us approximate the amount an average homeowner uses to water the landscape.

At the lowest, a homeowner will turn on faucets and sprinklers for an hour. The speed of most sprinklers in the market is 18 US Gallons per minute measured by 50 Psi units. Most landscapes have on the average, three full circle sprinklers covering 14 ft by 14 ft spaces. That means that an average homeowner will use (18 gallons x 1 hours x 60 minutes x 3 sprinklers) gallons of water per day. This accumulates to a whopping 3, 240 gallons daily.

In a month, while irrigating the yard for at least two days each week, this will be to the excess of 6, 480 gallons. In a year, the landlord or homeowner will have used 77, 760 gallons of water. One US gallon equals 3. 79 liters. That means an average landlord or homeowner will se a whopping 294, 710. 4 liters of water yearly to irrigate the landscape. A single homeowner or landlord, watering a single home in the US and using over quarter a million liters of water yearly!

Without a doubt, homeowners and landlords must rethink their water use for landscape purpose. There are water conservation measures that would work in reducing water expenditure while still maintaining a beautiful front yard.

One of these measures includes planting drought resistant plants on the landscape.

California Droughts Tolerant Plants

Drought resistant plants or drought tolerant plants are those plants that have adapted to prolonged absence of water. They not only require little water but can also do without irrigation and still maintain their green and flowering. Most drought tolerant/resistant plants are native plants of the area they thrive in We have numerous drought-tolerant native plants in California. These plants require less water when planted as part of the landscape.

Examples of such plants include the California Redbud whose magenta flowers sprouts each summer on leafless stems. Although endowed with an extreme ability to flower, it is adapted to consume minimal water and is thus overly drought tolerant. The Cleveland Sage is another example or drought tolerant plants. We have over 100 sage species. The most common ones have fragrant pale lavender flowers and violet blue ones. Ceanothus Concha, otherwise known as California lilac has a dense mass of shrub like dark green leaves. It bears dark blue flowers in clusters. Another California drought tolerant native plant ideal for the front yard is the Coffee Berry with dark green leaves and red berries.

It is easy to decorate and spruce your landscape with native California plants (preferably those from south -facing slopes and drier climates than that of LA). Not only are these plants beautiful, they are also drought tolerant such that they do not need to be watered to retain their beauty. These plants are

natives of California and they thrived long before the garden hose was discovered (Kahrl 22-26).

Xeriscaping in Perspective

The simple concept that underlies Xeriscaping is of modifying a landscape using the plants whose moisture requirements correspond to the typical rainfall patterns of that area. If in California for instance, it involves designing a landscape whose plants have significantly lower water expenditure. The term Xeriscaping was actually coined by western land planners' consequent to the water shortages that hit the in 1970s. Etymologically, Xeriscaping is a Greek term meaning 'dry scene'.

As such, Xeriscaping a landscape means planting selected drought tolerant plants that have the ability to thrive and flower without regular watering. As water shortages reign in the US, particularly in California, Xeriscapes are becoming the most viable alternative in landscaping. They provide reduced water consumption (irrigation) which as seen in the arguments above, is threatening to decimate the available water resources.

One important technique used in Xeriscaping is the concept of zoning. Plants with equal water needs are usually grouped together within a specific zone. Those with lower irrigation needs are made the major plants in the landscape while those with higher water needs are just used to punctuate the landscape occasionally. Xeriscaping techniques when complimented with California drought-tolerant native plants have become an in-thing in front yard ornamentals. With landscape water usage representing 60% of Los Angeles water expenditure and with individual homeowners and landlords

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using close to 0.3 million liters of water annually, Xeriscape water conservation techniques ought to be the primary residential landscaping strategies each and every home owner implements. Nevertheless, let us look at this critically so that you appreciate why your landscape needs urgent modification. The important question is, why should you care to modify your landscape to a Xeriscape?

Employing Xeriscaping Practically

The reason why landscape architects, water conservationists, horticulturalists and landscape designers concur that Xeriscape practices are ideal and should be adopted promptly is because of their practicality and effectiveness. Xeriscapes provide colorful and attractive landscapes without the need of gigantic water bills. True, the initial Xeriscaping costs are higher than when landlords and homeowners resort to other landscaping techniques.

However, this is only because Xeriscapes are comprehensive in nature. Once the suitable vegetation has been gloomed, the operation costs become a minute fraction of any other landscaping technique. The water costs to keep the plants healthy are close to none, lesser fertilizers are needed and trimming becomes a yearly feat. Not only do the water bills reduce, but also the labor needed to maintain the yard.

Water costs in California are rising incredibly consequent to the tired billing system where the more you use the more expensive it becomes. The money aside, water is itself becoming increasingly scarce and the resource is in an all-time-high shortage. If a homeowner sits back and thinks about the entire

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picture, gardening with California native plants gains a realistic sense. You will spend less on water, on fertilizers and on pesticides. You will also be conserving the environment from pesticides, from green gases and from water depletion (Kahrl 22-26).

Best Native Plants

Other US states such as South Carolina, Texas and Connecticut garden with their native plants. In California, the founding nurserymen came from outside the state (100 years ago) and brought with them their plants. The plants that came were water-dependent plants and that is why California ranks as the most wasteful state in landscape watering. This is because the water-dependent plants that were introduced in a Mediterranean climate must be maintained with high amounts of water, fertilizers, pesticides and soil enrichments. Native plants require no attention at all. They rely on neither water nor the fertilizers. They have always been in the same environment even before gardening became fashionable.

In this respect, the best native plants to use in Xeriscaping include those advocated for by Theodore Payne Foundation. The foundation was established in 1960 after the Englishman recognized the wonder of California native plants. Just for practicality, a good Xeriscape landscape with native California plants would creatively use such plants as Island Alum Root, Coast Live Oak (a shade tree), Chalk Dudleya, Western Sycamore, Deer Grass and California poppy. If you are in a Southern California region, the best native plants for the yard are Chaparral, Buckwheat, Big Berry Manzanita, Sages,

Mexican Manzanita, Penstemon Spectabilis, Ceanothus, and Penstemon centranthifolius.

These drought tolerant native plants in California will help you achieve landscape beauty without having water wastage worries. Such diversity would also make it easy for you to employ Xeriscape techniques and still have adequate native flora to choose from in expressing your individual style, interest and personality.

Effects of the Native-Based Xeriscape

Using the example given when elaborating the usage of water in maintaining landscapes in California, it is evident that Xeriscape landscaping will phenomenally achieve the drastic reduction of water consumption in the state. Currently, landscaping utilizes over 60% of the domestic water expenditure. Each homeowner with a conventional front yard will use 3, 240 gallons daily and 6, 480 gallons monthly, in irrigation.

If the same landscape was Xeriscape, watering will then become a weekly practice instead of a daily venture. That means, in a month watering will be done four times. The three sprinklers will then be replaced by a manual hose with the speed of 30 Psi releasing about 12 gallons of water per minute.

Watering for the same size of garden will no longer be an hour-long feat but the hose will only run for a maximum of 40 minutes. That means that, under Xeriscape, (4 times x 12 gallons x 40 minutes) will equal to 1, 920 gallons every month. That will have saved a whopping 4, 560 gallons. It sounds unbelievable. For every 750 square feet portion under Xeriscape landscaping

techniques, a landlord or homeowner can save 4, 200 gallons of water every month.

Using drought tolerant California plants in a Xeriscape landscape is the single option that might finally solve the water wastage problems of yard maintenance. It is logical, wise and the most responsible thing to do. There is no question about that.