

LANDSCAPE MANAGEMENT for DROUGHT CONDITIONS

—RICK BARNES

It seems ironic that the focus of this issue of Cultivated News is drought when indeed it was also the topic of our newsletter a year ago. We all know however, that this drought has been pervasive and long lasting. It began two years ago, just following a period when Georgia's rivers and aquifers were at record HIGH levels. How quickly things change!

Nature Scapes takes pride in our ability to respond to the changing needs of our clientele and devise creative management plans to maximize the aesthetic and functional returns for your landscape investment — even in harsh times like these. A recent poll of several of our managers sums up the Nature Scapes approach to landscape management during the drought. This checklist not only outlines our approach, but points out several things you can do as homeowners, gardeners, and property managers to be good stewards of your little slice of the Earth:

- Follow current water restrictions and MEASURE the amount of water you are applying to the landscape. Watering every other day may result in excessive watering! One inch of water per week is optimal for Georgia landscapes, but many plantings (such as Bermuda turf) can survive quite nicely with ½ inch of water per week or less! It is better to apply this water in two applications of ½ inch, rather than in four applications of ¼ inch. Less frequent, deeper waterings encourage deeper penetration of roots. Get a RAIN GAUGE and KNOW how much water you are applying!
- Prioritize watering! This can be difficult, particularly with those beautiful, old growth trees we have on our property. Many of these trees are in the decline stage anyway, and the drought accelerates this

decline despite our best efforts at watering and care. It would be prudent to water more vigorous young and middle-aged trees. The same practice would hold true for shrub plantings. Fescue turf is the least drought tolerant and the cheapest to replace with fall aeration and over-seeding.

- Develop a long-term irrigation plan to provide water for focal points on your property when needed. You don't necessarily need to irrigate your entire property, and irrigation systems can be planned in phases, starting in the most important areas and expanding into others later.
- Mow turf higher and less frequently. This discourages vigorous growth, increasing the turf's ability to cope with drought.
- Avoid pruning and "sheering". These practices encourage top growth on plants and reduce drought tolerance.
- Minimize applications of fertilizer and chemicals. These can actually sap energy from a plant that could be utilized in dealing with drought stress.
 - Consider the utilization of "Xeriscape" plant material and planting methods for future landscape improvements. Nature Scapes has implemented these procedures wherever applicable since the drought began. Xeriscape is not "rocks and cactus!" It is simply a multi-step method to provide a functional, aesthetically pleasing landscape that uses less water.

River Oaks

-Allen Clemons

When Nature Scapes began maintenance at River Oaks two years ago, the residents felt as though their outdoor environment wasn't living up to its full potential. They sought a fresh look. One that would give them pleasant surroundings and better reflect the true real estate value of this section of North Atlanta. The existing landscape was well thought out and serviceable, but several maintenance practices needed to be altered to achieve a more detailed, crisp look throughout the property.

The homeowners also felt that the landscape was dated and that certain feature areas of the property needed to be upgraded. Nature Scapes designed a more "open look" for the front entrance at the direction of the homeowners. This look was also extended to the series of landscaped islands that exist along the main drive of the property. In conjunction with this, there was a desire to have more annual color to attract attention to the entryway and give the homeowners a sense of living in a colorful, upscale community.

The residents have future plans to continue these renovations throughout the the property. Due to their commitment, River Oaks has become a wonderful place to both live and work. Nature Scapes takes great pride in maintaining the grounds, and looks forward to the upcoming projects.



Water for the Future

—David Chapdelaine

Drought and dwindling water supplies have been issues for several years now, especially in states like California and Florida. Growing populations and salt water intrusion into wells has made water a commodity, and several steps have already been taken in those states. It is only a matter of time before Georgia adopts some of the same measures.

More so in Florida than California, effluent water is being used. This is water which has been treated but is one or two steps away from being fit to drink. Rather than being sent to large leach fields, it is stored for later dispersal. Special pipe lines have been built to transport this water to many municipalities, which in turn pump it to homes, golf courses and plant nurseries for irrigation. Studies show that this treated water contains many nutrients which benefit plants and grass. Though some complain of an odor, this is minimal, and

the benefits far outweigh any inconvenience.

Other steps taken include very stringent watering rules. While we are seeing some restrictions, they are stricter in both FL and CA *year round*. Testing of back-flow devices is mandatory and permits are required if more than a certain amount of water is expected to be used. Water is measured and records are kept to monitor water use.

What else can we expect? Desalination (fresh water from salt water) is too expensive, and scientists are divided on the feasibility of "seeding" clouds to make rain. We must make better use of what we have. Water your landscape only when it needs it. Make smart use of plants that don't need much water to survive. Leave areas natural and use mulches and hardscape (rocks, statues, retaining walls). Consider a rain gauge for your irrigation. Be water smart.

THE BRAINS AND BRAWN BEHIND YOUR IRRIGATION SYSTEM

PART II: THE BRAINS
—David Chapdelaine

Last issue we discussed the Brawn behind your automatic irrigation system. Today we discuss the Brains. This would include controllers, rain/freeze/wind sensors and flow meters.

Electric controllers come in all sizes — from four zones up to sixty and more. The larger controllers can run with a PC, being adjusted from a remote site if desired. Today's controllers are digital with LED displays, allowing much programming flexibility at a reasonable cost. Dial type controllers are still used, however they cost more and offer NO flexibility of watering schedules.



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THE TANGLED WEB OF DROUGHT

—Rick Barnes

The prophetic words of Mark Twain say it best: “Whiskey is for drinking — water is for fighting over!” There seems to be a ring of truth to this everywhere. I recently had the privilege of traveling to Hawaii with my family, where an issue of great concern there is, you guessed it — water! On the Big Island of Hawaii, several sections of Volcanoes National Park had to be closed to vehicle traffic due to the dry conditions. Signs on the walls in Volcano House urge patrons to conserve water. The island of Maui has developed a water management plan dependent upon the cooperation of the National Park Service, The Nature Conservancy, Cattle Ranchers, Sugar Cane and Pineapple growers, among others. It protects the delicate watershed of the Haleakala Volcano to provide water for these divergent uses, not to mention people and tourists! Kauai exhibits the most visible enigma. The area around the summit of the ancient volcano Waialeale is the wettest area on earth, with an average of 465 inches of rain per year! Less than 20 miles away, the coastal town of Poipu receives about 20 inches per year, half of Atlanta’s normal rainfall! I flew over an intricate system of concrete flumes that divert water from the areas of plenty to cattle ranges and sugar cane fields. Waterfalls on the Na Pali Coast run dry as result of these diversions.

Georgia’s web of water usage is equally complex. The Chattahoochee River starts as a rain-fed spring in the mountains around Unicoi State Park, collects water, swells, and,

with the inflow of the Chestatee River, forms Lake Lanier. The river then meanders south past Atlanta to form Georgia’s border with Alabama. A court decision of the late 1860’s that set the entire Chatahoochee River within the boundaries of Georgia, rather than having the river shared by the tywo states, could have set an early stage for the present tri-state water war. The Chattahoochee joins the Flint River, which starts as a trickle below Atlanta’s Hartsfield Airport and drains much of the southwestern area of Georgia. The Apalachicola River begins at this confluence, and the fresh water flows into the Gulf of Mexico to form the richest estuarine fishery in the eastern U.S. The Flint is the hotbed of the Georgia drought, as record low flows combine with agricultural center-pivot irrigation to endanger the river’s aquatic life. Failure of the tri-state water alliance, negotiations of which have recently been entered by former-President Jimmy Carter, will insure federal intervention in the management of this river.

One might think that Atlanta’s growth would be the #2 tangle of the drought web. However, the next hotbed lies on coast of Georgia, where salt water is beginning to encroach upon sub-surface fresh water. All the current evidence points to irrigation for crops and pulpwood forests, rather than municipalities, as the biggest straw drawing water out of the Floridian Aquifer.

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ral manufacturers offer battery operated “controllers”.
special timer which screws directly onto a valve (EasyRain)
les controlling up to four valves with a single battery
these controllers offer customers the ability to irrigate
ically without a nearby electrical source or to expand an
system without the expense of running more wires.
em add-ons which make your system smart include various
rain sensors which interrupt a watering cycle following a
m (to conserve water), wind sensors which interrupt water-
ld wind speed exceed a set rate, and freeze sensors which
t watering when the temperature falls below 37. Each of

these is designed to minimize the wasting of water.

Flow meters are mainly implemented with larger systems using computer monitoring. A pre-set amount of water is entered into the computer. Should a pipe break and water start leaking, the flow meter will register this pre-set amount and signal the computer to turn off the water supply. It can even be programmed to contact a pager with a special code, alerting someone that the system has been shut down.

Other examples of smart components include pressure compensating sprinklers, heads with built in check valves to stop weeping, and check valves which stop gushers should a break occur.

W H O W E A R E

Cultivated News is published two times a year by Nature Scapes, Inc., for over fifteen years a provider of landscaping, maintenance, irrigation and floriculture services to the metro Atlanta area.

Nature Scapes, Inc. is a charter member of GGIA — Georgia Green Industry Association, MALTA — Metro Atlanta Landscape & Turf Association, GAI — Georgia Irrigation Association, and CAI — Community Associations Institute. We also belong to the Southern Nurseryman's Association.

Nature Scapes, Inc. operates a drug-free workplace as certified by the State Board of Workers' Compensation.

If you have any topics or questions you would like to see discussed or elaborated on in a future issue of the newsletter, please call and let us know.

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Atlanta ranks only third in the state in its contribution to the tangled web of drought, but the complexities within this portion of the web form a minute reflection of the entire problem. Questions of growth control, land use, land preservation, and water-use priorities emerge. What we do at Lake Lanier affects whether or not barges can run on the lower Chattahoochee, the quality of the fisheries in Apalachicola Bay, the ability of farmers in Alabama and South Georgia to water their crops if they choose to chance that the drought might break. And if it did, would the unraveling web lull us all into a sense of complacency until the next drought rolls around, creating an even more tangled web?

In Memory of Fabian

This issue of *Cultivated News* is dedicated to the memory of Fabien Boudreau. A truer friend could never be found. His support and encouragement helped us through the trials and tribulations of starting a new business.

As the company grew, he was our most avid supporter.

He will always be with us in our hearts.

The Upchurch Family



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