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Land Use Conference

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Austin, TX**Preservation of Community Assets: Open Spaces,  
Landscaping, Sustainability, Funding and More****Alan J. Bojorquez**

The "Big Tree," a 1000+ year old live oak situated in Goose Island State Park near Rockport, Texas.

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***This paper and any accompanying presentations are intended for general educational purposes only and do not constitute legal advice.***

Recognition must be attributed to my law clerk, Damien Shores, a third year law student at Saint Mary’s. Damien contributed mightily to the crafting of this paper.

## Value of Trees

“A tree's a tree. How many more do you need to look at?”

- Ronald Reagan

Is a tree just a tree as the Gipper once quipped? Perhaps so, but according to poet William Blake, “A fool sees not the same tree that a wise man sees.” In fact, you don't have to be wise to see that trees have a great deal of value. The following are just a few benefits that trees provide:

- Increase property values (Note: trees can contribute as much 15-20% of the value of a home or a building. Developers and builders have long known this. That is why you pay a premium price for a home or lot with trees<sup>1</sup>);
- Stabilize the soil and control water pollution (Note: trees and other landscape plants help slow surface water runoff and reduce soil erosion. The soil absorbs more rainwater, so less water is needed on your landscape<sup>2</sup>);
- Provide energy saving shade (Note: properly placed shade trees can reduce home energy consumption up to 15% and trees near roadways reduce the heat island effect, thus cooling entire neighborhoods<sup>3</sup>);
- Preserve and foster air quality by removing carbon dioxide (CO<sub>2</sub>) and airborne pollutants (Note: through photosynthesis, trees reduce atmospheric levels of carbon dioxide and release vital oxygen<sup>4</sup>);
- Abate visual and noise pollution;
- Provide a natural habitat for wildlife;
- Add color and interest to the urban landscape.<sup>5</sup>

Trees' greatest initial influence is on our emotions and sense of aesthetics. The trees that we have today are descendants of the largest and oldest living organisms on this planet. Many of them have been around for ages themselves, and people feel a great reverence and affinity for trees.<sup>6</sup> This makes sense because people are generally more satisfied with their neighborhoods if there are trees. Workers are more productive and hospital patients recover faster if they can see

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<sup>1</sup> Dennis Brown, *Tree Preservation Makes Cents*, <http://www.greenbuilder.com/general/articles/AAS.Treecents.html> (accessed Feb. 16, 2010).

<sup>2</sup> *Tree Growing Guide For Central Texas*, TreeFolks, 2007.

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> Community Tree Preservation Task Force of the Minnesota Shade Tree Advisory Committee (MnSTAC), *A Guide to Developing a Community Tree Preservation Ordinance*, <http://www.mnstac.org/RFC/preservationordguide.htm> (accessed Feb. 16, 2010).

<sup>6</sup> Brown, *Tree Preservation Makes Cents*, <http://www.greenbuilder.com/general/articles/AAS.Treecents.html> (accessed Feb. 16, 2010).

trees outside their windows.<sup>7</sup> Trees in a watershed are particularly important because they slow sediment runoff into waterways and reservoirs. If they are cut down, sediments will wash into the streams and reservoirs so that pesticides and fertilizers spread on cropland and lawns will filter through the soil into the water table or wash directly into streams and reservoirs as well. While the benefits above sound great, people with a fiscal mindset would probably like to know how trees actually benefit the pocket-book. A recent study determined the value of the city of Austin's urban forest. The study focused on three areas of environmental impact: air quality, stormwater run-off mitigation, and direct energy savings as the result of the shade. According to the study, Austin trees contribute \$133,600,000 dollars annually in real benefits.<sup>8</sup>

## A History of Tree Preservation

*They took all the trees and put them in a tree museum,  
then they charged the people a dollar and a half just to see 'em.  
Don't it always seem to go, that you don't know what you've got 'til it's gone.  
They paved paradise and put up a parking lot.*  
-Joni Mitchell, "Big Yellow Taxi", *Ladies of the Canyon* (1988)

As America was settled, one of the first acts of settlers was to cut down trees for shelter, fortification, tools and heat. Under Common Law principles, trees are considered profits of the property that they sit upon and can be cut down or left standing as the property owner sees fit. As cities grew, many trees were cut down to make room for buildings and roads, and as populations grew, trees were cleared from land to construct suburban developments, as well as for agricultural purposes. However, the growth of cities does not always mean the decline of trees. The City of Dallas is a prime example, where once there was an open prairie interrupted by the occasional tree-lined creek or river, there are now about 213,000 wooded acres, far more than existed historically-and all of this without government restrictions on private property.<sup>9</sup> In fact, across the nation there are more trees now than existed 100 years ago.<sup>10</sup>

So if more trees exist now than 100 years ago, why do cities need tree preservation? The answer is that while many new trees are planted, many older ones are getting cut down during the development process, and it is these older trees that provide the *real* benefits mentioned above. Additionally, it is the old growth trees that provide the aesthetic character that defines cities and neighborhoods. The City of San Saba would not be the "Pecan Capital of the World" without all those old pecan trees nor would the City of West Lake Hills be a desirable location without its ample live oaks, many of which are hundreds of years old. Simply put, tree preservation works to lessen the negative of impact of human development on pre-existing trees.

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<sup>7</sup> MnSTAC, *A Guide to Developing a Community Tree Preservation Ordinance*, <http://www.mnstac.org/RFC/preservationordguide.htm> (accessed Feb. 16, 2010).

<sup>8</sup> Brown, *Tree Preservation Makes Cents*, <http://www.greenbuilder.com/general/articles/AAS.Treecents.html> (accessed Feb. 16, 2010).

<sup>9</sup> Sterling Burnett, *Tree Preservation Comes to the City*, National Center for Policy Analysis, <http://www.ncpa.org/commentaries/tree-preservation-comes-to-the-city> (accessed Feb. 16, 2010).

<sup>10</sup> *Id.*

The earliest of all landscape ordinance covered trees. In the Eighteenth century, the Pennsylvania Shade Tree Law stated that “every owner...shall plant one or more trees...before the door of his, her, or their house...not exceeding 8 feet from the front of the house, and preserve the same to the end that the said town may be well shaded from the violence of the sun in the heat of the summer and thereby rendered more healthy.”<sup>11</sup> Since those early days, tree preservation has been on the rise, because as people move to become “greener” in their daily lives, so to will they lean on their city officials to protect the city’s natural resources. The principal means of preserving trees in a city is via city ordinance. For example, a 1984 study found fewer than 100 tree preservation ordinances nationwide. By 1989, there were 159 tree ordinances in California alone, and Maryland now requires all counties and municipalities to enact their own tree ordinances at least as stringent as the state's own strict act.<sup>12</sup> In 1983, the City of Austin was the first city in Texas to adopt a tree preservation ordinance. It was called the “Tree and Natural Area Protection Code,” which is based on the fundamental precepts of sound urban forest management; diversification, preservation, and replenishment.<sup>13</sup> With the expansion of cities’ abilities to preserve trees, more Texas cities have followed Austin’s example.

## **Green Light: Authority to Pass and Enforce Tree Preservation and Landscape Ordinances**

Now his life is full of wonder but his heart still knows some fear  
Of a simple thing he cannot comprehend  
Why they try to tear the mountains down to bring in a couple more  
More people, more scars upon the land.  
-John Denver, Rocky Mountain High (1972)

The landmark case settling the controversy between cities and private landowners regarding land-use zoning is *Euclid v. Amber Realty*. In *Euclid* the Supreme Court of the United States stated that “every community had the right to determine its own character and the nature of development within”.<sup>14</sup> The more particular legal question of aesthetics and a city’s ability to require plantings as a means of beautification was addressed in favor of cities by the Supreme Court in *Berman v. Parker*. Writing for the majority in *Berman*, Justice Douglas said “[T]he concept of public welfare is broad and inclusive. The values it represents are spiritual as well as physical, aesthetic as well as monetary. It is within the power of the legislature to determine that the community should be beautiful as well as healthy, spacious as well as clean, well balanced as well as carefully patrolled.”<sup>15</sup> This decision has been the basis for the idea that planting trees, shrubs, and ground covers can be used to make cities beautiful, healthy, spacious and clean, and is within the city’s police power to do so.

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<sup>11</sup> Buck Abbey, *U.S. Landscape Ordinances: An Annotated Reference Handbook*, p.7, John Wiley & Sons, 1998 citing Pennsylvania Shade Tree Law.

<sup>12</sup> Sterling Burnett, *Tree Preservation Comes to the City*, National Center for Policy Analysis, <http://www.ncpa.org/commentaries/tree-preservation-comes-to-the-city> (accessed Feb. 16, 2010).

<sup>13</sup> City of Austin, *City Arborist Program*, <http://www.ci.austin.tx.us/trees/default.htm> (accessed Feb. 16, 2010).

<sup>14</sup> *Village of Euclid, Ohio v. Ambler Realty Co.*, 272 U.S. 365 (1926).

<sup>15</sup> *Berman v. Parker*, 348 U.S. 26 (1954).

The general statutory provision that most Texas cities cite when enacting their tree preservation ordinances is Texas Local Government Code § 212.002, which states that after a public hearing on the matter, the governing body of a municipality may adopt rules governing plats and subdivisions of land within the municipality's jurisdiction to promote the health, safety, morals or general welfare of the municipality and the safe, orderly and healthful development of the municipality.<sup>16</sup> This has been upheld as a legitimate source of tree preservation authority by the courts and even expanded to cover property in the municipality's extraterritorial jurisdiction (ETJ), as in the case of *Milestone Potranco Development, Ltd. v. City of San Antonio*, where the Fourth Court of Appeals ruled that the city of San Antonio's tree planting standards are enforceable against property located in the city's ETJ under Texas Local Government Code § 212.003.<sup>17</sup> Statutory authority for enforcement of a tree preservation ordinance passed under Texas Local Government Code § 212.002 can be found under Section 212.018, which allows the governing body or municipal attorney to file an action in court to enjoin the violation (or threatened violation) or to recover damages for the violation.<sup>18</sup>

Other types of authority to protect trees can be found in various sections of the Local Government Code. For example, under Section 51.001 a city has general authority to adopt an ordinance or police regulation that is for the good government, peace or order of the city and is necessary or proper for carrying out a power granted by law to the city.<sup>19</sup> Under Chapter 211, a city is empowered to enact zoning regulations, including those involving tree preservation and landscaping.<sup>20</sup> Under Chapter 214, a city is authorized to regulate building in the city limits.<sup>21</sup> Cities might consider including tree preservation and landscape regulations under the umbrella of a Municipal Water Quality Protection and Pollution Prevention program implemented under Section 26.177 of the Texas Water Code.<sup>22</sup> Finally, under Chapter 217, a city is allowed to define and prevent nuisances in the city limits.<sup>23</sup> As such, a city could thereby declare that the unregulated deforestation of property in the city limits constitutes a public nuisance.

## **Planning: The First Step**

Once a city decides it wants to pass a tree preservation or landscape ordinance, a little planning is in order. With a tree preservation ordinance, the city needs to decide what goals it hopes to accomplish, for example, whether to regulate tree density and/or protect trees of a certain species, age or size. Many cities hire or contract a professional arborist to aid with the planning process by indentifying what should be protected and helping council members understand more about the biology of trees in the city's jurisdiction. Cities should understand that tree surveys are not cheap. For example, a tree survey in the West Lake Hills area (Central

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<sup>16</sup> Tex. Loc. Gov't Code § 212.002.

<sup>17</sup> See *Milestone Potranco Development, Ltd. v. City of San Antonio*, 298 S.W.3d 242 (Tex. App.---San Antonio 2009, no pet.); See also Tex. Loc. Gov't Code § 212.003 (extending § 212.002 to ETJ).

<sup>18</sup> See Tex. Loc. Gov't Code § 212.018.

<sup>19</sup> See *id.* § 51.001.

<sup>20</sup> See *id.* Ch. 211.

<sup>21</sup> See *id.* Ch. 214.

<sup>22</sup> See Op. Tex. Att'y Gen. No. GA-0762 (2010).

<sup>23</sup> See *id.* Ch. 217.

Texas) is estimated to cost approximately \$3,000 - \$5,000 for a one-acre lot according to Christy Shull, a certified arborist and a city inspector for the city of West Lake Hills.

Important things to consider when planning for the ordinance are as follows:

- Applicability: What areas will the ordinance apply to?
- Standards: What diameter size would require a permit? What does the city classify as heritage or significant tree species?
- Protected trees: Which types of trees should be protected?
- Tree inventory: How many and what types of trees currently exist in the city?
- Percentage of preservation: What percentage of a particular species of trees should be preserved on any given parcel of land?
- Mitigation: How best to mitigate the impact of development, utilities and construction on trees?
- Root Protection Zones (RPZ): How far out from the tree should be protected? (Note: A radius from the trunk of 1 ft per diameter inch is typical.)
- Tree warranty for commercial and non-residential projects: Would the city have the developer replace the tree if it dies within 5 years of completion of the on-site construction project in lieu of establishing a RPZ?
- Protection Barriers: What type of fencing or barriers around the tree should be erected?
- Permit/Plan/Plat submittal requirements: What does the city require in a permit/plan/plat application?
- Trees on Right-of-Ways: What is the city going to do about existing protected trees on existing public right-of-ways?
- Maintenance: What measures does the city provide for ensuring the maintenance of protected trees?
- Fees: What will the permit fees be, if any?
- Violations and fines/penalties: What constitutes a violation and what will the penalties be?<sup>24</sup>

## Drafting an Ordinance: Essential Elements

*These days the buck stops nowhere  
No one takes the blame  
But evil is still evil in anybodys name.  
If dirt were dollars  
If dirt were dollars  
If dirt were dollars  
We'd all be in the black.*  
-Don Henley, *End of the Innocence* (1989)

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<sup>24</sup> Debbie Reid, *Tree Preservation Ordinances: What Works and What Doesn't*, City of San Antonio Development Services Department, presented Oct. 4, 2006.

## Tree Preservation

After the some serious thought is put into what the city hopes to accomplish with the ordinance during the planning stage, the next step is to draft the ordinance. Tree preservation regulations can be in a stand-alone ordinance, or be incorporated (read: *bootstrapped*) into an existing zoning, land-use, or subdivision ordinance. The most important thing is that the tree preservation language should be clear, achieves the city's goals, and will stand up in court. Recall also that prior to any enactment of an ordinance under Section 212.002, there must be a public hearing on the matter which requires 72 hours of notice.<sup>25</sup> To aid drafters, below are a few examples of what the cities of Austin and West Lake Hills are doing. Actual tree preservation ordinances for these and other cities can be found in the resources section toward the end of this paper.

Austin's tree preservation ordinance is a good one to start with because it was the first one in Texas and is the most robust. In 1983, it established an application and enforcement process for the removal and replacement of trees having trunks of 60 inches or more in circumference and established the administrative post of city arborist.<sup>26</sup> In 1985, the ordinance covered tree protection measures required during construction. Amongst other things, it required temporary fencing around trees in construction zones, grading within the protected root zone was required to be done by hand or small equipment, roots were not allowed to be exposed for more than two days, dust accumulation on leaves was required to be washed away, and topsoil dressing within the drip lines of trees may not exceed 4 inches.<sup>27</sup> Finally, in 1988 the tree ordinance in Austin provided standards for tree density, requiring at least one tree of 6 feet in height to exist or be planted per 1,000 square feet of street yards less than 10,000 square feet in size; one tree per 2,500 square feet in yards between 10,000 and 110,000 square feet; and one tree per 5,000 square feet in yards over 110,000 square feet.<sup>28</sup> Currently, landowners in Austin who want to fell trees with trunks at least 19 inches wide must get a permit from the city arborist and plant new trees or pay into a tree-planting fund. In fact, under a recently proposed plan, the city of Austin would require landowners who want to remove "heritage trees" – at least 24 inches wide and one of 20 species, mostly oaks – would need a variance, which is a higher bar because it requires landowners to show there is no other way to save such trees.<sup>29</sup> Of course, exceptions should be made for trees that pose safety risks, such as when trees disrupt utility services. In 2007, 650 trees on Austin development applications were at least 24 inches wide. The city granted permission to cut down 157.<sup>30</sup> Most tree removal requests in Austin continue to be decided by the city arborist without a public hearing, but for trees at least 30 inches wide that are on the list of 20 species, there would be a public hearing and a final vote by a city land-use board. The landowner could appeal only decisions by the arborist; other interested parties such

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<sup>25</sup> See Tex. Gov't Code § 551.041.

<sup>26</sup> Abbey, *U.S. Landscape Ordinances*, p.311 citing City of Austin, "Guidelines and Procedures for Implementing the Tree Ordinance," 1983.

<sup>27</sup> *Id.* citing City of Austin, "Standard Tree Protection Notes," 1985.

<sup>28</sup> *Id.* citing City of Austin, Ordinance No. L830408-E, Chapter 13-2A, Sections 5600-5635, 1988.

<sup>29</sup> Sarah Coppola, *City to Weigh Tree Protection Plan*, p.A9, Austin American-Statesman, Feb. 3, 2010.

<sup>30</sup> *Id.*



as neighbors could not appeal.<sup>31</sup> Currently, landowners who cut down a large tree must plant new trees whose diameters equal the large tree's width. For example, four 6 inch-wide trees would need to be planted to replace one 24 inch-wide tree. If the landowner has no extra space on their land, they can pay \$75 per inch of diameter into a city tree fund, used for planting and maintaining trees elsewhere in the city. Recently proposed changes in Austin would require planting trees whose diameters total three times the large tree's width or pay \$150 per inch.<sup>32</sup> Also, illegally removing a tree can be a Class C misdemeanor and carry a fine of \$2,000 per tree, which is the maximum fine allowed by state law.<sup>33</sup> It is worth noting that the \$2,000 maximum fine can also be applied creatively by cities to be assessed every day the developer fails to devise a tree replacement plan.

The city of West Lake Hills has even more stringent tree protection measures than that of Austin. The rules in West Lake Hills require residents to get a variance from the city's board of adjustment to fell a tree 14 inches in diameter or larger. Pruning multiple trees requires a permit (typically free to obtain), but pruning a single tree would not. A resident would also need a permit to remove a single tree per year that's less than 6 inches in diameter as well as to remove vegetation under a canopy of trees.<sup>34</sup> In addition, recently adopted rules allow residents, with a permit, to remove trees and vegetation to create a fire safety buffer zone as a way to mitigate the city's high risk of wildfires. Finally, the new rules would include a special provision allowing the removal of and specifying replacement requirements for diseased, dying or dead trees.<sup>35</sup>

## Landscaping

Landscape ordinances provide for the preservation of natural features such as wetland, erodible slopes, special native habitats and plant species. Such ordinances typically cover pre-construction and post-construction activities, such as grading and drainage in the former, and planting ground cover and open space preservation in the latter. Landscape ordinances requiring the planting of trees in parking lots, the buffering of incompatible land uses, and separating construction from streets with street yard plantings, berms and decorative features are the most common type.<sup>36</sup> In Texas, landscape ordinance are used to achieve the objectives previously mentioned plus more. For example, in its landscape ordinance (applicable to commercial and multi-family residential developments), the City of Victoria took the following measures:

- Site landscape area must be a minimum of ten percent (10%) of the total building site, less the area of buildings and secured storage area. At least fifty percent (50%) of this amount, five percent (5%) of the site, must be within the street yard.
- Within the site landscape area a combination of trees, shrubs, annuals, perennials, vines, grass and ground cover may be used to satisfy this ordinance. Non-living materials such as stone, organic mulch, walls, fences and sand may be used as well. Walkways and

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<sup>31</sup> *Id.*

<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

<sup>34</sup> Suzannah Gonzales, *West Lake Hills Poised to Strengthen Tree Protection Rules*, Austin American-Statesman, Feb. 9, 2010.

<sup>35</sup> *Id.*

<sup>36</sup> Abbey, *U.S. Landscape Ordinances: An Annotated Reference Handbook*, p.4, 1998.

driveways made of pervious material within this area shall not count toward total landscape area. The minimum dimension of a landscape area shall be nine (9) square feet.

- Within parking areas, islands are to be used as landscape zones. At least one (1) tree must be provided for each nine hundred (900) square feet of landscape zone.
- Credit will be given toward the planting requirements of this ordinance for the preservation of existing trees.
- Performance standards are listed in this ordinance for plant material installation, irrigation and maintenance.
- The use of xeriscape principles published by the Texas Agricultural Extension Service is encouraged.
- In order to get a building permit for any site, a landscape plan is required as part of the site plan submittal process. The plan must provide sufficient information, including site improvement facilities, plant materials and calculations showing that the plan meets the requirements of this part. The Director of Planning reviews and approves the plan.
- If following requirements of the ordinance become a hardship, an “alternative compliance” plan may be submitted along with written justification. Should approval be denied, the applicant for a building permit may appeal the decision of the Director of Planning to the Planning Commission.
- The Director of Building and Environmental Inspection is charged with enforcing this ordinance and will not issue a Certificate of Occupancy until such time as all landscaping has been installed in accordance with the approved landscape plan.<sup>37</sup>

Other landscape ordinances are not so broad and narrow their focus to a particular area, like aesthetics. For example, the City of Grand Prairie’s landscape ordinance focuses mainly on the screening of undesirable views to provide a pleasant visual environment for the city. It required the following:

- Plant screenings at parking areas next to public rights-of-way and areas parallel to arterial and collector streets.
- Fence screening is required at outdoor storage areas, mechanical and electrical equipment areas, effuse containers, alleyways and where residential areas meet nonresidential.
- Requires the planting of two (2) or more grass, trees, shrubs, ground covers or other plant materials.
- Plantings must be protected from vehicles.
- Street tree plantings must be made on arterial and collector streets in single-family or double-occupancy areas.<sup>38</sup>

While aesthetics certainly drive a large amount of tree and landscape regulation, a more pragmatic concern is water conservation. Draught conditions across much of the country has led

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<sup>37</sup> *Id.* p.325-26 *citing* Victoria, Landscaping, Subdivision and Development Code, 1992.

<sup>38</sup> *Id.* p.318 *citing* Grand Prairie, “Landscaping and Screening,” Article VIII, Unified Development Code, November 20, 1990.

local governments to restrict water use in a variety of ways, including limiting days and times that lawns can be watered.<sup>39</sup> Other communities seek stricter reductions through the enactment of xeriscaping regulations and water-wise landscape requirements. The term “xeriscape,” coined in 1981, is a registered trademark of Denver Water, the water utility for the city and county of Denver, and is a combination of the Greek word *xeros* (dry) and landscape.

When the City of Tucson, Arizona, enacted its xeriscape ordinance in 1990, property owners in the area had already commenced using native plants to conserve water since the 1970s. Builders in Tucson are required to submit landscape plans concurrently with applications for building permits. In Colorado, the cities of Erie and Lafayette passed ordinances requiring areas to be divided into individually irrigated “hydro zones” based on high-medium-low-very low water needs. Volusia County, Florida, determined that St. Augustine grass is the most sought variety of turf sod, but is often over-watered. Thus, the County determined the grass’s true needs (only one inch of water per week), then set the County ordinance to limit one-half of a yard (or other landscape area) to just one inch of water per week. Another quarter of the yard can receive one-half inch of water, and the remaining quarter can receive one-quarter of an inch.<sup>40</sup>

In Texas, be sure to consider:

- requireing percentage of proposed yard be landscaped; and
- mandating specific width of landscaped buffer strip along property lines.

## **The City’s Role**

Tree preservation and landscape ordinances inevitably involve regulating what can be done on private property. While allowed under the law as previously discussed, it can be a point of contention for some landowners. Soliciting input for citizens (via a public hearing or hearings) is a great way to craft an ordinance that is in line with the values of the community so that a simple landscape ordinance doesn’t result in a coup. Another way (discussed below) to encouraging green practices without offending land owners is by providing incentives that entice (e.g., through financial – economic development – grants, variances, expedited permitting, fee waivers, etc.). Even if the city does not currently have any tree preservation or landscape ordinances, how the city cares for public lands (e.g., parks, public buildings, traffic islands, etc.) will factor into the discussion should the city ask land owners to take similar or greater care of their own land. In addition to conflicts of standards, it is important to avoid inadvertent policy conflicts. For example, if a city declares every tree to sacred, will that include invasive species like cedar, bamboo, and mesquite? Another consideration is how the city plans on dealing with diseased and/or dying trees. Does the ordinance provide any exception for cutting down that heritage live oak with severe oak wilt disease? Regardless of the course of action ultimately chosen, the city’s role in the process is crucial.

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<sup>39</sup> Conni Kunzler, “*Laws for the Land: Communities are Turning to Landscape Regulations to help Conserve Water,*” American City & County (October 2004).

<sup>40</sup> *Id.*

## Encouragement: The Carrot

People tend to respond better to encouragement rather than to punishment. With this in mind, there are ways for cities to encourage tree planting and protection. One such way is to provide rebates to citizens who plant trees or incentives to developers who submit subdivision plats that preserve existing trees and even propose to plant more. Another way is to have developers to set aside park land or land for open space in exchange for plat approval or by entering into an agreement with developers setting out what the developers can do for the city (e.g., dedicate land for park use) and what the city can do for the developers (e.g., granting variances for certain structures). In fact, cities often require, pursuant to their subdivision platting authority under Local Government Code § 212.004(b)(3), that the owner who divides land lay out all parks, streets, alleys, squares, and other parts of the tract intended to be dedicated to public use or for the use of purchasers of the lots.<sup>41</sup> In order to be approved, the plat must conform to the general plan of the municipality and both current and future parks and playgrounds in accordance with Local Government Code § 212.010(a).<sup>42</sup> In order to ensure that an exaction such as parkland dedication is a valid exercise of the city's police power (and not an unconstitutional taking), the regulation must be adopted to accomplish a legitimate goal, and the regulation must be reasonable (i.e., it cannot be arbitrary).<sup>43</sup> There must also be a clear connection between a legitimate state interest (e.g., the need for children to be able to play safely outdoors) and the condition exacted by the city (e.g., the dedication of certain acreage for parks).<sup>44</sup> If there is such a connection, the exaction must be roughly proportional (in both nature and extent) to the proposed impact of the subdivision for which plat approval is sought.<sup>45</sup> Note that development agreements in the ETJ are authorized by Local Government Code § 212.172.<sup>46</sup>

Another way is cash-in-lieu of parkland, which requires the developer give money to the city in lieu of setting aside land. The money could then be used to purchase nearby property that could be used as a park or nature preserve, so long as the money is spent in a way that benefits the developer's subdivision.<sup>47</sup> If the money goes to a park a great distance away, such that it is unreasonable to expect that anyone who lives in the developer's subdivision will use that park with any frequency, then arguably the city has taken a person's private property without Due Process, which is unconstitutional. The city is not required to use the money to build a park adjacent to that particular subdivision or in a way that solely benefits that subdivision, only that the subdivision can reasonably enjoy the benefits of the parkland or cash.

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<sup>41</sup> Alan J. Bojorquez, *Texas Municipal Law and Procedure Manual*, 5<sup>th</sup> Ed. § 21.16(a), Texas Municipal Clerks Association 2005; *See also* Tex. Loc. Gov't Code § 212.004(b)(3).

<sup>42</sup> *Id.*; *See also* Tex. Loc. Gov't Code § 212.010(a).

<sup>43</sup> *Id.* § 21.16(b) citing *City of College Station v. Turtle Rock Corp.*, 680 S.W.2d 802, 806-07 (Tex. 1984).

<sup>44</sup> *Id.* citing *Nollan v. Cal. Coastal Comm.*, 483 U.S. 825, 836 (1987).

<sup>45</sup> *Id.* citing *Dolan v. City of Tigard*, 512 U.S. at 386.

<sup>46</sup> *See* Tex. Loc. Gov't Code § 212.172.

<sup>47</sup> *See City of College Station v. Turtle Rock Corp.*, 680 S.W.2d 802 (Tex. 1984) (Exaction of parkland or money in exchange for administrative approval of the plat must benefit the developer's subdivision).

## Enforcement: The Stick

*“This is not yet another story about ‘evil developers.’ Not necessarily. Some of the developers in this story are possibly just ignorant...”*

- Lee Nichols, THE AUSTIN CHRONICLE, September 21, 2007 article “Clear-Cutting in Austin.”

When the incentives don’t work then its time for enforcement. A recent example of enforcement comes straight from the press. “On January 29, 2010, Austin city officials accused Capitol City Auto Parts of clearing – without a permit – an estimated 100 trees from about 10 acres of land adjacent to South Boggy Creek. The city issued a stop-work order and are working with the landowner to resolve the situation, which is serious because of flooding dangers. Kevin Shunk of the city’s Flood Plain Office said the clearing could redirect flow into other parts of the creek or into a road, and the debris of the uprooted trees could wash downstream and block culverts and bridges. If the landowner pleads guilty, he would be subject to a \$1,429 fine plus \$63 in court costs, an amount which may rise if the investigation finds he cut trees that fall into a protected category. The landowner will also have to replace some trees as well.<sup>48</sup> In West Lake Hills, violations of its ordinance call for landowners to pay \$100 for each inch of a small tree cut down, so a 3 inch tree is \$300, but after that the cost goes up exponentially. A 6 inch tree can incur \$1,000 in fines according to West Lake Hills landscape architect (and former City Councilman) Earl Broussard. The point here is to make sure your ordinance has some teeth and that such teeth will bite anyone who violates it.

## Don’t Fence Me In: Open Spaces

Another tool cities can use to preserve trees is to preserve open spaces. This can be achieved in one of three ways: (1) through regulatory measures such as agricultural zoning, conservation zoning, impact fees, and dedications of land; (2) by acquiring the land outright or provide funding to maintain open spaces through bond issues, sales taxes, real estate transfer taxes, special districts, special assessment areas, and business improvement districts; and (3) by using conservation easements to protect land while keeping it in the hands of private owners.<sup>49</sup> Conserving the natural or historical character of a community helps increase housing values, business activity and local investments, especially in rural or tourist areas.<sup>50</sup> Open space lands, including city parks, suburban greenbelts, agricultural and forest lands and recreation areas, are valuable economic assets for any community.<sup>51</sup> Noted above, conservation zoning (a.k.a., cluster zoning) is a creative zoning technique that allows a subdivision to have the same overall density on a particular tract as would be allowed under existing or conventional zoning, but the crucial difference is that conservation zoning requires all new construction to be located on no more than half of the land.<sup>52</sup> The remaining open space would be protected and can even include valuable amenities such as walking trails and scenic views. Another benefit to conservation

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<sup>48</sup> Lee Nichols, *City Takes Business to Task Over Cleared Trees*, p.24 The Austin Chronicle, Feb. 5, 2010.

<sup>49</sup> John Tibbetts, *Open Space Conservation: Investing In Your Community’s Economic Health*, p.1, Lincoln Institute of Land Policy 1998.

<sup>50</sup> *Id.* at 8.

<sup>51</sup> *Id.* at 29.

<sup>52</sup> *Id.* at 15.

zoning is that it can reduce infrastructure costs, has marketing and sales advantages, and home values increase more rapidly than in traditionally zoned subdivisions.<sup>53</sup> Though consumers traditionally prefer low-density developments, surveys show that when homeowners have views of green areas, or when parks are carefully integrated within neighborhoods, residents are satisfied with the higher densities.<sup>54</sup>

## **Sustainability: Keep on Keeping On**

Of the many factors that have historically contributed to the collapse of past societies, in Jared Diamond's seminal work "Collapse: How Societies Choose to Fail or Succeed" deforestation is at the top of the list.<sup>55</sup> Maintaining our rural and urban trees is obviously important, but soil problems such as erosion, as well as water management problems were also factors that led to societal collapse, and as such, should be address by local governments in their capacity to promote the health, safety and general welfare of the municipality. The idea is to think long term. Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.<sup>56</sup> Water is one of those needs that shouldn't be compromised. As previously mentioned, water conservation (as well as fuel conservation) can be bolstered by a landscaping ordinance that encourages planting plants that require little water (and little trimming), such as cacti and shrubs native to desert climates. Xeriscaping is a great practice in Texas because not only does it give a yard a more authentic Texas look, it relieves pressure on the state's beleaguered water supply and eliminates the need for a gas lawnmower, which according to the Environmental Protection Agency, causes as much pollution as 11 cars when run for an hour.<sup>57</sup> In fact, watering a typical grass yard accounts for 30% of suburban family water use.<sup>58</sup> One creative measure is that used by the city of Mesa, Arizona, where the city council passed an ordinance that provides cash rebates to citizens who replace their water-thirsty grass yards with native low-water using plants.<sup>59</sup> If cities enact landscape ordinances that encourage xeriscaping, then homeowner's associations and developers will likely follow suit. Clearly, xeriscaping won't work as well for communities in East Texas as it would for communities in South Texas, which is why a city council needs to consider their native environment when passing any regulatory ordinance. There are many other sustainable practices a city can encourage in addition to xeriscaping, but the idea here is for cities to think long term and encourage their citizens to do the same.

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<sup>53</sup> *Id. citing* Arendt, et al. *Rural By Design*, 1994.

<sup>54</sup> *Id.* at 16, *citing* Ewing, *Best Development Practices*, 1996.

<sup>55</sup> See Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed*, Viking Press 2005.

<sup>56</sup> Sherrie Grunder, et al, *Towards a Sustainable Community: A Toolkit for Local Government*, p. 6, University of Wisconsin Extension 2007 *citing* World Commission on Environment and Development, *Our Common Future*, 1987.

<sup>57</sup> Jim Atkinson, *So Lawn, Farwell: How I Xeriscaped My Yard*, p.40, Texas Monthly, June 2008.

<sup>58</sup> *Drying of the West*, p.150, National Geographic, February 2008.

<sup>59</sup> City of Mesa Arizona, *Grass-to-Xeriscape Landscape Rebate*, <http://www.mesaaz.gov/conservation/grass-to-xeriscape-rebate.aspx> (accessed March 11, 2010).

## Future Outlook: The Eyes of Texas are Upon You

The main idea to take away here is that with any action a city council takes, whether it be a tree preservation ordinance, zoning ordinance, landscaping ordinance, or simply purchasing a new vehicle for its fleet, councilmembers should consider sage wisdom from the Iroquois tribe of what is now upstate New York, which proclaims that "[I]n every deliberation, we must consider the impact of our decisions on the next seven generations."<sup>60</sup> If more cities step up to the challenge and lead by example, they can influence citizens and the private sector to start thinking long term as well. As more and more of the planets population attempt to close the gap between developing and first-world living standards, its crucial that those of us in the first-world work to reduce our economy's impact on the environment to preserve our habitat and show that first-world living standards don't have to have a disproportionate negative impact on the planet's ecosystems. In Appendix "A" are just a few things mentioned in *Towards a Sustainable Community: A Toolkit for Local Government*, that city councils can do to help inspire change and drive innovation.

*"I speak for the trees,  
For the trees have no tongues."  
- Dr. Seuss, The Lorax*

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<sup>60</sup> Great Law of the Iroquois Confederacy.

## Appendix “A”

An excerpt from *Towards a Sustainable Community: A Toolkit for Local Government*.

### Energy

- Adopt policies that set targets for renewable energy purchase and installation and energy efficiency goals for government facilities, operations and transportation;
- Influence local building codes, specifications and standards to promote renewables purchase and installation, energy efficiency and green design;
- Initiate a multi-departmental sustainable energy effort in the context of broader sustainable development goals (e.g., smart growth, clean energy initiatives, transportation policies, community health and infrastructure development);
- Reduce fossil fuel use in public transit, purchase electric vehicles and hybrids, use biodiesel and ethanol, establish minimum fuel efficiency standards;
- Develop the urban core for residential living in addition to office and retail;
- Provide incentives and guidelines for the private sector to power and drive green;
- Assess, monitor and report the effectiveness of clean energy strategies and projects including benefits, achievements and savings to share with local businesses and taxpayers;
- Educate city staff, developers and the community about energy efficiency and renewable energy.

### Buildings

- Adopt sustainability principles and green building policies for their own facilities;
- Influence local building codes, specifications and standards to promote green design and construction;
- Provide incentives and guidelines for the private sector to build green;
- Assess and monitor the effectiveness of green strategies and projects; and
- Educate city staff, developers and the community about green building.

### Transportation and Mobility

- Identifying current transportation policies;
- Evaluating current transportation policies throughout the local government – across departments rather than just within the streets, parking, transit and other departments traditionally associated with transportation;
- Determining how transportation policies relate to and affect other governmental/organizational policies. Work to ensure that land use, business development policies, public transit, and municipal transportation policies all operate as a system whose parts work together toward reduction of fossil fuel use;
- Outlining the rational basis for adopting a sustainable transportation policy;
- Identifying immediate and longer term policies;
- Setting short- and long-term goals; and
- Identifying measurements to track achievement toward goals.



## Procurement

- Identifying current procurement policies;
- Discussing and evaluating current policy(ies) with Department Heads;
- Explaining the rational basis for adopting an Environmentally Preferable Purchasing Policy;
- Adopting an Environmentally Preferable Purchasing Policy and Implementation Guidance for the policy. See references below for model policies and implementation guides;
- Using a “best value” approach for most purchases as opposed to a “low bid wins” purchasing approach. With best value purchasing, purchasers can identify and consider a wider variety of factors. A purchasing evaluation score sheet, for example, might base 40% of the total score on price, 30% on performance, and the remaining 30% on environmental or other preferential purchasing considerations (e.g., local supplier, or small or woman- or minority-owned businesses).<sup>61</sup>

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<sup>61</sup> Sherrie Grunder, et al, *Towards a Sustainable Community: A Toolkit for Local Government*, University of Wisconsin Extension 2007 citing World Commission on Environment and Development, *Our Common Future*, 1987.

## Appendix “B”: Resources

Below are useful websites for communities wanting to preserve trees and be greener.

- <http://txforestservicetamu.edu/main/default.aspx> - The Texas Forest Service has an excellent website with links and resources for communities.
- [www.texassuperstar.com](http://www.texassuperstar.com) – Lists 40+ species of blooming plants that love the Texas climate.
- <http://aggie-horticulture.tamu.edu/> - Explains waterwise landscaping in dizzying and exquisite detail.
- [www.treefolks.com](http://www.treefolks.com) – Great info on trees in Central Texas.
- [http://www.ci.austin.tx.us/trees/preserve\\_code.htm](http://www.ci.austin.tx.us/trees/preserve_code.htm) - City of Austin’s Tree Preservation and Replenishment Program.
- [http://www.elpasotexas.gov/development\\_services/green\\_home.asp](http://www.elpasotexas.gov/development_services/green_home.asp) - City of El Paso’s Open Space Master Plan.
- <http://www.dallascityhall.com/arborist/index.html> - Home page of the city of Dallas Arborists.
- <http://www.houstontx.gov/parks/treeordinance.html> - City of Houston’s Tree Protection Ordinance and related information.
- <http://www.cityoftyler.org/Portals/0/docs/departments/clerk/ordinances/2009/0-2009-88%20Ch.%2010%20Tree%20Preservation%20Public%20Tree%20Care.pdf> - City of Tyler’s Landscaping and Tree Preservation Ordinance.
- [http://www.sanantonio.gov/dsd/treelandscape\\_team.asp?res=1024&ver=true](http://www.sanantonio.gov/dsd/treelandscape_team.asp?res=1024&ver=true) - Webpage for the city of San Antonio’s Tree/Landscaping/Irrigation Review Team.
- [http://www.westlakehills.org/info/documents/final%20tree%20ordinance%20adopted%202-10-10%20\(not%20signed%20by%20mayor\).pdf](http://www.westlakehills.org/info/documents/final%20tree%20ordinance%20adopted%202-10-10%20(not%20signed%20by%20mayor).pdf) - City of West Lake Hill’s Tree Ordinance as recently amended.
- <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=76#6> - The U.S. Green Building Council has assembled an excellent page of useful links on green building and sustainable communities.
- <http://www4.uwm.edu/shwec/publications/cabinet/reductionreuse/SustainabilityToolkit.pdf> - Sustainability Toolkit for Local Government.
- <http://www.greenlaws.lsu.edu/> - Model landscaping ordinance

## Appendix “C”

### Key Considerations for Tree & Landscaping Ordinance

- Manicured or Native?
- Thresholds for Preservation of Existing fauna (i.e., Is every tree sacred?)
- Permit required for removal?
- Replacement requirements
- Should the regulation prioritize preservation, replacement or cash-in-lieu?
- On-Site mitigation only or Off-Site mitigation allowed
- Cash-in-Lieu an option?
- How measure?
- How enforce?
- Wildfire considerations?
- Draught considerations?
- Role of engineered irrigation systems?
- Relationship to Parks & Open Space regulations
- Relationship to Water Quality Preservation and Pollution Prevention
- Uniform application or vary according to Zoning District or Thoroughfare Overlay?
- Relationship to Subdivision Platting requirements
- What about the role of deed restrictions / restrictive covenants and enforcement by any Homeowners Associations or Property Owners Associations?
- Oak wilt?

## Appendix “D”

### Tree Pricing

Planting large trees is expensive. The prices below were compiled in relation to.

<b>Box</b>	<b>Pounds</b>	<b>Caliper Inches</b>	<b>Price per Tree</b>
9x9	35,000	12-13	\$15,000-\$18,000
10x10	50,000	13-16	\$20,000-\$23,000
12x12	60,000	16-18	\$26,000-\$29,000

*Source: Earl Broussard, Landscape Architect, Owner of TBG, Inc., regarding trees purchased from farms in the DFW and Navasota areas for the 1890 RANCH - a large commercial shopping center developed by Endeavor in Cedar Park, Texas, in 2007.*

## Appendix “E”

### Sampling of Regulations from Texas Cities

#### Alamo Heights

- minimum 60% of proposed front yard must be landscaped
- An 8’ wide landscape area must be along the rear property line
- Front yards of double-frontage lots must be landscaped.

#### Addison

- Landscape plan must be submitted to the Director of Parks prior to site plan review by P&Z for zoning amendments or building permits
- 20% of gross site must be maintained as landscaped area (10% for industrial districts)
- Off-Street loading spaces must be screened from all public and private streets with shrubs at least 6’ high

#### Bee Cave

- The Bee Cave Beautification Trust Fund exists for the purpose of purchasing, planting, growing, and maintaining trees and associated plants, and other beautification projects.
- Existing natural landscape character, especially native oaks, elms, madrone, pear and pecan trees, shall be preserved to the maximum extent reasonable and feasible.
- At least 60% of the caliper inches of all existing trees over 4” caliper must be retained or replaced after site development.
- The City Council may approve a reduction in caliper inches that must be retained if the City receives a transfer of development intensity credit.
- Dead plant materials must be replaced within 3 months.

#### Cedar Park

- The Director of Parks and Recreation (the “urban forester”) requires a certificate from an architect, landscape architect, professional engineer, certified landscape professional, licensed surveyor or licensed nurseryman that verifies the plans submitted comply with the ordinances prior to the city’s issuance of a site development permit, certificate of occupancy, or provision of permanent utilities.
- There is a separate tree program held by the city for cash in lieu when the number of trees (required or replacement) cannot practically be placed on the site.
- Written guidelines exist for interpretation of the ordinance
- Single-family and duplex residential must have at least 2 shade (canopy) trees per lot.
- Nonresidential and multi-family projects must retain 50% of the existing trees that are 8” caliper or greater.
- Parking lots must be buffered from street view and adjacent properties.
- Landscape islands (peninsulas and medians) must be 90 square feet for each 12 parking spaces.