

Appendix E. Creeks and Streams

The value of creeks and streams in the urban and semi-urban environments



Appendix E: Creeks and Streams

The value of creeks and streams in the urban and semi-urban environments

Water availability for domestic, industrial, agriculture as well as ecological use is important from a quantity AND quality point of view. In fact water has become a scarce commodity which has far reaching impacts on the future of all communities especially in Texas. Uncontrolled land development, water overuse and pollution continue to impact this precious and primary life supporting element. Planning on all levels should be cognizant of the effects of our actions on the future of water availability.

Communities need to realize that good stewardship of water is crucial to ensure sustainable economic growth including safety, health and welfare to everyone. Ideally state, county and municipal planning should take place on a watershed scale where the source, use and disposal of water are all integrated. The goal of such an approach is sustained availability of good quality water, effective flood management, ecologically healthy environments, with tremendous recreational opportunities.

Specific tools to achieve effective watershed management include the establishment of riparian/creek buffers and integrated storm water management.

Creek buffers along creeks and drainage ways

References:

Riparian Buffer Strategies for Urban Watersheds: Metropolitan Washington Council of Governments; 1995.

Stream Corridor Restoration: The Federal Interagency Stream Restoration Working Group.

The Keller Parks, Recreation and Open Space Master Plan recommends that riparian buffers be established along all creeks and drainage ways in the City of Keller and its ETJ as a measure to protect the fully developed 100 year flood area and an additional buffer (potentially 100 to 200 feet wide) as an important resource for the City. The value of such corridors is manifold and includes the following:

Flood conveyance and management

Natural streams have developed over time to absorb flood waters and to release it gradually once the flood has subsided. In fact, wetlands and riparian vegetation act as a "sponges" that take up the water, hold it and release it slowly as it drains through the vegetation. Maintaining the natural vegetation within creek corridors contributes to less intense floods, less erosion and more stable stream banks.

Creek morphology

- Creeks and drainage ways are by nature dynamic which means that they change course over time as the rushing water of large floods carves its way through the landscape. A proper riparian buffer allows for this dynamic change without impacting property and structures.
- Upstream development typically leads to higher intensity floods that increase the 100 year floodline over time. A wide riparian and creek buffer take into account the



future elevated 100 year floodline based on fully developed and build-out land use conditions in the watershed.

Safety

- Structures within creek corridors including buildings, bridges and dams are all potentially in danger of being damaged or destroyed during floods, depending on the size of the particular flood event. Where bridges and dams by their very nature are built within corridors, habitable structures should be located outside the build-out 100 year floodline as a safety precaution.
- Wide riparian corridors have a definite positive effect on dam safety well established riparian corridors upstream of a dam decrease the chance of dam failure; should a dam failure occur, the resultant downstream damage will be reduced with the floodwater absorbed by the wide riparian corridor.

Health and water quality

- Water quality in streams and creeks is typically a factor of the quality of water entering the system and the manner in which vegetation in the watershed "cleans" the runoff before it enters the creek. The excessive use of fertilizers and pesticides within a watershed, leads to low water quality entering the streams and creeks. In an intact system, vegetation especially native grasses filtrate the runoff prior to entering the creek and stream. However, it is crucial that the creek buffer is in place to ensure such filtration.
- Creek buffers lead to reduced nutrient load of streams which effects water quality.
 This in turn prevents the development of algae blooms in lakes.
- Creek buffers prevent excessive sediment loads in streams which in turn decrease the possibility of sedimentation of lakes.
- An ecologically intact creek and drainage way system has a natural predator and prey system in place whereby insects like mosquitoes are preyed upon by reptiles, birds and bats. However, habitat disturbance through excessive erosion and concrete lined channels, causes a loss in the predator species which leads to excessive insect populations. With the West Nile virus on everyone's mind it is thus important to keep the creek corridors healthy by encouraging the protection of the riparian vegetation.

Economy

- There is much economic sense in the protection of structures by their construction outside the 100 year floodline based on build-out conditions.
- Stable stream banks preclude expensive measures to prevent or repair failing stream banks.
- Reduced flood damage means fewer costs.
- Property facing or adjacent to open space is more desirable and expensive which leads to increased tax income.

Ecology and habitat preservation

- Riparian buffers typically preserve some of the natural breeding, foraging, and resting areas of native animals and bird species.
- o Riparian vegetation adds to the diversity of life within streams, wetlands and lakes.
- From an ecological point of view, the edges where two ecological zones meet are extremely important from a vegetation and wildlife dynamic point of view. Animals from the one zone may forage in the one while resting in the other, and plants are



often adapted to that specific edge zone. The edges of creeks and other water bodies are thus important where the water and land ecosystems are supportive, enriching and dependant on each other.

- The variety of habitats within creek corridors leads to greater diversity of wildlife.
- Riparian vegetation typically includes multi-layered habitats including trees, shrubs, grass and herbaceous plant material.
- Riparian vegetation provides a variety of functions related to aquatic habitat including:
 - Food source for species of the aquatic food chain;
 - Regulating light and temperature entering the water body. Many species have a low tolerance for temperature or light change beyond the normal range;
 - Maintaining oxygen concentrations in water through temperature regulation;
 - Preventing sediment from inundating water bodies, which interferes with fish behavior and destroys benthic habitat.

Recreation

- Creek corridors provide visually appealing environments.
- The linear nature of creeks and drainage ways render them ideal for hike and bike trails.
- Linear creek corridors with an associated trail system link various destinations within the City with better interaction between neighborhoods, schools and parks.
- The variety of wildlife found within creek corridors lead to the opportunity for wildlife viewing including birding.

Education

- A myriad of natural processes are very visible along creeks and creek banks, all of which is ideal for educational purposes.
- Students and the public may learn about the vegetation and wildlife of both terrestrial and aquatic environments, the process of natural erosion and deposition, stream morphology and water quality.

Utilities

- Areas that parallel creek corridors provide the opportunity for utility corridors with permeable surfaces including water, sewer and overhead power and telephone lines.
- Such utilities should be located outside the 100 floodline at build-out conditions to prevent future damage that may result from floods.
- Measures must be taken to prevent impacts on the recreation and habitat integrity within the creek corridors. Disturbance of vegetation and wildlife must be minimized during the construction phase of placing the utilities.

Riparian/Creek Buffer Criteria

The ability of a riparian/creek buffer to realize its many benefits depends on how well it is planned, designed and maintained. The following provide some criteria in this regard.

Riparian/creek buffer dimension

For creek corridors, a wide riparian buffer is an essential component of any protection strategy. A network of buffers acts as the right-of-way for a creek and functions as an



integral part of the creek ecosystem. The primary criteria for buffer sizing should be ecological but may also include economic and legal factors. However, the danger is that economic and legal considerations may compromise the very essence of what constitutes a healthy ecological creek corridor. With creek corridors in the City of Keller considered a crucial natural resource, a creek buffer of 100 to 200 feet on each side of all creeks measured from the 100 year floodline at fully developed or build-out conditions is recommended. This measurement is based on the area required to ensure the protection of riparian and creek buffers for the benefit and value as described above.

The primary aim of the buffer system is to protect the core of creek corridors including the stream channel, its banks and 100 year flood area which is crucial for the health of creek systems. Protecting the entire area below the 100 year floodline at fully developed or build-out conditions, ensures the protection of current creek conditions as well as the anticipated changed conditions in the future.

Three-zone creek and buffer system

The entire creek corridor is divided into 3 lateral zones on each side of the creek: stream side, middle zone and outer zone. Each zone performs a different function, with a different vegetative target and management scheme. The dimension of each of these zones is different with the stream side zone dependant on the width of the 100 year floodplain, a recommended 100 to 200 feet wide middle zones and 50 wide for the outer zone.

- The stream side zone has the function to protect the physical and ecological integrity of the stream associated ecosystem. It comprises the Floodplain Management Protection Area (FMPA) that includes the 100 year floodplain at build-out conditions. In addition it adds visual and ecological protection through preservation of views, wildlife habitat and noise abatement. The vegetation target is the pre-development natural condition.
- The 100 to 200 feet wide middle zone provides physical distance between upland development and the stream ecosystem and is available for low-key recreational development including hike, bike and equestrian trails, utilities with no hard surfaces, open space development including ball fields and golf courses and storm water management including retention/detention basins. The vegetative target is natural pre-development conditions.
- The third 50 feet wide outer zone is available for a parkway collector street system. Such a parkway has four major functions. First it will serve as a buffer between development with potentially manicured landscapes and the natural creek corridor environment. Secondly it will provide easy access for creek maintenance. Thirdly the parkway will improve local traffic circulation. Fourthly the parkway will provide a leisurely route connecting the parks, schools and neighborhoods along the creek corridor. The pleasing vistas along the creek corridor allow for scenic drives and improved neighborhoods. In fact, similar projects in other cities have enhanced property values along the route.



Buffer crossings

Major objectives for riparian/creek buffers are to maintain an unbroken corridor of riparian habitat and to allow for upstream and downstream movement of both aquatic (including a fish passage) and terrestrial wildlife along the creek corridor. Where linear forms of development such as roads, bridges, underground utilities, enclosed storm drains or outfall channels must cross the stream or the buffer, measures must be put in place to minimize blocking the aquatic and terrestrial wildlife passageway including extended bridge spans.

Buffer management

The general vegetation target for the land that involves the 100 year flood plain and 100 to 200 feet wide buffer is pre-agricultural development/modifications. Treated correctly, such vegetation cover requires the minimum management effort. In order for the burden to not fall on the City or individual landowner or home owner associations, it is recommended that management be done by one of the many Texas Land Trusts that will have an interest in such land. (See www.texaslandtrusts.org)

No Rise in Base Flood Elevation

It is recommended that the reclamation of the 100 floodplain at fully developed or build-out conditions should not be permitted at all, even if it can be demonstrated that there will be no rise in the base flood elevation of fully developed watershed conditions. The FEMA "floodway" concept contained in the National Flood Insurance Program allows up to a one foot rise in flood elevations assuming current development conditions only. However reclamation which allows a rise in the flood elevation could predictably create adverse impacts either upstream or downstream.

Creek Confluences

Creek confluences typically have unique natural and visual qualities due to the increased channel length per surface areas, widened floodplain, the potential occurrence of wetlands, dense stands of trees and increased wildlife. Such areas, also referred to as "ecological nodes" call for their special protection in the form of nature parks and nature preserves.

Watershed Management Plan

As much as it is important to ensure the protection of the creek and drainage way corridors and nodes, it is also vitally important to follow a watershed wide approach to stormwater management and landuse planning.

Watershed management suggests measures in place that aim to decrease the amount of hard and impervious surfaces which result in higher frequency and intensity of runoff, and water detention that absorbs the runoff peaks allowing it to drain slowly and over time into the creek system. Together with watershed wide measures, proper site design of each and every development is essential to obtain the best results.



The manner in which development occurs in the watershed is crucial. Due consideration should be given to every component that may contribute to increased runoff volumes and intensity. Two complimentary tools that are effective to achieve watershed management are Integrated Stormwater Management and Conservation Development (see below).

Integrated Stormwater Management

Recognizing the importance of water quantity and quality, the North Central Council of Governments, developed iSWM (Integrated Stormwater Management) design manuals for construction and for site development that assist cities and counties to achieve their goals of water quality protection, streambank protection, and flood control. They also help communities meet their construction and post-construction obligations under state storm water permits, current and emerging.

The integrated Storm Water Management (iSWM™) approach

Source: http://iswm.nctcog.org/index.asp

Development and redevelopment by their nature increase the amount of imperviousness in our surrounding environment. This increased imperviousness translates into loss of natural areas, more sources for pollution in runoff, and heightened flooding risks. To help mitigate these impacts, 55 local governments are cooperating to proactively create sound storm water management guidance for the region through the integrated Storm Water Management (iSWM)™ project.

The iSWM™ design manuals for construction and for site development are cooperative initiatives that assist cities and counties to achieve their goals of water quality protection, streambank protection, and flood control by managing stormwater on a site-by-site basis throughout all phases of development. They also help communities meet their construction and post-construction obligations under state storm water permits, current and emerging.

• The iSWM™ Design Manual for Construction contains a stepwise methodology for creating an effective storm water pollution prevention plan for construction sites and detailed information for the design, installation, and maintenance of practices to reduce the release of sediment and other pollutants resulting from construction activities. The Design Manual for construction is also intended to assist public and private entities in compliance with the Texas Pollutant Discharge Elimination System (TPDES) General Permit for Construction Storm Water Runoff, TXR 150000, issued by the Texas Council on Environmental Quality (TCEQ).

Cities in the region are encouraged to officially adopt the Design Manual for Construction and require compliance with the provisions of the Design Manual within their jurisdictions. Adoption of the Design Manual for Construction will fulfill the major requirements of the "Construction Site Storm Water Runoff Control" Minimum Measure of TPDES General Permit TXR040000 for Small Municipal Separate Storm Sewer Systems

• The 2006 Edition of the iSWM™ Design Manual for Site Development is a step-bystep detailed instructional manual to guide developers and government agencies on



the control and management of storm water quality and quantity. It is a practical manual oriented to implementation in everyday practice.

It calls for the consideration of storm water issues at the conceptual stages of projects and provides tools to achieve the goals of water quality protection, streambank protection, and flood control. Its adoption in the region will simplify engineering designs, minimize local government plan review efforts, facilitate multi-jurisdictional drainage analysis, and enable regional training opportunities.

Further Studies

Reference: Linear Greenbelt Park Study: City of Allen, Texas; 1986.

For purposes of establishing an integrated riparian corridor and greenbelt system for the City of Keller, a Creek Corridor Study is recommended. It is recommended that such a study include the following components:

1. Flood-plain Delineation

The flood plains of all creeks defined and delineated as the area inundated by either the 100-year flood based on a fully developed watershed condition, or the maximum flood on record, whichever reaches the higher water elevation;

- 2. Environmental Inventory and Analysis including:
 - a. Physical features (geology, topography, soils, climate)
 - b. Biological features (vegetation and wildlife)
 - c. Man-made features (history, archaeology, streets, buildings and utilities)
 - d. Scenic values;
- 3. Stream segments

Homogenous segments with similar landform, unique water features, common vegetation, wildlife habitat, scenic features and divisions made by existing roadways.

- 4. Stream Corridor Delineation;
- 5. Stream Corridor Alternatives:
 - Flood plain and stream corridor management
- 6. Implementation Strategy.

Supporting and additional information may include social, cultural, legal and governmental influences; land use planning along creek corridors; funding; public participation and landownership issues.

The Linear Greenbelt Park Study that was conducted for the City of Allen, Texas in 1986 is proof that early planning efforts lead to superior city and City development conditions. Based on this 1986 study the City of Allen has ordinances and regulations in place that ensure the optimal protection and use of creek corridors. The end result 20 years later is a noticeable quality of life experience for its residents that surpasses many other cities in the region. The vision for the City of Keller is to build on the experience of this Texas city and to incorporate exemplary and functional practices that will ensure the protection of its natural resources for the enjoyment and appreciation of future generations.



Appendix F: Context Sensitive Design

- Conservation Planning and Design
- New Urbanism
- The Cultural Landscape Foundation



Context Sensitive Design

• A Case for Conservation Planning and Design



A Case for Conservation Planning and Design

With extracts from: Arendt, R.; Growing Greener, Putting Conservation into Local Plans and Ordinances; Island Press; 1999 and http://www.greenerprospects.com/growinggreener.pdf

The Conservation Planning and Design Concept

Each time a property is developed into a residential subdivision, an opportunity exists for adding land to a community-wide network of open space. Although such opportunities are seldom taken in many municipalities, this situation could be reversed fairly easily by making several small but significant changes to three basic local land-use documents - the comprehensive plan, the zoning ordinance and the subdivision and land development ordinance. Simply stated, Conservation Design rearranges the development on each parcel as it is being planned so that half (or more) of the buildable land is set aside as open space. Without controversial "down zoning," the same number of homes can be built in a less land-consumptive manner, allowing the balance of the property to be permanently protected and added to an interconnected network of community green spaces. This "density-neutral" approach provides a fair and equitable way to balance conservation and development objectives.

Conservation Planning and Design are attractive to cities since they are relatively easy to implement, do not involve public costs, do not diminish landowner equity, and are not onerous to developers.

Why change from conventional subdivision planning and design?

Conventional Subdivision Planning and Design as applied in most of the USA, generally refers to residential development in which all the developable land is divided into house lots or streets. The only open space is typically undevelopable wetlands, steep slopes, and storm water management areas. There are no amenable places to walk, open meadows for wildlife, or playing fields for children. Furthermore, almost all of the land has been cleared, graded, and converted into lawns or private back yards. As a result, residents of conventional subdivisions depend upon their cars even more to bring them social and recreational opportunities. Conservation Planning and Design offers social and recreational advantages over conventional layouts in several distinct ways.

Objective of Conservation Planning and Design

The basic principle of Conservation Planning and Design is that open space that is conservable in nearly every new residential development can be required to be laid out so that it will ultimately coalesce to form an interconnected system of protected lands across a community.

Dean William McDonough of the University of Virginia, School of Architecture suggests that one measure of a development project's success should be the increase in the number of songbird species inhabiting a site after it has been developed.

In addition to the designated wetlands, floodplains, and steep slopes that are often the only lands protected under existing codes, the types of open space that can easily be



conserved through the Conservation Planning and Design include upland woodlands, meadows, fields, and historic, cultural, or scenic features of local or greater significance.

Conservation Planning and Design approach

For effective Conservation Planning and Design it is recommended that a community inventories the following principal resources:

- 1. Wetlands and their Buffers
- 2. Floodplains
- 3. Moderate and Steep Slopes
- 4. Groundwater Resources and their Recharge Areas
- 5. Woodlands
- 6. Representative stands of Blackland Prairie
- 7. Productive Farmland
- 8. Significant Wildlife Habitat
- 9. Historic, Archaeological, and Cultural Features
- 10. Cultural Landscapes
- 11. Scenic Features
- 12. Scenic Viewsheds from Public Roads

Part if not all of these resources are often already inventoried as a matter of course in City documents including the Comprehensive Plan, the Parks Master Plan and Storm Water and Drainage studies.

The Conservation Planning and Design approach is easy for cities to implement, since it:

- Respects private property rights;
- Respects the ability of developers to create new homes for an expanding population;
 and
- Accommodates newcomers without unduly impacting the remaining natural areas and cultural resources that make a community a special place to live, work and recreate.

Benefits of Conservation Planning and Design

The benefits of Conservation Planning and Design is threefold:

- Environmental and ecological benefits
- Social and recreational benefits
- Economic Benefits

Environmental and ecological benefits

In addition to preventing intrusions into inherently unbuildable locations such as wetland and floodplains, conservation subdivision design also protects terrestrial habitats and upland buffers alongside wetlands, water bodies, and watercourses, areas that would ordinarily be cleared, graded, and covered with houses, lawns, and driveways in a conventional development.



The environmental and ecological benefits to employing conservation subdivision design instead of conventional layouts include wildlife management, water quality protection, greater aquifer recharge, and environmentally sensitive sewage treatment and disposal.

Social and recreational benefits

Conservation Planning and Design offer social and recreational advantages over conventional layouts in several distinct ways.

- Pedestrian friendly neighborhoods,
- Community-wide greenways and trails,
- Increased interaction within the community due to the footpath system that connects the homes with interesting places to visit.

Economic Benefits

- Lower costs including reduced infrastructure engineering and construction costs, for example shorter roads, less wetland/creek crossings, less stormwater management facilities and less wood clearing.
- Value appreciation; it has been proven that properties within Conservation Planned and Designed communities appreciate markedly more than their counterparts in conventional communities.
- Reduced Demand for New Public Parkland; The natural areas that are preserved and the recreational amenities that are provided in Conservation Planned and Designed communities help to reduce the demand for public open space, parkland, playing fields, and other areas for active and passive recreation. Current deficiencies with regard to such public amenities will inevitable grow larger as population continues to rise. To the extent that each new development meets some of its own local needs, pressure on local governments will be lessened in this regard, a factor that may make such designs more attractive to local reviewing bodies.

Ordinances for Conservation Planning and Design

Model Language for Conservation Subdivisions is available on pages 151 to 194 of the publication: Arendt, R.; Growing Greener, Putting Conservation into Local Plans and Ordinances; Island Press; 1999.



Context Sensitive Design

• New Urbanism



New Urbanism

New urbanism refers to a movement dedicated to improving the human experience of the urban fabric and functionality of our cities. It addresses manifold problems, relative to the way typical cities function in the United States of America. The problems that our cities face include tremendous <u>waste and misdirection of resources</u>. Firstly, our most precious resource, <u>time</u>; secondly, the <u>costs and loss of productivity</u> from time spent in auto traffic; thirdly, there are social and spiritual impoverishment in <u>isolation and alienation</u> contributing to social diseases; fourthly, <u>lack of easy access to nature areas and open space</u>, <u>unhealthy air and an urban environment that thwarts our fundamental need for the most basic exercise</u>, <u>walking</u>.

The underpinnings of a healthier, more effective and efficient urban arrangement are presented in 10 principles of New Urbanism. Using the principles summarized here, citizens, planners and developers are encouraged to guide planning to achieve these characteristics:

1. Walkability

The purpose of walkability is to promote diverse, mixed-use neighborhoods designed around a 10 minute walking radius. Positive characteristics include pedestrian friendly street design, and occasionally, pedestrian streets free of cars.

2. Connectivity

Connectivity focuses on a high quality pedestrian network and public realm that makes walking pleasurabl. A good model consists of an interconnected traffic grid network with a hierarchy of alleys, narrow streets and boulevards.

3. Mixed-Use and Diversity

Urban areas benefit by mixed-use developments and and diversity, especially in projects that combine retail, commercial and residential at neighborhood, block and building levels. Housing diversity features dwelling units suited to people of different ages, income levels, cultures and races - all interspersed.

4. Mixed Housing

The features of mixed housing developments present a range of types, sizes and prices in close proximity one to another.

5. Quality Architecture and Urban Design

Both of these aspects work together to create a sense of place emphasizing beauty, aesthetics and human comfort, with civic uses and sites interspersed within the community. Architecture emphasizing the human scale and natural surroundings serves to invigorate and refresh the human spirit.

6. Traditional Neighborhood Structure

The features that define a traditional neighborhood structure include: public space at its center and a discernable edge; emphasis on high quality public open space designed as civic art; a range of uses and densities within a 10-minute walk; transect



planning with highest densities about the center and diminishing densities toward the edge; natural and man-made features integrated so as to create continuity for wildlife habitat and an urban to rural hierarchy along the continuum.

Keller's Parks Master Plan recommends neighborhood and community parks as public space foci and magnets of neighborhoods. All of the various parks classifications, whether Open Space, Special Purpose or Linear – together constitute highly visible features in the City of Keller's public realm. Park land that offers a diversity of natural habitat in coexistence with manicured park land benefits park users who gain invaluable experiences. These parks and recreation places are exactly the public features that give identity, engender civic pride and potentially offer so much to the community. In such instances where there is attention given to high quality in the design and maintenance, the saying "the sum is greater than the parts" rings true: the place takes on a life of its own, cherished by the community.

7. Increased Density

Increased density results in more buildings and services in proximity to each other promote walking, a more efficient use of services and resources and a more convenient, enjoyable place to live.

8. Smart Transportation

Public mass transit and variety of modes of transportation offer choices and ease congestion through a network of high quality trains, trolleys, trails, etc. connecting cities, towns and neighborhoods.

9. Sustainability

Benefits in this regard include minimal environmental impact of development and its operations; respect for ecology and the value of natural systems; energy efficiency; alternative energy sources; more local production and sourcing; more walking, less driving.

10. Quality of Life

The best cities are places designed for people to enjoy. Therefore, these places should be designed to enrich, uplift and inspire our human experience in mind body and spirit.

Essentially, all of the above New Urbanist principles benefit every sector of a city, from residents to businesses, developers to municipal governments. The benefits to each group are summarized below:

Residents who in Keller are avid park users, enjoy easy access and proximity to a high quality public realm of open space, parks, civic uses and retail with a local focus. A diverse mix of housing and pedestrian oriented development provides more walking, exercise and economic savings. Density also means utilities and roads are more efficient and tax dollars more effectively spent.



Businesses may expect increased sales resulting from pedestrian volume and increased discretionary spending available for residents; more profit results in live-work units, without a stressful and costly commute. There is also benefit in more community involvement and knowing customers who are residents: businesses tend to be more successful and the experience more pleasurable for customers when personal relationships are forged between business owners and their clientele. Economies of scale in marketing are possible due to proximity and cooperation with other local businesses.

Developers benefit from more income potential from higher density mixed-use projects due to more leasable square footage, more sales per square foot and higher property values and selling prices. There is faster sell out due to greater appeal and to wider market share. Other benefits include lower utilities costs resulting from the compact nature of New Urbanist design, less need for parking facilities and faster approvals in communities which have adopted new urbanist and "smart growth" principles.

The principles of New Urbanism are relevant to Keller from now until build-out, and thereafter as well. This Parks Master Plan recommends a network of parks and trails to achieve the goals of walkability and connectivity that are hallmarks of thriving, healthy urban environments. The ideal goal is that all neighborhoods have a park within a ½ mile radius of each residence.

This Parks Master Plan a study related to the future growth and development of the City. The population growth projection by the North Central Texas Council of Governments is for an additional 28% increase for build-out, or approximately 52,000 inhabitants. Meanwhile, the city is 91% developed and of the 9% undeveloped land, approximately 71% is needed for parks. The challenge will be to provide a sizeable increase of new residents housing and other services in Keller in mixed-use arrangements anchored by public pocket parks and plazas, for instance, that create a model for the future and makes good sense for the City of Keller for now and the long term.

Source: http://www.newurbanism.org/newurbanism/principles.html

Links:

- Congress for the New Urbanism is an organization dedicated to providing the tools to put into practice the principles of New Urbanism and revitalizing communities. http://www.cnu.org/
- 2. New Urban News, http://www.newurbannews.com
- 3. Smithsonian, http://www.smithsonianmagazine.com/issues/2006/august/newurbanism.php
- Smart Growth Online <u>http://www.smartgrowth.org/</u>



Context Sensitive Design

• The Cultural Landscape Foundation



The Cultural Landscape Foundation

A cultural landscape, to paraphrase the Foundation, is an artform as a place whose natural and cultural resources associated with an historic event, activity, person, or group of people expresses regional identity. Their size in area may vary from a particular homestead with a small front yard to thousands of rural acres. Some of these sites include designed landscapes, expressing visual and spatial relationships as in estates, farmlands, public gardens and parks, cemeteries, scenic roadways as well as in industrial sites.

Preserved cultural landscapes provide a legacy that benefits current and future generations. These special places give insights into the history of an area's origins and development. Through their form, features and uses, our experience of such places reveals our evolving relationship to nature. Cultural landscapes serve to provide scenic, economic, ecological, social, recreational and educational opportunities which foster greater understanding for individuals, communities, states and countries.

Protection of cultural landscapes ensures that such places are not harmed or destroyed by neglect or inappropriate development. The ongoing effort to preserve cultural landscapes promotes the value of this legacy in enriching the quality of life.

The Cultural Landscape Foundation is a not-for-profit organization that has as its mission to increase the public awareness of the importance and irreplaceable legacy inherent in cultural landscapes. Educational programs, technical assistance and public outreach are a few of the ways that the organization works to achieve a broader understanding and cultivating greater appreciation.

Certification of cultural landscapes does not obviate this organization's relevance to the goal of a community. Essentially, understanding the concepts presented by the Foundation assists in identifying the City of Keller's unique environmental context and cultural heritage. The identification of cultural landscapes provides a way of understanding and appreciating this community and aids in bringing to fruition the vision, "Inspiring Exemplary Cultural Landscapes". Moreover, developing relationships with key people within the Foundation will assist in understanding the opportunities that exist in Keller and in strategizing ways to preserve such features. In these ways, it is entirely possible to develop a way of thinking and approach to preserving cultural landscapes independently from the Foundation, albeit with their help.

Source: The Cultural Landscape Foundation http://www.tclf.org

Links

1. Geography and Map Division, Library of Congress, Cultural Landscapes, http://memory.loc.gov/ammem/gmdhtml/setlhome.html

2. National Park Service, U.S. Department of the Interior, Protecting Cultural Landscapes, 36 Preservation Briefs, http://www.nps.gov/history/hps/tps/briefs/brief36.htm