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Denton County Greenbelt Plan Preserves Greenbelts, Protects Water Quality

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Denton County Greenbelt Plan Preserves Greenbelts, Protects Water Quality

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Denton County, in north Texas, is rapidly urbanizing -- growth and development will continue as the population is expected to reach 1 million by 2030. As the County transforms to more urbanized communities, a safe and dependable supply of drinking water is mandatory to sustain the growing population and to provide for a healthy economy. The impact of this urban growth on water quality, water supply, and on quality of life "right where we live," must be considered.

Greenbelts, floodplains, streams, riparian areas and wetlands filter out pollutants (such as sediments, pesticides, fertilizers, and other harmful chemicals) before reaching the streams, thereby safeguarding the quality of water

entering our local water supply lakes (Figure 1). Hundreds of miles of streams in Denton County extend into and through each community, creating shared environmental resources -- and the need for communities to work together for mutual benefit.

On behalf of the cities and utilities it serves, Upper Trinity Regional Water District coordinates a Regional Watershed Protection Program to encourage the preservation and protection of natural features in local watersheds, including greenbelts, floodplains, and wetlands. Upper Trinity's public awareness programs promote ways residents can help protect water quality in their everyday activities -- both at home and at work. Upper Trinity also

provides a Household Hazardous Waste program. In coordination with local communities, Upper Trinity collects and properly disposes of common household chemicals that can be harmful to the watershed, preventing these chemicals from entering local water sources.

To preserve crucial watershed assets and protect water quality, Upper Trinity encourages communities to limit encroachment of floodplain areas through either ordinance power or development standards. Limiting development in the floodplain helps to conserve the valuable functions of these natural assets, such as reduced flooding risk, recreational and educational opportunities, aesthetic value, wildlife and aquatic habitat, and other benefits that



Figure 1. Greenbelts -- vegetated areas along creeks, rivers and lakes -- protect water quality and enhance quality of life for residents.



Figure 2. Hike and bike trails along protected greenbelt in Lantana community near Lewisville Lake provides recreational opportunities for residents.

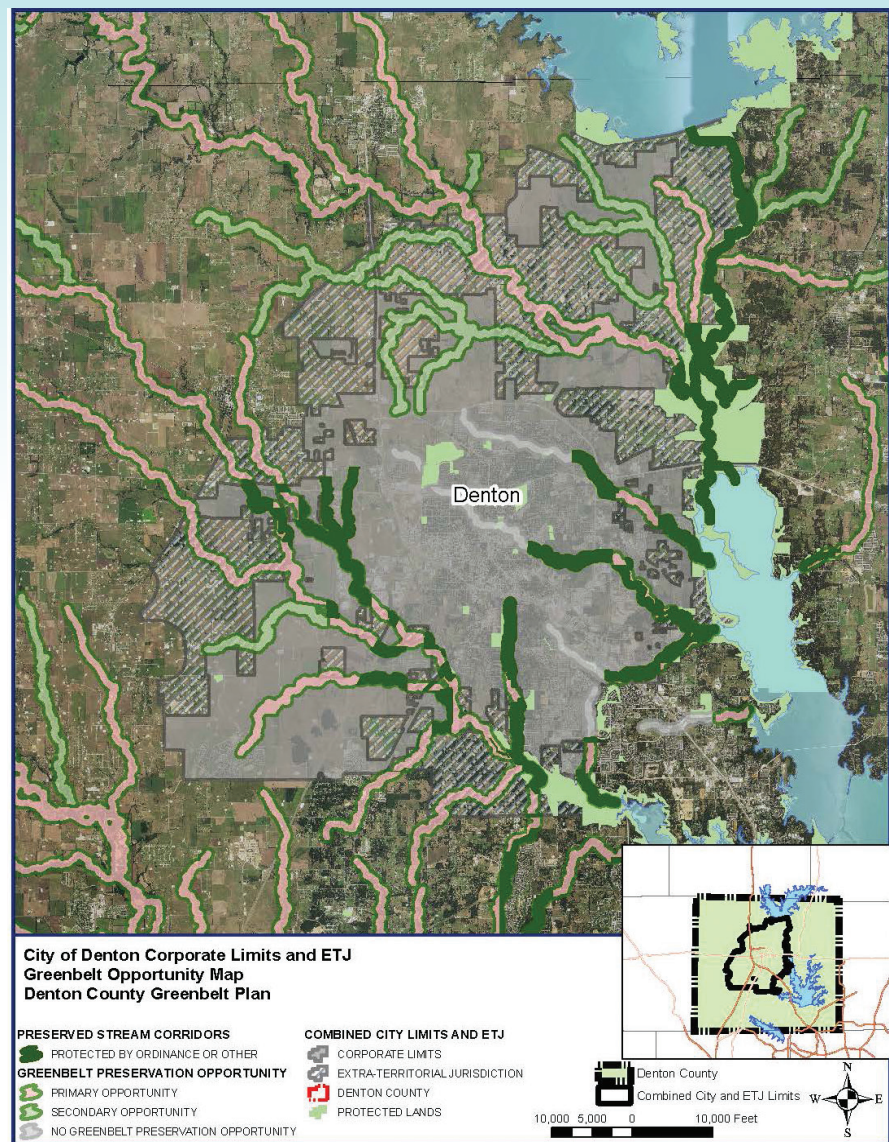
Figure 3. Green shaded stream corridors are currently protected by either municipal ordinance or by state or federal management. Red shaded stream corridors do not have protection currently and are identified as Primary Opportunities for preservation.

enhance quality of life for residents (Figure 2). It's important to remember that preserving and protecting important watershed assets now, and the benefits they provide, costs far less than restoring their functions in the future.

Upper Trinity, seeing the importance of permanently preserving greenbelts and floodplains in the watersheds of the local water supply lakes, established the Upper Trinity Conservation Trust in 2010 as an additional mechanism for watershed protection. As a 501(c)(3) land trust, the Conservation Trust promotes the conservation and stewardship of land and water resources through educational activities, coordination with local governments, and the acquisition of land and conservation easements to protect water quality in the local watersheds for future generations. A conservation easement is a voluntary legal agreement between a landowner and a land trust that permanently limits certain uses of the property to protect its conservation values. Landowners retain ownership of their property and may continue doing certain activities, such as ranching – they can even sell the property, although the easement transfers to the new landowner. Conservation easements offer flexibility and depending on certain circumstances, can qualify as a tax-deductible charitable donation for landowners.

Most recently, Upper Trinity, Denton County, and the Conservation Trust jointly sponsored the development of the Denton County Greenbelt Plan. The Greenbelt Plan identifies existing greenbelts, opportunities for developing and expanding greenbelt corridors, and prioritizes area streams and watersheds for greenbelt preservation. The overarching goal of the Greenbelt Plan is to protect the water quality flowing into Denton County's three drinking water supply reservoirs – Lewisville Lake, Ray Roberts Lake, and Grapevine Lake.

Denton County encompasses over 900 square miles. Streams and watersheds are prioritized to allow communities, developers and other stakeholders to concentrate on the highest priority areas – identified in the Plan as Primary and Secondary Greenbelt Opportunities (Figure 3). The prioritization process considers factors such as hydrology, ecology, land use, and cultural/historical features. Not surprisingly, the five highest priority watersheds are located



directly adjacent to one of the reservoirs and have the greatest immediate pressure from future development activities.

Adopted in 2017, the Denton County Greenbelt Plan is not intended to be a regulatory document; rather, the goal for the Greenbelt Plan is to be a convenient guide to encourage and enable closer coordination among stakeholders for the preservation of multiuse greenbelts according to a *common vision*. Preserved greenbelts provide an excellent opportunity to increase connections between communities and to enhance the quality of life for residents by establishing hike and bike trails for recreation, and in some cases can increase property values for nearby homes.

Successful implementation of the Greenbelt Plan, on a voluntary basis, requires strong leadership and support from County officials, local municipalities and dedicated citizens. To foster and encourage successful implementation, the Greenbelt Plan outlines

various preservation strategies which include: Education and Outreach, Protection Measures, and Funding and Acquisition Tools.

Education and outreach is paramount for successful greenbelt preservation in Denton County. As the awareness of the numerous benefits of greenbelts are more widely known among stakeholders, the higher the likelihood that these areas will be preserved and valued for the services they provide for the County. Social media and billboard campaigns, brochures, and a developer recognition program are just a few examples of the education and outreach activities that are needed to raise awareness of the benefits of greenbelts (Figure 4).

Protection measures outlined in the Greenbelt Plan include ordinances or setback requirements for development in floodplains and greenbelt areas and green infrastructure. As a side benefit, municipalities can benefit from the protection and preservation of



Denton County Greenbelt Plan

For the Future

Figure 4. A logo was created for the Greenbelt Plan to brand the program and raise awareness.

greenbelts as a way to comply with their Municipal Separate Storm Sewer System (MS4) requirements. Additional measures include conservation easements, the purchase of development rights, mitigation banking and in-lieu fee mitigation programs, which are all excellent opportunities for landowners and nonprofit organizations to protect greenbelts and other natural assets.

Finally, funding and acquisition mechanisms are identified in the Plan to enable local municipalities, Denton County, and nonprofit organizations to preserve and protect greenbelts. Funding options include general obligation bonds, development dedications, state and federal grants, and public/private partnerships. Interestingly enough, the City of Fort Worth conducted a Greenprinting study in 2013 and found that four-in-five residents said they would support funding to acquire lands to protect water sources. This shows that residents in fact are concerned with where their water comes from and will support activities that benefit water sources.

Finding a balance between growth and conservation in Denton County will be a challenge. The Denton County Greenbelt Plan is a step in the direction toward finding that balance. With the existing and priority Greenbelt Corridors identified, local leaders have the tools needed to know what assets are available for protection (Figure 5). Developers can also incorporate the priority Greenbelts into their development plans. Finally, landowners having priority Greenbelt corridors located on their property have tools and mechanisms available to improve water quality and stream function within their property.

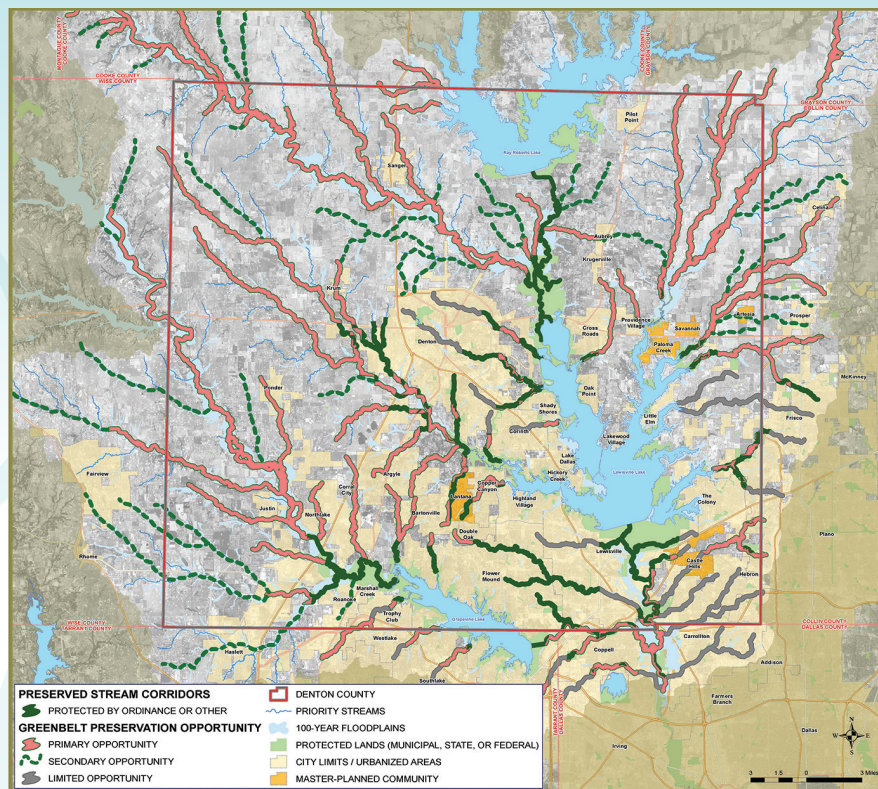


Figure 5. To assist municipalities, the existing greenbelts and greenbelt opportunities were superimposed onto their corporate limits and extra-territorial jurisdiction to produce a map specific to the municipality.

Denton County is at a point of great opportunity. Now is the time to preserve its natural assets while sustaining economic growth for future generations! To learn more, visit DentonCountyGreenbeltPlan.com to view the full version of the Greenbelt Plan.

About Upper Trinity Regional Water District

Upper Trinity Regional Water District, based in Lewisville, Texas (Denton County), was established in 1989 by the Texas Legislature to provide regional water and wastewater service for growing communities in Denton and Collin counties. Currently, Upper Trinity operates two water treatment plants and four water reclamation plants, with total treatment capacities of up to 90 million gallons per day and 10 million gallons per day, respectively. Upper Trinity's sources of raw water include: Lewisville Lake and Ray Roberts Lake (Denton County) and Chapman Lake (Hunt County).

About the Authors

Blake Alldredge is a Water Resource Specialist with Upper Trinity Regional Water District. He coordinates the Water Conservation and Watershed Protection programs, and helps with activities of the Upper Trinity Conservation Trust. Prior to joining UTRWD, he worked for the Texas A&M AgriLife Extension Service in the Wildlife and Fisheries department.

Blake received a Bachelor's of Wildlife Science in 2008 and a Master's of Water Management in 2010, both from Texas A&M University.

Jason Pierce is Manager of Customer Contracts & Support Services for Upper Trinity Regional Water District (UTRWD), a regional wholesale provider of water and wastewater services to cities and utilities in Denton and Collin Counties. Joining Upper Trinity in 2001, Jason has been instrumental in extending UTRWD's regional water and water reclamation (wastewater treatment) systems to serve new customer cities and utilities in the northeastern portion of its service area. With over 17 years of experience in public service, he also leads UTRWD's efforts in protecting the local watersheds and promoting water conservation.

In 2010, Upper Trinity created the Upper Trinity Conservation Trust (UTCT) as an outreach of its watershed protection program. Jason works with UTCT, a non-profit land trust, to protect and preserve the natural riparian corridors along streams and creeks in the local watersheds.

Jason received a Masters of Public Administration (2007) and a Bachelors of Business Administration (1995) from the University of North Texas. He is very active in his community and church, previously serving as Mayor of the City of Aubrey (1999-2003) and on the Aubrey City Council from 1997 to 1999. 🌵