

This profile summarizes the characteristics of the watersheds in District 1; provides an overview of flooding, erosion, and water quality problems; and discusses past, current, and upcoming solutions.

## Watershed Protection District I Profile

January 1, 2015

Photo: Shoreline of Lake Walter E. Long

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Very Good

Extending from downtown out to the SH 130 corridor, District 1 covers a range of watershed conditions, generally divided by US 183. The watersheds east of US 183 are more rural or developing and contain over 92 percent of the undeveloped land remaining in the district. The water quality of some of these watersheds, including Gilleland Creek and Harris Branch, is dominated by discharge of treated wastewater effluent.

The watersheds west of US 183 are extensively urbanized, with a high level of impervious cover (43 percent). In addition, the majority of this area was built out prior to the adoption of any watershed protection regulations for drainage or water quality. This older development is generally characterized by:

 Uncontrolled, polluted stormwater runoff and significant degradation of water quality, especially for the portions of <u>Buttermilk</u>, <u>Little Walnut</u>, <u>Tannehill</u>, and <u>Waller</u> watersheds within this district. High priority water quality problems are shaded in green on the map below.

Encroachment and alteration of natural waterways, which results in eroding stream banks and threatened property. High priority erosion problems are indicated in yellow on the map below. The portion of Boggy Creek south of Manor Road is one of the worst erosion problems in the city.

 Placement of structures within harm's way in the 100year floodplain, with high priority flooded structures and roadways shown in red on the map below.

 Undersized, deteriorating storm drain systems, which contribute to localized flooding of buildings, streets, and yards. Major clusters of drainage complaints are shown in blue on the map below.

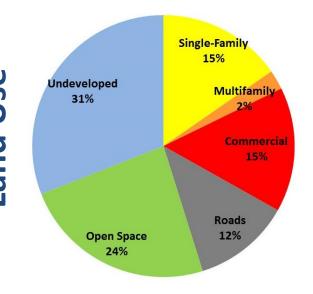
For more information on a specific watershed, check out the **Find Your Watershed tool**: www.austintexas.gov/GIS/FindYourWatershed

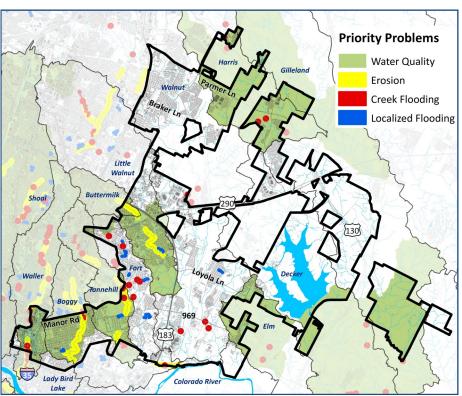
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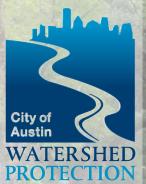
Very Bad

## **20%** Impervious Cover

## 32% Tree Canopy Cover







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Photo: Oak Springs Preserve in the Boggy Creek Watershed

The Watershed Protection Department addresses drainage and environmental problems using a three-tiered approach of capital improvement projects, programs, and regulations. Examples of these strategies in District 1 include:

- <u>Capital Improvement Projects:</u> The watersheds west of US 183 were largely developed before watershed regulations were in place, and thus capital solutions are a key tool. Watershed Protection has already completed numerous projects in this district, including upgrading multiple storm drain systems and constructing a floodwall in the Crystalbrook neighborhood that removed more than 150 homes from the 100-year floodplain of Walnut Creek. Projects to repair eroding streambanks are currently under construction along Boggy Creek and Fort Branch. Projects are planned for the next five years as well, including storm drain upgrades, restoration of degraded streams, water quality pond retrofits, and the enhancement of the J.J. Seabrook Greenbelt (shown below).
- <u>Programs:</u> The Watershed Protection and Parks and Recreation Departments have partnered to improve the health of creeks in several City parks through the Grow Zone program. Over a quarter of the current Grow Zone sites in the city are located in District 1. Grow Zones decrease the regular mowing along the creek, which allows native grasses and trees to become established. Healthy vegetation along the creek corridor helps maintain good water quality, reduces channel erosion, and provides a more natural landscape for the enjoyment of park users and nature lovers.
- Regulations: Due to the extensive build-out of the watersheds west of US 183, regulations will mostly apply to redevelopment projects, which are required to build water quality ponds and protect against additional erosion and flooding. With over a third of the area east of US 183 still undeveloped, the recently adopted Watershed Protection Ordinance will provide key protections for the meandering streams and wide floodplains.

More information on projects, programs, and regulations can be found at <u>austintexas.gov/watershed</u>

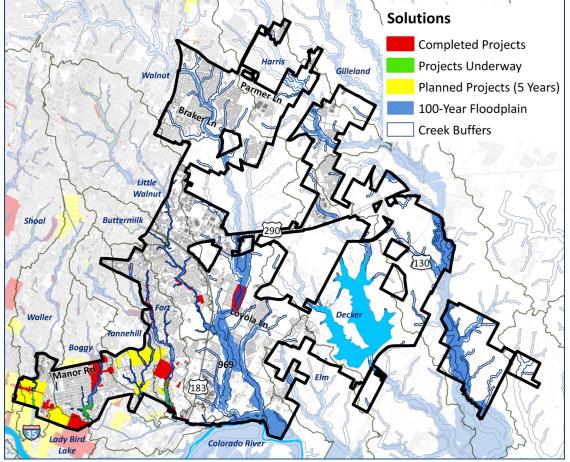




Photo of Tannehill Branch in the J.J. Seabrook Greenbelt (above). A project, in partnership with Public Works and Parks and Recreation, will restore the stream, reduce pollution with rain gardens, and build urban trails. Graphic of project design (below).

