

This profile summarizes the characteristics of the watersheds in District 4, provides an overview of flooding, erosion, and water quality problems; and discusses past, current, and upcoming solutions.

Watershed Protection District 4 Profile

January 1, 2015

Photo: Grow Zone along Tannehill Creek in Bartholomew Park

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The watersheds in District 4 are extensively urbanized, with the highest level of impervious cover and the lowest level of undeveloped land of all the districts. In addition, the majority of the development 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 in the southern half of the district shaded green on the map below. The portions of <u>Buttermilk</u>, <u>Tannehill</u>, and <u>Waller</u> Creek watersheds within this district are among the highest priority water quality problems in the city.
 - 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.
 - Placement of structures within harm's way in the 100-year floodplain, with high priority flooded structures and roadways shown in red on the map below. The flooding of homes along Mearns Meadow Drive in the <u>Little Walnut</u> Creek watershed is one of the worst flooding problems in the city.
 - 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.

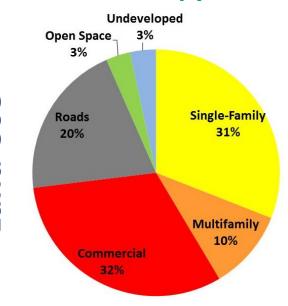
56% Impervious Cover

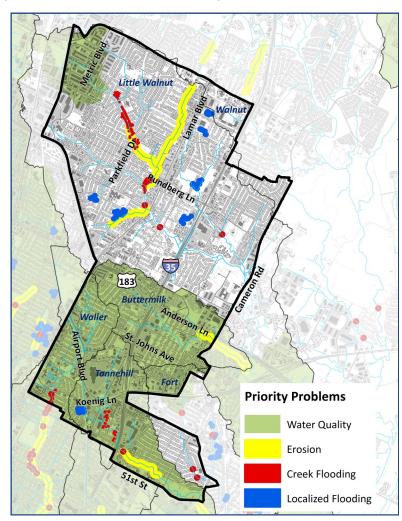
Very Good

Fair

Very Bad

19% Tree Canopy Cover





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



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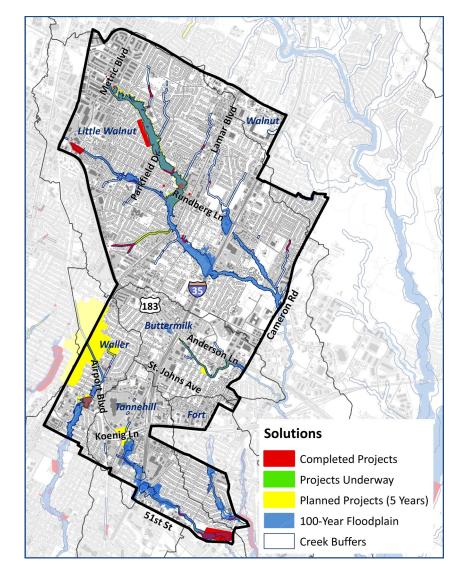
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Photo: South Metric Water Quality and Detention Pond

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 4 include:

- <u>Capital Improvement Projects:</u> Since the watersheds in District 4 were largely developed before watershed regulations were in place, capital solutions are a key tool for this district. Watershed Protection has already constructed numerous projects in this district, including repairing eroding streambanks, like in the project featured below, and building regional stormwater ponds, like the South Metric pond shown above. Several projects are planned for the next five years as well, including a diversion tunnel beneath Mearns Meadow Drive that will reduce flooding impacts from Little Walnut Creek, restoration of a degraded tributary of Little Walnut Creek, and a regional stormwater pond to be constructed in partnership with Highland Mall.
- <u>Programs:</u> With a high number of commercial uses, the Stormwater Discharge Permit Program is an important program in this district. This program inspects businesses such as auto repair shops to ensure good housekeeping practices related to water quality (e.g., proper waste storage). Another key program is the Vegetation and Land Management program, which removes excessive vegetation, trash, and debris from creeks with significant existing flooding problems.
- Regulations: Due to the extensive build-out of these watersheds, regulations will mostly apply to redevelopment projects, which are required to build water quality ponds and protect against additional erosion and flooding.

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





Before and after photos of a project to repair eroding banks and protect threatened property along the Jamestown tributary of Little Walnut Creek.

