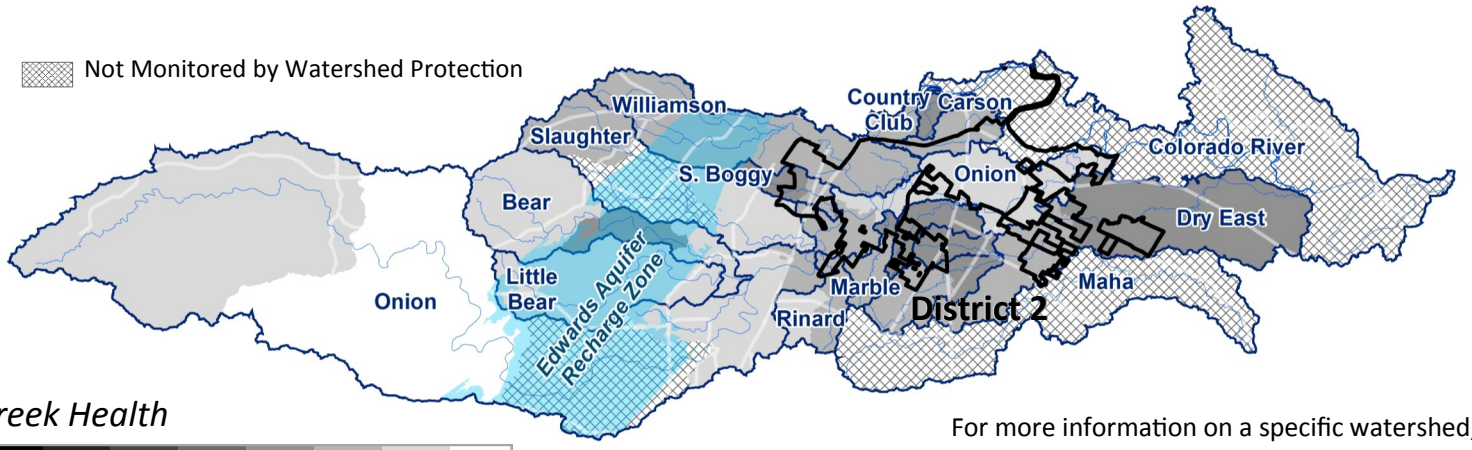
This profile summarizes the characteristics of the watersheds in District 2; provides an overview of flooding, erosion, and water quality problems; and discusses past, current, and upcoming solutions.

Watershed Protection
District 2 Profile

January 1, 2015

Photo: Kayaking on the Colorado River

Watersheds



Creek Health

Very Bad | Fair | Very Good

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

District 2 is dominated by the Onion Creek watershed and its tributaries, which make up 65 percent of the total district area. Stretching all the way from Blanco County down to the Colorado River at the northeastern corner of the district, the Onion Creek watershed and its tributaries encompass over 340 square miles — an area greater than all ten Council districts combined.

Steep Hill Country terrain in the upper portions of the watersheds combined with flatter terrain in the lower portions leads to flashy storms and large floodplains. This becomes a problem when you add people to the equation, with several neighborhoods constructed within the Onion Creek and Williamson Creek floodplains prior to the adoption of floodplain regulations.

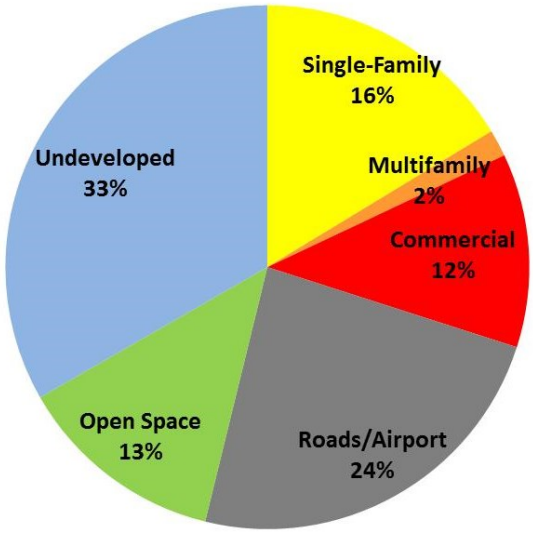
The lower Onion Creek area, near William Cannon and Pleasant Valley, is currently the City's highest priority for flood hazard mitigation. After lower Onion, the middle portion of the Williamson Creek watershed near Heartwood Drive and Radam Circle is the next highest priority for flood mitigation. High priority flooded structures and roadways are shown in red on the map below.

In addition, encroachment and alteration of natural waterways, especially in the Williamson Creek watershed, has resulted in eroding stream banks and threatened property. High priority erosion problems are indicated in yellow on the map below.

20% Impervious Cover

26% Tree Canopy Cover

Land Use



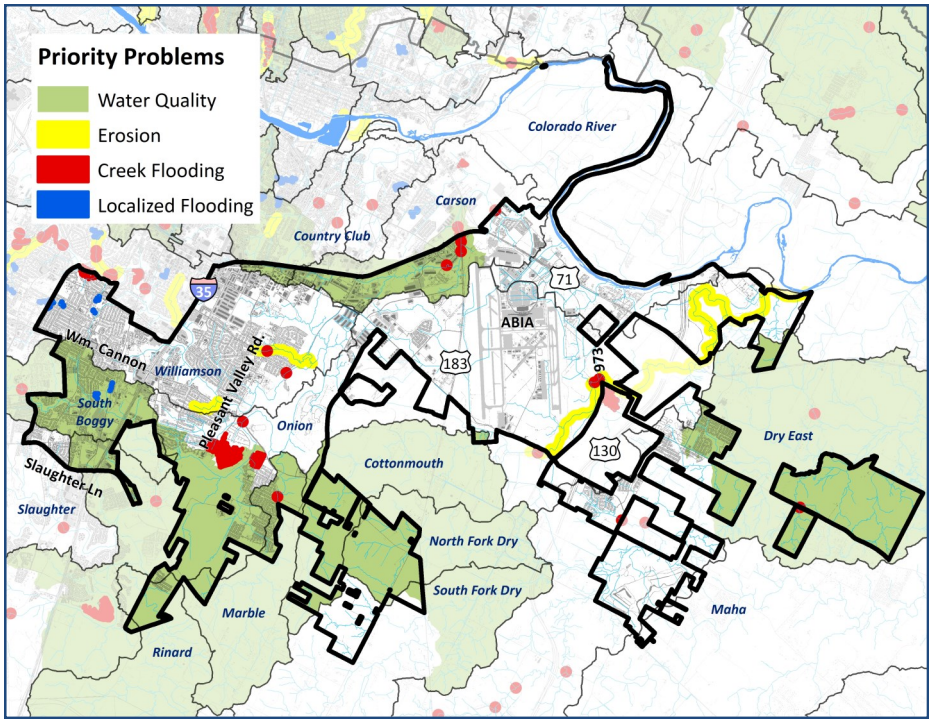


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Photo: Earth Camp students monitor water quality at McKinney Falls

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 2 include:

- Capital Improvement Projects: Due to the extreme flooding concerns in this district, capital solutions are a key tool, particularly the strategy of floodplain buyouts to remove homes and even entire communities from low, flood-prone areas. Buyouts in the Onion Creek watershed began in 1999 and remain ongoing in partnership with the Federal Emergency Management Agency (FEMA) and the U.S. Army Corps of Engineers. The adopted City budget for fiscal year 2015 allocated money to expand the Onion Creek buyout area as well as to allow for additional buyouts in the Williamson Creek watershed. In addition to the buyouts, Watershed Protection has already completed numerous projects in this district, including the upgrade of low water crossings at Hoeke Lane, Nuckols Crossings, and Thaxton Road as well as construction of a floodwall and channel modifications to protect the Creek Bend neighborhood in Williamson Creek. Projects are also planned for the next five years, including repairing eroding streambanks along tributaries of Williamson Creek.
- Programs: The Flood Early Warning System (FEWS) is an important program for this district. Designed to protect citizens from potential harm due to flash flooding, the system consists of gauges throughout the city wirelessly reporting data back to a central station for management and decision-making. Based on this data, FEWS engineers make predictions on where flooding will occur, which the Office of Emergency Management staff uses to direct emergency responders and notify the public. For example, staff can remotely activate flashing warning signs or direct field personnel to place "Turn Around Don't Drown" barricades. In addition, new cameras show the water levels of Onion Creek at Bluff Springs Road and River Plantation Drive.
- Regulations: With the highest amount of undeveloped land of all the districts, the recently adopted Watershed Protection Ordinance will provide key protections for the meandering streams and broad floodplains in these watersheds. Encroachment of buildings and parking areas is prohibited in the 25-year floodplain and significantly restricted in the 100-year floodplain.

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

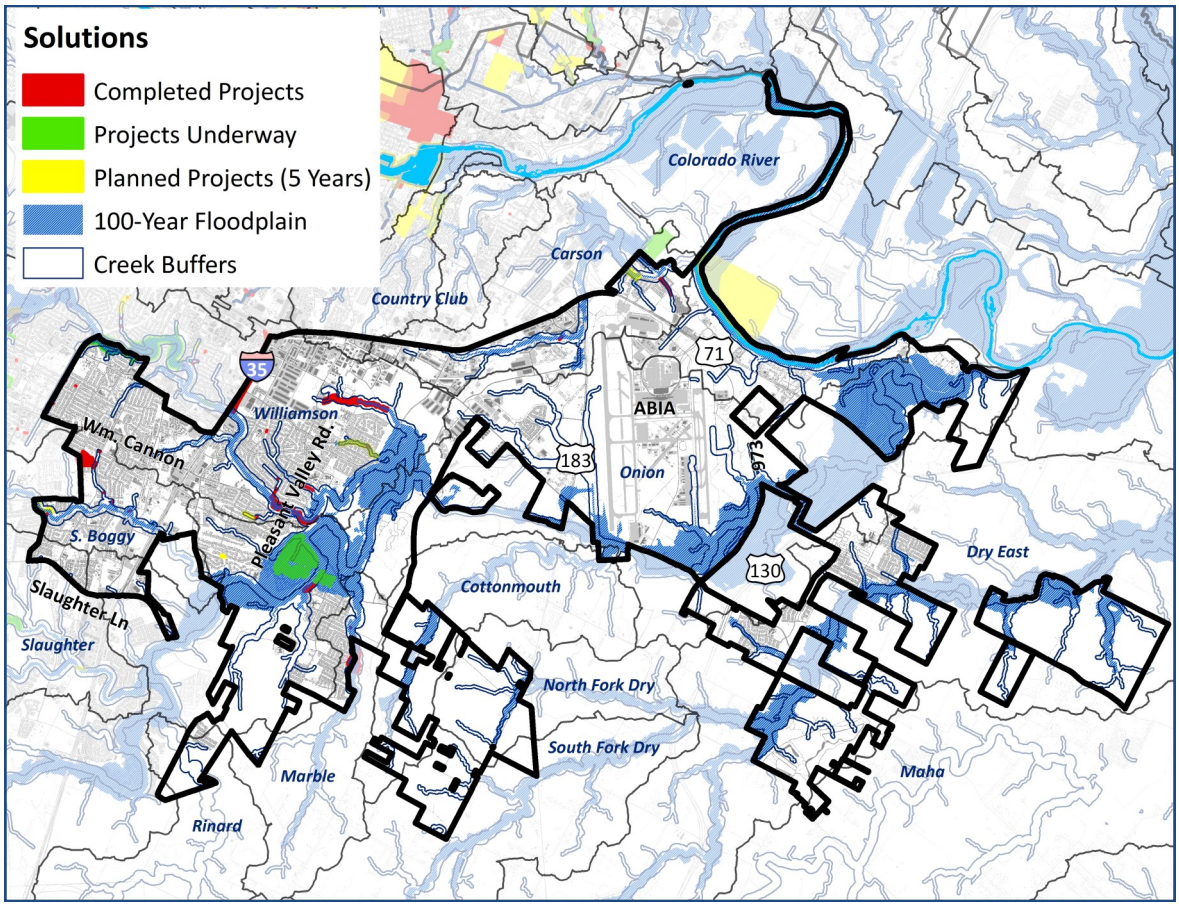

Photo of Onion Creek during the 2013 Halloween Flood (above) and the upgrade of a low water crossing over Carson Creek at Hoeke Lane (below).