



FARMERS BRANCH
TEXAS

Stormwater Management In Farmers Branch

Planning and Zoning Commission | April 14, 2025



Stormwater Management In Farmers Branch

City Staff Introduction

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A Farmers Branch resident!

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Effects of Development On Stormwater



Increased Flooding Risks



Increased Channel Erosion



Increased Pollutants in Water



Increased Maintenance Costs



The Two “Buckets” of Stormwater

**Floodplain and
Drainage**



**Stormwater
Quality**

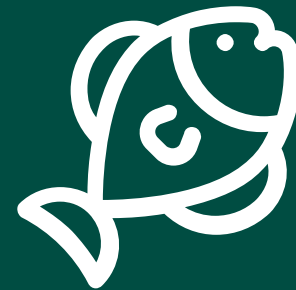


The Two “Buckets” of Stormwater

**Floodplain and
Drainage**



**Stormwater
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Stormwater Management In Farmers Branch

Floodplain and Drainage

● **Floodplain Regulation**

● **Local Drainage Regulation**

● **Drainage Capital Improvements**

● **Stormwater Utility Management**



Drainage Basin Map

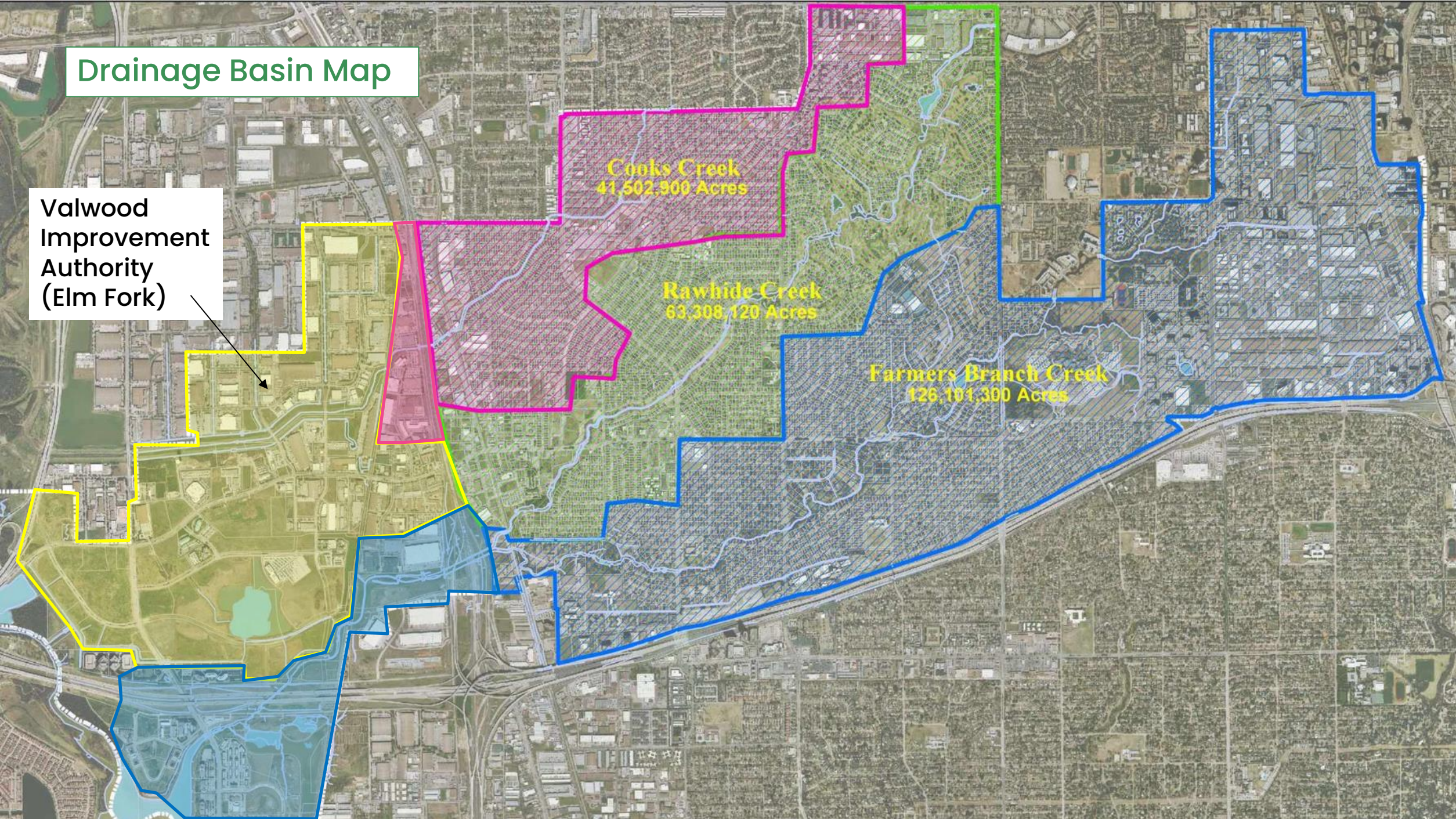
Valwood
Improvement
Authority
(Elm Fork)

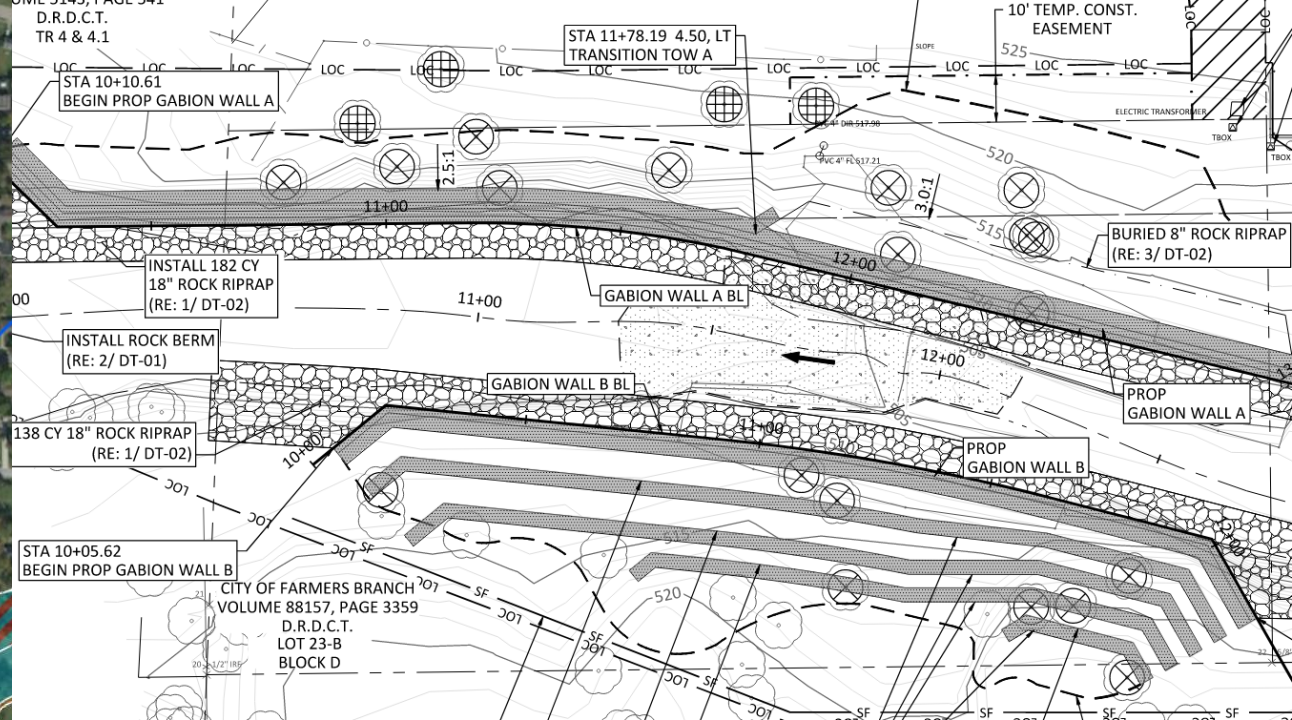
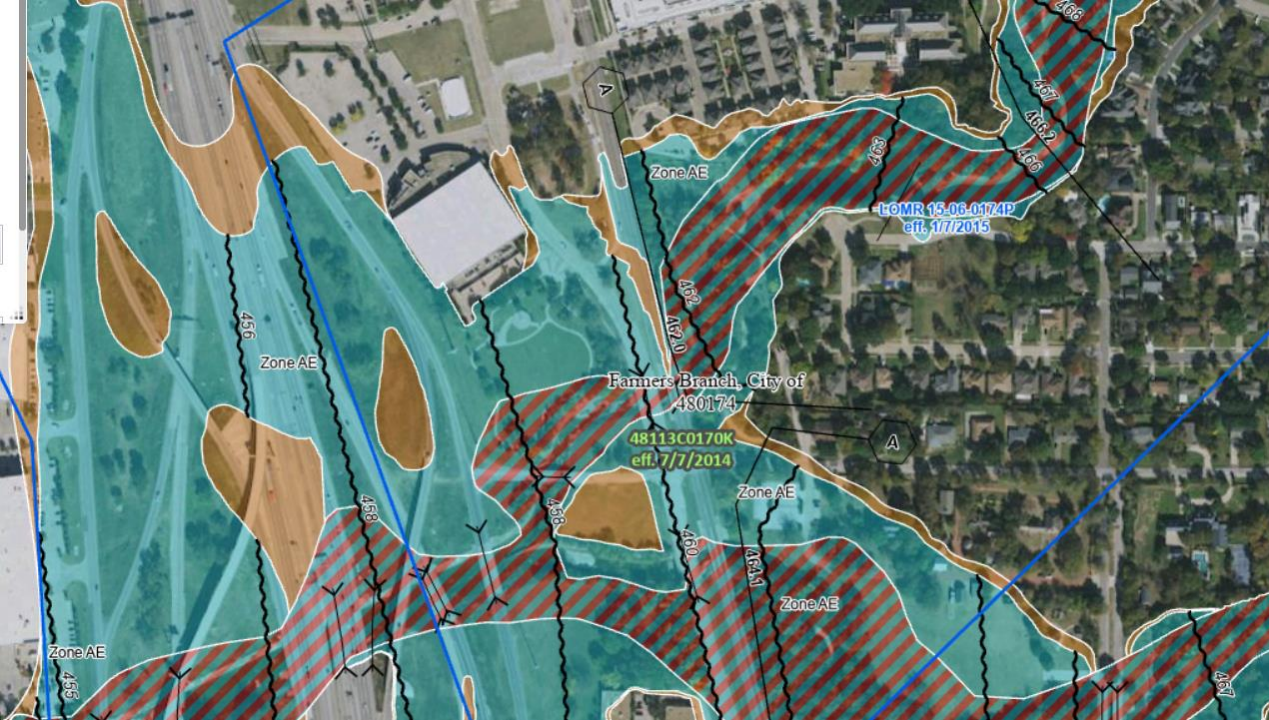


Cooks Creek
41,502,900 Acres

Rawhide Creek
63,308,120 Acres

Farmers Branch Creek
126,101,300 Acres





CHAPTER 4. DETENTION

4.1 Detention Applications

The City regulates the peak discharge rates from new and redevelopment sites.

1. Proposed peak discharges due to development may not exceed existing peak discharges.
2. Proposed peak discharges for the site may not exceed the value that would be calculated for a site of the same size and time of concentration with a runoff coefficient of 0.3.
3. Proposed peak discharges, in combination with off-site discharges, may not exceed the capacity of the receiving downstream drainage system.

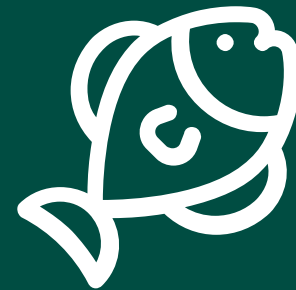
Site development must limit stormwater flows to the lowest peak discharge rate that meets the above criteria. Design calculations must demonstrate that all three criteria have been met. Detention facilities can be used to achieve the desired discharge rate and may be required for certain developments.

The Two “Buckets” of Stormwater

**Floodplain and
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Stormwater Management In Farmers Branch

Stormwater Quality

- **Stormwater Permit Requirements (MS4 Requirements)**

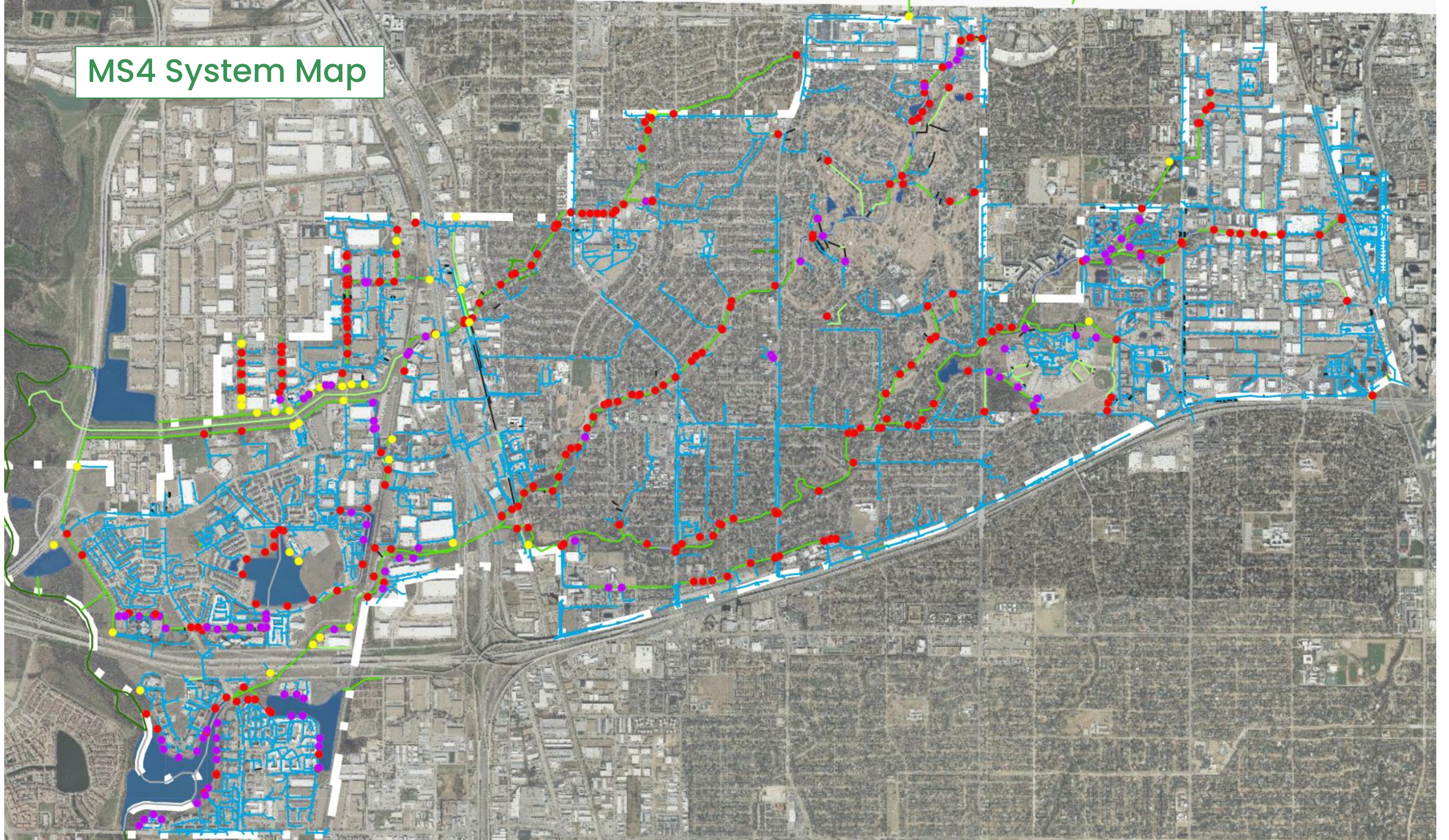
- **Illicit Discharge Elimination**

- **Public Education**

- **Construction Regulation**



MS4 System Map





Current and Past Projects to assess and address Stormwater Issues

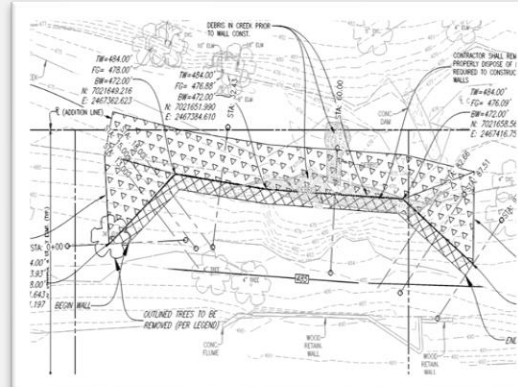
Farmers Branch Creek Master Drainage Plan



Cooks Creek Channel Expansion



Numerous Erosion Control Projects



Drainage Criteria Revisions

Storm Drainage Design Manual
City of Farmers Branch, Texas



Planning for Future Drainage Needs

Master Drainage Planning Efforts

For identify areas needing improvement within Farmers Branch Creek and areas outside the Farmers Branch Creek Watershed

Use of Green Infrastructure

For providing additional benefits beyond drainage capacity and erosion control when practical

Continued Repair of Erosion and Flooding Damage

For protection of structures and infrastructure

Continued enforcement of regulations for development and redevelopment

For prevention of future drainage capacity issues and alleviation of current issues

Water Quality Regulation Considerations

For going beyond General MS4 Permit Requirements to benefit water quality in our creeks



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Questions



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