

Watershed Protection Department's
Briefing on the work on removing obstructions from creeks
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April 6, 2022



Overview

- Introduction
- Department Background
- Obstructions in creeks, conveyance, and flooding
- Challenges/ Opportunities
- Questions



Watershed Protection Mission

To protect lives, property, and the environment of our community by reducing the impact of flood, erosion, and water pollution.

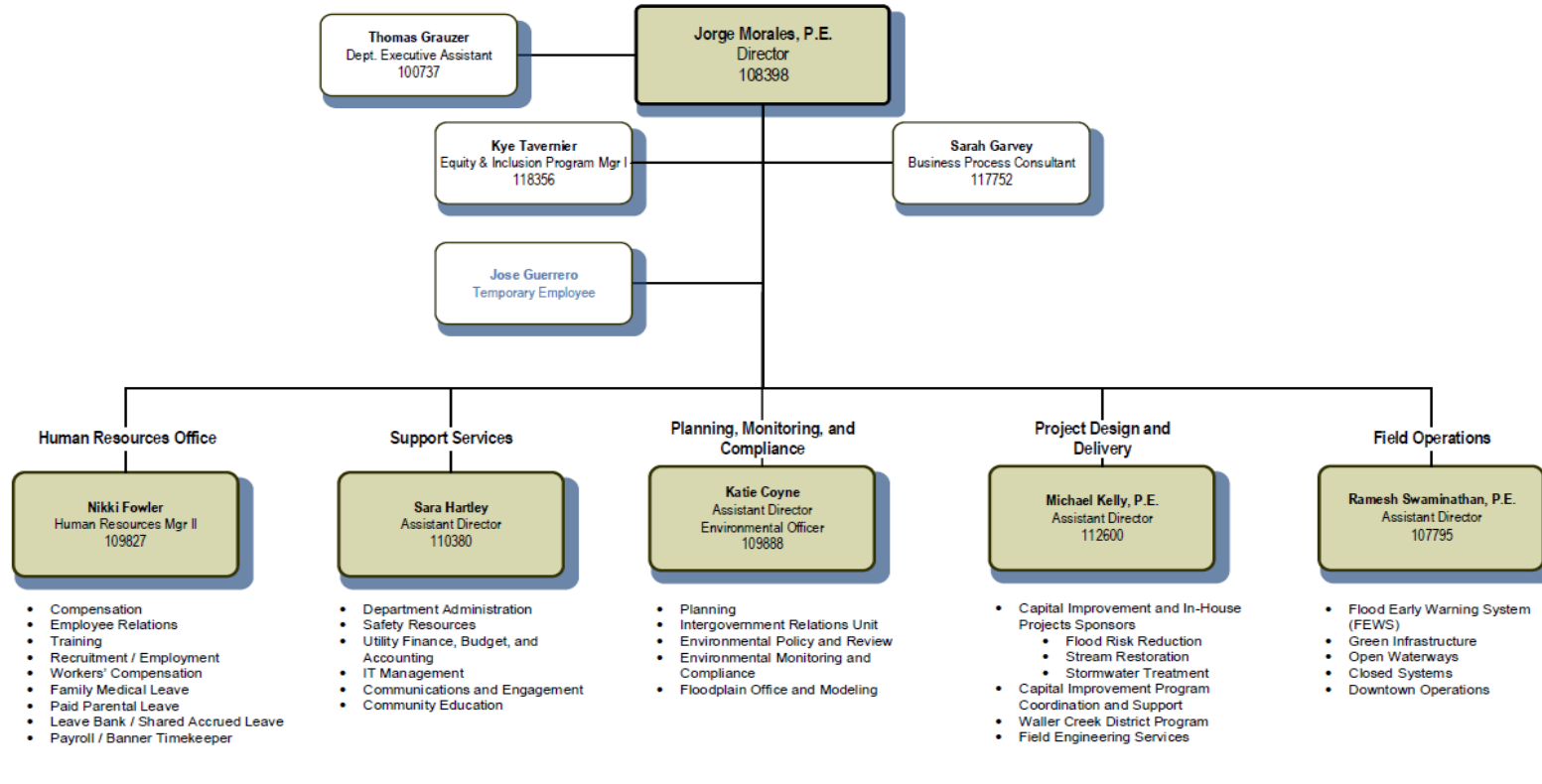


WPD Updates



March 25, 2022

WATERSHED PROTECTION DEPARTMENT Office of the Director



**WATERSHED
PROTECTION**

WPD Managed Assets

- Over 1200 miles of the storm conveyance pipe
- Over 600 miles of engineered channels
- 1083 (+/-) stream crossings
- 1100 Stream Crossing (includes FEMA crossings)
- 700 (+/-) FEMA crossings
- Over 1110 public stormwater controls
- Just under 9000 private stormwater controls
- No. of assets are increasing with the development



Universe of Issues

- Flooding
 - Structural, Yard, Street
- Channel Maintenance
- Erosion, Debris, Trees, Vegetation
- Infrastructure Maintenance



- Stormwater Control Features
- Water Quality Compliance



Community Engagement

- 311-Service Request
- Citizen Complaints
- Mayor, Council, Boards and Commissions
- Spills Hotline (512 974 2550)
- Other City Departments
- Intersections with CIP Programs (within WPD and Citywide)
- Community Organizations (GAVA, PODER, etc.)
- Hot Spot investigations post-storm

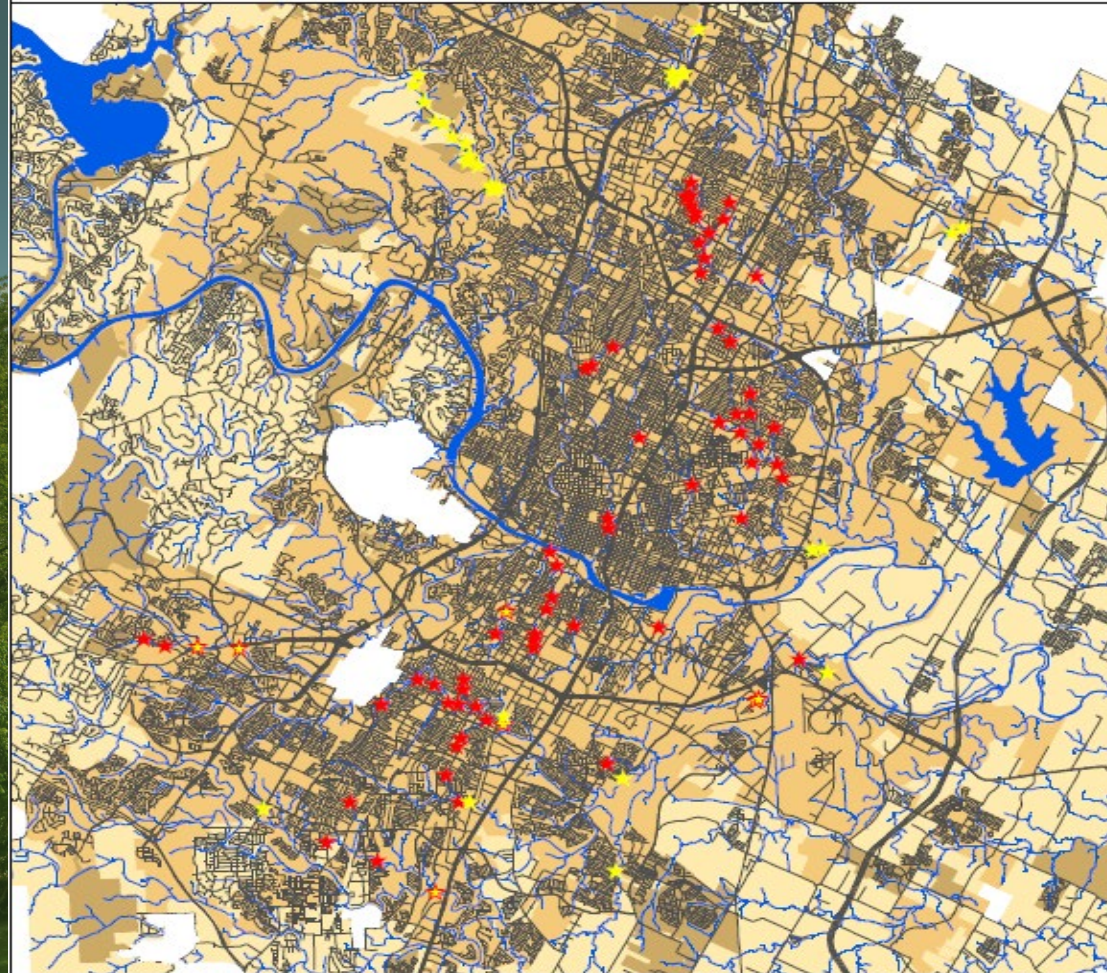


Storm Readiness

- Field Visits to Hot Spot Locations
- Attend to On Call and Call Back
- Flood Early Warning Systems (FEWS)
- Monitor Low Water Crossing
- Spills Response
- 311 Calls during storm-Flooded Streets



BARRICADES AND HOT SPOTS

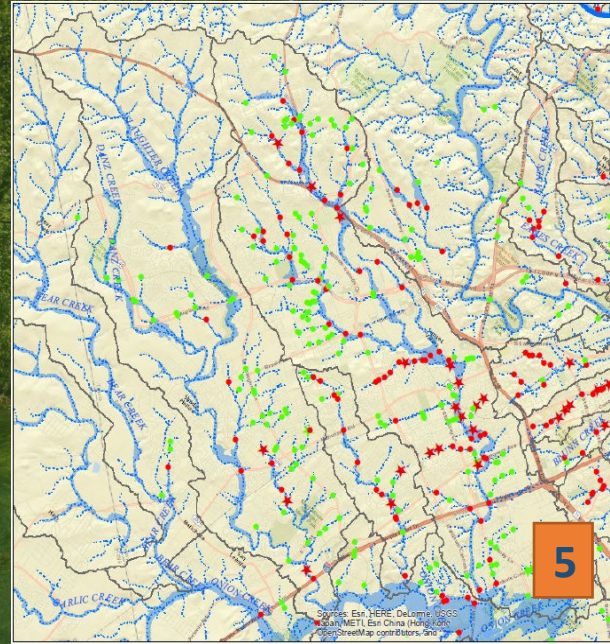
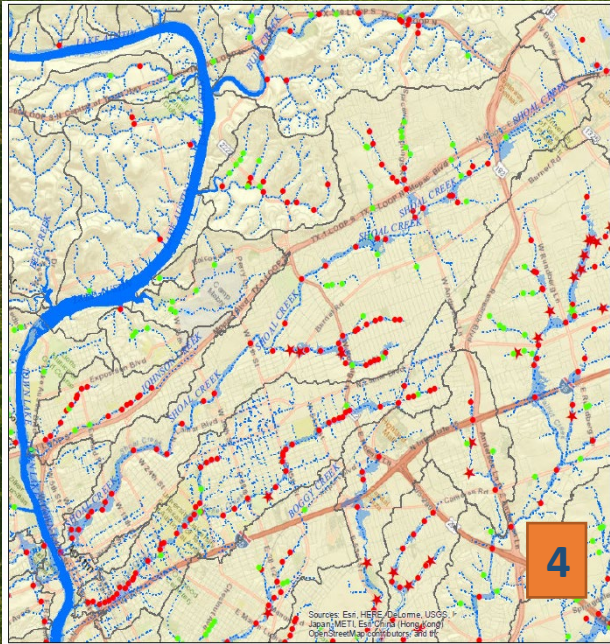
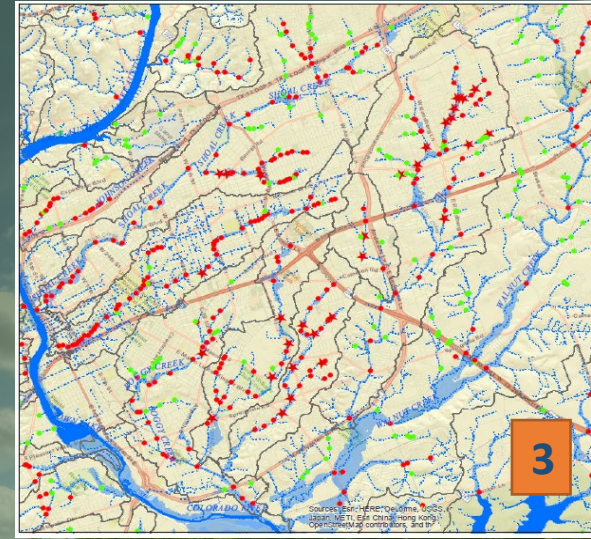
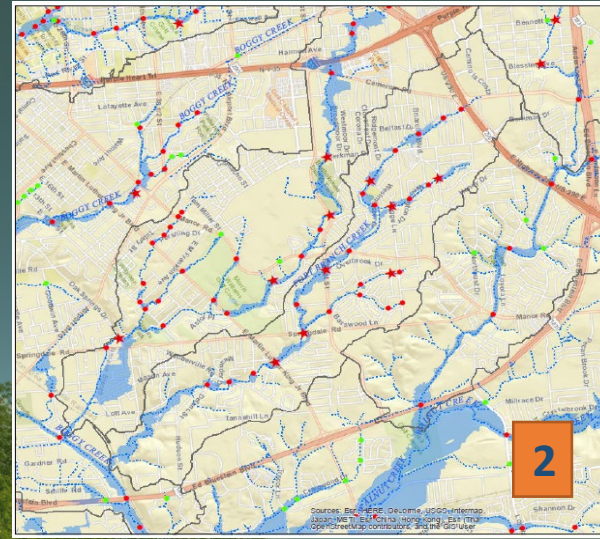
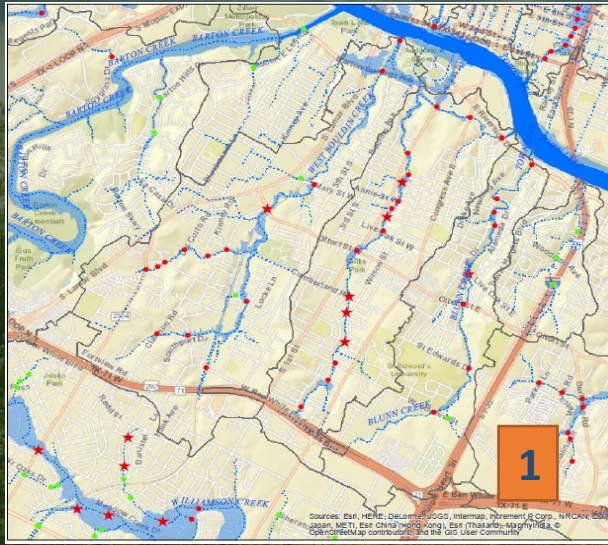
CITY OF AUSTIN
Crossing Type

- ★ Barricade
- ★ Hot Spot
- ★ Barricade & Hot Spot

CITY OF AUSTIN
Jurisdiction Type

- Extra Territorial
- Limited Purpose
- Full Purpose





CITYWIDE HOT SPOT LOCATIONS

1. East Bouldin, West Bouldin, and Blunn Creeks
2. Fort Branch
3. Tannehill, Boggy, Little Walnut Creek, and Fort Branch
4. Waller and Shoal
5. Williamson, Slaughter, and Boggy Creek

Service Requests and Investigations

Infrastructure Inspection and Evaluation

- Service Requests (311, Citizens, M&C et. al)
- 3 FTES

Pond Inspections and Dam Safety

- Residential Inspection and Dam Safety
- Commercial Inspection
- Barton Springs Zone Operating Permit
- TPDES MS4 Permit
- 14 FTES

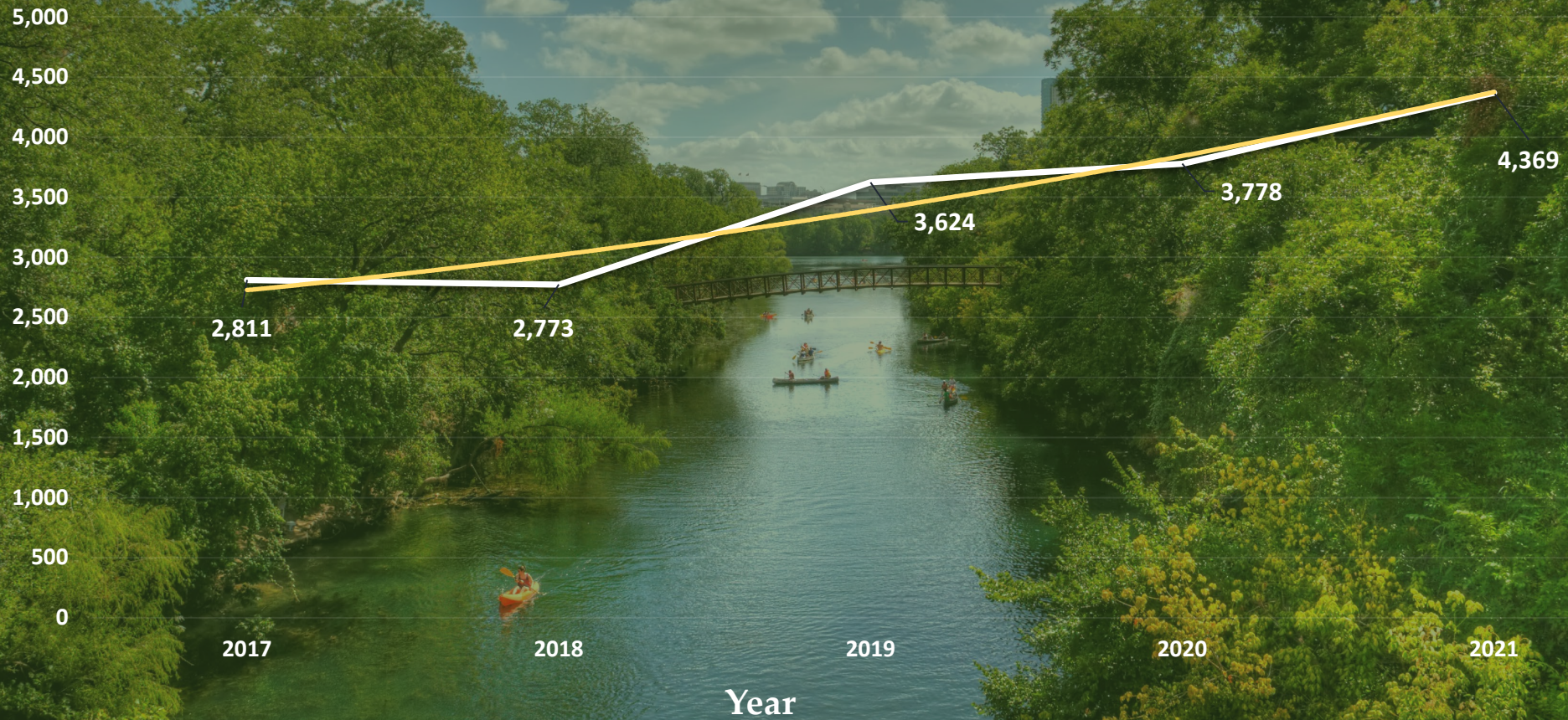
Water Quality Compliance

- Spill Response: Two Teams (North and South)
- 12 FTES



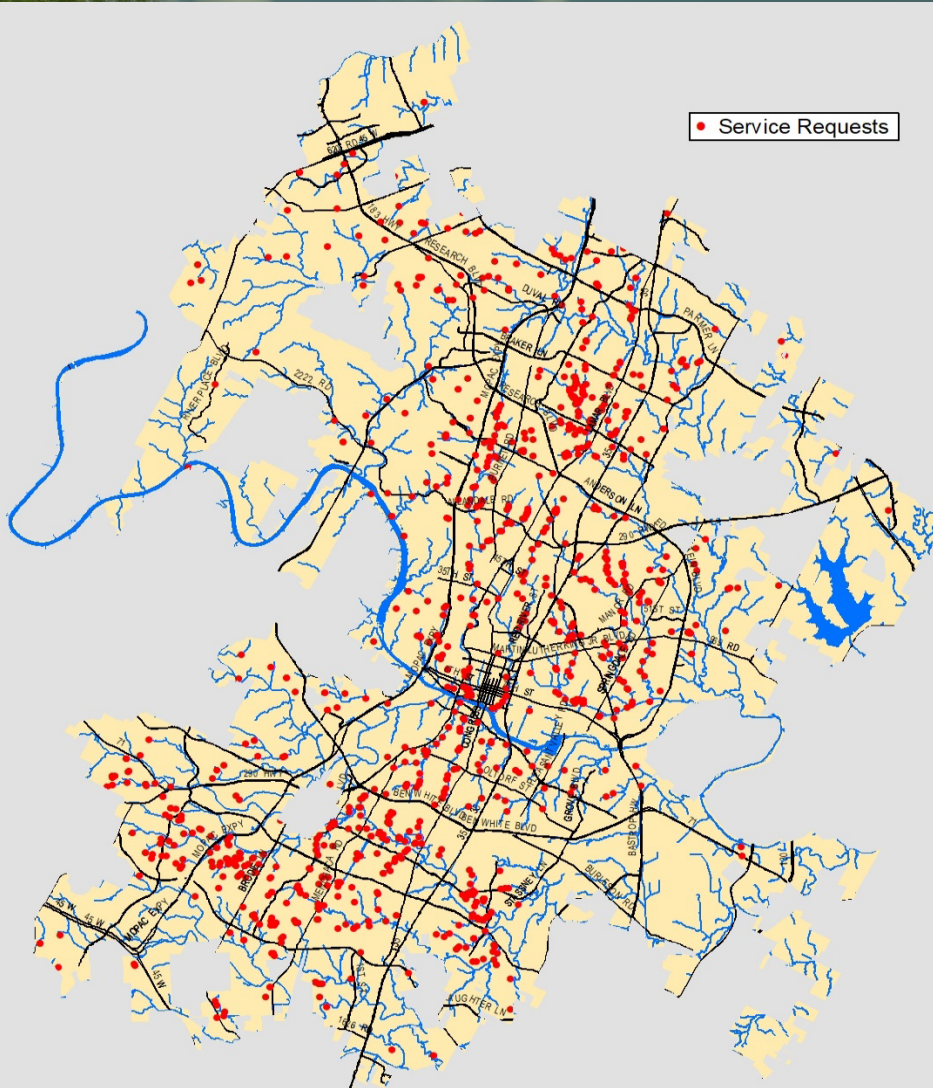
Infrastructure Service Requests (2017-2021)

Number of Service Requests



Infrastructure Service Requests (SR) 2021

CITY OF AUSTIN



Channels/Creeks/Drainage Easement

Flooding Current (Non-Emergency)

Creek & Pond Vegetation Control

Storm Drain Inlet Services

Lost Item in Storm Drainage System

Drainage Pond Maintenance

Flooding - Past

Standing Water

Erosion

Ditch/Driveway Pipe Services

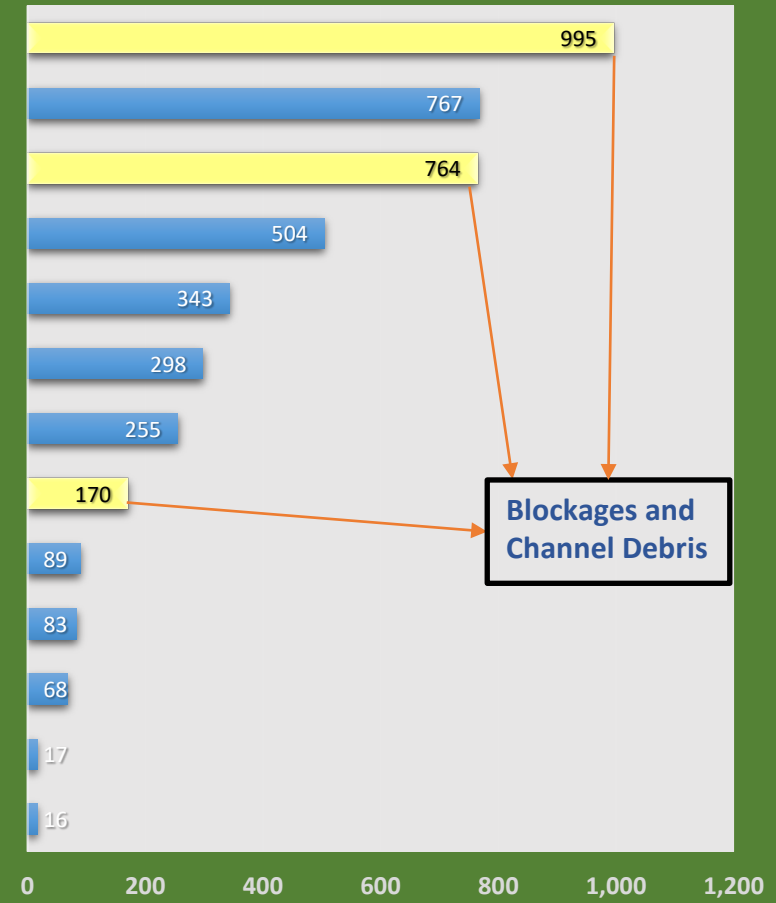
Storm Drain Pipe Services

Watershed - GROW ZONES

Town Lake Debris Issues

SR TYPES

2021



NUMBER OF SR'S

WATERSHED PROTECTION DEPARTMENT

Work Order Life Cycle



311 Service Request



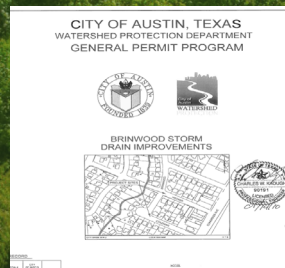
Field Investigation



Standard Maintenance



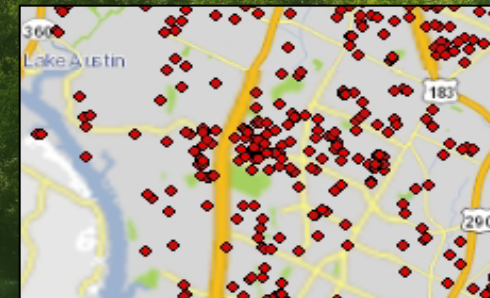
Engineering Evaluation



Planning/Design



Construction



Prioritization



Work Order Prioritization

Open Waterways Work Order Prioritization Method

In order to provide better service to internal and external requests, it is essential to establish a work order prioritization method. A well-defined prioritization allows FOD Open Waterways to identify their needs in critical areas and reallocate resources on an as needed.

All work will be classified into 5 levels of priority designated by Maximo.

- 5 Critical – imminent danger to health and safety of citizens or infrastructure. Immediate action is required
- 4 Urgent – Highest priority of planned work
- 3 High – Important, but not critical
- 2 Routine – Planned, routine work
- 1 Strategic – Necessary work, but not time sensitive, critical or urgent

Work orders that fall within the same level will be prioritized by the date the work order was received (oldest to newest). The original condition that leads to the work order creation will be used to classify the priority of each individual work order (flooding, erosion, water quality). All work orders will be prioritized and ranked based on the ratings below and FOD will use these rankings as a guide for scheduling work orders. Schedules may not directly follow the prioritization list due to various reasons including equipment needs, staffing levels, weather conditions, etc. FOD recognizes there are special circumstances that may require work to be completed within a certain time frame. These circumstances include construction sequence, ROW concerns, special events, permitting, etc. Justification related to the circumstances above will need to be provided to "move up" a work order on the schedule. The FOD Division Manager will have the final scheduling authority on all work orders.

Priority	Reason	Type of Problem	Description of Problem
5-Critical	Health & Safety	Any	These jobs are quick response with little to no planning. Can be in response to any issue, i.e., low water crossing flooded, bank failure, city tree collapsed onto structure, culvert 100% blocked
4-Urgent	Flooding	Building Flooding	Storm water leaving roadway or drainage easement and flowing into a building
	Flooding	Channel Crossing	Culverts or channel cross section 50-75% clogged
	Flooding	Channel Blockage	This is not at culvert, but channel is 75-100% blocked
	Erosion	City Infrastructure	Roads or utilities are severely impacted and unusable; This work requires permitted plans
3-High	Flooding	Yard Flooding	Water is leaving ROW or DE and flowing onto private property, but not entering structures
	Flooding	Channel Crossing	Culverts or channel cross section 25-50% clogged
	Flooding	Street (Arterial)	Flowing water that stays within the ROW, but is more than 6" deep and extends more than 1 lane
	Erosion	City Infrastructure	Erosion is affecting infrastructure
	Erosion	Outside Easement	Channel is eroding passed the limits of the easement
2-Routine	Flooding	Street (Collector or Residential)	Flowing water that stays within the ROW, but is more than 6" deep and extends more than 1 lane
	Flooding	Channel Crossing	Up to 25% clogged
	Flooding	Channel Blockage	This is not at culvert, but channel is 25-50% blocked
	Erosion	Yard/Fence	Erosion is still within easement, but is beginning to affect fence or yard
	Water Quality	Water Quality	Cave work, Barton Springs area improvements; Riparian Restoration
1-Strategic	Flooding	Ponding Water	This is nuisance ponding. No real flooding is occurring; existing grade is allowing water to pond after rain events
	Flooding	Channel Blockage	This is not at culvert, but channel is up 25% blocked
	General	Clean Up	Clearing land or general debris is removed

Priority 1-2



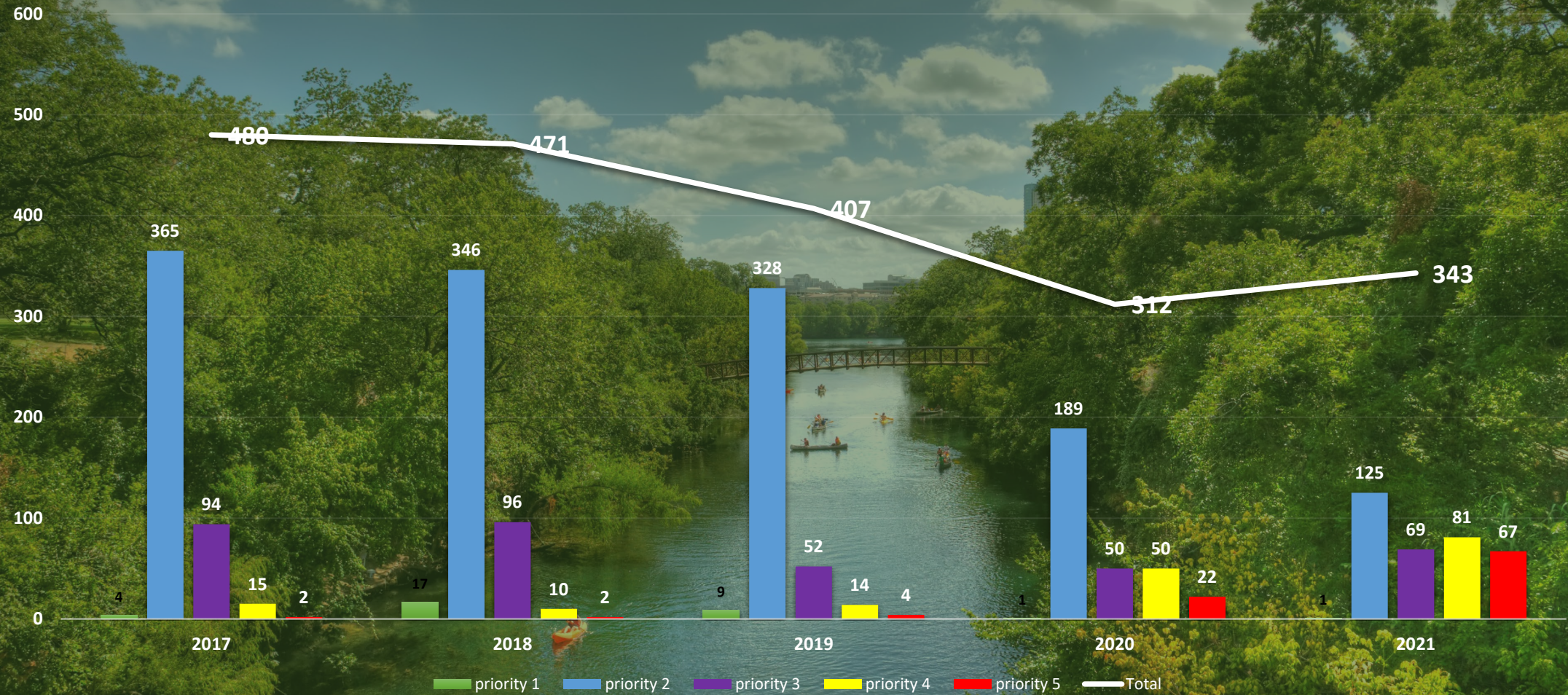
Priority 3



Priority 5



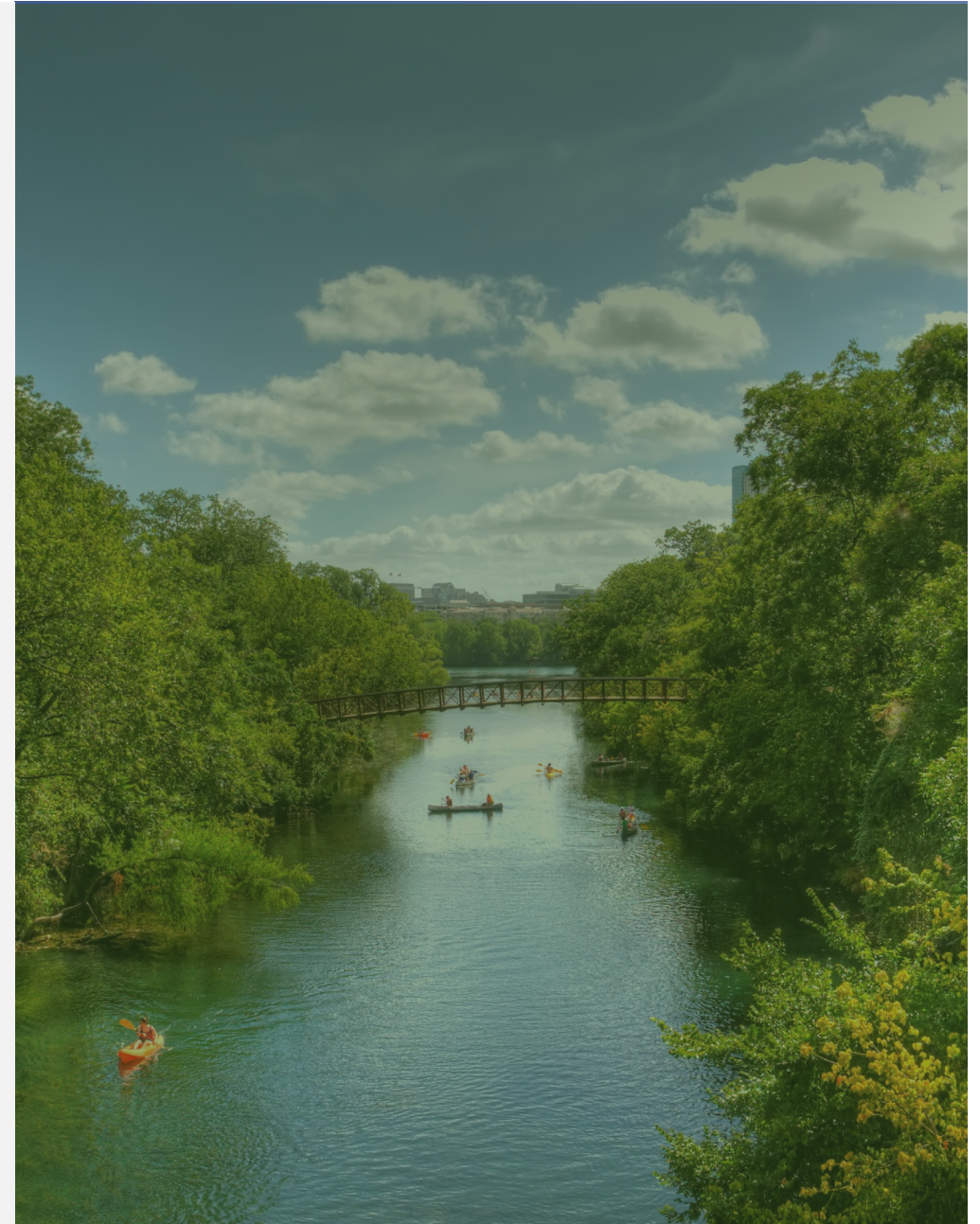
Work Order By Priority (2017-2021)



Challenges/ Opportunities

- COVID-19
- Climate Change
- Atlas 14
- Technology
- Encampment Cleanups
- Reconsidering How We Do

Business



Thank you!

For Questions Reach Out To :

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WATERSHED
PROTECTION

<http://www.austintexas.gov/departments/watershed-protection>