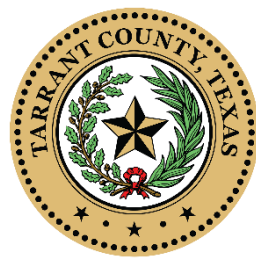
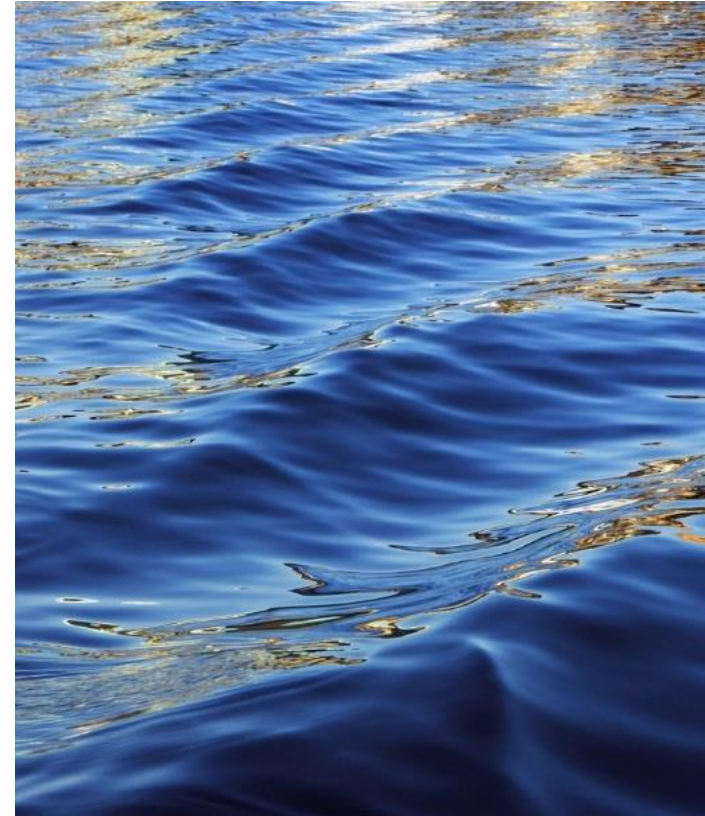




Floodplains and County Maintenance

Why it matters!



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COMMISSIONER, PRECINCT ONE

Floodplains and County Maintenance-why it matters

Agenda

- History of Counties
- County Systems
 - State Authority
 - Structure
 - Duties of a County *
- *Duties of a County
 - Maintenance Duties-what exactly do maintenance facilities do (County/City/State/Toll/etc.)
 - Floodplain Benefits
 - **Why it matters (relate the maintenance duties to floodplain benefits)**
 - Wrap-up-questions

Floodplains and County Maintenance-why it matters

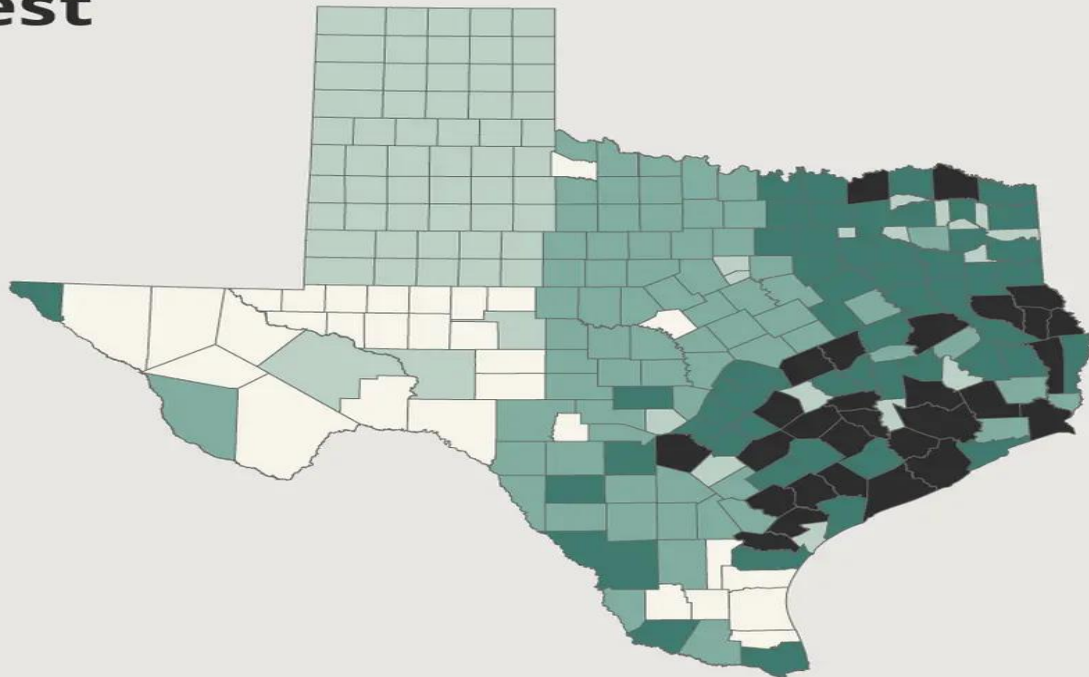
HISTORY OF COUNTIES



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Number of Texas counties grew as population spread west

- Established in 1836
- 1837-1849
- 1850-1859
- 1860-1879
- 1880-1931



Floodplains and County Maintenance-why it matters



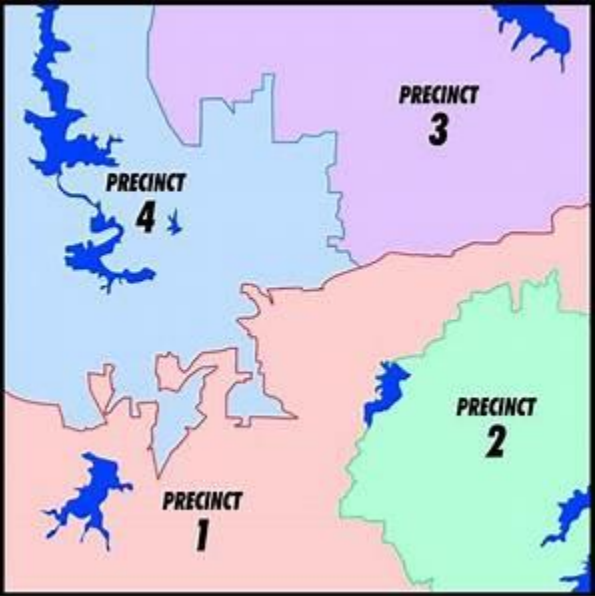
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COUNTY SYSTEMS

PRECINCT SYSTEMS

(Commissioner Directly in Charge)

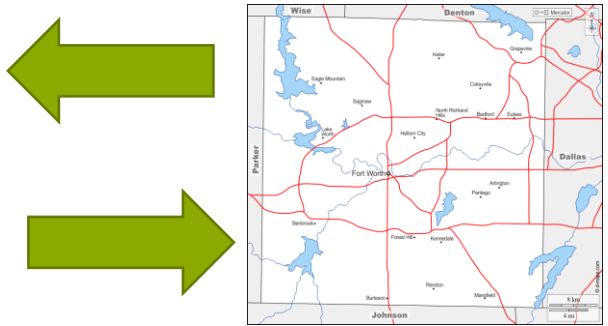
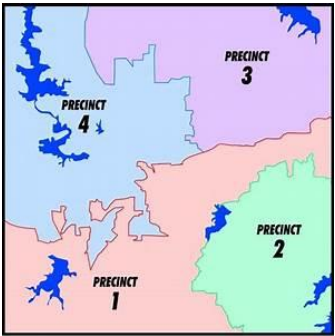
- Road Supervisor System
- Ex-Officio Commissioner System



DELEGATED SYSTEMS (my term)

(Commissioner delegates road duties)

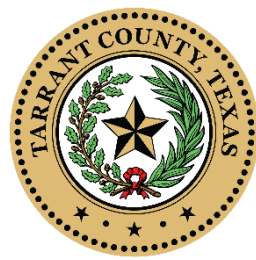
- Road Commissioner System
- Road Superintendent System
 - Voluntary Unit System
- County Road Department System-
County Engineer or Road Administrator (unit system)



Floodplains and County Maintenance-why it matters

COUNTY SYTEMS

PRECINCT SYSTEMS-Commissioner Runs his precinct individually



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TRANSFORMATION CODE
TITLE 8. ROADWAYS
SUBTITLE E. COUNTY ROAD AND BRIDGE
CHAPTER 252. SYSTEMS OF COUNTY ROAD ADMINISTRATION

SECTION 8.02 OFFICIO ROAD COMMISSIONER SYSTEM

Sec. 252.001. SCOPE OF EX OFFICIO ROAD COMMISSIONER SYSTEM. (a) The commissioners court of a county may adopt this subchapter by an order made at a regular rate of the court when all the members are present.

(b) The commissioners court shall issue the order in its minutes. The order is not required to be in any particular form, and substantial compliance with this section is sufficient.

(c) If the commissioners court adopts this subchapter, Subchapter B, C, and D do not apply to the county.

ACTS 1999, 762 Sess., Ch. 365, Sec. 1, eff. Sept. 1, 2000.

Sec. 252.002. IMMUNITY OF COMMISSIONER TO SUIT. If this subchapter conflicts with a general law relating to roads, this subchapter controls.

ACTS 1999, 762 Sess., Ch. 365, Sec. 1, eff. Sept. 1, 2000.

Sec. 252.003. EX OFFICIO ROAD COMMISSIONER. A county commissioner is the ex officio road commissioner of the county commissioner's precinct.

ACTS 1999, 762 Sess., Ch. 365, Sec. 1, eff. Sept. 1, 2000.

Sec. 252.004. BOND. (a) Before assuming the duties of an ex officio road commissioner, a county commissioner must execute a bond in the amount of \$1,000 payable to the county judge for the use and benefit of the county road and bridge fund. The bond must be conditioned that the commissioner will:

(1) perform the duties required of the ex officio road commissioner by law or by the commissioners court; and

(2) account for the money or other property belonging to the county that comes into the commissioner's possession.

1

- Road Supervisor System
- Chapter 251.004
- Commissioner must supervise public roads at least once a month.
- Make a report at the 9th month within each year
- Ex-Officio Commissioner System
- Chapter 252.001
- Hiring to be paid from the county road and bridge fund
- Report is also required



Grimes County Road & Bridge Department

P.O. Box 702
Anderson, Texas 75820

Tel: (409) 477-4324
Fax: (409) 477-4909

Annual Road Condition Report
2020 Fiscal Year
SUMMARY

GENERAL PURPOSE: To document the condition of each road in each precinct of Grimes County, including bridges and culverts, and to identify significant deficiencies made in the maintenance and improvement of the County's road and bridge system.

This Summary incorporates the following documents that are generally prepared in the first quarter of the calendar year:

LOCAL ROAD REPORT: The annual local road report is incorporated into the annual road condition report by reference.

ROAD INSPECTIONS: The annual road inspection is used as the basis for the road condition report and is also incorporated herein by reference.

BRIDGE CONDITION REPORTS: Bridge condition for each bridge in the County larger than 20 feet are reported on a biennial basis to the Texas Department of Transportation Bridge Division under the BRISAP Program. Bridge inspections are performed by TARDI in the management of area numbered roads. These reports are also incorporated by reference, and available for review at the discretion of the condition of bridges in Grimes County.

EVALUATION:

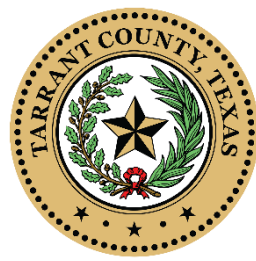
Each road in Grimes County has been broken down into segments based on the type of material used for the surfacing of the segment. This information is taken from the annual Road Inventory and CD data, and is updated each year, as new construction changes the surfacing material. The condition of each road has been rated by RAR program on a scale of 1-5, with 1 being the lowest.

Each road segment is categorized on the basis of the predominant course of deterioration.

Floodplains and County Maintenance-why it matters

COUNTY SYSTEMS

DELEGATED SYSTEMS-Delegated from Commissioners Court to (one to four individuals)

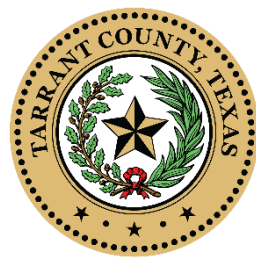


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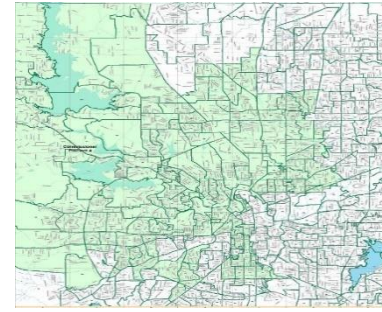
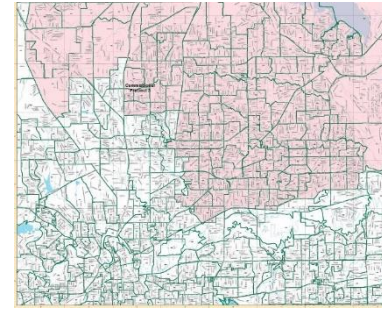
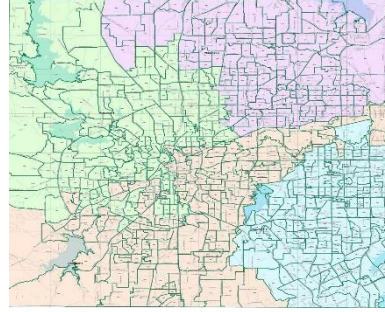
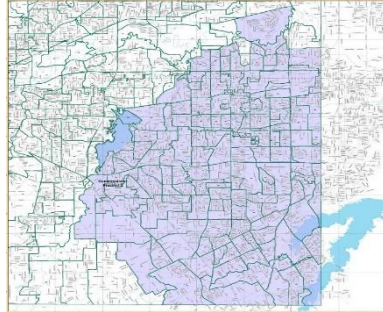
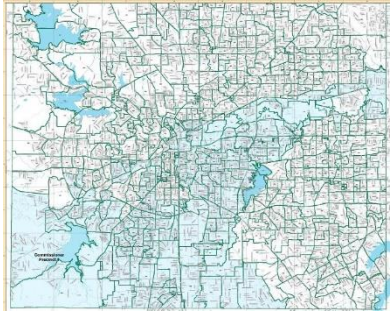
- Road Commissioner System
 - Chapter 252.101
 - County Commissioners may hire up to four (4) road Commissioners
 - May use districts separate from precincts
 - Countywide/Consolidated system
 - **County Commissioners still maintain ultimate control**, but the Road Commissioners oversee the daily activity.
- Road Superintendent System “voluntary unit system”
 - Chapter 252.201
 - Road superintendent for the County or 1/Precinct w/ a two (2) year term
 - May use districts separate from precincts
 - Countywide/Consolidated system
 - **County Commissioners still maintain ultimate control**, but the Road Commissioners oversee the daily activity.
- County Road Department System- County Engineer or Road Administrator
 - Chapter 252.301
 - Referendum Unit System or Unit System
 - Requires petition by at least 10% of the numbers cast in the last election for governor
 - Petition certified by the clerk then goes on the ballot
 - If passed, it creates a County road department, Commissioners Court is the policymaking body and the **County Engineer/Road Administrator is the CEO**
 - If they can't hire one, the Commissioners Court can appoint one

Floodplains and County Maintenance-why it matters

STRUCTURE



ROY CHARLES BROOKS
COMMISSIONER, PRECINCT ONE



COMMISSIONERS COURT- 1 Judge, 4 Commissioners

- Similar to a weak mayoral council
- Share oversight of County on state, national, and international levels.
- Checks and balances with other political heads (i.e. Tax Assessor, sheriff, clerks, etc.)
- Commissioner's Court controls the budget

Floodplains and County Maintenance-why it matters

STRUCTURE

TARRANT COUNTY COMMISSIONERS COURT



ROY CHARLES BROOKS
COMMISSIONER, PRECINCT ONE



COMMISSIONER
PRECINCT 1
Roy Charles Brooks



COMMISSIONER
PRECINCT 2
Alisa Simmons



COUNTY JUDGE
Tim O'Hare



COMMISSIONER
PRECINCT 3
Gary Fickes



COMMISSIONER
PRECINCT 4
Manny Ramirez

COUNTY JUDGE

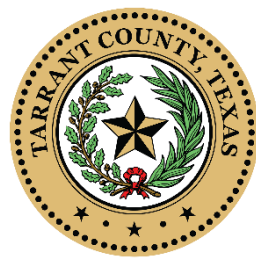
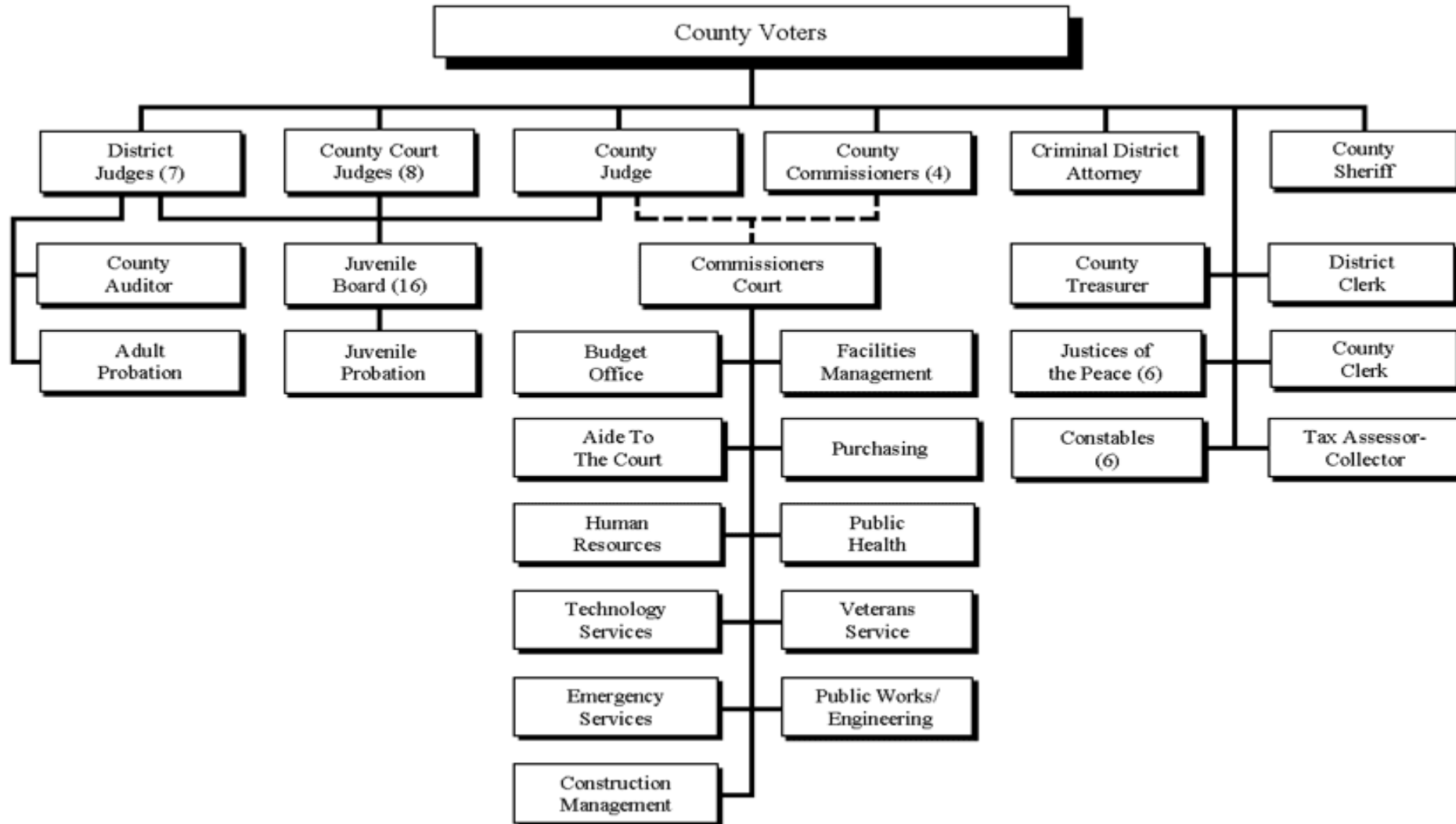
- CEO (administrative only in larger counties may be judicial in smaller counties)
- Voted on by the entire County.
- No Veto Power
- Works with members of the court to approve budgets, tax rate, authorize contracts, set salaries/benefits of employees, etc.

COUNTY COMMISSIONERS

- Commissioners' boundaries split based on population and elected by residents in their precinct only.
- **They oversee the roads and bridges within their precinct (detailed discussion later)** and sometimes they have additional responsibilities for solid waste collection, parks, and other services within the precinct. Time can be spent in associations, on boards, or with committees.

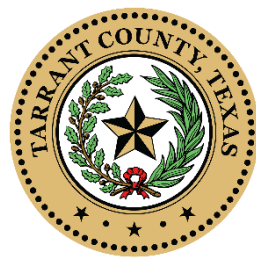
Floodplains and County Maintenance-why it matters

STRUCTURE



ROY CHARLES BROOKS
COMMISSIONER, PRECINCT ONE

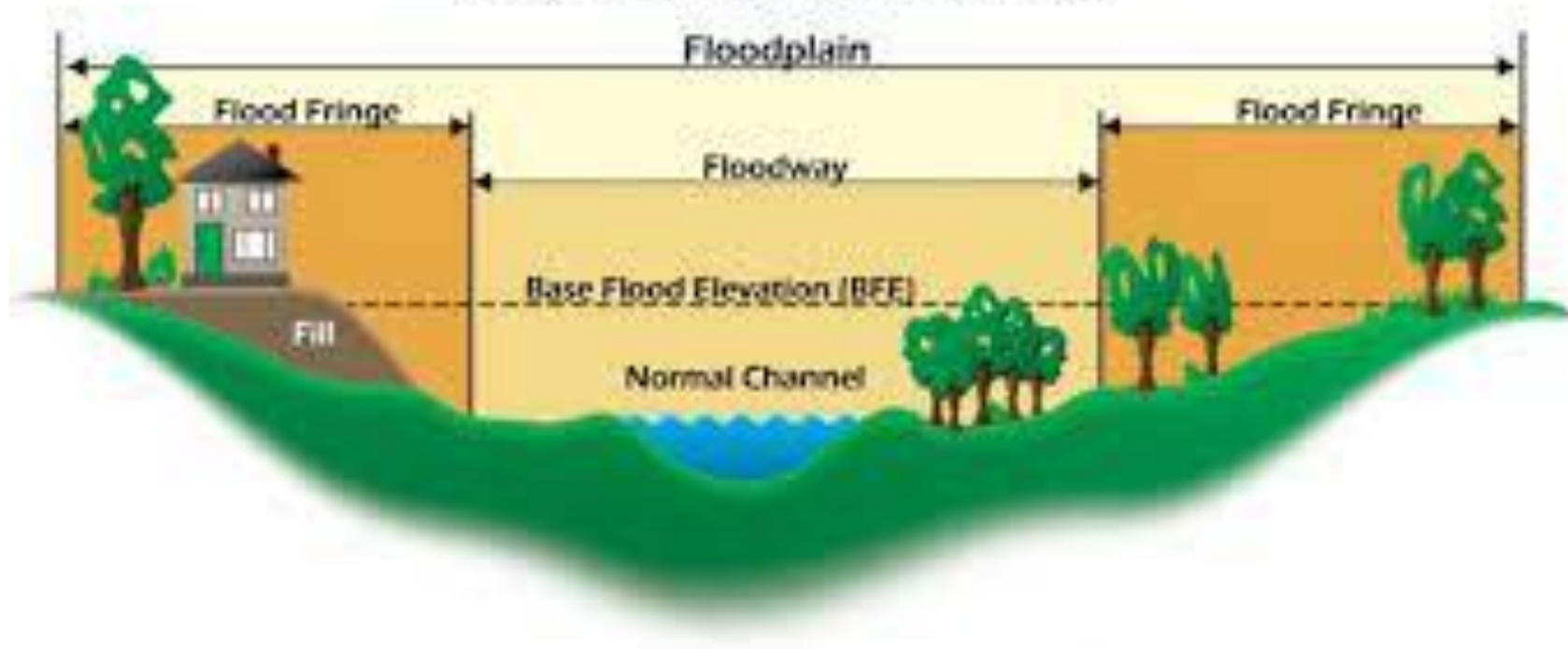
County Systems

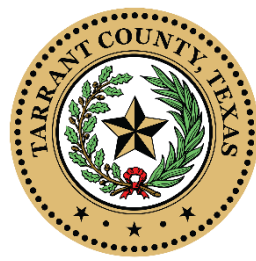


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Precinct Systems and Delegated Systems BOTH benefit from....
FLOODPLAIN MANAGEMENT

Characteristics of a Floodplain



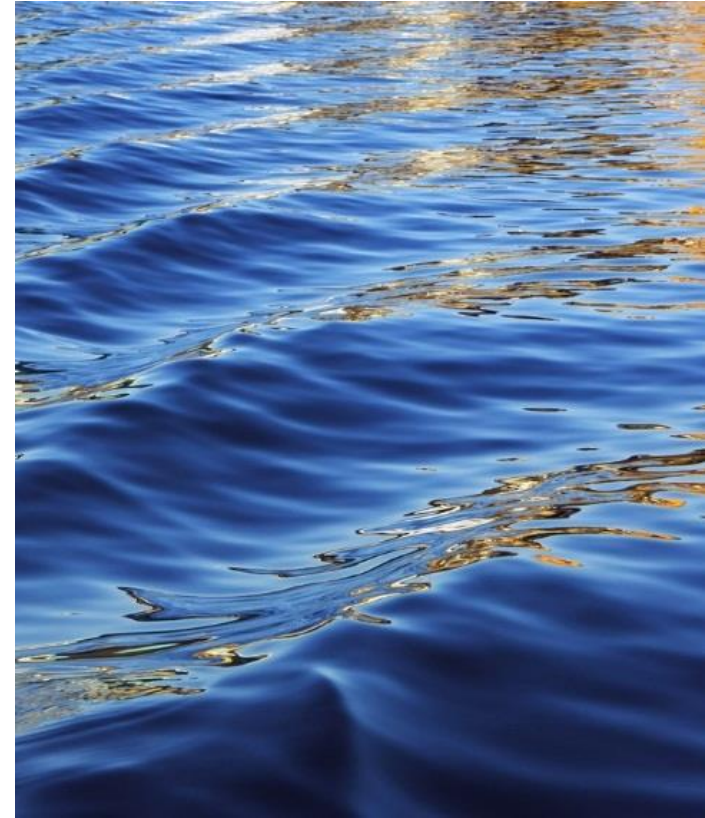


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COMMISSIONER, PRECINCT ONE



County Commissioners Roadway Duties

For all Texas County Commissioners



From a previous slide...

- COUNTY COMMISSIONERS
 - Commissioners' boundaries split based on population and elected by residents in their precinct only.
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HOW DO THEY OVERSEE THE ROADS AND BRIDGES? WHAT DOES THAT MEAN?

They MAINTAIN the EXISTING roads and bridges within their precinct

They OVERSEE the PROPOSED ROADS AND BRIDGES within their precinct

They OVERSEE the PROPOSED DEVELOPMENTS within their precinct

They MAINTAIN the EXISTING roads and bridges within their precinct

MAINTAIN EXISTING ROADS

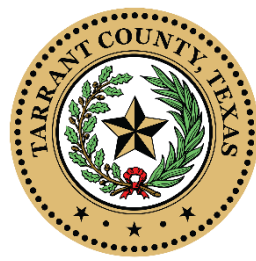
Crack sealing-larger cracks in the roadway



Slurry seals-several smaller cracks in the roadway and/or aging pavement



Potholes



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They MAINTAIN the EXISTING roads and bridges within their precinct

MAINTAIN EXISTING ROADS

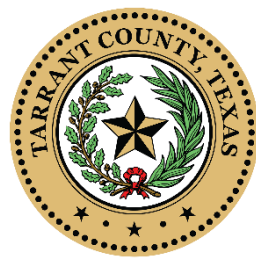
Overlays-pavement failure (localized longitudinal cracking/horizontal cracking/chunks of pavement popping out, etc.) but base in decent shape-overlays are typical for roadways with ditch sections and/or



Mill and overlays with curb and gutter sections



Seal Coats for pavement preservation and to extend life of oxidized asphalts

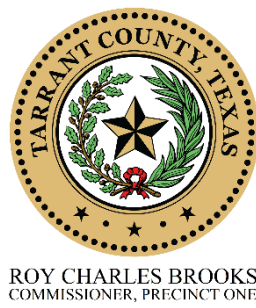


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They MAINTAIN the EXISTING roads and bridges within their precinct

MAINTAIN EXISTING ROADWAYS

REHABILITATION-resetting the deterioration process



Full Depth Reclamation (FDR)



Traditional milling/grinding/cement or lime or cemlime stabilization



They MAINTAIN the EXISTING roads and bridges within their precinct

MAINTAIN EXISTING ROADWAYS

REHABILITATION-resetting the deterioration process

Hot in place recycling

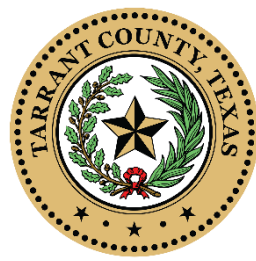


Cold in place recycling



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COMMISSIONER, PRECINCT ONE

They MAINTAIN the EXISTING roads and bridges within their precinct



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COMMISSIONER, PRECINCT ONE

MAINTAIN EXISTING BRIDGES/CUVLERTS

Bridge Rail/Guard Rails Repairs



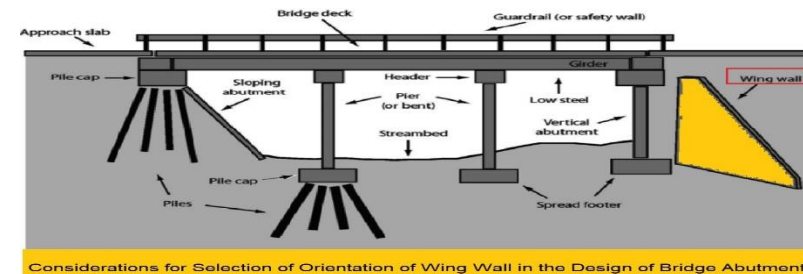
Scour repair due to erosion



Decks (joint maintenance, debris removal, etc.)

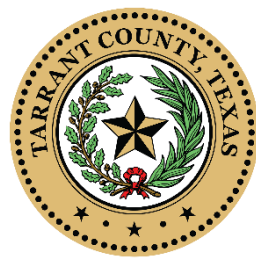


Abutments (watch for separation, buckling, dropping, etc.)



They MAINTAIN the EXISTING roads and bridges within their precinct

MAINTAIN EXISTING BRIDGES/CUVERTS



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Debris removal under the bridge (trash from upstream)

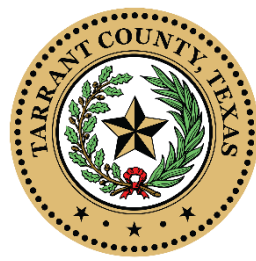


and/or

Illegal dumping



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They MAINTAIN the EXISTING roads and bridges within their precinct **MAINTAIN EXISTING BRIDGES/CUVLERTS**

TxDOT Off System Bridge Program

What is an off-system bridge?

- A structure on a non TxDOT facility (city or county facility) that is greater than 20 ft. long as you travel down the roadway
- TxDOT construct at 80/20 split or up to 100% (if County shows other bridges have been repaired previously with County funds)
- TxDOT inspects every 2 years and provide report
- County Responsibility to make repairs (typically repairs stem from these reports)

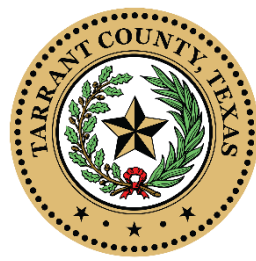
Existing Structures



New Structures



They MAINTAIN the EXISTING roads and bridges within their precinct



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COMMISSIONER, PRECINCT ONE

MAINTAIN ROW (RIGHT OF WAY)

Mowing

Pushmower-new guy



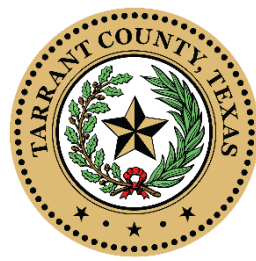
Tractor Mowers-intermediate guys



Boom mowers-advanced guys



They MAINTAIN the EXISTING roads and bridges within their precinct



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MAINTAIN ROW (RIGHT OF WAY)

UTILITIES

If new installation, put it where you said you would
If repair or replacement, put it where it was

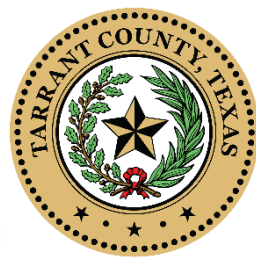


SIGNS

New and/or replacement



They MAINTAIN the EXISTING roads and bridges within their precinct

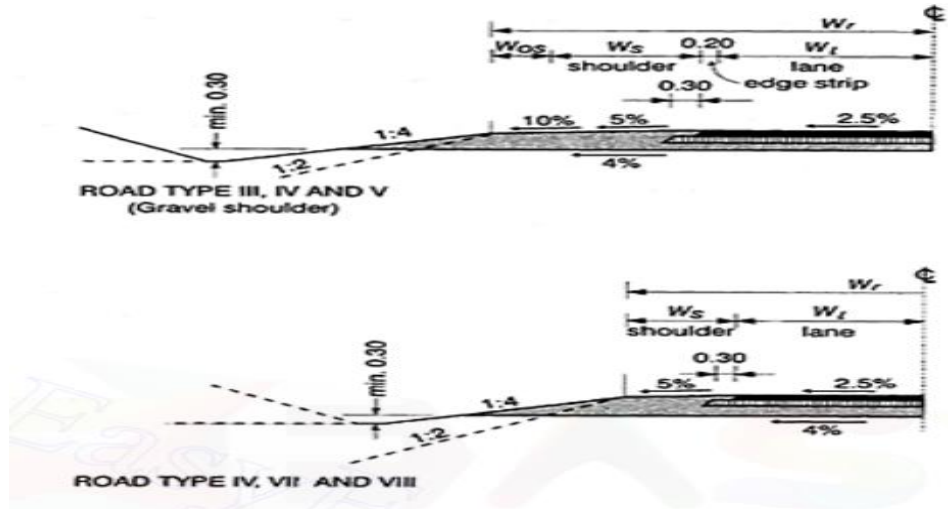


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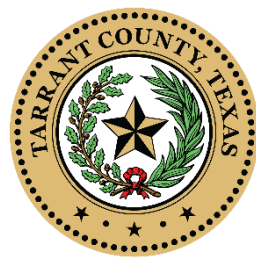
MAINTAIN ROW (RIGHT OF WAY)

MAINTAIN SIDESLOPES

- 2:1-or steeper (concrete/guardrail)
- 3:1-somewhat mowable motorists likely not flip but will need assistance climbing out of the ditch
- 4:1-recoverable and mowable-more ROW
- 5:1-safe-more ROW
- 6:1-perfect-even more ROW



They MAINTAIN the EXISTING roads and bridges within their precinct



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MAINTAIN ROW (RIGHT OF WAY)

Debris removal (tires, trash, barrels of?)



Environmental Coordination



Dead animals-ouch – we remove them too (or bury them)



SPECIAL ASSISTANCE PROJECTS



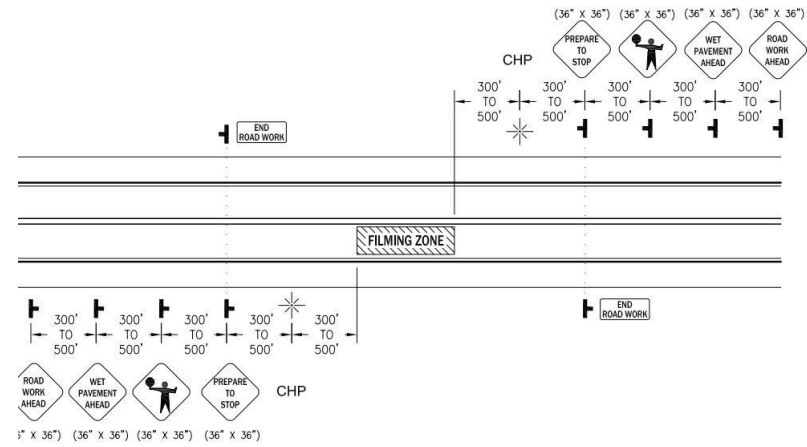
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Sheriff Office/District Attorney-excavation for buried evidence



Movie filming/blocking of roadways
Traffic Control Plan
Ensuring roadways/structures/ditches are not damaged

FILMING TRAFFIC CONTROL PLAN
(TWO LANE CONVENTIONAL HIGHWAY)





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INCLEMENT WEATHER



Inclement weather responses-
a whole book in an of itself



From a previous slide...

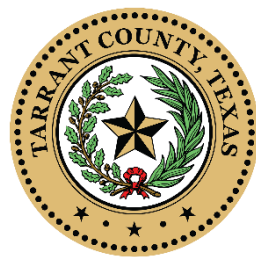
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They OVERSEE the PROPOSED roads and bridges within their precinct

Construction of New Roadways

Planning

MTP's (likely in coordination with multiple Cities to connect the dots)

Development of Schematics

Feasibility Studies

Construction Plans

Turn lanes, addition of shoulders on roadways

New Culverts/driveway pipes

Culvert Replacement

Construction of new roadways

New construction methods (typical sections typically involving a Geotech used for new

pavement construction

Intersection Improvements

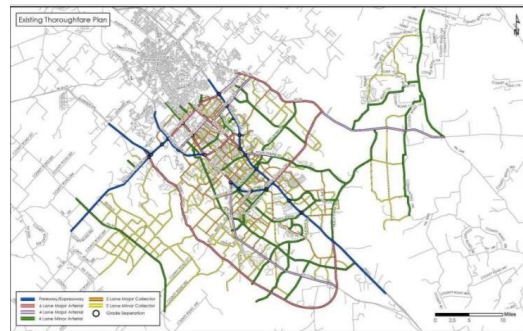


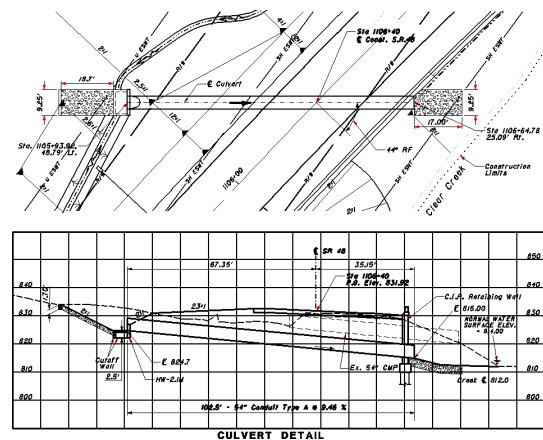
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Length: 7.06 Miles
 District: FORT BEND COUNTY LINE
 Check: \$100,000
 Date: 10/20/2023
 Misc Code:

Estimate	Estimate	% Over/Under	Company
Estimate 1	\$101,182,803.45	-11.03%	WIDEBACK, LLC
Estimate 2	\$99,816,019.27	-7.29%	JAYRIS CONSTRUCTION GROUP, LLC
Estimate 3	\$96,722,687.24	-8.86%	DAVIDSON INDUSTRIES, LTD.
Estimate 4	\$95,492,208.88	-2.63%	DAVIDSON CONSTRUCTION CORPORATION
Estimate 5	\$101,431,315.51	+1.20%	WILLIAMS BROTHERS CONSTRUCTION CO., INC.
Estimate 6	\$107,899,899.87	+4.59%	SHAMPEL CONSTRUCTION COMPANY

Item Code	Description	Unit	Quantity	Unit Est.	Bidder	Unit Bid
100000	PREPARING SOIL	STA	555.400	14,000.000	1	25,150.000
					2	3,000.000
					3	1,137.000
					4	25,150.000
					5	25,150.000
					6	12,000.000
					7	20,000.000
104000	REMOVING CONC (NW)	SF	41,274.000	6.00	1	11,700.000
					2	10,000.000
					3	19,000.000
					4	12,000.000
					5	35,000.000
					6	12,000.000
					7	19,000.000
104009	REMOVING CONC (CURB)	SF	2,860.000	8.27	1	23,820.000
					2	15,860.000
					3	9,000.000
					4	5,000.000
					5	7,000.000
					6	4,000.000
					7	3,000.000
104011	REMOVING CONC (MEDIAN)	SF	620.000	13.24	1	8,400.000
					2	15,760.000
					3	10,000.000
					4	4,820.000
					5	4,000.000
					6	12,000.000
					7	6,000.000
104017	REMOVING CONC (DRIVEWAYS)	SF	118.000	12.81	1	11,400.000
					2	40,710.000
					3	10,000.000
					4	9,700.000
					5	80,000.000
					6	15,000.000
					7	2,000.000
104021	REMOVING CONC (CURB)	LF	11,024.000	9.25	1	2,220.000
					2	2,340.000
					3	2,240.000

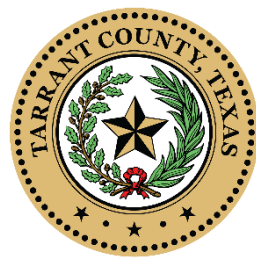


From a previous slide...

- COUNTY COMMISSIONERS
 - Commissioners' boundaries split based on population and elected by residents in their precinct only.
 - **They oversee the roads and bridges within their precinct (expansion of discussion later)** and sometimes they have additional responsibilities for solid waste collection, parks, and other services within the precinct. Time in associations, boards, committees.

HOW DO THEY OVERSEE THE ROADS AND BRIDGES? WHAT DOES THAT MEAN?

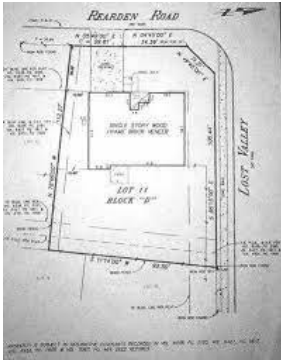
They MAINTAIN the EXISTING roads and bridges within their precinct
They OVERSEE the PROPOSED ROADS AND BRIDGES within their precinct
They OVERSEE the PROPOSED DEVELOPMENTS within their precinct



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They OVERSEE the PROPOSED DEVELOPMENTS within their precinct

Review of Proposed Subdivisions/Developments Subdivisions



New

Replats

Re-zoning-typically not allowed unless the Legislature has specifically identified the County to allow it

Commercial/Industries

Individual developments (commercial adjacent to residential)

Large scale developments-raw water line, sewer lines, electrical, sewer, etc.)

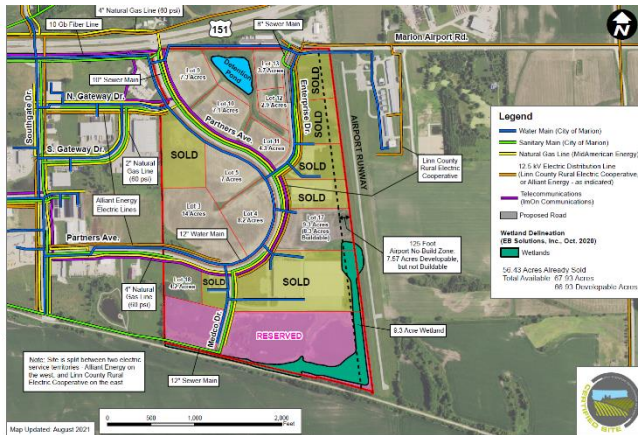
Special developments

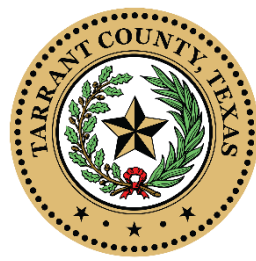
Recycling tire plant

Pickle factory

Concrete Plant

Erosion of creek sidewalls adjacent to roadways





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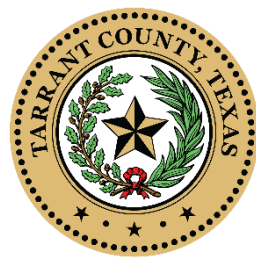
Benefits of Floodplain Management

For any Agency (Federal, State, Local)



PREVIOUS SLIDE

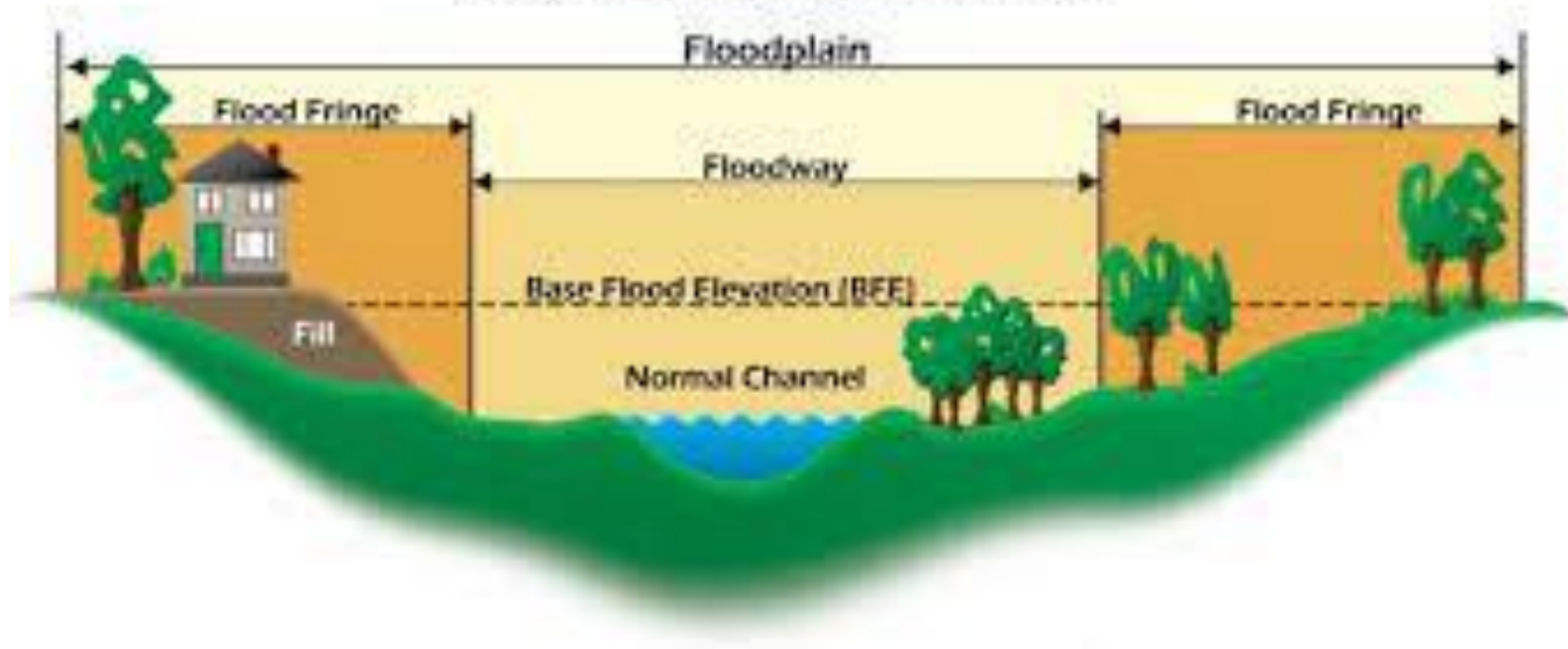
County Systems



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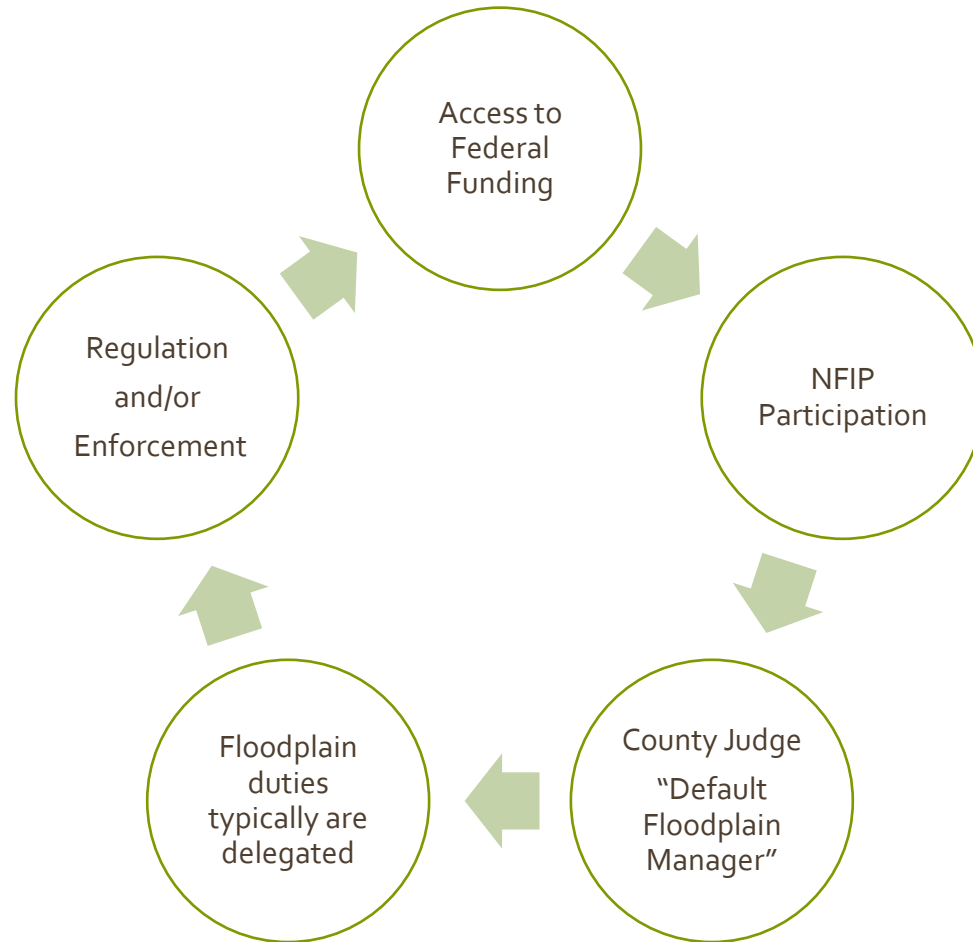
Precinct Systems and Delegated Systems BOTH benefit from....
FLOODPLAIN MANAGEMENT

Characteristics of a Floodplain

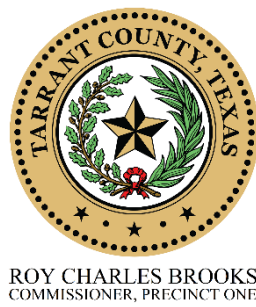


FLOODPLAIN BENEFITS

- Floodplains Exist (officially or not)
 - Officially-regulated via the NFIP
 - Un-officially-not regulated by the NFIP
- Loss of life and property can be reduced if not eliminated through proper management w/ official floodplains or un-official floodplains



Comparison of Floodplain Management versus non-Floodplain Management

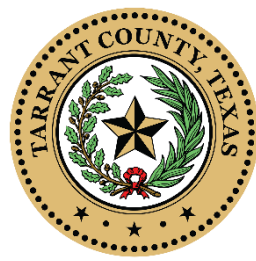


Floodplain Management

- Storage
 - Aesthetics
 - Cattle water supply
 - Recreation (fishing, boating, golf hazards, trails)
 - Increased property value
- Conveyance
 - Designed flows
 - Positive drainage
 - Target for drainage
- Downstream flooding reduction
- Upstream flooding reduction

Non Floodplain Management

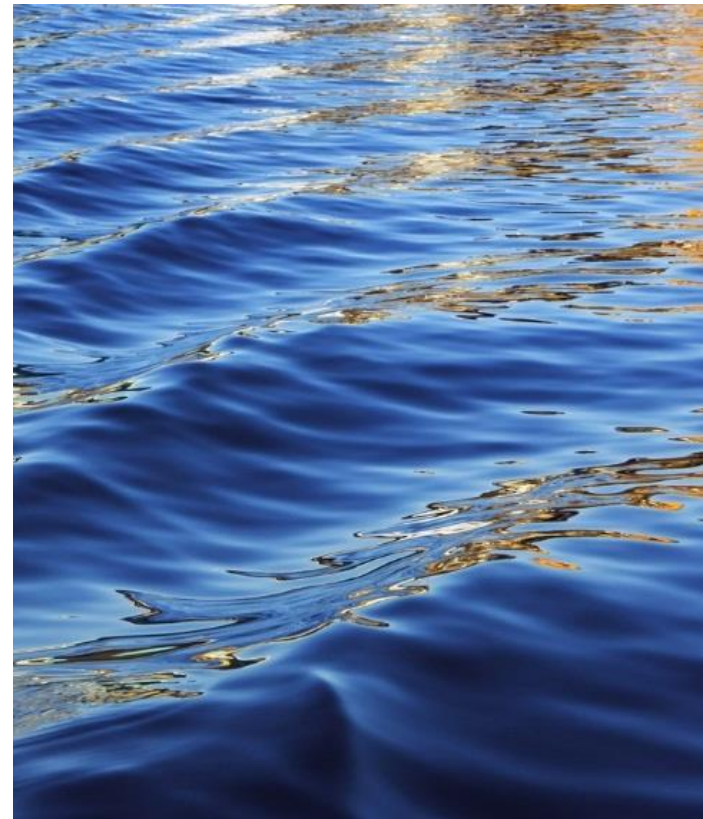
- Not aesthetically pleasing
- No recreation (no fishing, no boating, no golf, nothing to accentuate trails)
- No selling point for property owners
- Overland flows into non-preferred areas
- Potential for increased flooding upstream and downstream and potential litigation (if unintentional flooding occurs)



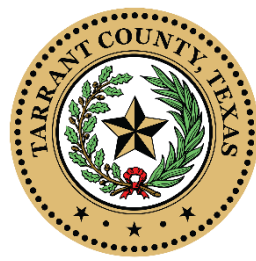
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Why It Matters



WHY IT MATTERS!



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Maintain Existing Roadways-**MAXIMIZING CONVEYANCE IN DITCHES/CHANNELS/STORM DRAINS**

Crack sealing-larger cracks in the roadway



Slurry seals-several smaller cracks in the roadway and/or aging pavement-slurry seals



Potholes



WHY IT MATTERS!

Maintain Existing Roadways-**DON'T INCREASE HEAD AT THE USFL OF A CULVERT**
(story of 2 to 3" overlay)
DON'T FILL IN THE GUTTER-REDUCES CONVEYANCE

Overlays-pavement failure (localized longitudinal cracking/horizontal cracking/chunks of pavement popping out, etc.) but base in decent shape-overlays for ditch sections and/or

Mill and overlays with curb and gutter sections



Seal Coats to extend life of oxidized asphalts



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WHY IT MATTERS!

Maintain Existing Roadways-**GREAT TIME TO EVALUATE/UPDATE CULVERTS**

Rehabilitation-resetting the deterioration process

Full Depth Reclamation (FDR)



Traditional milling/grinding/cement or lime or cemlime stabilization



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WHY IT MATTERS!

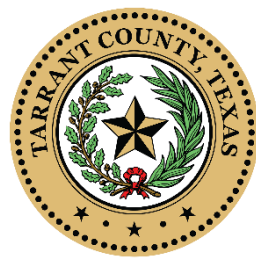
Maintain Existing Roadways-**GREAT TIME TO CHECK SIDESLOPES/EVALUATE VELOCITIES IN DITCHES**

Rehabilitation-resetting the deterioration process

Hot in place recycling

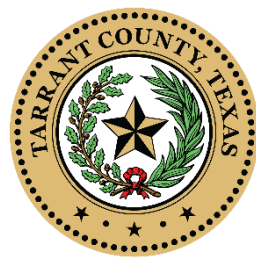


Cold in place recycling



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WHY IT MATTERS!



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Maintain Existing Roadways-**GREAT TIME TO BRING COMPLIANCE PS&E RELATED TO CULVERTS**

PS&E (Plans, Specifications, and Estimates)

Length: 7.306
Limits: From: FORT BEND COUNTY LINE To: IH 10
CCS: 3510-04-019
Check: \$100,000
Misc Cost:

Estimate	\$102,182,803.45	% Over/Under	Company
Bidder 1	\$90,916,059.57	-11.03%	WEBBER, LLC
Bidder 2	\$94,736,075.85	-7.29%	JAMES CONSTRUCTION GROUP, LLC
Bidder 3	\$96,222,637.24	-5.83%	MAIN LANE INDUSTRIES LTD.
Bidder 4	\$99,492,208.88	-2.63%	ZACHRY CONSTRUCTION CORPORATION
Bidder 5	\$104,431,315.55	+2.30%	WILLIAMS BROTHERS CONSTRUCTION CO., INC.
Bidder 6	\$107,999,999.97	+5.69%	GRANITE CONSTRUCTION COMPANY
Bidder 7	\$108,127,332.27	+5.82%	PULICE CONSTRUCTION, INC.

Item Code	Description	Unit	Quantity	Unit Est.	Bidder	Unit Bid
1006002	PREPARING ROW	STA	355.400	14,000.00	1	25,100.000
					2	6,500.000
					3	3,300.000
					4	28,137.310
					5	29,300.000
					6	21,400.000
					7	30,000.000
1046001	REMOVING CONC (PAV)	SY	41,221.000	6.00	1	11,700
					2	10,500
					3	19,000
					4	15,000
					5	25,000
					6	12,000
					7	19,000
1046009	REMOVING CONC (RIPRAP)	SY	2,860.000	8.17	1	9,550
					2	18,860
					3	9,000
					4	5,000
					5	7,000
					6	4,000
					7	2,000
1046011	REMOVING CONC (MEDIANS)	SY	620.000	13.24	1	5,600
					2	12,760
					3	10,000
					4	4,850
					5	9,000
					6	12,000
					7	3,000
1046017	REMOVING CONC (DRIVEWAYS)	SY	119.000	12.92	1	11,400
					2	50,710
					3	10,000
					4	9,700
					5	30,000
					6	15,000
					7	2,000
1046021	REMOVING CONC (CURB)	LF	13,404.000	6.25	1	2,250
					2	2,240

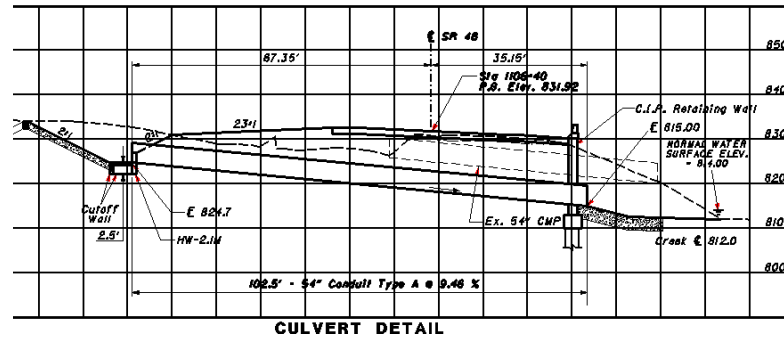
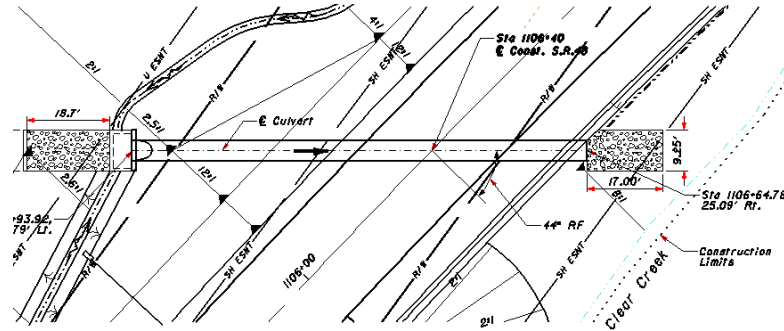
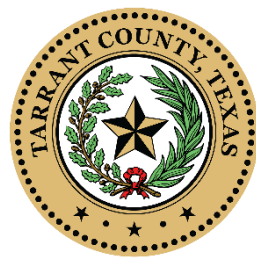


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WHY IT MATTERS!



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Maintain Existing Bridges/Culverts-**GREAT TIME TO CLEAN OUT THE CHANNELS/RE-ESTABLISH VEGETATION/CHANNEL SLOPES/CHECK FOR EROSION/ETC.**

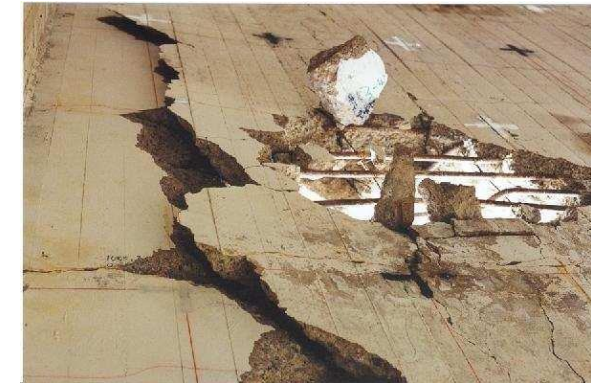
Bridge Rail/Guard Rails Repairs



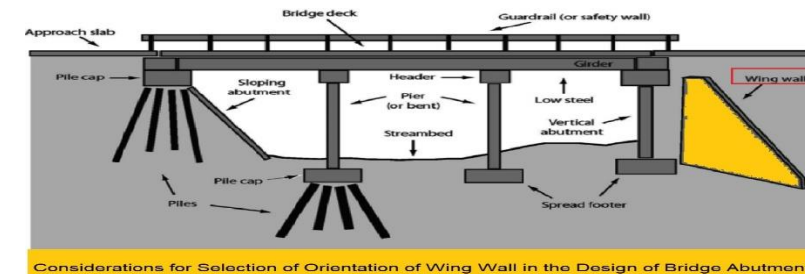
Scour repair due to erosion



Decks (joint maintenance, debris removal, etc.)



Abutments (watch for separation, buckling, dropping, etc.)



Considerations for Selection of Orientation of Wing Wall in the Design of Bridge Abutment

WHY IT MATTERS!

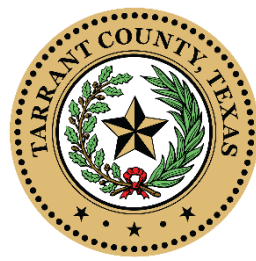
Maintain Existing Bridges/Culverts-**after rains** great time to site visit structures for **DEBRIS REMOVAL (OF ALL TYPES)** as this increases water surface elevation

Debris removal under the bridge (trash from upstream)



or

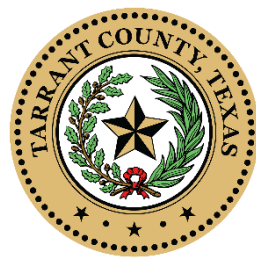
Illegal dumping



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Download from
Dreamstime.com
97725061
Chai Koh Siah | Dreamstime.com

WHY IT MATTERS!



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TxDOT Off System Bridge Program (20 ft. or longer in travel direction)-**GREAT TIME TO INCREASE CONVEYANCE!**

- TxDOT construct at 80/20 split or 100% (if County shows other bridges have been repaired)
- TxDOT inspects
- County Responsibility to make repairs

Existing Structures



New Structures

WHY IT MATTERS!

Maintain Rights-of-way-mulching is awesome-make sure grass clippings and tree branches aren't entering waterways-**GREAT TO COMPOST AND DECREASE SILTATION IF NECESSARY!**



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Mowing

Pushmower-new guy
Tractor Mowers-intermediate guys
Boom mowers-advanced guys

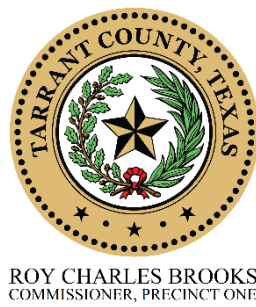


WHY IT MATTERS!

Maintain Rights-of-way-**ENSURE UTILITY COMPANIES DON'T LEAVE SPOILS IN THE CHANNEL FROM REPAIRS/REPLACEMENTS**

Utilities

If new installation, put it where you said you would
If old installation, put it where it was



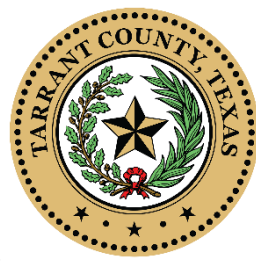
Signs

New and/or replacement



MAKE SURE SIGNAGE ALERTS MOTORISTS-MAKE SURE ADEQUATE SIGNAGE IS INSTALLED FOR DRAINAGE STRUCTURES (DELINEATORS, FLOOD GAUGES, ETC.)

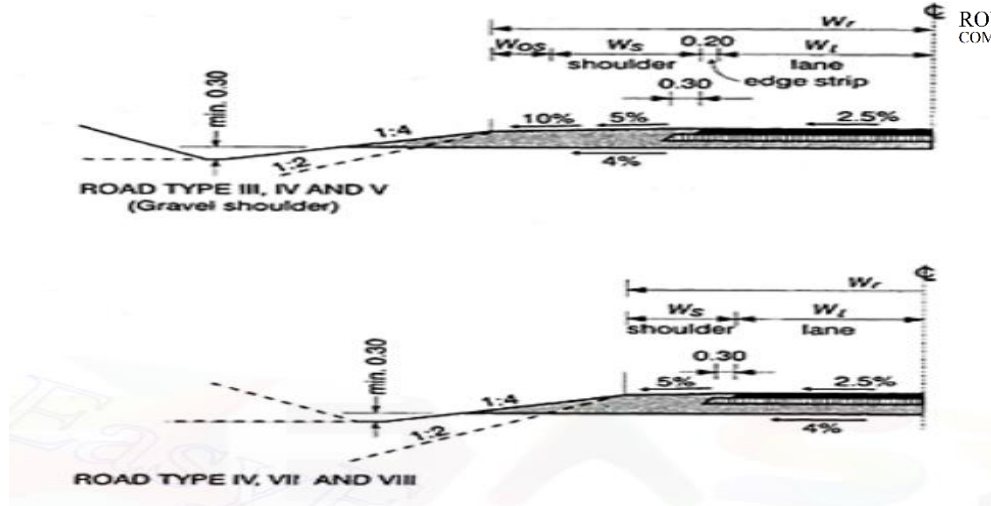
WHY IT MATTERS!



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Maintain Rights-of-way-**evaluate opportunities to improve sideslopes**

When burying dead animals, make sure spoils aren't thrown in the creek and/or floodplain areas.



Sideslopes

- 2:1-or steeper (concrete/guardrail)
- 3:1-somewhat mowable likely not flip
- 4:1-recoverable and mowable-more ROW
- 5:1-safe-even more ROW
- 6:1-perfect-even more ROW

Dead animals-ouch!



WHY IT MATTERS!

Maintain Rights-of-way-**ensure debris is cleaned from ditches/storm drains**

Debris removal (tires, trash, barrels of?)

Environmental Coordination



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WHY IT MATTERS!



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Special Assistance Projects



Inclement weather responses-a whole book in an of itself

Ensure roadways are cleaned using vacuum rather than a sweep to ensure sand/various products aren't pushed downstream!



WHY IT MATTERS!

They **oversee** the PROPOSED roads and bridges within their precinct

THINK OF MAINTENANCE ISSUES WHEN “DESIGNING”!

Construction of New Roadways

Planning-look for ways to reduce floodplain areas
and/or convey water efficiently downstream

MTP's (likely in coordination with multiple
Cities to connect the dots)

Development of Schematics

Feasibility Studies

Construction Plans

Roadways

New Culverts/driveway pipes

Culvert Replacement

Construction of new roadways

New construction methods (typical sections
typically involving a Geotech used for new
pavement construction

Intersection Improvements



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WHY IT MATTERS!

They **oversee** the roads and bridges within their precinct

THINK OF MAINTENANCE ISSUES WHEN “REVIEWING”!

Review of Proposed Subdivisions/Developments-review independent developments to ensure conveyance is efficient and floodplains are preserved

Subdivisions

- New

- Replats

- Re-zoning-typically not allowed unless the Legislature has specifically identified the County to allow it

Commercial/Industries

- Individual developments (commercial adjacent to residential)

- Large scale developments-raw water line, sewer lines, electrical, sewer, etc.)

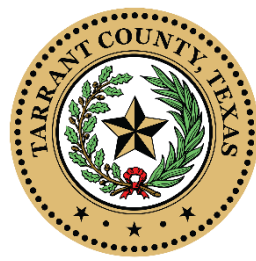
- Special developments

 - Recycling tires

 - Pickle factory

 - Concrete Plant

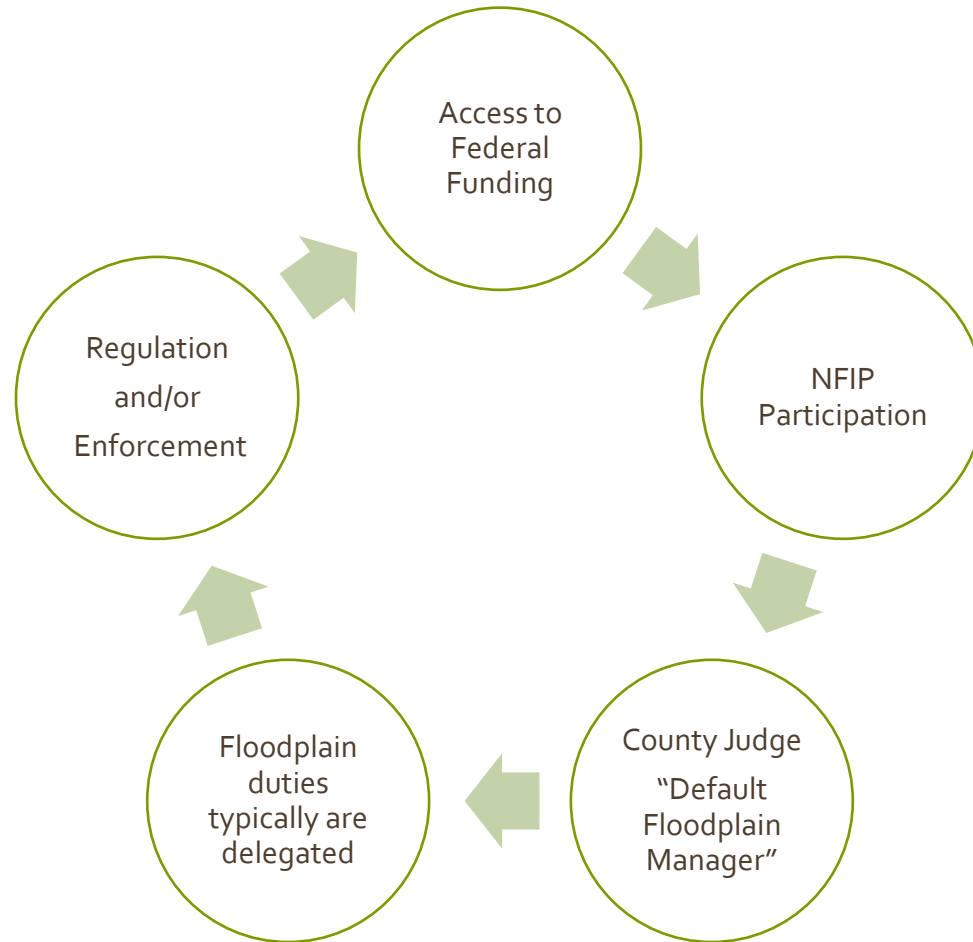
 - Erosion of creek sidewalls adjacent to roadways



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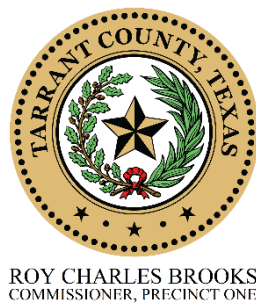
Regardless of County Official, Type of County setup

- Floodplains Exist (officially or not)
 - Officially-regulated via the NFIP
 - Un-officially-not regulated
- Loss of life and property can be reduced if not eliminated through floodplain management



FLOODPLAIN AND COUNTY MAINTENANCE

THAT IS WHY IT MATTERS



QUESTIONS?

Contact Information:

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Director of Field Operations

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jltrammel@tarrantcountytexas.gov