

# Status of Additions to Indicator Bacteria TMDLs in the Brays Bayou, Lake Houston, and Buffalo and Whiteoak Bayou Watersheds

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# Acknowledgements

- Agency Lead:  
Texas Commission on Environmental Quality (TCEQ)
- Support Funding:  
U.S. Environmental Protection Agency (EPA)

# Major Presentation Topics

- Previously completed TMDLs
- Overview & status of three present TMDL projects



Horsepen Creek at  
Pine Falls Drive

# Previously Completed Indicator Bacteria TMDLs for Watersheds in Brays Bayou Above Tidal and Tributaries

Adopted by TCEQ: Sep. 15, 2010; Approved by EPA: Sep. 27, 2010

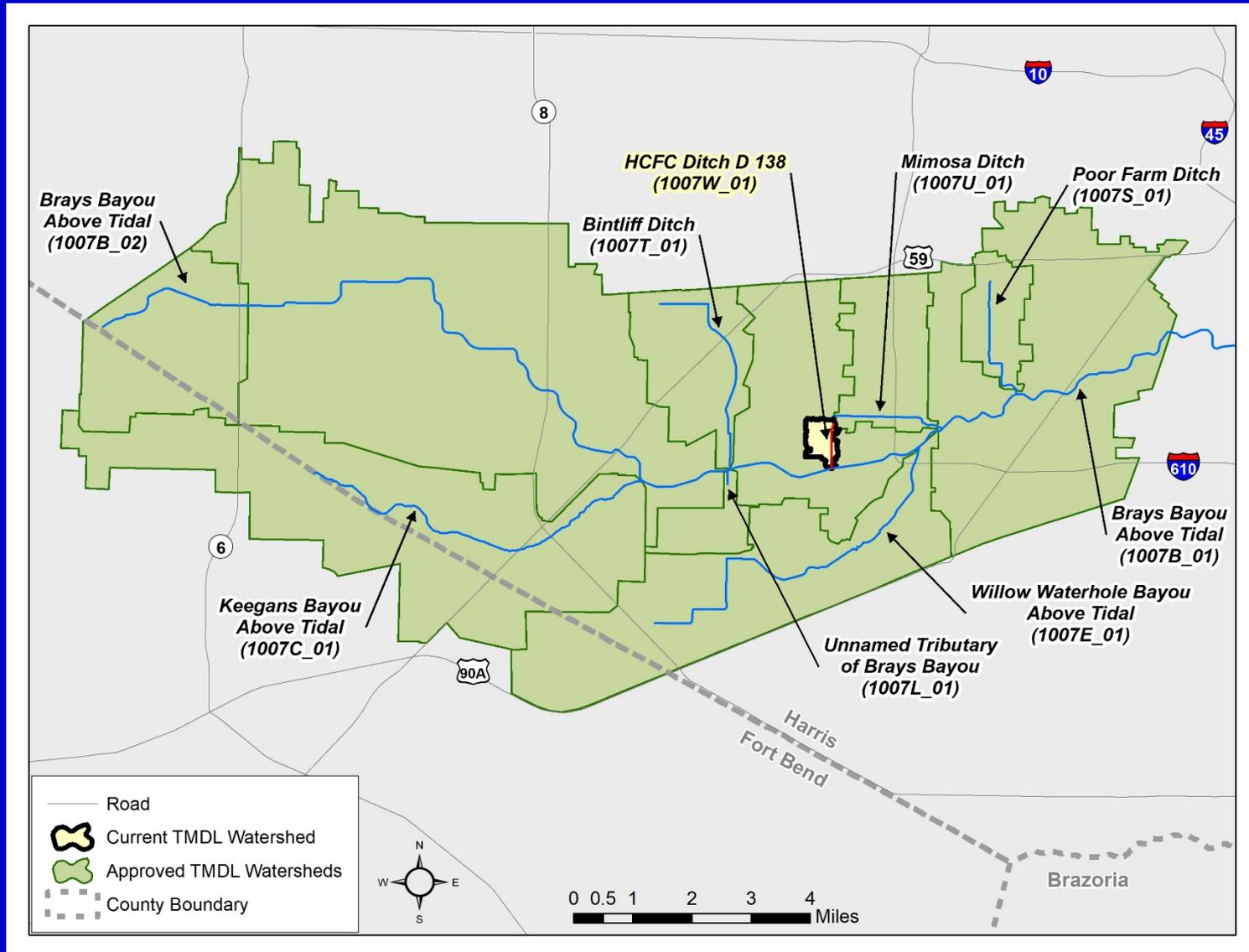
Segment Name	Segment Number	Assessment Unit (AU)
Brays Bayou Above Tidal	1007B	1007B_01, 02
Keegans Bayou Above Tidal	1007C	1007C_01
Willow Waterhole Bayou Above Tidal	1007E	1007E_01
Unnamed Non-Tidal Tributary of Brays Bayou	1007L	1007L_01

# Previously Completed Addendum to Five TMDLs for Watersheds in Brays Bayou Above Tidal and Tributaries

Added by Addendum by TCEQ: Apr. 2013; Approved by EPA: Aug. 2013

<b>Segment Name</b>	<b>Segment Number</b>	<b>Assessment Unit (AU)</b>
Poor Farm Ditch	1007S	1007S_01
Bintliff Ditch	1007T	1007T_01
Mimosa Ditch	1007U	1007U_01

# Brays Bayou Watershed showing areas of eight completed TMDLs



# Previously Completed Indicator Bacteria TMDLs for Watersheds in Buffalo and Whiteoak Bayous and Tributaries

Adopted by TCEQ: Apr. 8, 2009; Approved by EPA: Jun. 11, 2009

<b>Segment Name</b>	<b>Segment Number</b>	<b>Assessment Unit (AU)</b>
Buffalo Bayou Tidal	1013	1013_01
Little White Oak Bayou	1013A	1013A_01
Unnamed Non-Tidal Tributary of Buffalo Bayou Tidal	1013C	1013C_01
Buffalo Bayou Above Tidal	1014	1014_01
Bear Creek	1014A	1014A_01
Buffalo Bayou	1014B	1014B_01
Langham Creek	1014E	1014E_01
South Mayde Creek	1014H	1014H_01, 02
Turkey Creek	1014K	1014K_01, 02

# Previously Completed Indicator Bacteria TMDLs for Watersheds in Buffalo and Whiteoak Bayous and Tributaries

Adopted by TCEQ: Apr. 8, 2009; Approved by EPA: Jun. 11, 2009

<b>Segment Name</b>	<b>Segment Number</b>	<b>Assessment Unit (AU)</b>
Mason Creek	1014L	1014L_01
Neimans Bayou	1014M	1014M_01
Rummel Creek	1014N	1014N_01
Spring Branch	1014O	1014O_01
Whiteoak Bayou Above Tidal	1017	1017_01, 02, 03, 04
Brickhouse Gully/Bayou	1017A	1017A_01
Cole Creek	1017B	1017B_02
Unnamed Tributary of Whiteoak Bayou	1017D	1017D_01
Unnamed Tributary of White Oak Bayou	1017E	1017E_01

# Previously Completed Addendum One to Eighteen TMDLs in Buffalo and Whiteoak Bayous and Tributaries

Added by Addendum by TCEQ: Apr. 2013; Approved by EPA:  
Aug. 28, 2013

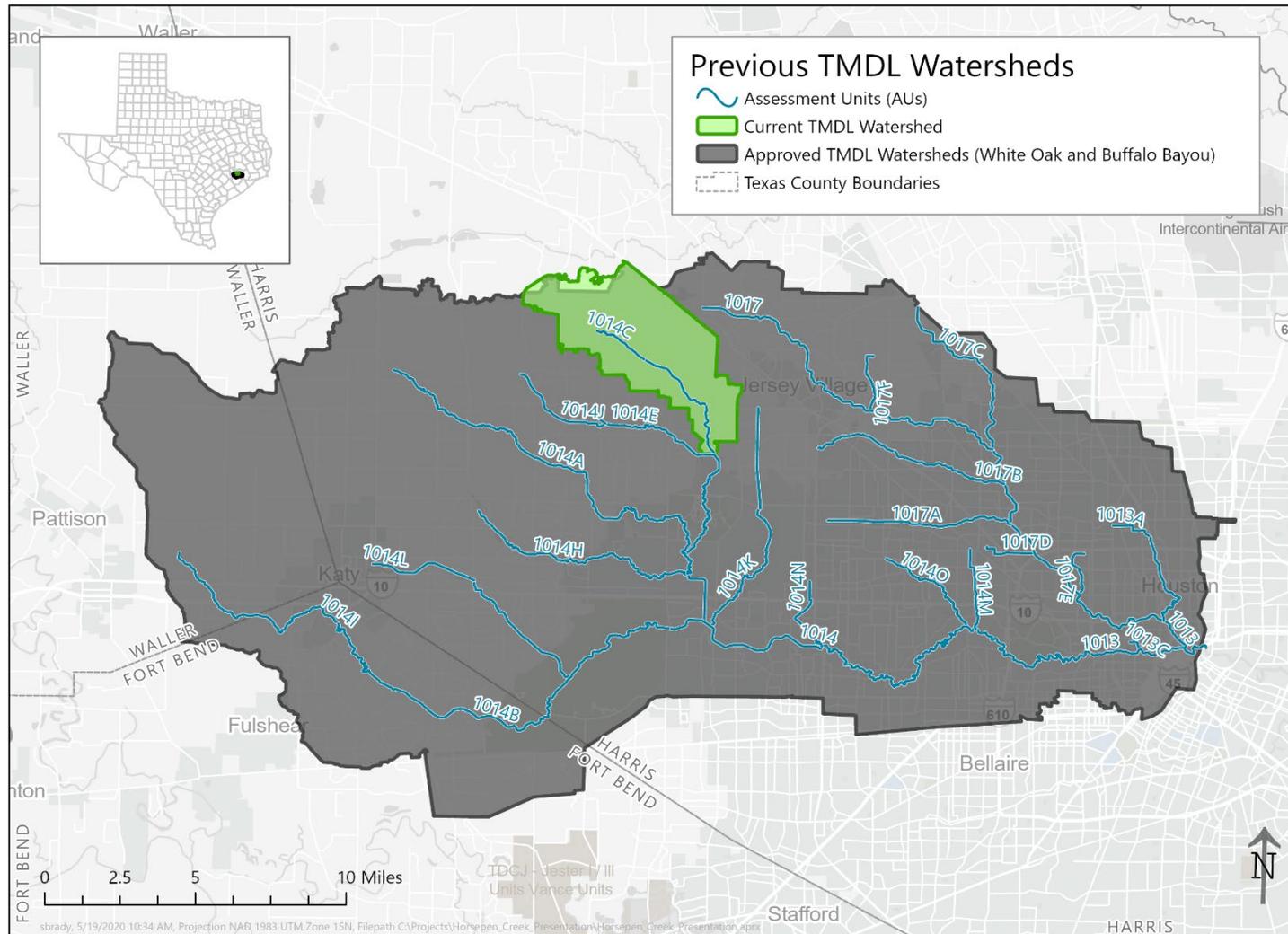
<b>Segment Name</b>	<b>Segment Number</b>	<b>Assessment Unit (AU)</b>
Vogel Creek	1017C	1017C_01

# Previously Completed Addendum Two to Eighteen TMDLs in Buffalo and Whiteoak Bayous and Tributaries

Added by Addendum by TCEQ: Apr. 2015; Approved by EPA:  
July 27, 2015

<b>Segment Name</b>	<b>Segment Number</b>	<b>Assessment Unit (AU)</b>
Rolling Fork Creek	1017F	1017F_01

# Buffalo and Whiteoak Bayou Watersheds showing areas of twenty completed TMDLs



# Previously Completed Indicator Bacteria TMDLs for Watersheds Upstream of Lake Houston

Adopted by TCEQ: Apr. 6, 2011; Approved by EPA: Jun. 29, 2011

<b>Segment Name</b>	<b>Segment Number</b>	<b>Assessment Unit (AU)</b>
Stewarts Creek	1004E	1004E_02
Spring Creek	1008	1008_02, 1008_03, 1008_04
Willow Creek	1008H	1008H_01
Cypress Creek	1009	1009_01, 1009_02, 1009_03, 1009_04
Faulkey gully	1009C	1009C_01
Spring Gully	1009D	1009D_01
Little Cypress Creek	1009E	1009E_01
Caney Creek	1010	1010_02, 1010_04
Peach Creek	1011	1011_02

# Previously Completed Addendum One to Fifteen TMDLs Upstream of Lake Houston

Added by Addendum October 2013 by TCEQ; Approved by EPA:  
Feb. 14, 2014

<b>Segment Name</b>	<b>Segment Number</b>	<b>Assessment Unit (AU)</b>
Upper Panther Branch	1008B	1008B_01, 1008B_02
Lower Panther Branch	1008C	1008C_01, 1008C_02
Bear Branch	1008E	1008E_01
Peach Creek	1011	1011_01

# Previously Completed Addendum Two to Fifteen TMDLs Upstream of Lake Houston

Added by Addendum October 2019 by TCEQ; Approved by EPA:  
Mar. 11, 2020

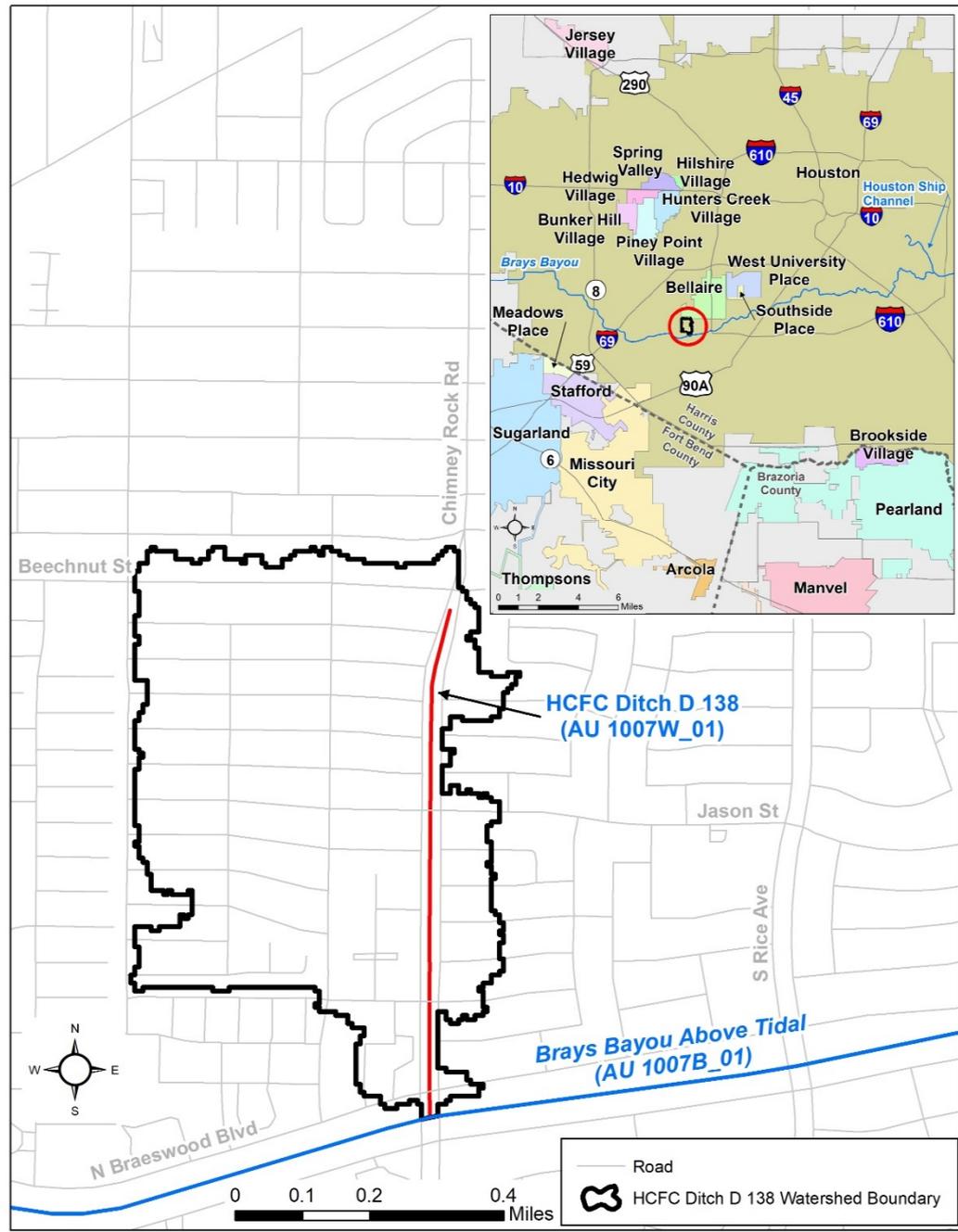
<b>Segment Name</b>	<b>Segment Number</b>	<b>Assessment Unit (AU)</b>
Brushy Creek	1008J	1008J_01
Spring Branch	1010C	1010C_01



# FIRST NEW PROJECT

## Addendum to *Five TMDLs for Indicator Bacteria in Brays Bayou Above Tidal and Tributaries*

- Project water body
  - Harris County Flood Control Ditch D 138 (1007W\_01)
- Approach for TMDL – FDCs/LDCs

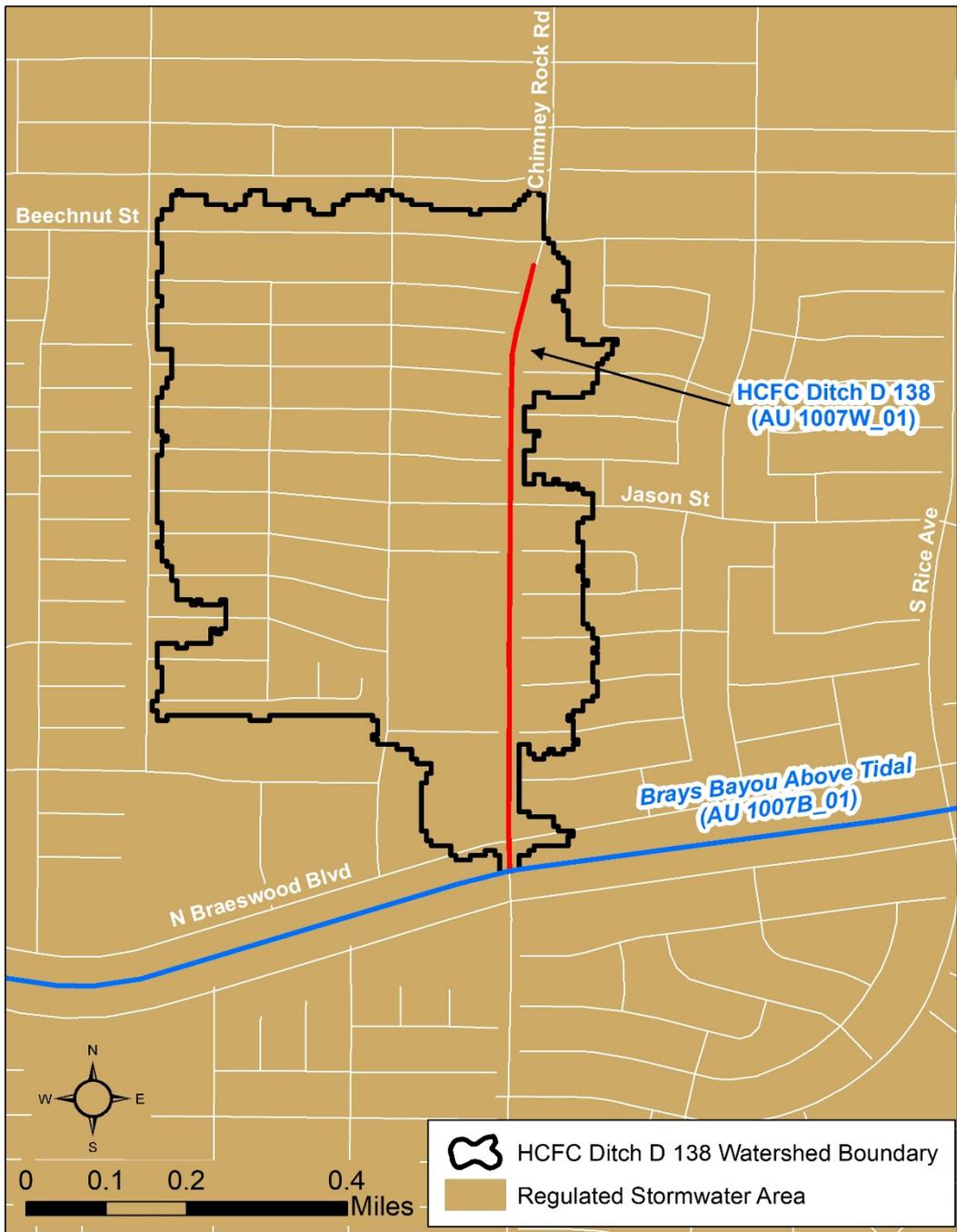


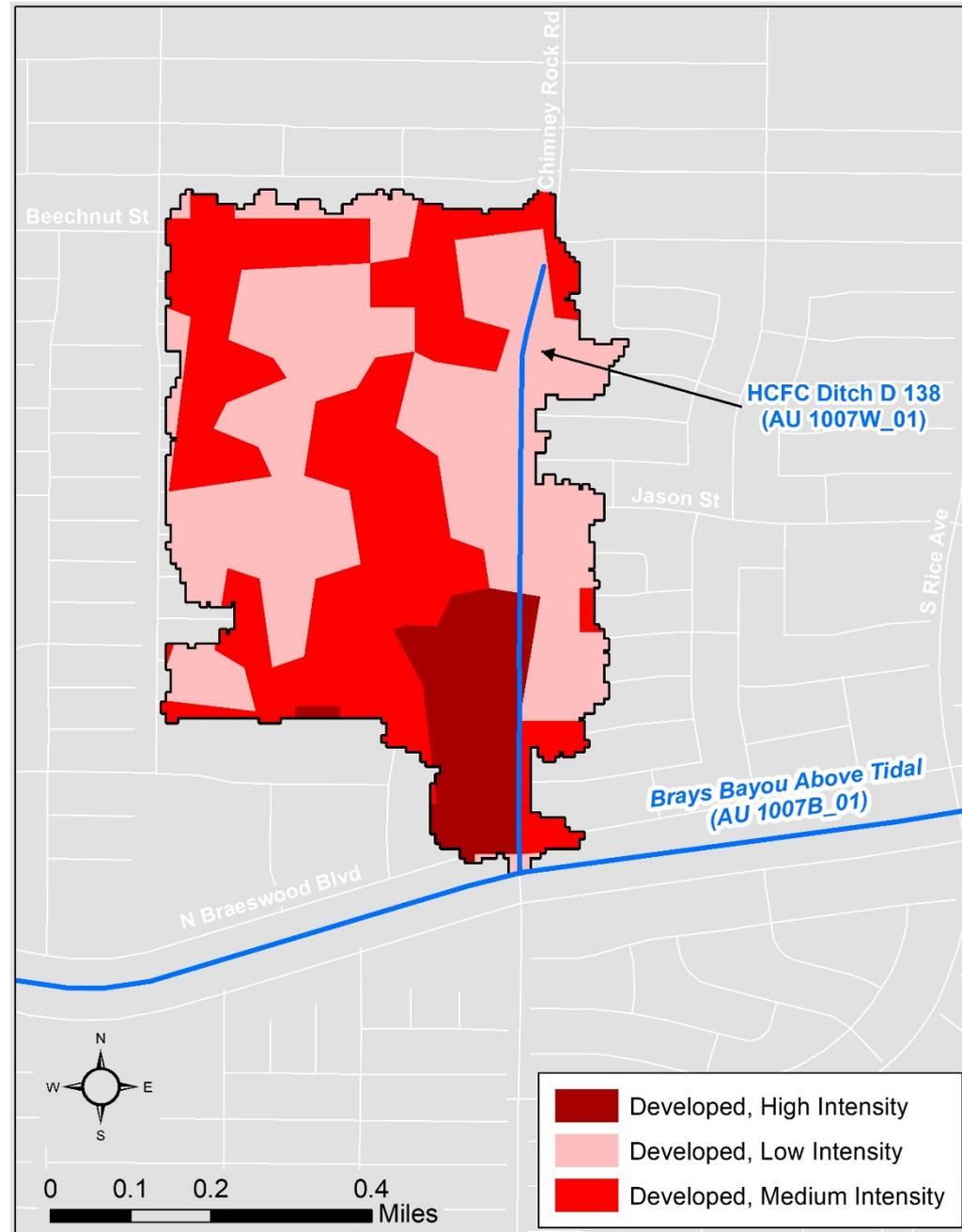


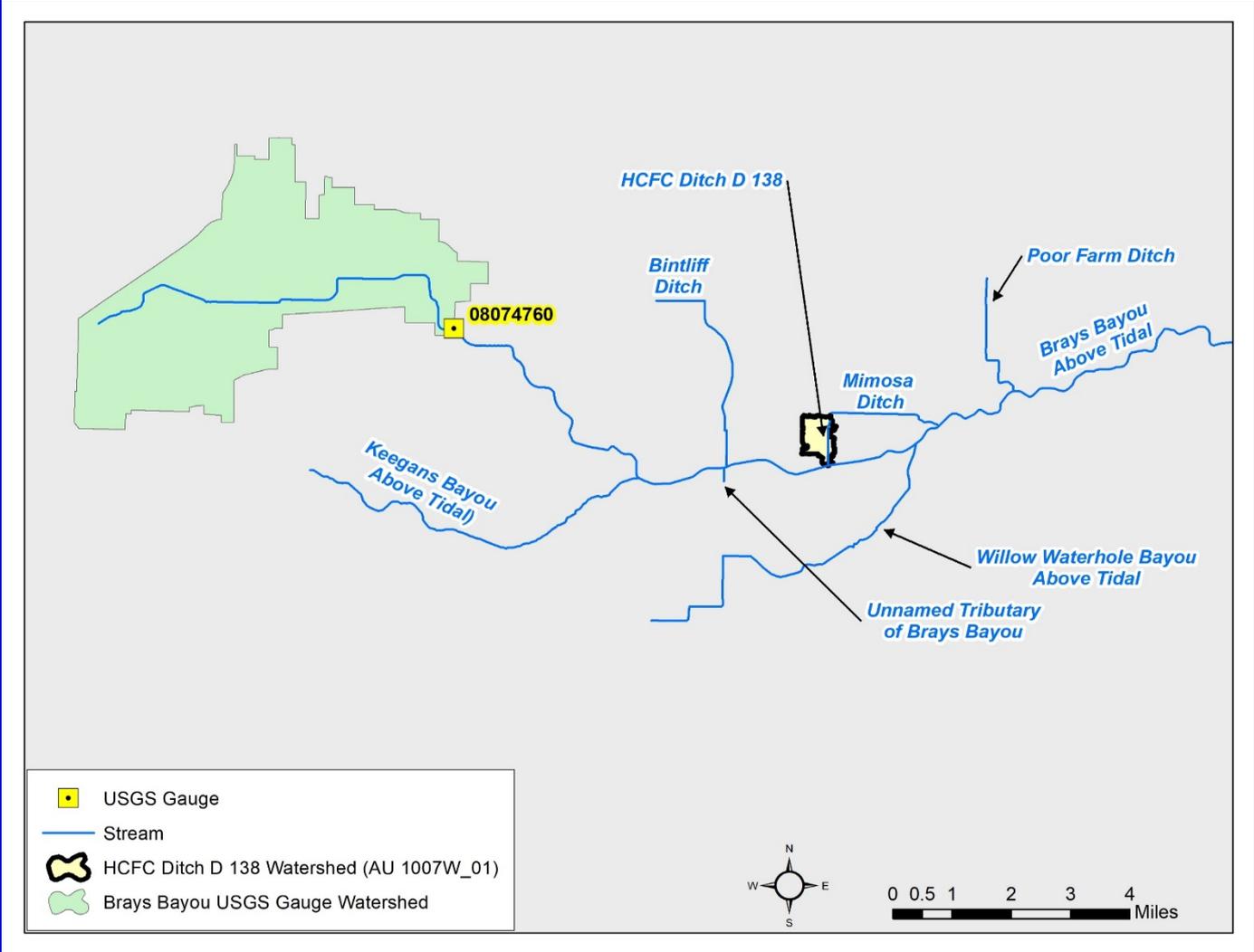
Harris County Flood Control Ditch D 138 at Caversham Drive  
(Sampling Station 21180)

# Summary Integrated Report Findings for *E. coli* Assessment (criterion = 126 CFU/100 mL)

Integrated Report Year	AU	Station	No. of Samples	Data Date Range	Geometric Mean (CFU/100 mL)
2016	1007W_01	21180	20	2007-2014	308
2018	1007W_01	21180	38	2009-2016	578
2020 (draft)	1007W_01	21180	56	2011-2018	633







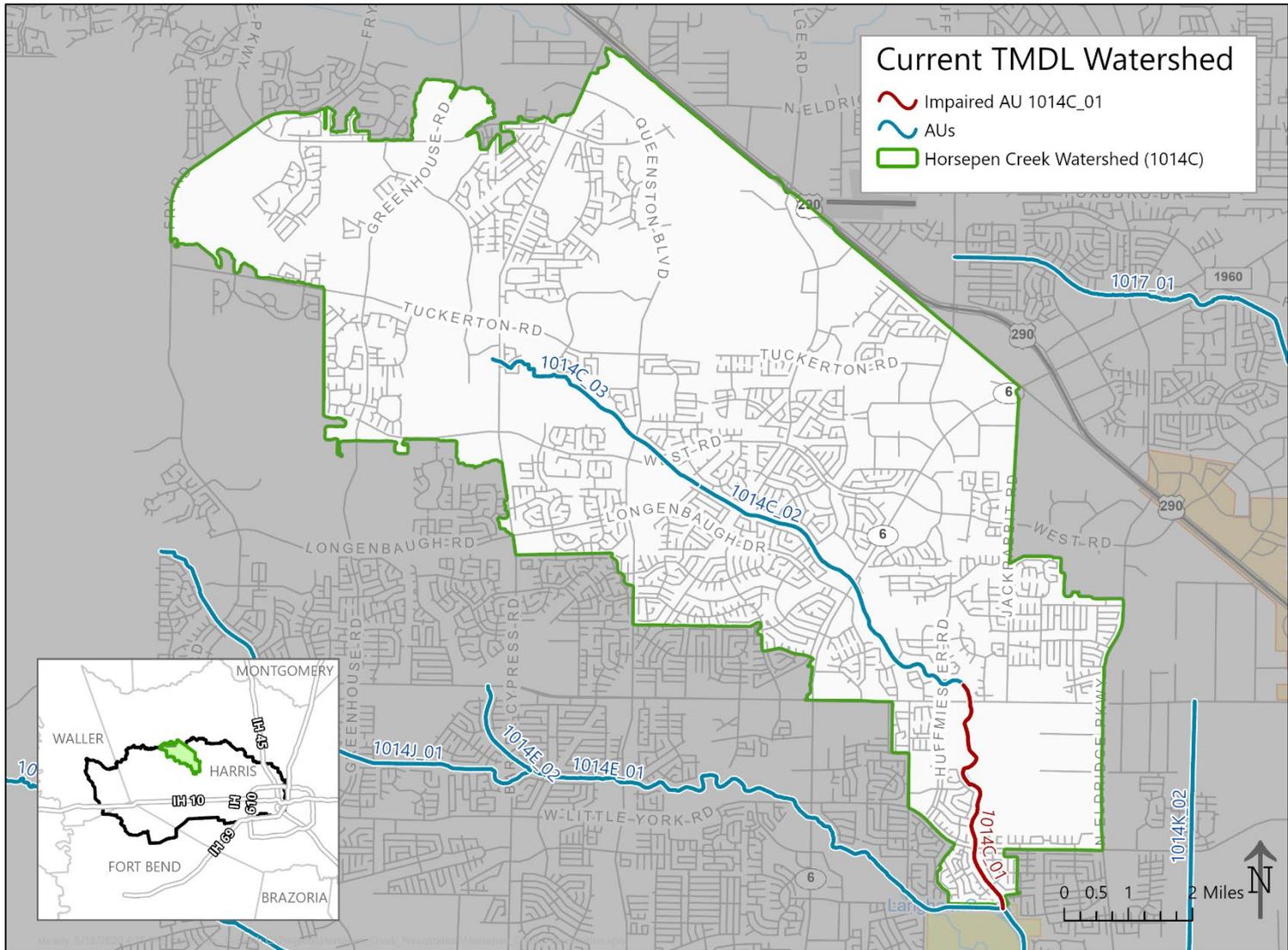
# Second NEW PROJECT

## Addendum to *Eighteen TMDLs for Indicator Bacteria in Buffalo and Whiteoak Bayous and Tributaries*

- Project waterbody
  - Horsepen Creek (1014C\_01)
- Approach for TMDLs – FDCs/LDCs



**Horsepen Creek at FM 529  
(Sampling Station 20465)**



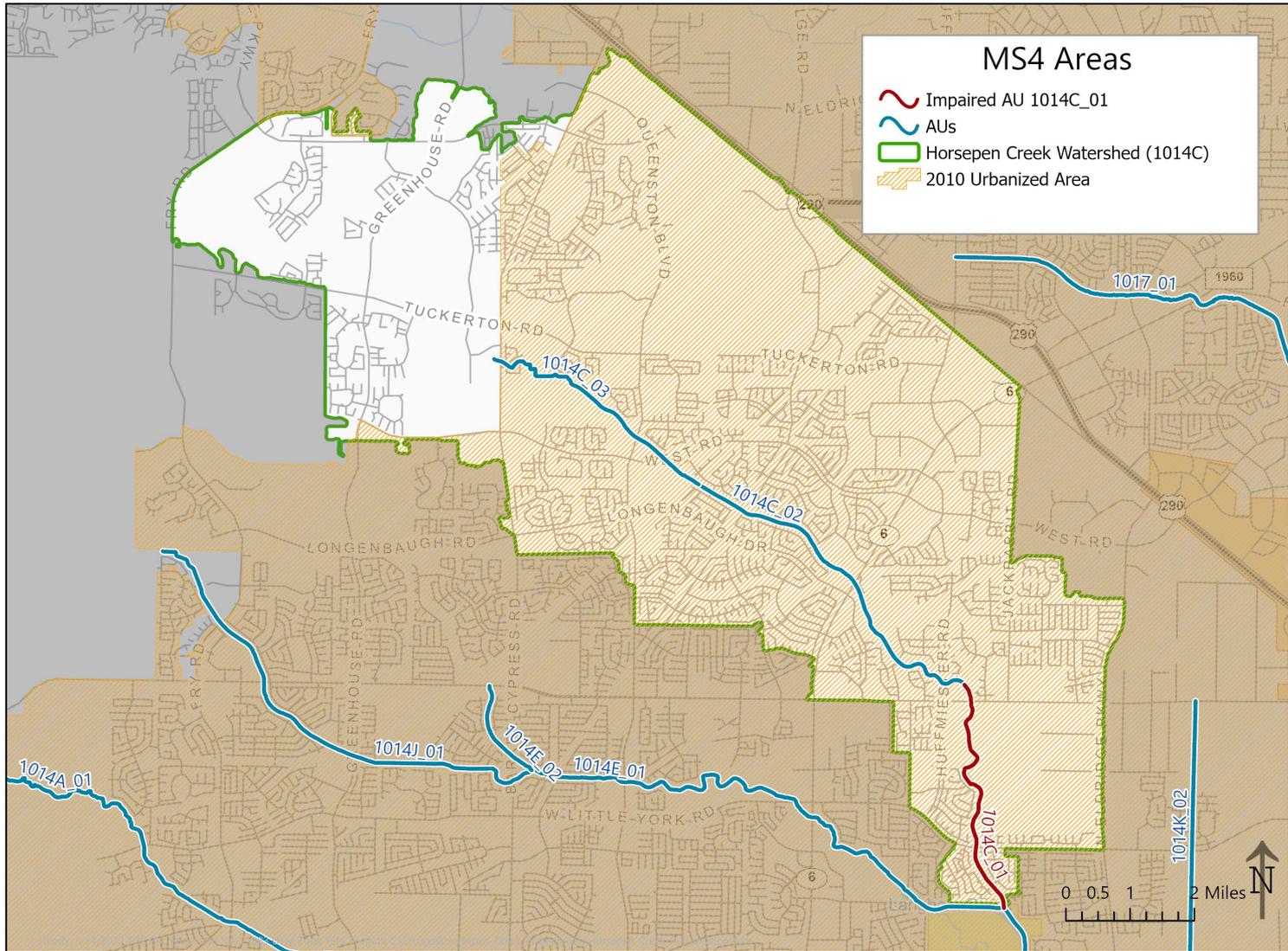
# Summary Integrated Report Findings for *E. coli* Assessment (criterion = 126 CFU/100 mL)

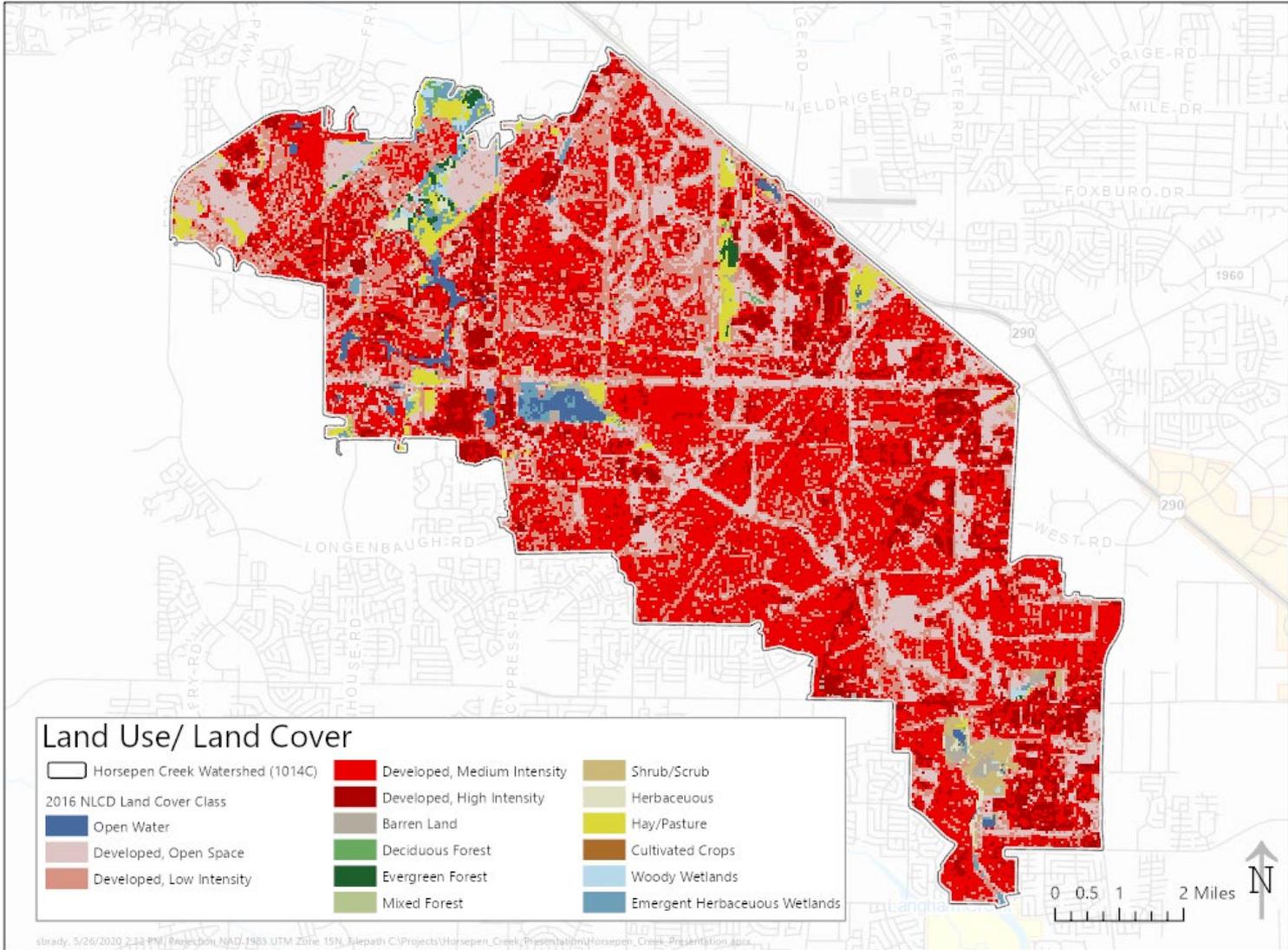
<b>Integrated Report Year</b>	<b>AU</b>	<b>Station</b>	<b>No. of Samples</b>	<b>Data Date Range</b>	<b>Geometric Mean (CFU/100 mL)</b>
<b>2016</b>	1014C_01	20465	28	2007-2014	359
<b>2018</b>	1014C_01	20465	28	2009-2016	350
<b>2020 (draft)</b>	1014C_01	20465	28	2011-2018	414



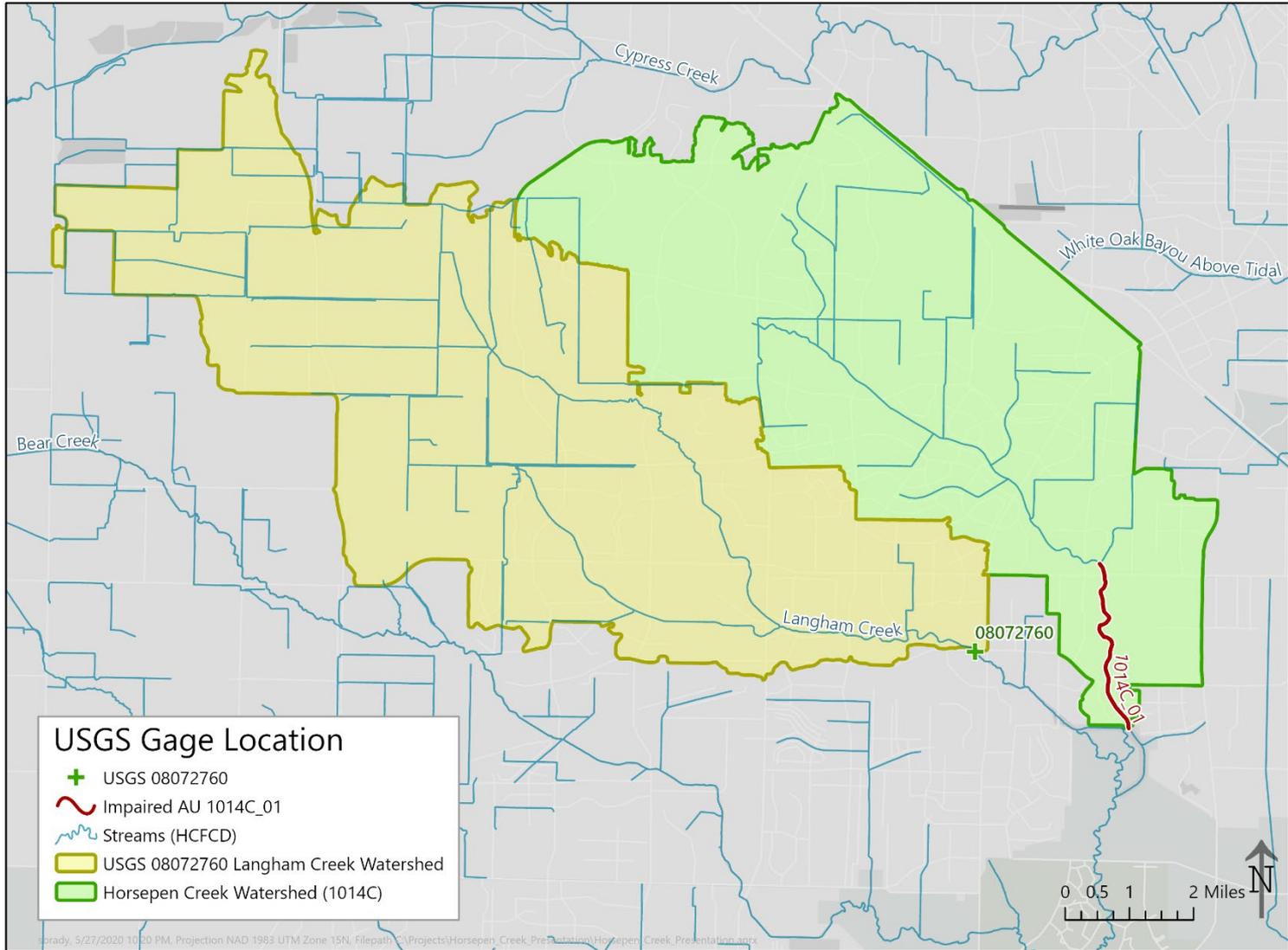
# Estimated Area under Stormwater Permit Regulations

<b>AU</b>	<b>AU Area within 2010 Urbanized Areas (acres)</b>	<b>AU watershed area (acres)</b>	<b>Percentage of drainage area under stormwater regulation (%)</b>
<b>1014C_01</b>	10,451	13,378	78.1









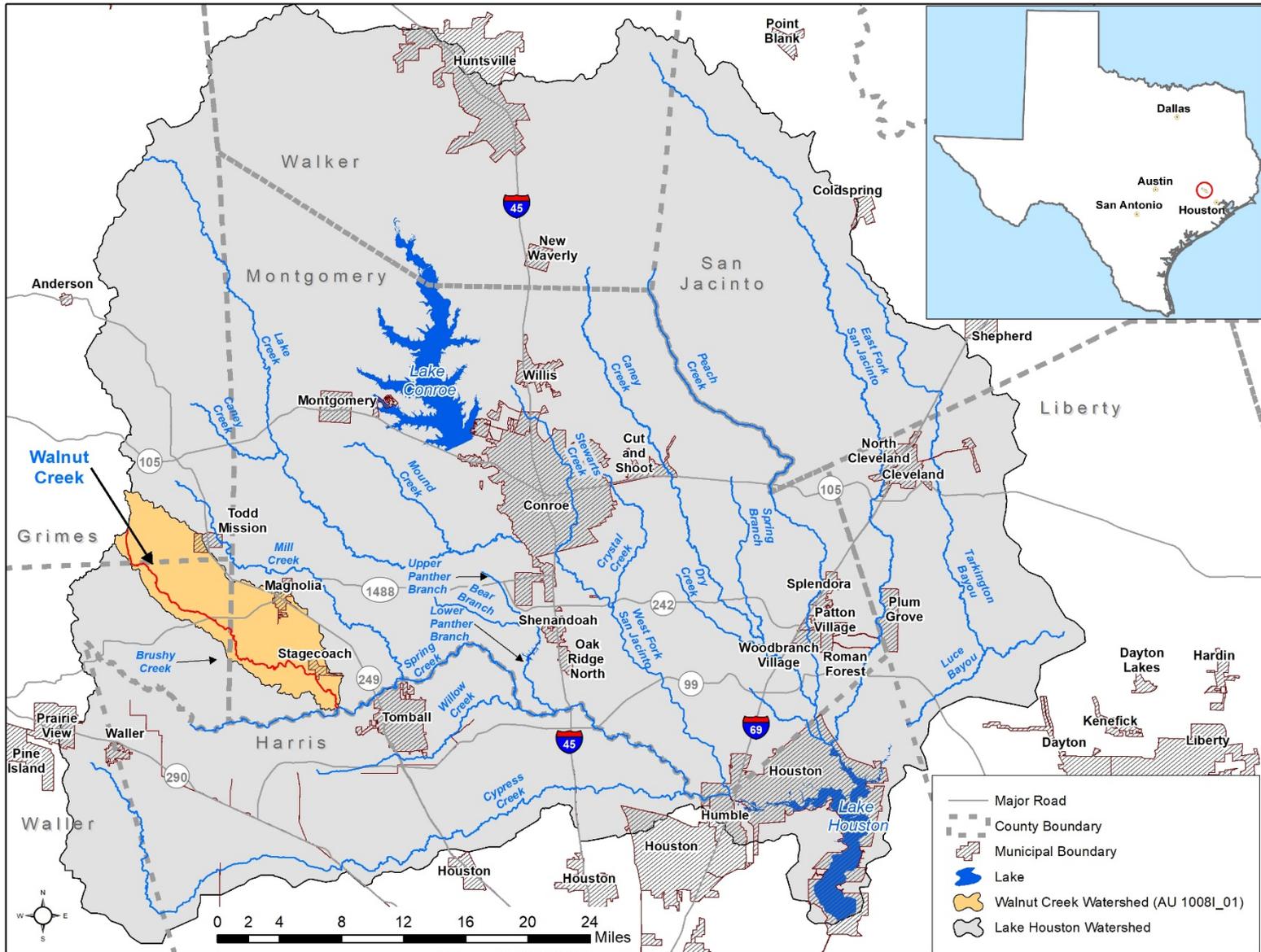
# Third NEW PROJECT

## Addendum to *Fifteen TMDLs for Indicator Bacteria in Watersheds Upstream of Lake Houston*

- Project water body
  - Walnut Creek (1008I\_01)
- Approach for TMDL – FDCs/LDCs

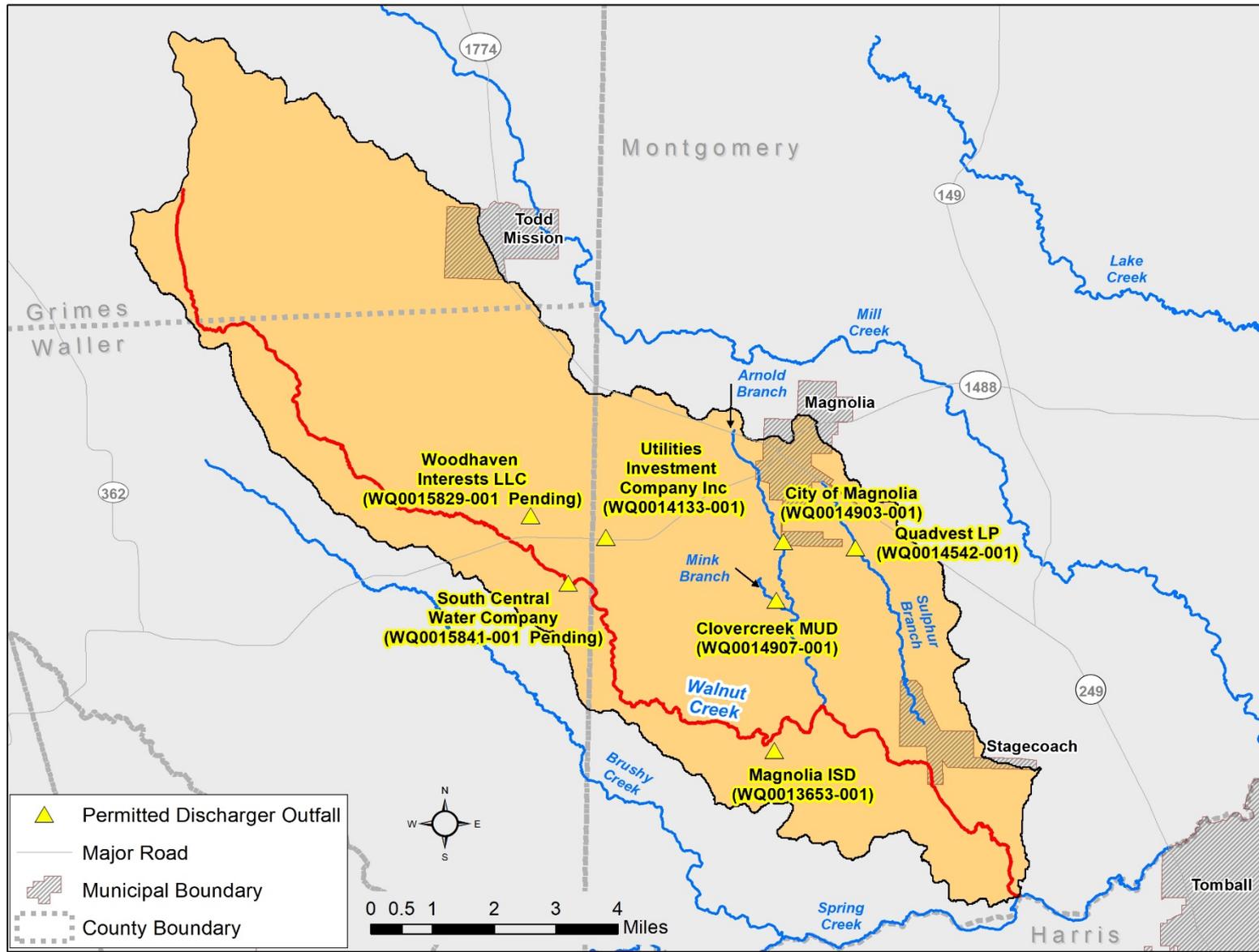


Walnut Creek at Decker Prairie-Rosehill Rd.  
(Sampling Station 20462)



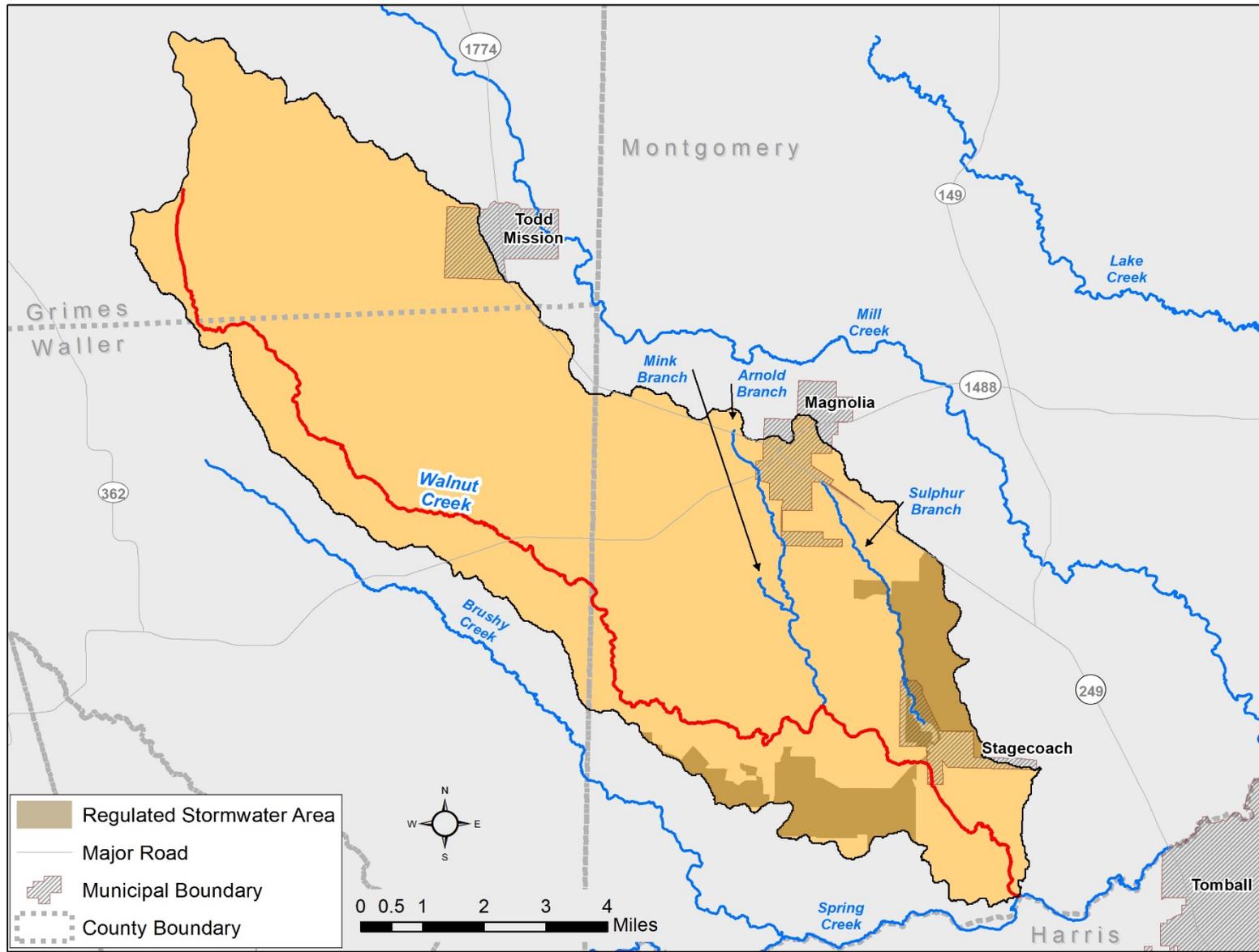
# Summary Integrated Report Findings for *E. coli* Assessment (criterion = 126 CFU/100 mL)

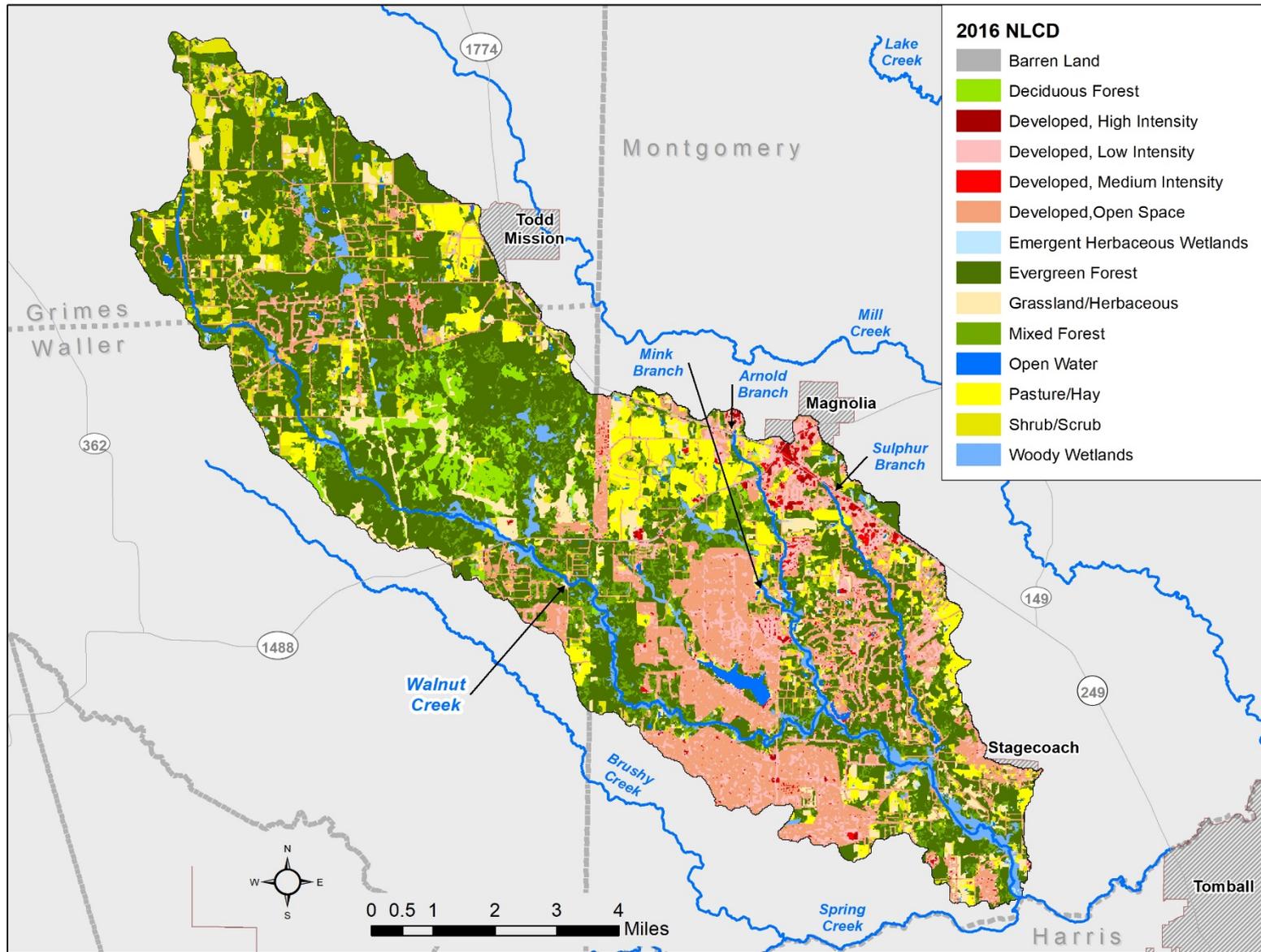
<b>Integrated Report Year</b>	<b>AU</b>	<b>Station</b>	<b>No. of Samples</b>	<b>Data Date Range</b>	<b>Geometric Mean (CFU/100 mL)</b>
<b>2016</b>	1008I_01	20462	21	2007-2014	184
<b>2018</b>	1008I_01	20462	22	2009-2016	193
<b>2020 (draft)</b>	1008I_01	20462	25	2011-2018	171

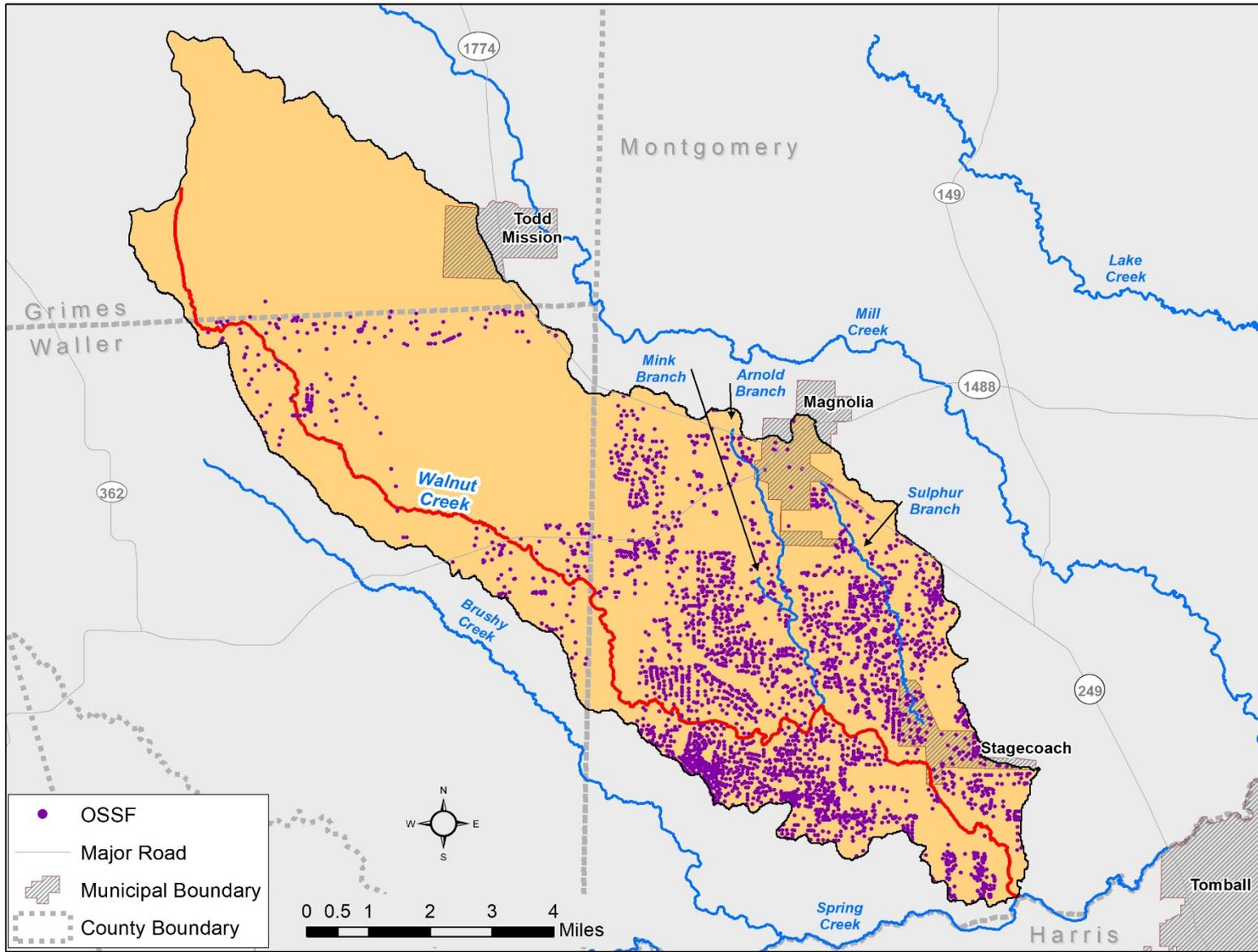


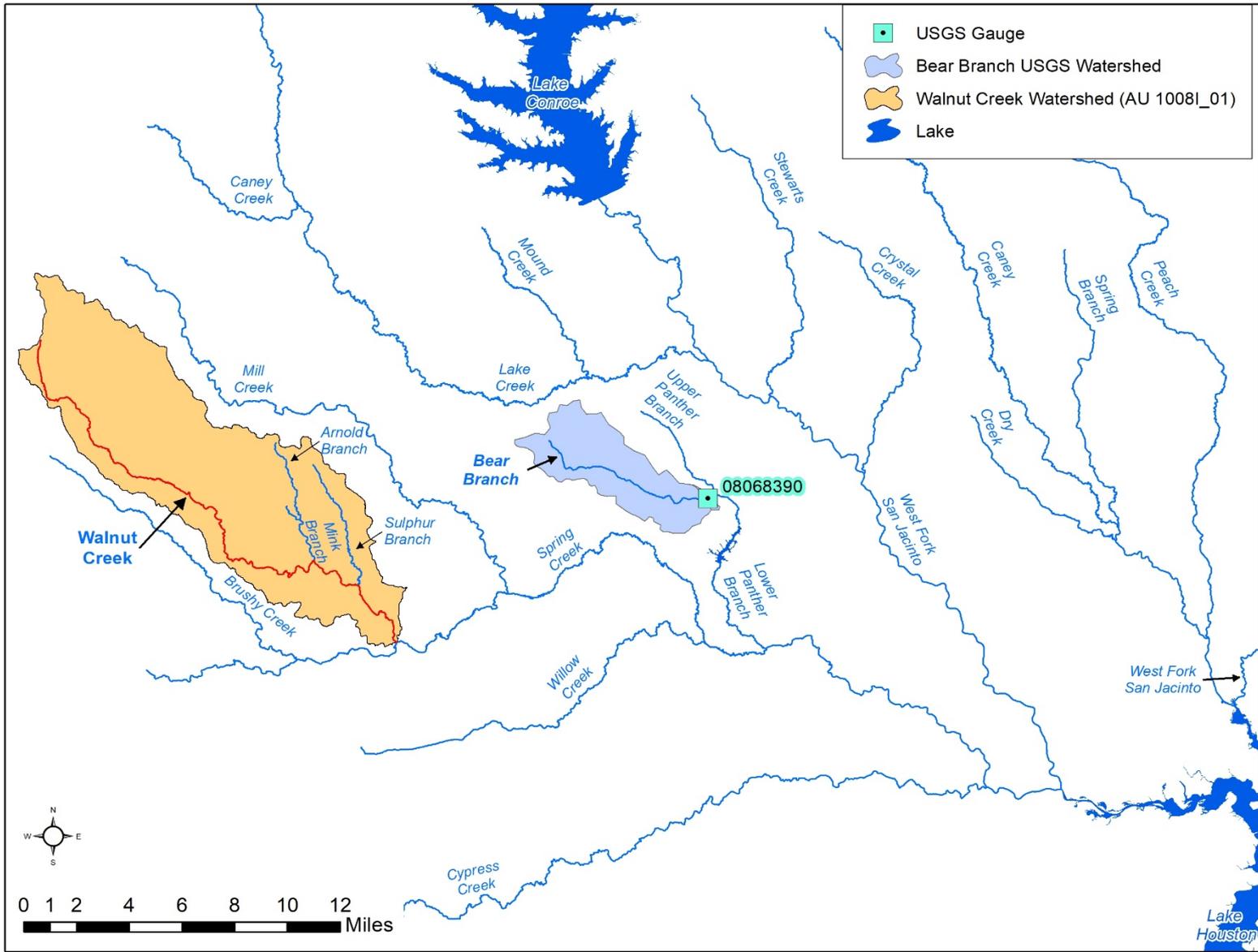
# Estimated Area under Stormwater Permit Regulations

<b>AU</b>	<b>AU Area within 2010 Urbanized Areas (acres)</b>	<b>AU Area under construction and other general stormwater permits (acres)</b>	<b>AU watershed area (acres)</b>	<b>Percentage of drainage area under stormwater regulation (%)</b>
<b>1008I_01</b>	3,538	3,231	48,987	13.8









# Status of TMDL Development

- Technical Support Documents (TSDs) to be completed by the end of Aug. 2020
- TSDs will be posted on TCEQ website (TCEQ will notify BIG when they are available for public review and comment)
- TCEQ will use TSDs to develop addenda to be included in Water Quality Management Plan updates

Thank You

Any Questions?

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