Improving Austin Streams
I-Plan Revision
Data Committee Status Update

12/16/2021

Data committee:

Yanjun Chu (AW)

Julie White (COA)

Becca Oliver (UT)

Tracy Janus (TxDOT)

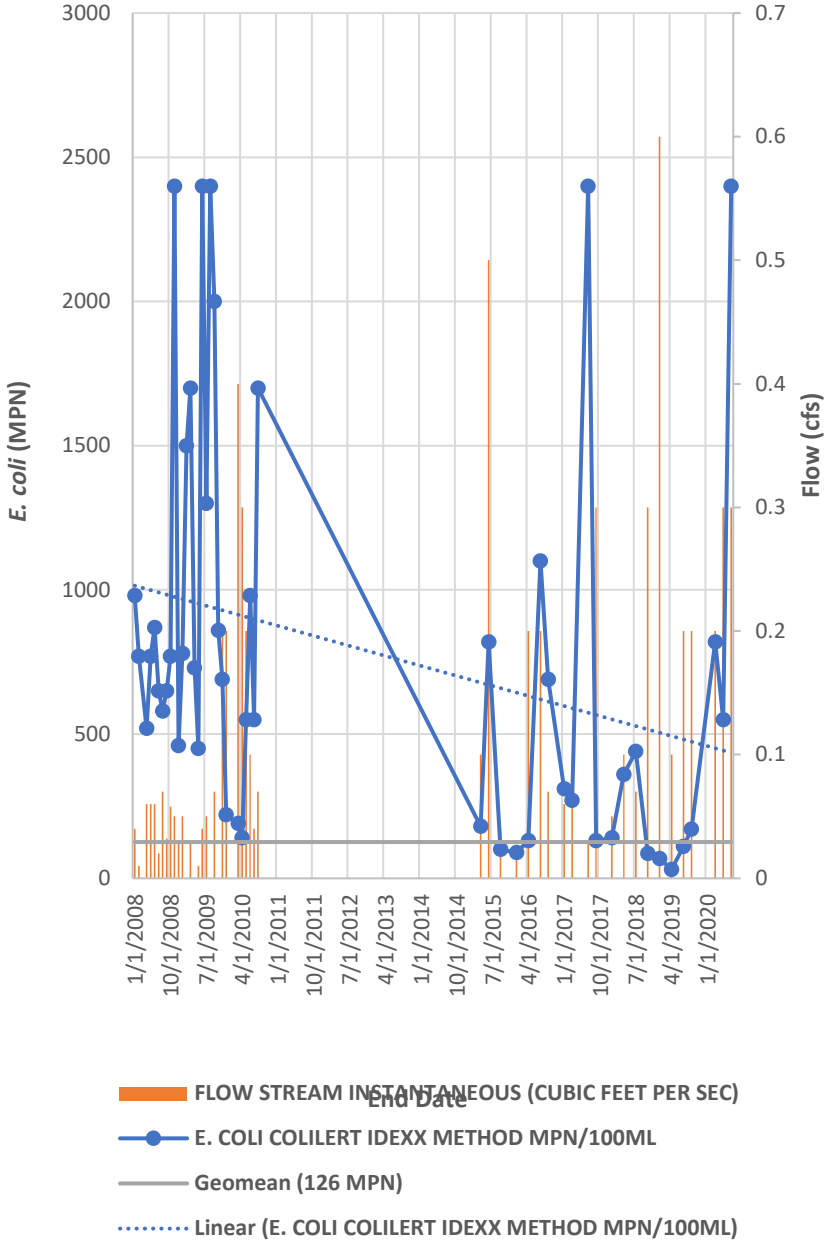
Andrew Clamann (WPD)

Task:
Gather and review existing data, and
Determine if additional data is needed

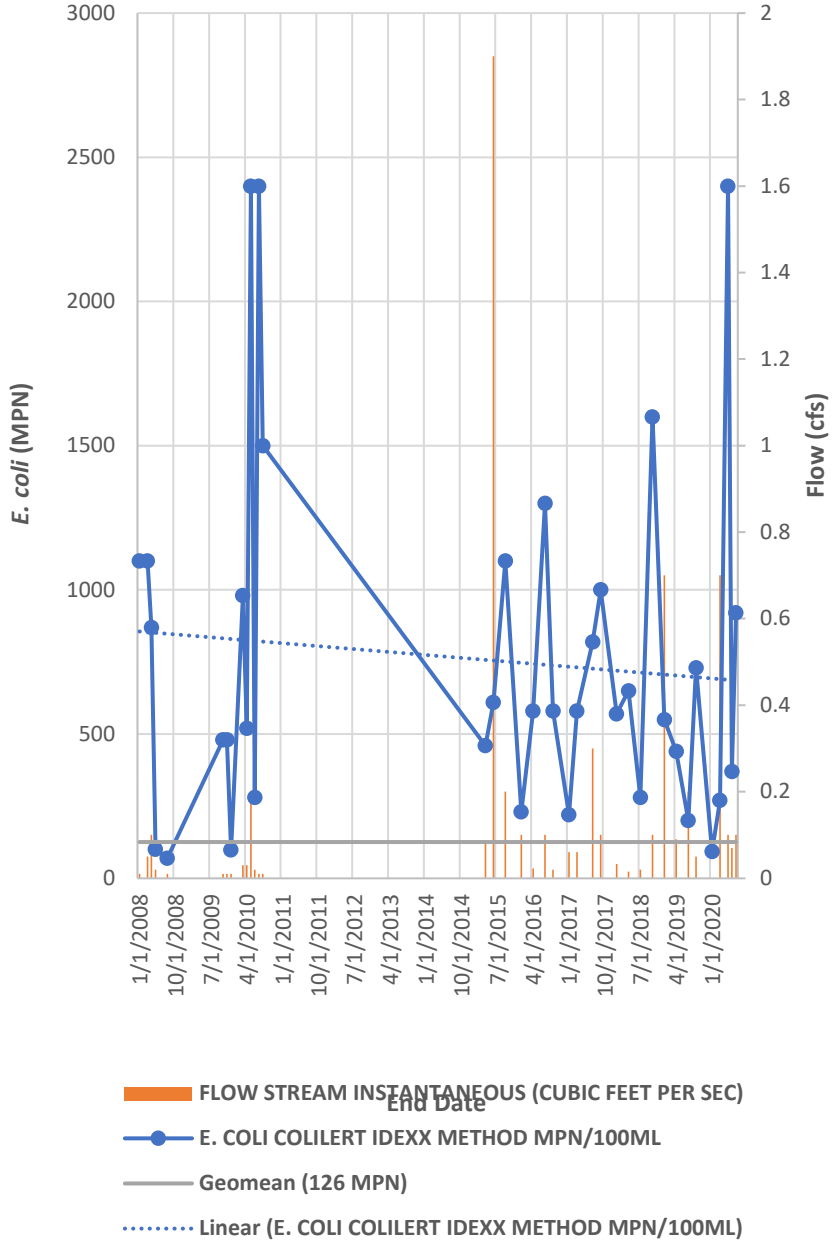
Available data for consideration:

- SWQMIS data (collected under QAPP)
- CRWN volunteer data (Walnut and Waller)
- City of Austin WPD reports and additional data (not included in SWQMIS)
- University of Texas reports and data

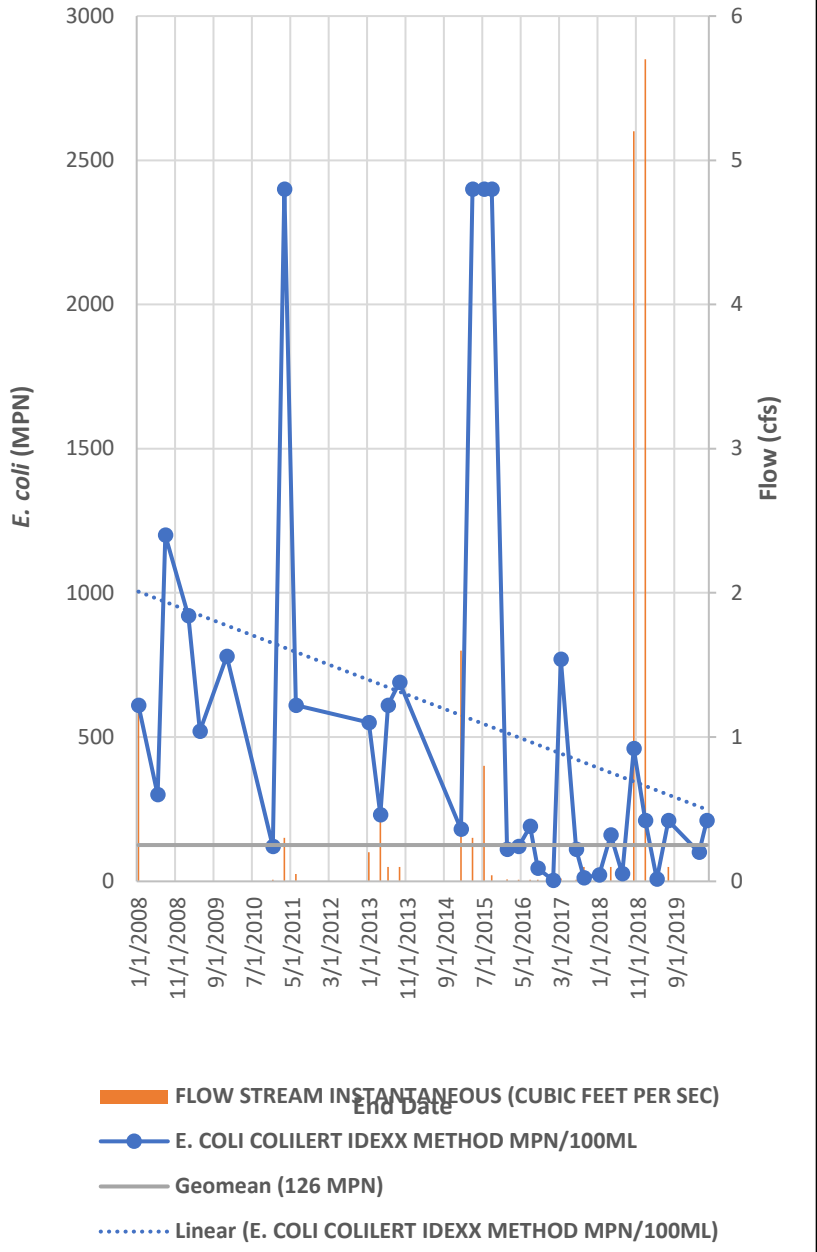
Station 16316 - Spicewood Tributary to Shoal Creek downstream Ceberry Drive January1, 2008 through May 1, 2020



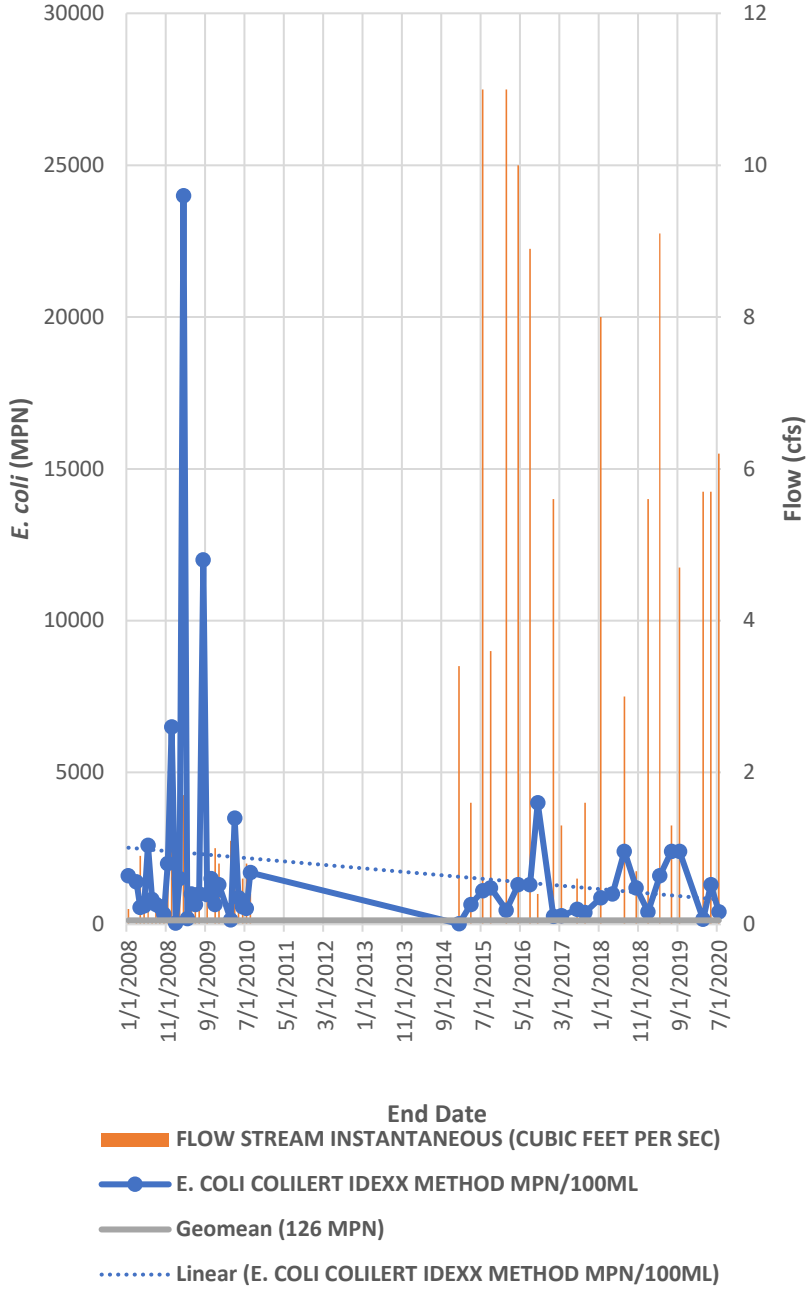
Station 17294 - Taylor Slough South downstream of Pecos Street January 1, 2008 through May 1, 2020



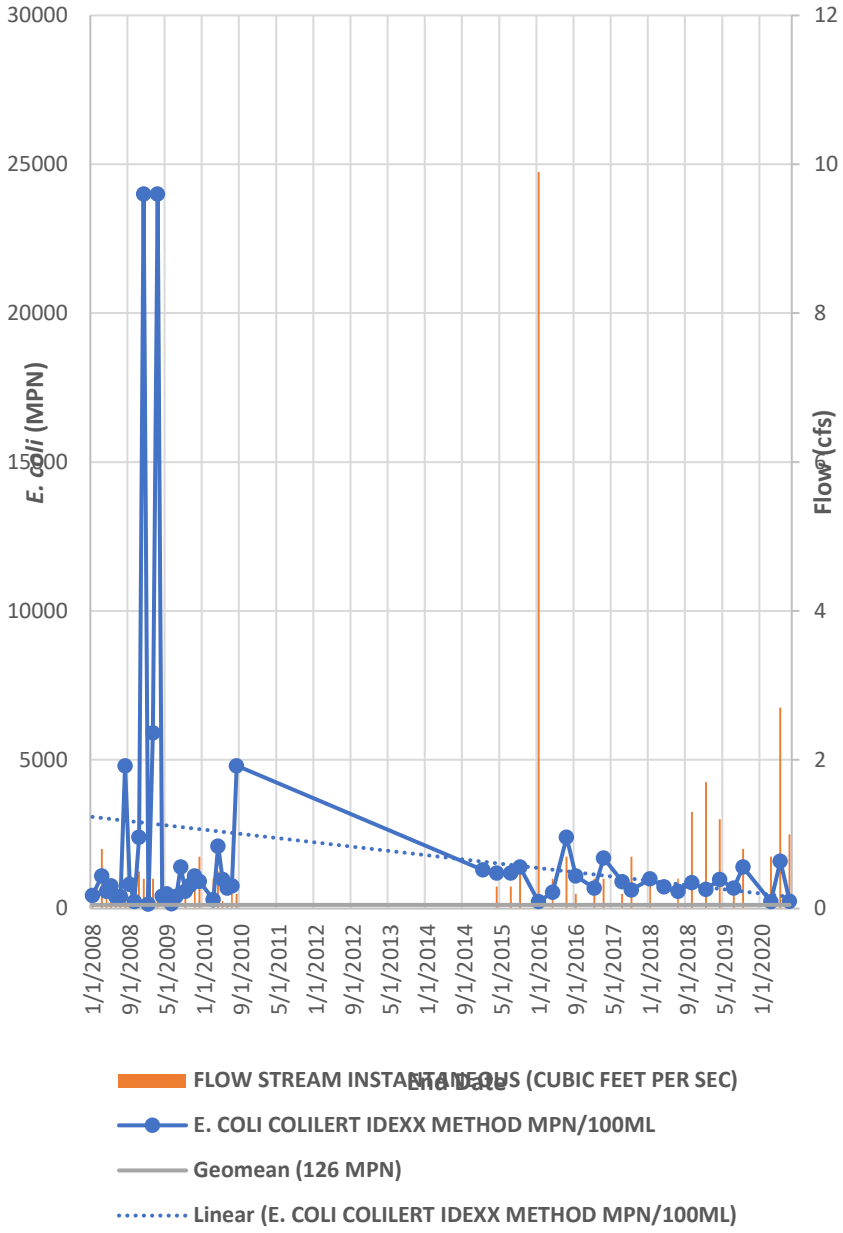
Station 17251 - Walnut Creek downstream Loop 1 January 1, 2008 through May 1, 2020



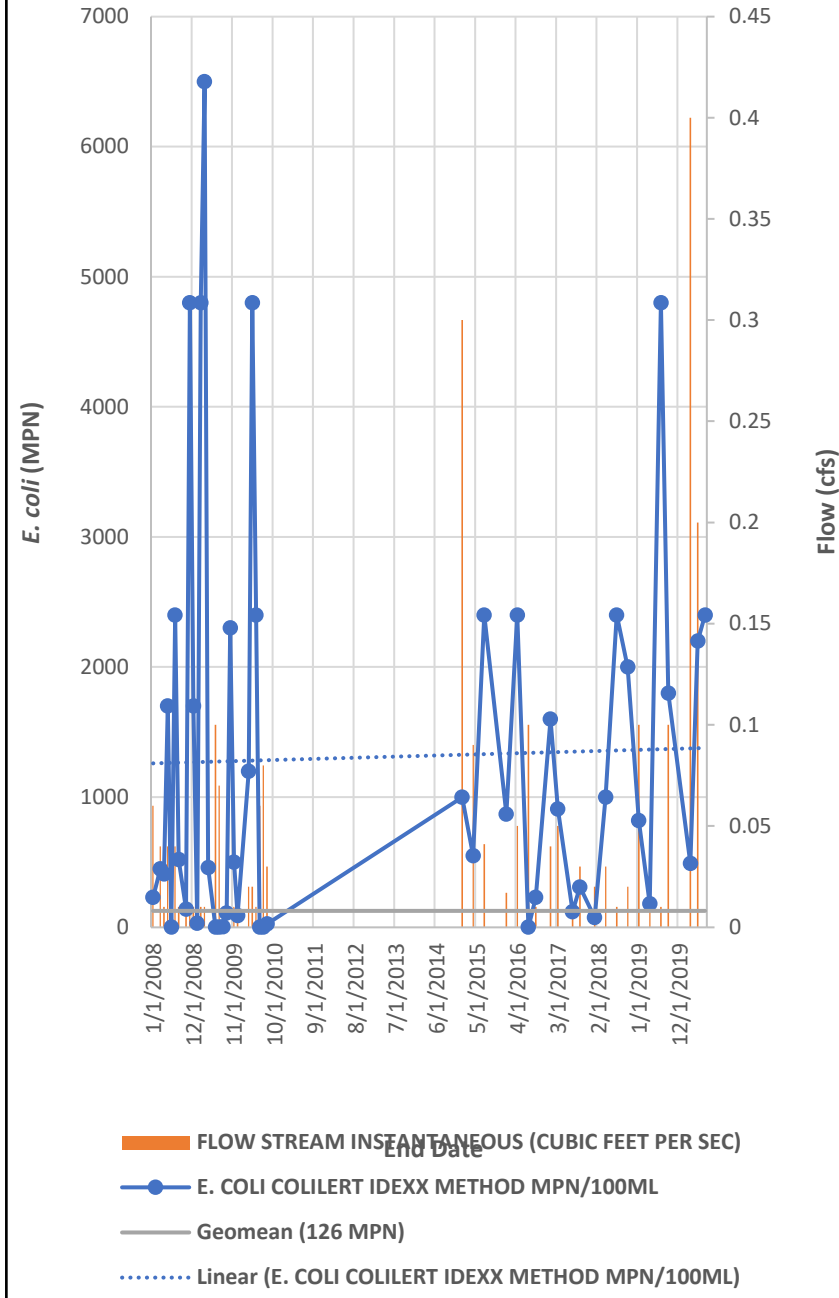
Station 12235 - Waller Creek at 2nd Street
January 1, 2008 through May 1, 2020



Station 15962 - Waller Creek at 24th Street
January 1, 2008 through May 1, 2020



Station 16331 - Waller Creek at Avenue H
January 1, 2008 through May 1, 2020



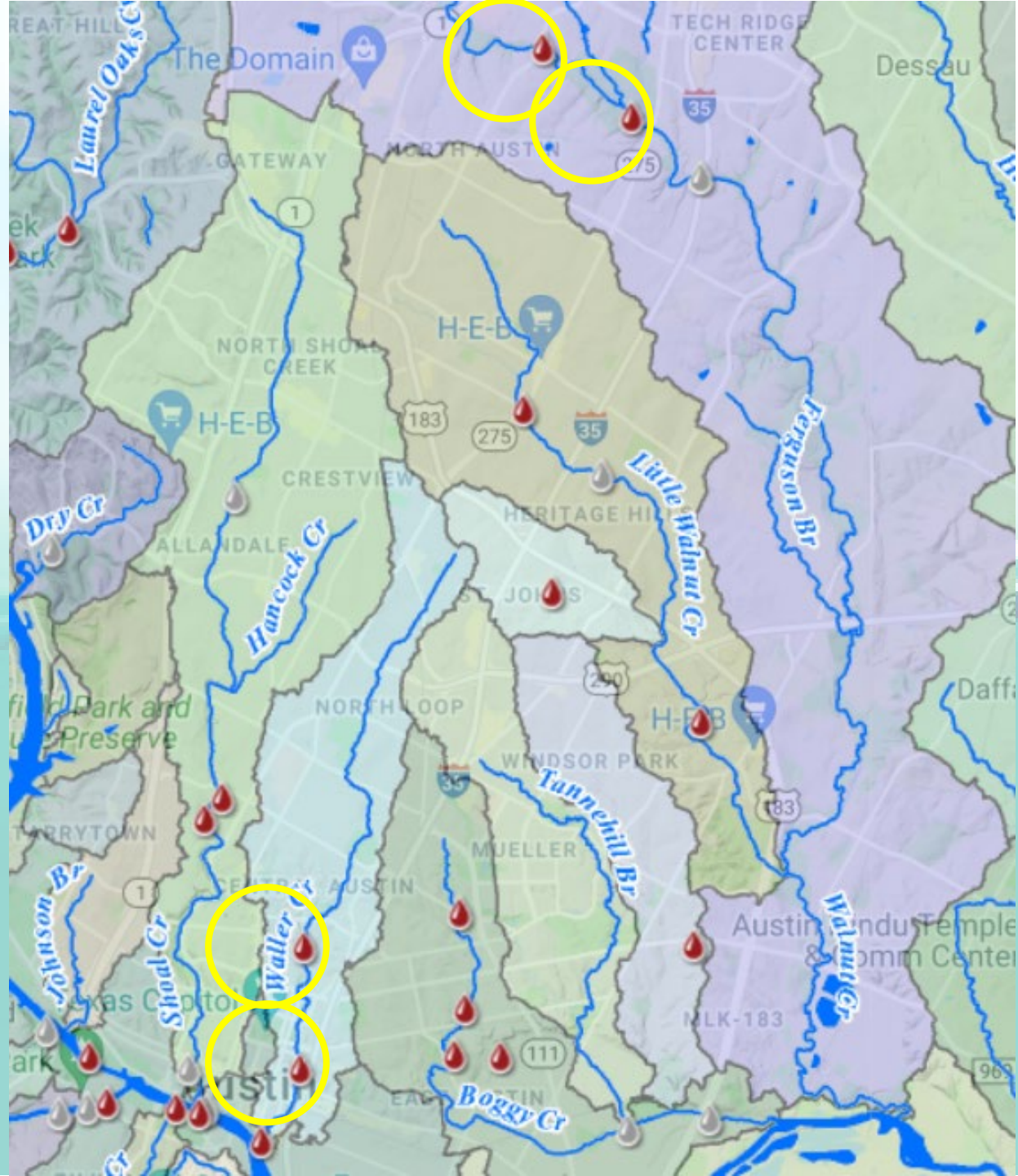
Colorado River Watch Network (CRWN) Water Quality Data

https://crwn.lcra.org/

Currently Monitored

Data committee decided not to include E.coli data from CRWN volunteer effort for one or more reasons discussed such as:

- Antecedent field conditions unclear
- Sample conditions unclear
- Not IDEXX method
- QA/QC unclear
- Only 2 sites appropriate (1 Waller, 1 Walnut)



Additional COA WPD data

Not included in SWQMIS

(not collected under TCEQ QAPP)

Collected/Analyzed the same

(method, lab, QA/QC, COA QAPP)

- Taylor Slough and Waller
- Partial fill of data gap (2010-2014)
- 24 records (only 1 flow measurement)
- Supplementary (of interest only)

Site ID	Location	Date	E.Coli	Flow (cfs)
318	Taylor Slough S at Reed Park	10/6/2010	>2419.6	
318	Taylor Slough S at Reed Park	12/8/2011	133.3	
318	Taylor Slough S at Reed Park	3/7/2012	365.4	
318	Taylor Slough S at Reed Park	7/5/2012	517.2	
318	Taylor Slough S at Reed Park	9/12/2012	387.3	
318	Taylor Slough S at Reed Park	1/15/2014	313	
318	Taylor Slough S at Reed Park	4/17/2014	235.9	
318	Taylor Slough S at Reed Park	7/2/2014	1203.3	
38	Waller at Cesar Chavez	12/1/2010	686.7	
38	Waller at Cesar Chavez	3/23/2011	222.4	
38	Waller at Cesar Chavez	6/7/2011	387.4	
38	Waller at Cesar Chavez	9/21/2011	158.5	
38	Waller at Cesar Chavez	1/22/2013	261.3	
38	Waller at Cesar Chavez	4/24/2013	517.2	
38	Waller at Cesar Chavez	6/26/2013	1203.3	
38	Waller at Cesar Chavez	9/26/2013	268.2	
624	Waller at 23rd Street	12/1/2010	727	0.3
624	Waller at 23rd Street	3/23/2011	290.9	
624	Waller at 23rd Street	6/7/2011	547.5	
624	Waller at 23rd Street	9/21/2011	365.4	
624	Waller at 23rd Street	1/22/2013	>2419.6	
624	Waller at 23rd Street	4/24/2013	920.8	
624	Waller at 23rd Street	6/26/2013	1119.9	
624	Waller at 23rd Street	9/26/2013	1553.1	

Towards a Mathematically-based Assessment of Bacteriological Water Quality in Austin's Streams

SR-20-01, July 2020

Abel Porras, P.E.
Leah Kocian

City of Austin WATERSHED PROTECTION

https://austintexas.gov/edims/document.cfm?id=346149

Includes:

- History of contact recreation threshold development
- Description of underpinning math (geomean, skew, etc)

- Evaluation of "recent" (2012-2018) and "long term" (2005-2018) E.coli datasets
- Sorting creek reaches into **"Episodic"** and **"Chronic"** categories

Geomean > 126	Geomean > 126
Most samples < 399	Most samples > 399
High geomean likely skewed by a few high samples	High geomean likely due to consistently elevated condition
Periodic event, storm-related pulses, etc	Cross connections, failing pipes, wildlife, dog park, etc

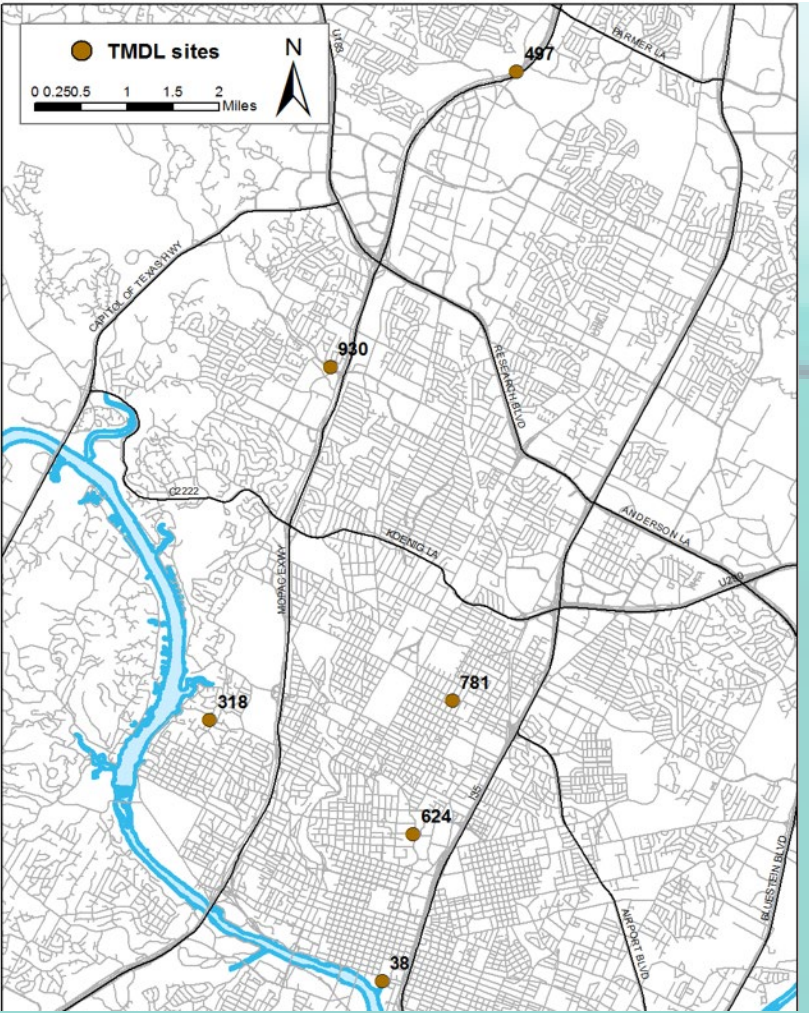
A Summary of Results from TMDL Bacteria Monitoring in Four Austin Streams (2014-2019)

DR-xx-xx; November 2021

Abel Porras, P.E. and Andrew Clamann;
City Of Austin
Watershed Protection Department
Planning, Monitoring, and Compliance Branch

DRAFT

City of Austin WATERSHED PROTECTION



Site Name	Site Number	Geometric Mean	n	GT399	Category
WLR ds Cesar Chavez	38	768.3	20	80%	Chronic
TYS @ Reed Pk	318	569.7	19	79%	Chronic
WLN @ Mopac/Loop 1	497	69.8	15	13%	Acceptable
WLR @ 23rd	624	918.4	20	95%	Chronic
WLR @ Shipe Pk	781	493.5	16	63%	Chronic
Spicewood Trib ds Spwd	930	216.5	19	26%	Episodic

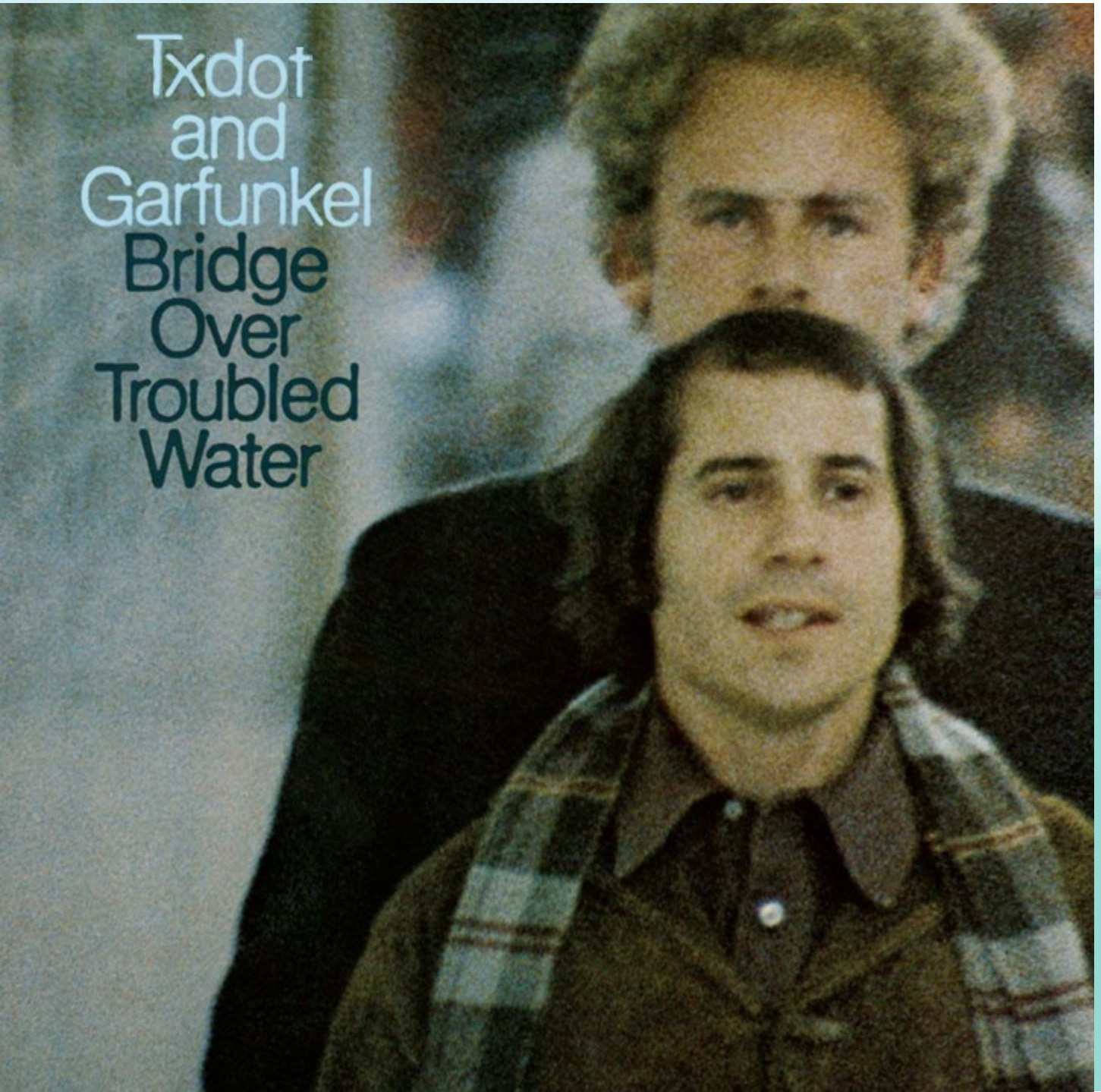
Austin WATER

City of Austin WATERSHED PROTECTION

Do not need additional data at this time for review

Preliminary plans to address/reduce bacteria include:

- Continued longitudinal surveys to identify sources
- Continued collaboration with spills/field ops/AW
- Continued baseflow monitoring to inform trends
- Continued efforts pursuant to SWMP permit



TxDOT

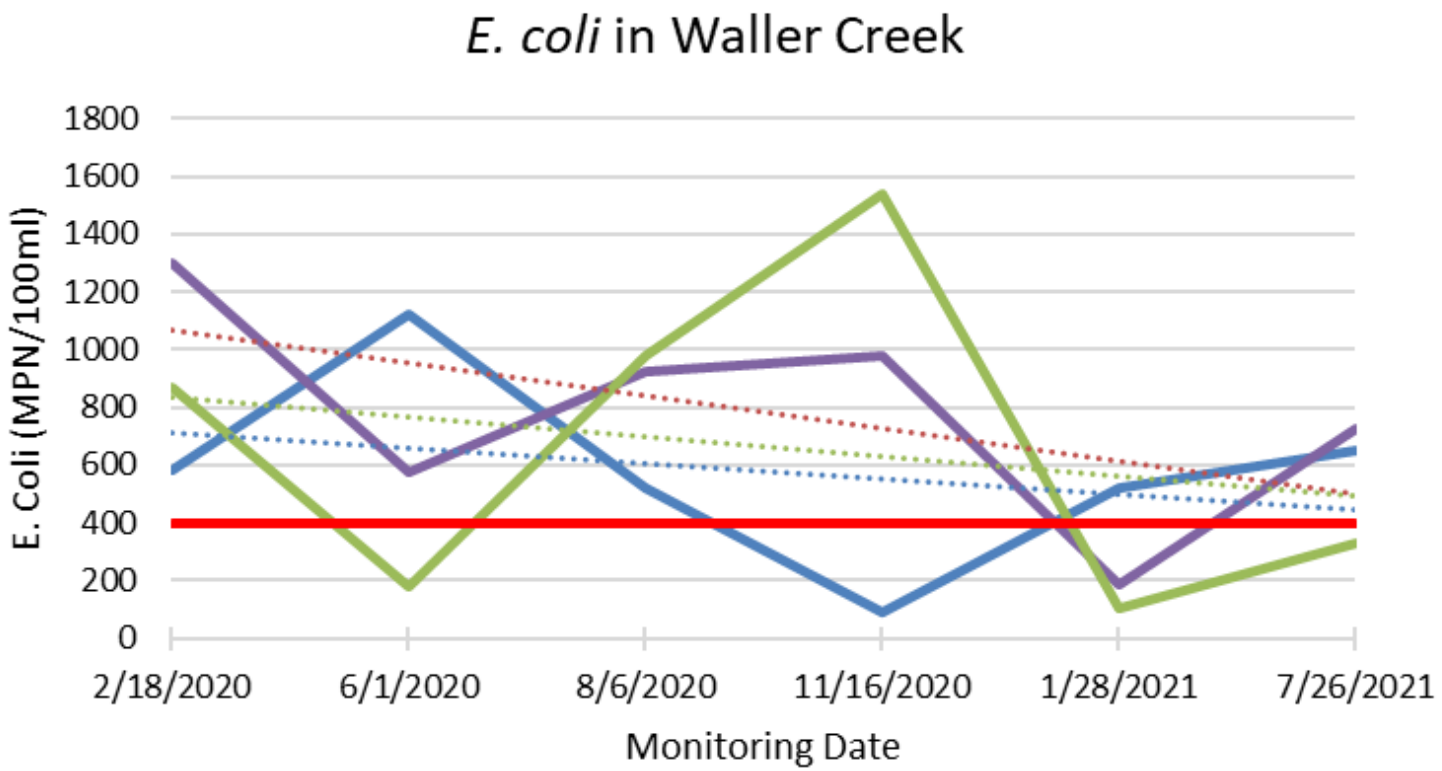
Does not need additional data at this time for review

Preliminary plans to address/reduce bacteria include:

- TxDOT will investigate our ROW for pollutant sources
- TxDOT will draft BMPs based on the observations made
- TxDOT will use a consultant to complete these activities

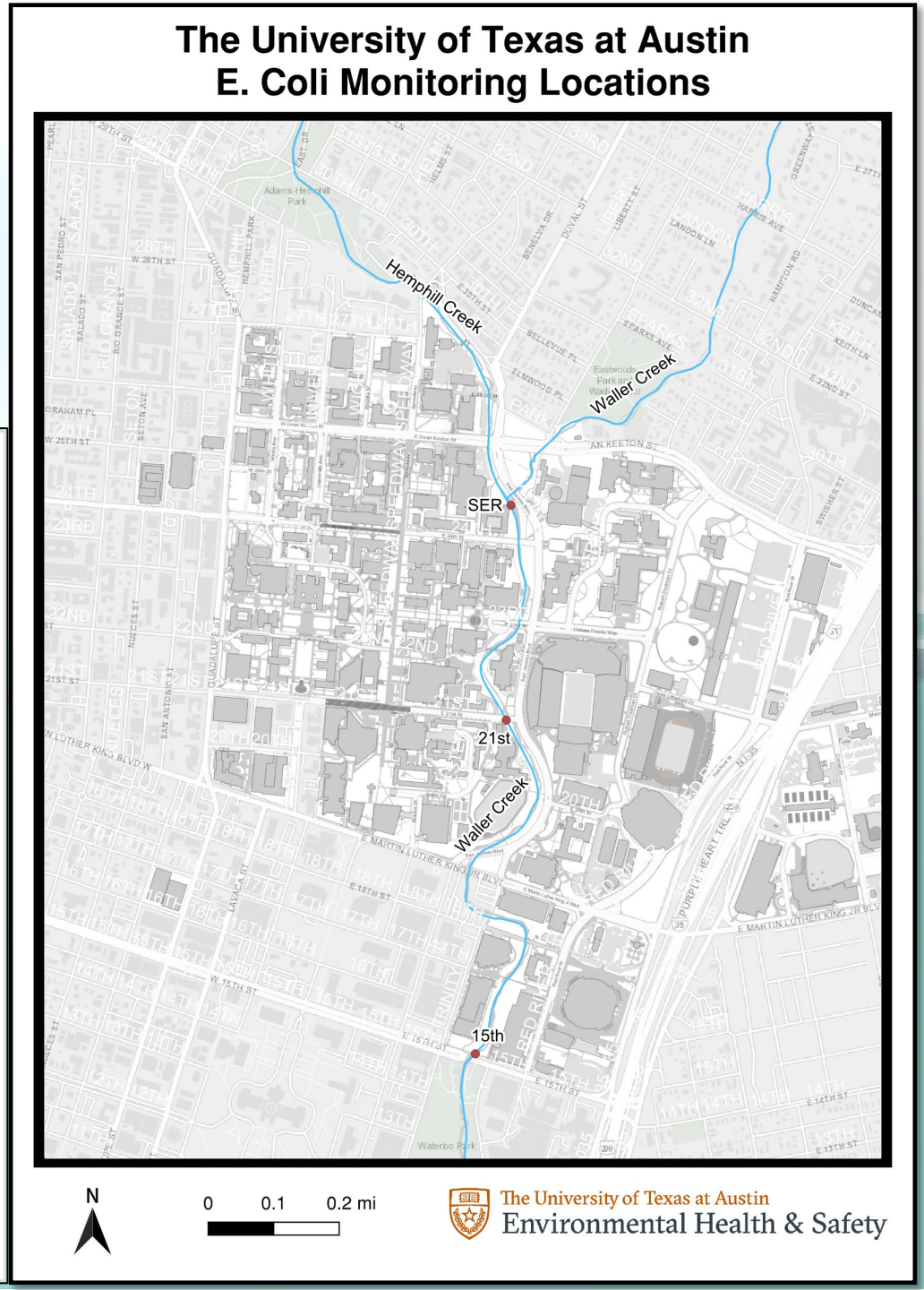
UT Austin Data

- Does not need additional data at this time for review
- Quarterly sampling at 3 locations since UT's new SWMP was approved in early 2020
- Intriguing work on genetics (publication forthcoming)



*TMDL Limit equal to the single sample criterion for *E. coli:* 399/100 mL.

n = 6



Task:

Gather and review existing data,
and
Determine if additional data is needed

Data Subcommittee findings:

- Existing data available appears adequate for evaluation, and
- No additional data is recommended