Nolan Creek WPP Advisory Stakeholder Meeting – Minutes

Date: Wednesday, August 22, 2018 Time: 10:00 a.m. – 11:30 am Location: Harker Heights Activity Center, Room C Participants: TIAER – Anne McFarland, Leah Taylor City of Harker Heights – Mark Hyde, Joe Hines, Billy Cude City of Killeen – Christopher Noll, Kristina Ramirez City of Nolanville – Kara Escejeda City of Belton – Angellia Points Landowner – Diane Connell TCEQ – Megan Henson TSSWCB – Mitch Conine, Wesley Gibson Bell County WCID #6 – Glen Grandy Fort Hood – Riki Young, Darla Gomez, Brent McGlothin Yalgo Engineering – Scott Brooks

Monitoring Update & Discussion:

<u>Water quality monitoring</u> – Handout given (Attachment 1, p. #s added) showing update of monitoring data and comparison to previous time period of data collected under the "characterization" project (T1: May 2013 – June 2015) to more recent data (T2: Sep 2016 – July 2018).

- Trends over time are shown on p. 3 of the handout indicating little change over time. The more recent data still show *E. coli* concentrations throughout the watershed above the state standard most of the time with routine monitoring under ambient conditions. On these charts showing the data over time, sampling events that were storm influenced were represented as open circles based on days since last precipitation.
- Geometric means are shown on p. 4 for the two-time periods. These geometric means include only samples collected under ambient conditions and exclude storm influenced values. Only station 18828, the most upstream station at 38th St in Killeen shows geometric mean concentrations below the 126 MPN/100 mL criterion. Of note, stations 21436 on Long Branch and station 21347 on Little Nolan Creek represent tributaries feeding into to South Nolan Creek. All other stations are along the mainstem of South Nolan or Nolan Creek.
- On p. 5 is a chart of the voluntary reporting data from wastewater discharges in the watershed through April 2018 showing that WWTFs are largely in compliance with discharges below 126 MPN/100 mL, except for on a few occasions.

<u>Question</u>: How far back does the data go? Is it possible these are the natural levels of bacteria in this area?

<u>Response</u>: Data does not go back decades, possibly to the 1990s. There was a change from fecal coliform to *E. coli* as the monitoring parameter several years ago, which makes this a confounding factor in evaluating historical data. There are some time series plots that were developed within the earlier characterization project, which should show more of the historical data for this area. Anne indicated she would find these plots and provide them to the group (Attachment 2).

Update on Status of Watershed Protection Plan (WPP):

- A draft of the WPP and Executive Summary for Nolan Creek/South Nolan Creek is out for public review and comment. The public comment period will close on September 7, 2018.
- Please direct comments either via email or regular mail to Anne McFarland.
- While both documents are important, Anne emphasized the need for input on the Executive Summary as it is likely to be more widely distributed. If there are things that would improve this document, please let Anne know.
- TCEQ has already reviewed the draft WPP to make sure it meets the nine elements required by EPA of a WPP.
- The next step after the public comment period is for review of the draft WPP by EPA (see Attachment 3 for updated timeline). Anticipate an approved WPP before the end of 2018.

Moving from Planning to Implementation:

How do we put this plan into action? Concerns brought up as the current project ends in March 2019, and it may take longer to get funding in place, say for example a watershed coordinator, given the municipal budget cycle.

<u>Question</u>: Is there a strict timeline required for implementation? Response from TCEQ: As long as there is an active group, then EPA (or TCEQ) is not likely impose implementation of a TMDL.

<u>Question</u>: Should we go ahead and add things into the plan that are already happening, such as some of the activities with the homeless community?

<u>Response from Stakeholder</u>: Maybe best to wait until the WPP undergoes review in a year as these activities are still being formulated.

<u>Question</u>: Can a grant cover the cost of a watershed coordinator? <u>Response</u>: Yes, the Clean Water Act 319 funding already aids in funding several such coordinators in Texas, but there is a required 40 percent match.

<u>Comment</u>: It still seems this is a shotgun approach without knowing what the problem is. Don't want to use taxpayer funds without knowing the source of the problem.

<u>Response</u>: The WPP does prioritize some less costly things first, such as dog waste, which is primarily educational outreach. A goal to keep down costs is to tap into educational efforts that are already occurring. With regard to better identifying sources, Microbial Source Tracking is included in the WPP, although TCEQ has requested that a review of the use of MST in Texas be done to help the group better define how MST will be used in the watershed.

<u>Question</u>: What is the minimum about of monitoring that is needed? (related to the need to track instream water quality as well as implementation of practices)

<u>Response</u>: Need to keep monitoring, but there is not a set number of sites or frequency required. The Brazos River Authority conducted routine quarterly monitoring at one spot (station 11907).

Question: If we are moving forward, where does the money come from to continue sampling?

<u>Comment</u>: The more data points, the better the information to potentially allow delisting. Sections of the creek may be delisted (as done based on previous monitoring), so this could occur incrementally.

<u>Comment</u>: Brazos River Authority may be willing to pick up some additional stations. Tiffany Morgan would be the likely contact. (Anne will follow up with Tiffany to see if she or someone else could meet with the group regarding continued monitoring.)

Comment: Cities need to agree on moving forward with a coordinator and continued monitoring.

<u>Comment</u>: CENTEX already provides a lot of educational outreach, which could potentially be tapped into and avoid duplication of effort. CENTEX does involve some entities outside the watershed, but its sustainability mission does include a focus on air, water, and conservation. (Anne will be meeting with the CENTEX staff and executive committees in October regarding the Nolan Creek/South Nolan Creek WPP and the potential involvement of CENTEX in its implementation.)

<u>Comment</u>: COGs are good at going after grants. The CTCOG should be involved. It may be that the coordinator could be integrated with the COG as a part-time position rather than fulltime.

<u>Response</u>: The CTCOG is aware of the WPP and has several individuals on the stakeholder mailing list. It was noted that there have been some personnel changes at the CTCOG, so the contacts list will need to be updated. Kristina indicated she would be in contact with the CTCOG and indicate there is a desire by the group to discuss more direct involvement of the CTCOG in implementation of the WPP.

Comment: Educational message need to be consistent across NPS and MS4 programs.

Some discussion on effectiveness of feral hog programs and need to trap hogs live if sold/used for meat.

Anne closed the meeting with a reminder of the deadline for public comments, September 7, 2018. Anne also announced that the Urban Stream Restoration Workshop had been rescheduled for November 29, 2018 in Belton.

Attachment 1



Nolan Creek/South Nolan Creek Monitoring Update

Map of monitoring stations under the Nolan Creek/South Nolan Creek WPP project. All stations but 11907 were monitored monthly by TIAER starting at most locations in September 2016. The Brazos River Authority (BRA) monitors station 11907 quarterly under the Clean Rivers Program. Stations 21436 and 21926 were removed and 11908 and 11905 added as primary monthly stations as of September 2017.

Station	Station Description	Latitude	Longitude	Start Date	End Date ²	Frequency	
ID			Louidia			E. coli	Flow
18828	South Nolan Creek at 38th St in Killeen	31.108091	-97.702156	Sep2016	Aug2018	monthly	monthly
21926	Long Branch at Tripp Trail in Killeen	31.134587	-97.697216	Sep2016	Aug2017	monthly	monthly
21927	Long Branch at Lake Road in Killeen	31.12176	-97.688445	Sep2016	Aug2017	monthly	monthly
21436	Long Branch just upstream of crossing of South Nolan Creek at Twin Creek Dr in Killeen	31.105946	-97.689364	Sep2016	Aug2018	monthly	monthly
18827	South Nolan Creek at Twin Creek Dr in Killeen	31.103470	-97.687851	Sep2016	Aug2018	monthly	monthly
21437	Little Nolan Creek off US 190 in Killeen	31.097143	-97.692268	Sep2016	Aug2018	monthly	monthly
11913	South Nolan Creek at Roy Reynolds Road in Killeen	31.099382	-97.671748	Sep2016	Aug2018	monthly	monthly
11912	South Nolan Creek at Amy Lane in Harker Heights	31.09361	-97.6589	Sep2016	Aug2018	monthly	monthly
11911	South Nolan Creek at FM 3219 in Harker Heights	31.086666	-97.648056	Sep2016	Aug2018	monthly	monthly
11908	South Nolan Creek at Levi Crossing	31.06467	-97.59333	Sep2017	Jul2018	monthly	monthly
11907	South Nolan Creek at US 190 east of Nolanville	31.066557	-97.579514	Brazos River Authority	Brazos River Authority	quarterly	quarterly
11905	South Nolan Creek at Backstrom Crossing	31.076666	-97.527496	Sep2017	Aug2018	monthly	monthly
14237	Nolan Creek at SH 93 in Belton	31.058743	-97.464989	Sep2016	Aug2018	monthly	monthly

Monitoring Site Locations and Monitoring Frequencies for Routine Sampling

1. Monthly monitoring is planned for two years under the project. After the first year of monitoring, some station locations were changed based on feedback from the stakeholder committee in an effort to better identify sources and track changes over time.



Station	Geomean <i>E.</i> <i>coli</i> (MPN/100mL) T1 (DSLP>3)	Geomean <i>E.</i> <i>coli</i> (MPN/100mL) T2 (DSLP>3)	T1	T2	T1 # Obs	T2 # Obs
18828	80	119	May2013 - Jun2015	Sep2016- Jul2018	25	19
21436	380	209	May2013 - Jun2015	Sep2016- Jul2018	24	19
18827	338	474	May2013 - Jun2015	Sep2016- Jul2018	25	19
21347	242	367	May2013 - Jun2015	Sep2016- Jul2018	25	19
11913	267	209	May2013 - Jun2015	Sep2016- Jul2018	24	19
11912		178	May2013 - Jun2015	Sep2016- Jul2018		19
11911	355	263	May2013 - Jun2015	Sep2016- Jul2018	25	19
11908	196	328	May2013 - Jun2015	Jun2017- Jul2018	24	11
11907		213		Sep2016- Jul2018		8
11905	161	193	May2013 - Jun2015	Sep2017- Jul2018	25	8
14237	201	194	May2013 - Jun2015	Sep2016- Jul2018	25	20



Grey bars represent tributary stations flowing into South Nolan Creek.



Average monthly *E. coli* concentrations reported by WWTFs for discharges within the Nolan Creek/South Nolan Creek watershed. Data represents monthly values from March 2012 through April 2018. Source: EPA ECHO.



Facility Name	Operator	TCEQ Permit #	Permitted Discharge (MGD)	Permitted Discharge (cfs)	Mean <u>+</u> Standard Deviation (MGD) ^a	Mean <u>+</u> Standard Deviation (cfs) ^a
Universal Services Fort Hood WWTF	Universal Services Fort Hood, Inc.	WQ0013358001	0.09	0.14	0.05 <u>+</u> 0.01	0.08+0.015
Bell County WCID No. 1 (Plant 2)	Bell County WCID No. 1	WQ0010351003	6	9.3	0 ^b	0 ^b
Bell County WCID No. 1 WWTF (Main Plant)	Bell County WCID No. 1	WQ0010351002	18	27.9	11.2 <u>+</u> 1.82 ^b	17.3+2.8 ^b
City of Harker Heights WWTF	City of Harker Heights	WQ0010155001	3	4.6	1.86 <u>+</u> 0.29	2.88+0.45
Bell County WCID No. 1 (Plant 3, South Plant)	Bell County WCID No. 1	WQ0014387001	6	9.3	2.55 <u>+</u> 0.88	3.95+1.36
Bell County WCID No. 3 WWTF	Bell County WCID No. 3	WQ0010797001	0.675	1	0.31 <u>+</u> 0.42	0.48+0.65
Blora WWTF	American Water Operations and Maintenance, Inc.	WQ0014994001	0.03	0.05	0.01 <u>+</u> 0.01	0.077+0.015
Temple Belton Regional WWTF	Brazos River Authority	WQ0011318001	10	15.5	Not accessed, discharges below monitoring stations	Not accessed, discharges below monitoring stations

Wastewater Treatment Facility Discharges to Nolan Creek/South Nolan Creek

a. Mean discharge based on reported values between August 2010 and June 2015 from EPA ECHO.

b. Reported discharges for the Bell County WCID No. 1 (Plant 2) are included with reported values for Bell County WCID No. 1 (Main Plant).

Attachment 2

Historical bacterial data for Nolan Creek/South Nolan Creek as obtained from the TCEQ Surface Water Quality Information System can be found in the Data Inventory for the Nolan Creek/South Nolan Creek Watershed Segment 1218 report available at:

http://t-

nn.tarleton.edu/docs/nolan_creek/publications/Nolan_Data_Inventory_Report(revDec2015)FINAL.pdf

Station 11907 has the longest history of data and a plot from the Data Inventory report is prestned below. Historical data for fecal coliform and *E. coli* are included. Prior to 2001, fecal coliform was the primary bacteria parameter monitored, while after 2001, a shift to using *E. coli* predominately monitored. While the *E. coli* criterion for primary contact recreation is 126 MPN/100 mL, the criterion for fecal coliform was 200 cfu/100 mL. Units of most probably number (MPN) and colony forming units (cfu) are used interchangeably by TCEQ.



Figure 5-6 Bacteria data over time for station 11907 in AU 1218_02.

Attachment 3

WPP Updated Timeline -

