

# Nolan Creek WPP Advisory Committee Meeting – Minutes

**Date:** Wednesday May 4, 2016

**Time:** 1pm – 3pm

**Location:** Harker Heights Activity Center, Room A

## **Participants:**

TIAER - Anne McFarland, Leah Taylor

City of Harker Heights – Mark Hyde, Paul Murray, Richard Fierro, Joe Hines

Fort Hood – Kelly Collins

City of Killeen – Kristina Ramirez, Peter Vento

City of Nolanville – Kara Escjeda

Bell County WCID1 – Richard Garrett

City of Belton – Aaron Harris, Paul Romer

Landowner – Jerri Gauntt, Scott Brooks

NRCS – Kyle Wright

TPWD – Jennifer Bronson-Warren

Bell County WCID6 – Glen Grandy

## **Topics Discussed:**

Introductions – Introductions were made including name and interest in the Nolan Creek/South Nolan Creek watershed.

- A summary of the project background, partners, and funding was provided by TIAER.

Watershed Partnership Structure – an overview of the watershed partnership structure including roles of the stakeholder committee, technical advisory group, TIAER, TCEQ, and EPA was presented.

- Technical Advisory Group – the group’s role in the project is to provide technical guidance during the development of the WPP
  - Examples for the technical advisory group include individuals from AgriLife, NRCS, and TPWD with expertise in specific areas.
- Stakeholder Committee – committee members, as part of the Nolan Creek/South Nolan Creek Advisory Committee, are expected to attend scheduled meetings focused on specific milestones in the WPP planning process by participating fully in group deliberations through sharing insights, suggestions, and concerns.

Overview of a WPP – an overview of EPA’s nine elements were provided to the committee (see Attachment 1)

- TIAER addressed EPA’s nine elements required as part of a WPP.
- Additionally, TIAER noted that elements a), b) & e) were largely addressed in the previous Nolan Creek characterization project and that elements c) & d) dealing with management measures were priority to stay in line with the project timeline.

Nolan Creek/South Nolan Creek WPP Timeline – a timeline of deliverables was provided to the committee (see Attachment 2).

- The first milestone TIAER noted was the water quality monitoring plan that is due May 31, 2016
- TIAER made the committee aware of the November 31, 2017 due date for the Draft WPP.

- TIAER acknowledged that committee participation is essential to success in developing the WPP.

Proposed Outline of Implementation Activities – Examples of outreach activities were provided by TIAER to the committee (Attachment #3). TIAER requested that the committee review the activities and provide input on implementation activities most compatible in the Nolan Creek/South Nolan Creek watershed.

Feedback from Committee on Implementation Activities –

- To get the discussion started, TIAER noted an increase in bacteria concentrations at station 14237 within Yettie Polk Park in Belton and the presence of ducks noted by the field crew during almost all sampling events.
- The TPWD representative suggested contacting the local TPWD biologist to assist in educating people about why they should not feed ducks in that ducks likely contribute to the high bacteria concentrations in stream locations within parks.
  - It was stated that the City of San Antonio has had a high success rate in utilizing assistance from the TPWD in this outreach activity
  - TPWD will direct those resources to TIAER
- The new dog park in Killeen, which is located near station 11915, was discussed.
  - Input provided was that while bags are provided to dispose of dog waste, people are not utilizing them, so education on the impact of pet waste is needed.
- It was also suggested that people whose backyards back upped to the Nolan Creek/South Nolan Creek might be targeted about proper disposal of pet waste.
- A question was asked by a committee member regarding the possibility of obtaining funding to identify specific sources of bacteria. If we better know the sources, it would be easier to target management practices.
  - Anne McFarland from TIAER indicated that this has been brought up as a desire by stakeholders in the past to look into bacteria source tracking (BST) and that efforts are being made to try and find funding for such a study.
  - A representative from the City of Belton indicated that a grant for BST that they had supported that went to EPA did not get funded. (*This was a proposal submitted by Dr. June Wolf at AgriLife in Temple to the EPA Urban Water Small Grants program.*)
  - Input from the technical advisory group was that funding via EPA was unlikely because EPA does not seem to favor bacteria source tracking (BST) in part because bacteria can change genetically.
  - It was also noted that TPWD considers BST a good indicator of presence/absence for various sources, but does not consider it a good indicator of abundance.
  - Others noted that the Lampasas WPP did receive a grant for BST in part because they identified BST as a want/need within their WPP.
  - This led to some discussion about alternative funding sources for BST if grant funding was not possible. Could BST perhaps be paid for through an MOU between stakeholders in the watershed? Separate discussion occurred questioning the value of BST and whether it would be of value if done in the watershed.
  - TIAER indicated that they would check on costs and potential funding options for BST and get back to the advisory group. Also, TIAER will check into the “state of the science” to see if information can be provided to the group on the usefulness of BST.

Water Quality Monitoring Plan – A map was provided by TIAER to the committee identifying the 11 water quality monitoring stations used in the characterization project as well as a bar chart of geometric mean *E. coli* concentrations (see Attachment #4). It was explained that for the current project, there is funding for two years of monthly monitoring at 10 stations. The purpose of the monitoring is to evaluate conditions to see if improvements are occurring but also to better identify potential source. It has been recommended in previous discussions that two stations (one on Long Branch and an additional station on Little Nolan Creek) be added as these two tributaries to South Nolan Creek appear to be contributing high bacteria concentrations. If an additional station is added on Long Branch and Little Nolan Creek, then three stations from the previous monitoring program need to be dropped. TIAER suggested dropping stations 11915, 18828, and 11908, but then opened the discussion to the group to discuss this and other monitoring options.

Input from the committee regarding water quality monitoring locations –

- The committee inquired about using data collected from Texas Stream Team and/or municipalities so more water quality monitoring stations could be considered.
  - TIAER answered that TCEQ has highly encouraged the use of volunteer entities, such as Stream Team or municipalities, to collect water quality monitoring samples. These data can be used for informational purposes in the WPP development, but these data cannot be submitted to TCEQ or used for assessment purposes by TCEQ unless analyzed in an accredited laboratory. Other suggestions included utilizing students at Central Texas College and Mary Hardin-Baylor as volunteer monitors.
  - The City of Killeen (CoK) raised the question, if CoK hired TIAER to collect and/or analyze some samples using TIAER's National Environmental Laboratory Accreditation Program (NELAP) lab, could these data be used by TCEQ and input into SWIQM?
    - TIAER responded that this may be possible and would check with TCEQ to see if this would be acceptable and, if so, would get cost information to the CoK.
  - An idea proposed by a committee member was to move sites around after a set amount of time. An example would be for 12 months have 10 sites at a certain locations then for the second 12 months, move some sites to other locations. This would allow focusing monitoring more densely in certain areas to target sources and would also seem to stay within the parameters of the project contract.
    - TIAER responded that they would check with TCEQ to see if this might be an acceptable option.
- The City of Killeen shared their success in removing septic systems in a neighborhood within the Little Nolan Creek watershed, where elevated bacteria concentration have been noted. The City of Killeen also noted fixing cracked clay lines, and providing pet waste stations at parks as things that are already being done to aid in decreasing bacteria.
  - The City of Killeen noted they would really prefer to see a monitoring station be added on Long Branch rather than Little Nolan Creek if it came down to an either or situation.
- A stakeholder noted that an area of interest for education on septic systems may also be along FM 439 outside of Nolanville. Comments made were in regards to the design of some of these septic systems as being an “engineering failures” with drain fields often saturated during and after rainfall events. Also some systems involved pumping up gradient to drain fields.

- A question regarding compliance guidelines for OSSFs was asked. Is there some way to obtain funding to help people get a new septic system?
  - Feedback was that people would be unlikely to agree or have the resources (even with some assistance) to pay for a new septic system when what they already own was in compliance.
    - A suggestion was made for the Nolan Creek/South Nolan Creek WPP host a septic system workshop for the public where professionals can speak on proper maintenance of septic systems. The Bell County Engineer was suggested to TIAER as a good contact for this workshop, as well as the Bell Count Health Inspector.
    - A second suggestion made was to develop educational material regarding proper maintenance of septic systems for local real estate agencies to give to home buyers.
- Nolanville representative shared information regarding flooding impacting residents downstream of Station 11910
  - During a heavy rain, Nolan Creek floods and comes into people's backyards. When the water recedes it brings runoff from the yards into the creek.
  - It was also noted that due to the increase in bacteria concentrations between station 11913 at Roy Reynolds Road and 11911 on Business 190 in Harker Heights, it might be good to locate a station between these two to better isolate potential sources. There are also two tributaries between stations 11913 and 11911 that may be contributing to the increased bacteria concentrations at station 11911. Monitoring stations on these tributaries might be useful.

#### Additional Discussion Topics –

- A question regarding control of swallows nesting under bridges was asked to TPWD, “Can anything be done to keep swallows from nesting under bridges?”
  - TPWD indicated that the agency does not recommend doing anything when the birds are present, but there are some options to discourage nesting that can be implemented when the birds are gone. These can be expensive and TexDot may not allow some of them.

#### Nolan Creek/South Nolan Creek Watershed Partnership Evaluation

- The evaluation was distributed to the committee. The committee was asked to answer the evaluation to the best of their knowledge.
  - TIAER explained that this tool will be used to gauge the effectiveness of the education and outreach programs put in place in the WPP.

#### Nolan Creek/South Nolan Creek WPP website

- TIAER indicated reports written for the previous project are located at <http://tiaer.tarleton.edu/nolan-creek-watershed.html> if anyone wants to access them. A new website separate from TIAER's homepage is being built specifically for the WPP.
- As part of the new website, it was requested that the monthly monitoring data collected be made available. TIAER will check with TCEQ about providing provisional data on the website.

#### Meeting Recap – a recap of the meeting was provided before dismissal

- TIAER will ask TCEQ about suggestions made regarding monitoring locations.

- Based on response from TCEQ and topics/suggestions/input provided by the committee, TIAER will send a revised monitoring plan via email to the advisory committee.
- Education on proper septic system maintenance recommended as a focus in future management practices.
- It was advised by TIAER that the committee should meet every other month
  - The next meeting will be scheduled for late June/early July
    - TIAER will suggest dates and send them to the committee to secure a date/time/location for second meeting.

Meeting adjourned – TIAER will provide meeting minutes to the Nolan Creek/South Nolan Creek Advisory Committee via email.

## Attachment #1

### Nine Minimum Elements of a Watershed Protection Plan

EPA Handbook for Developing Plans to Restore and Protect Our Waters

<http://www.epa.gov/polluted-runoff-nonpoint-source-pollution/handbook-developing-watershed-plans-restore-and-protect>

- a) Identification of causes that will need to be controlled to achieve the load reductions described in (b)
- b) Estimates of load reductions expected for the management measures described in (c)
- c) Description of management measures that will need to be implemented to achieve load reductions described in (b)**
- d) Estimate of technical and financial assistance needed to implement this plan**
- e) Information/education component that will be used to enhance public understanding of this plan
- f) Schedule for implementing management measures described in (c)
- g) Description of interim, measurable milestones for determining whether management measures described in (c) are being implemented
- h) Set of criteria that can be used to determine whether load reductions described in (b) are being achieved
- i) Water quality monitoring component to evaluate effectiveness of implementation measured against the established criteria described in (h)

Attachment #2

# Nolan Creek/South Nolan Creek WPP Timeline



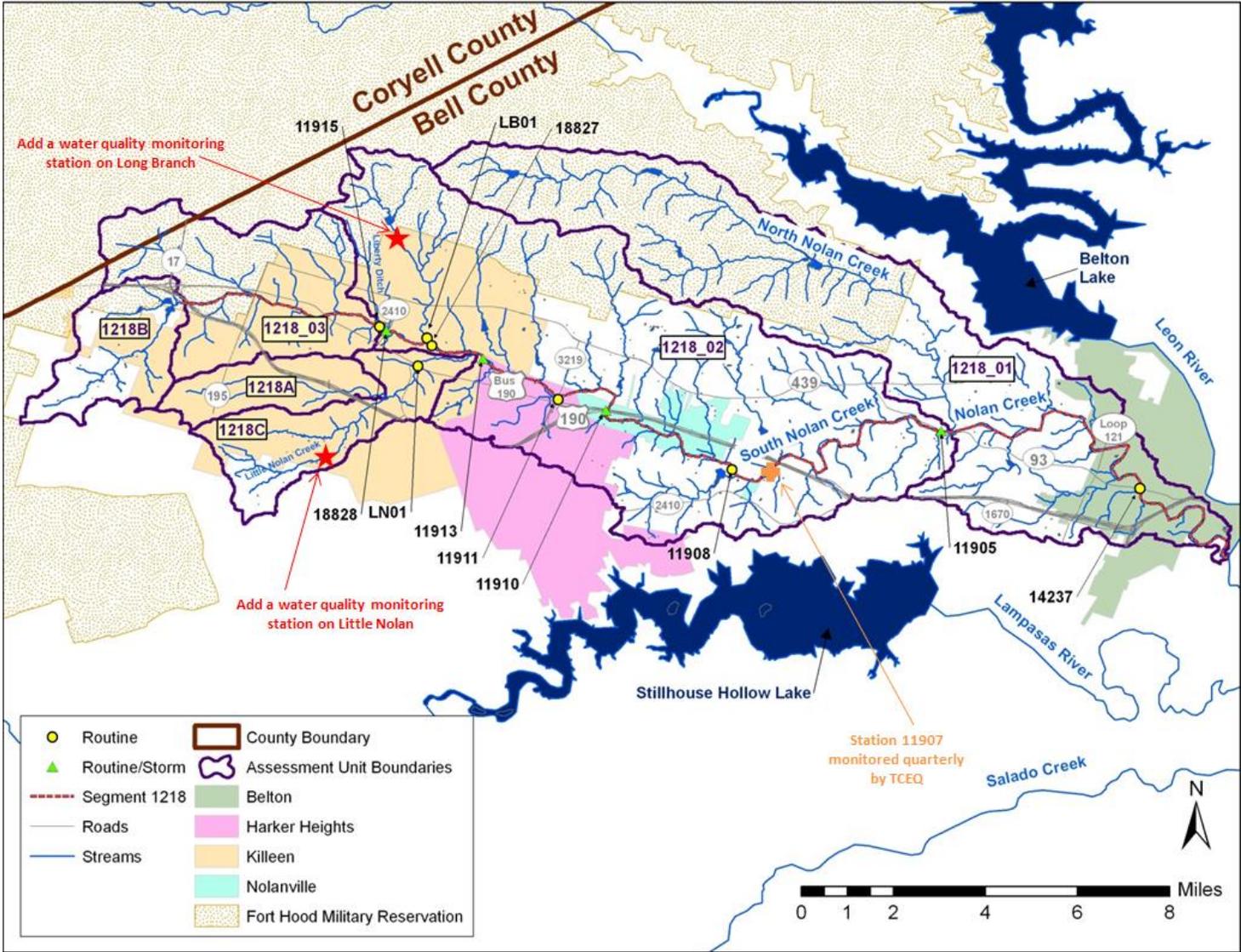
### Attachment #3

Example Educational & Outreach Activities from the report “Outreach and Education Strategy for the Nolan Creek/South Nolan Creek Watershed”

Outreach Activity	Host &/or Delivery Agency	Proposed Number of Programs or Items		
		Years 1-3	Years 4-6	Years 7-10
<b>Nolan Creek Partnership Outreach - Awareness &amp; Informational Materials</b>				
Website	Nolan Creek Partnership	1	1	1
Fact Sheet		1	1	1
Newsletters		3	3	3
Brochures		1	1	1
Fliers		4	4	4
Signage			3	3
Displays at Local Events		8	12	12
<b>Regional Nonpoint Source Pollution Educational Programs</b>				
Texas Watershed Steward Training	Nolan Creek Partnership & Cities (host) with Texas AgriLife with TWRI (delivery agency)	1		
Texas Stream Team Training	Nolan Creek Partnership & Cities (host) with Texas Stream Team (delivery agency)	2	2	2
Septic System Workshops	Nolan Creek Partnership & Cities (host) with Texas AgriLife with TWRI (delivery agency)		1	1
Riparian Proper Functioning Condition Training	Nolan Creek Partnership & Cities (host) with Texas Riparian Association (delivery agency)		1	1
Public School Educational Program	Nolan Creek Partnership & Cities (host & delivery agency)		2	2
<b>Agricultural Nonpoint Source Pollution Educational Programs</b>				
Nutrient Management	Nolan Creek Partnership (advertising & supporting) with Texas AgriLife (delivery agency)		2	2
Soil & Water Testing			2	2
Livestock Grazing Management Education			2	2

Outreach Activity	Host &/or Delivery Agency	Proposed Number of Programs or Items		
		Years 1-3	Years 4-6	Years 7-10
Agricultural Waste Pesticide Collection Events	Nolan Creek Partnership (hosting) with TCEQ (delivery agency)		1	1
Lonestar Healthy Streams	Nolan Creek Partnership (hosting) with Texas AgriLife (delivery agency)		1	1
Feral Hog Management Workshop	Nolan Creek Partnership (hosting) with Texas AgriLife (delivery agency)		1	2
Whitetail Deer Management Workshop	Nolan Creek Partnership (hosting) with Texas AgriLife (delivery agency)		1	2
<b>Urban Nonpoint Source Pollution Educational Programs</b>				
Pet Waste	Nolan Creek Partnership (advertising & supporting) with Cities, Texas AgriLife, Centex Sustainable Communities Partnership (hosting)		1	1
Illegal Dumping			1	1
Fats, Oil, Grease			1	1
Sports & Athletic Field Education			1	1
Low Impact Development			1	1
Urban Nutrient Management			1	1
Stormwater BMP Demonstrations			1	1
Local Government Maintenance Education			1	1
Stream Cleanup Events	Nolan Creek Partnership & Cities (advertising & supporting) with Keep Texas Beautiful (hosting)		1	1
Recreationalist Anti-Litter Campaign	Cities & County (Hosting)		1	1
Storm Drain Inlet Marking Events	Cities (Hosting)		1	1

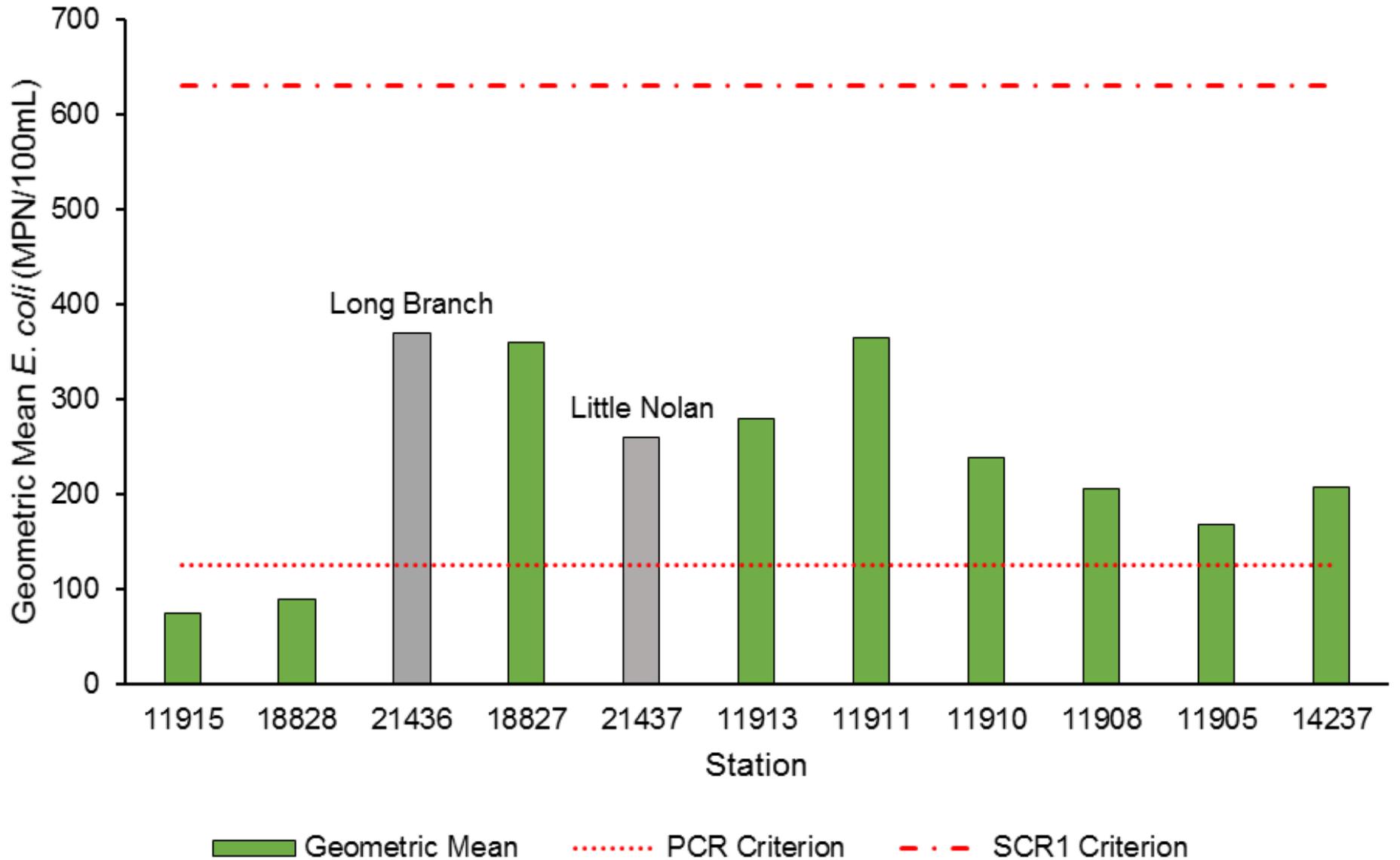
Attachment #4



Location of monitoring stations during characterization project and proposed station locations.

## Description of Station Locations during Characterization Project

Station	Station Description	Latitude	Longitude	Routine	Storm
11915	South Nolan Creek upstream of WWTP outfall	31.109499	-97.704253	x	
18828	South Nolan Creek at 38th St	31.108091	-97.702156	x	x
LB01	Long Branch just upstream of crossing of South Nolan Creek at Twin Creek Dr	31.105946	-97.689364	x	
18827	South Nolan Creek at Twin Creek Dr	31.103470	-97.687851	x	
LN01	Little Nolan Creek off US 190	31.097143	-97.692268	x	
11913	South Nolan Creek at Roy Reynolds Road	31.099382	-97.671748	x	x
11911	Nolan Creek at FM 3219	31.086666	-97.648056	x	
11910	Nolan Creek at US 190	31.083099	-97.633080	x	x
11908	Nolan Creek at Levi Crossing	31.064665	-97.593330	x	
11905	Nolan Creek at Backstrom Crossing (above confluence of North Nolan Creek)	31.076666	-97.527496	x	x
14237	Nolan Creek at SH 93 in Belton	31.058743	-97.464989	x	



Geometric mean *E. coli* concentrations for routine monthly grab samples collected between May 2013 and June 2015 (n = 26). Grey bars represent tributaries flowing into South Nolan Creek. PCR indicates the criterion for primary contact recreation and SCR1 the criterion of secondary contact recreation 1.