

Nolan Creek WPP Advisory Stakeholder Meeting – Minutes

Date: Thursday October 27, 2016

Time: 10:00 – 11:40 a.m.

Location: Harris Community Center in Belton, Texas

Participants:

TIAER – Anne McFarland, Leah Taylor

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

City of Killeen – Kristina Ramirez, Jeff Reynolds

Bell County WCID1 – Richard Garrett

Bell County WCID6 – Glen Grandy

Bell County Health Department – Kent Stephens, Mike Jahns

City of Belton – Paul Romer, Aaron Harris

TSSWCB – Mitch Conine

TPWD – Jennifer Bronson-Warren

TCEQ – Megan Henson, Robert Grudier

Topics Discussed:

Discussion with Bell County Health Department

Prior to the meeting date, TIAER provided five questions to the Bell County Health Department (BCHD) regarding issues within the Nolan Creek/South Nolan Creek watershed with On-Site Sewage Facilities (OSSFs). Questions provided were those the advisory committee had expressed an interest/concern during previous meetings. The BCHD read and answered each question. Answers from the BCHD are shown in [blue](#).

1. Does a GIS layer exist indicating the location of OSSFs?
 - [There is no computer mapping at this time. The department should be able to identify subdivisions in parts of the county and note if these subdivisions utilize on-site rather than centralized systems. Such subdivisions include Tumbleweed Estates \(FM439\), Crossland Estates \(FM3219 & FM439\), and The Ridge \(near Stillhouse Lake – outside Nolan Creek watershed\).](#)
2. Are there concentrated areas within the watershed where OSSF failures are considered a problem? To elaborate, one committee member indicated that septic systems along FM439 outside of Nolanville as “engineering failures” with drain fields often saturated during and after rainfall events.
 - [The county would need a better definition of failures. Two types of failures typically exist: hard failures and soft failures. Examples of each: A hard failure is when a main component of an aerobic system breaks and it is discharging untreated effluent. A soft failure is when a discharge pump doesn’t work.](#)
 - [Often times a person may perceive something as an OSSF malfunction, which is actually something else. For example, slope and shallow soils can lead to saturated flow that is not always related to an OSSF failure.](#)
 - [In many areas in the county, drain fields do get saturated after a rainfall and effluent may surface.](#)

- Bell County inherited some issues caused by poor builders. For example, some developments needed French drains installed to redirect water and stabilize roads. These French drains can become preferential flow drainages for septic effluent under saturated condition.
- Another example involves trenches dug for cable and phone lines that allow the lateral movement of water and act similar to French drains when appropriately filled with gravel and sand.

3. How often are OSSFs inspected and what happens if there are compliance issues?

- Homeowners with aerobic systems are required to have a maintenance contract and systems are generally checked once every four months with inspection results submitted to BCHD. Failure to report or failure to address issues leads to a letter with a timeframe indicated for repairs. If not corrected within the given timeframe, then a court case is filed.
 - When there is a compliant, the county completes an investigation. If there is in fact a compliance issue, the homeowner generally has 30 days to fix the issue and come into compliance. If the homeowner refuses to address the issue, a court case is filed. The court typically fines the homeowner roughly \$200, but this does not necessarily mean the problem gets fixed.
- An anaerobic system does not have a requirement by the state to be inspected, but inspections are recommended every 3 – 5 years. Aerobic systems require inspections.
 - With perfect maintenance, the average anaerobic septic system has a lifespan of 30 years.
- The only things the BCHD can enforce (by law of the state of Texas) are the minimum inspection requirements.
- When there is a real estate inspection, BCHD makes sure for anaerobic systems that the maintenance companies have inspected the system the minimum frequency required and that there are no issues reported.
- Can the BCHD work with cities within the county to increase the fines for being out of compliance? (question posed to BCHD by City of Killeen)
 - If a fine or penalty can be avoided, the county prefers to work and resolve the issue with the homeowner. However, if a “larger hammer” will scare people into compliance, the county wouldn’t be opposed to working with the cities.
- How closely are the companies that do the inspections policed? (question posed to BCHD by Harker Heights)
 - BCHD is required to accept any inspection company that is licensed by the state of Texas if they bring their license to the county. If there is an issue between the homeowner and inspection company, all the BCHD can do is submit the complaint to TCEQ. The contract is a personal contract between the inspection company and the homeowner.

- Are cities looking into adding lines to hook those homes that are on a septic system to the city line? (question posed to the group/BCHD by TPWD)
 - Most homes that it was feasible to hook into the city lines have been done. It is not always feasible due to the topography, distance, cost, etc. (answer provided by City of Killeen).
 - Is there a city code or ordinance for developers that come into the city that they must hook into the city line? (question posed by to the group/BCHD by TPWD)
 - It is very rare for a new development within city limits to be on an on-site system. If this were the case, the city would contact the BCHD (answer provided by City of Killeen).
 - Comment by the TSSWCB – The City of Granbury and Hood County provide a good example of how their goal to take homes off septic systems and hook them to the city line was written into their watershed protection plan (WPP). They were able to tie older homes with failing systems into a central collection system. Even if it doesn't seem feasible, writing it into the WPP will help with securing available funding for this type of effort.
 - Comment from the City of Belton – Oak Hills in Belton was successful in converting homes with septic systems to the city sewage.
 - Comment from committee member – There is an issue in the area with getting builders to put in small centralized systems outside city limits. It is cheaper to install on-site systems.
 - The minimum lot size (set by the state of Texas) for a septic system is half an acre. This is too small of a plot for a homeowner because they want the on-site system, but also outdoor kitchen, pool, play area, etc. and the sprinkler spray pattern for the on-site system overlaps with these other items.
 - This fueled a group discussion regarding uneducated homeowners and builders regarding proper maintenance and usage.
4. What assistance from the WPP would help the Bell County Health Department with OSSFs? Educational efforts regarding maintenance, funding to help finance failing systems, surveys to better define where OSSFs are located, data management efforts to make available data more accessible in a GIS format are all examples of assistance the WPP could include.
- [The BCHD is supplied with educational resources from the Texas AgriLife Extension to help homeowners. Unfortunately some systems would cost more to repair than the house is valued. BCHD has permitted Bell County septic systems since 1971.](#)
 - [A map overlay of subdivisions within the watershed would be useful so the BCHD could point out which specific subdivisions have a higher number of on-site systems and issues with those systems. The age of the subdivision may also aid in identifying areas that might be targeted, as older subdivisions will have older systems.](#)
 - How much are OSSFs a real issue in our watershed? In other words, there are many components to our WPP. How much time/effort/money should we spend focusing on these OSSFs versus other components? (question posed by group)

- There are 5,000 known aerobic systems in Bell County. Bell County is within a 97 – 98% compliance rate based on maintenance contract reports.

Monitoring Update

TIAER provided an overview of data from the September and October 2016 monitoring events.

- South Nolan/Nolan Creek is categorized for a primary contact recreation stream, most sites showed higher than the 126 cfu/100mL
- Update on stations LB_TR and LB_LR, they now have TCEQ identifications numbers
 - LB_TR = 21926
 - LB_LR = 21927
- Sites 21926 and 21927 were not flowing during the September monitoring event. To make best use of monetary resources, TIAER is suggesting adding alternate sites to the QAPP. This would allow the TIAER field crew to still collect data from 10 sites if one or two of them are dry. However, if one tributary is dry, it is likely the others are dry as well. Thus, TIAER suggests choosing more than two alternate sites and adding alternate sites on the mainstem.
 - TIAER provided “alternate sites” handout to receive feedback from the committee.
 - City of Killeen expressed interest in prioritizing Long Branch over Little Nolan Creek.
 - The City of Harker Heights shared that they are using the monitoring data collected by TIAER and the Brazos River Authority (BRA) for their stormwater reporting. Their preference for an alternate site would be along Hay Branch (temporary ID HB_HH).
- TIAER noted that the Harker Heights waste water treatment facility (WWTF) discharge is between 11912 and 11911 and that reporting data are available from the WWTF. Also noted that most WWTF discharges are in compliance with permitted discharge limits, thus, meeting bacteria criterion concentrations.
- Site on Tripp Trail had the highest concentration on the October 2016 monitoring event.
 - Comment from city of Killeen – Tripp Trail is one block from Fort Hood, and there are cows on Fort Hood. There is also a section in Killeen, which is “grandfathered” along Long Branch that has livestock.
- There was a request to add flow to the chart showing bacteria. TIAER agreed to add flow.
- There is clearly something going on creating an increase in the bacteria count between 18828 and 18827 – Long Branch is a major tributary, so we are trying to target that area.
- It was decided that based on the alternate sites discussion by the group that TIAER will move forward in adding these alternate sites to the QAPP.

Task 3.1 – Management Measure Evaluation

Task 3.1 of the Nolan Creek/South Nolan Creek WPP workplan has been completed. However, TIAER is interested in meeting with entities (cities, WCIDs, counties) within the watershed individually. It was expressed by TIAER that an individual meeting might help entities to express targeted activities within the watershed or find an area where an activity is missing.

- Leah will reach out to individuals within each entity to arrange for a meeting during November or December 2016.

Watershed Action Plan

TIAER explained the next step in the WPP development is to develop the watershed plan of action.

- What do we need to continue to do for support?
- What gaps exist?

Question from committee member (Harker Heights): Who does an evaluation of the creek outside the city? The city is responsible for knowing areas within its limits to address but who “walks the creek” outside of the city limits to pinpoint areas to fix?

- Suggestion from the City of Killeen: Create a memorandum of understanding or agreement (MOU) between the entities within the watershed that agrees to help address and protect the health of the watershed.
- It was stated by a committee member (Harker Heights) that this may help to unify what everyone is looking for when evaluating areas to address in the creek. An example was used that when the Harker Heights staff was tasked with evaluating portions of the creek with the Harker Heights city limits, supervisory (Mark Hyde) gave specifics of what to look for.

Announcements

- The Bell County Waters Symposium will be held on November 16, 2016 in Killeen
 - Will mostly address groundwater

Closing

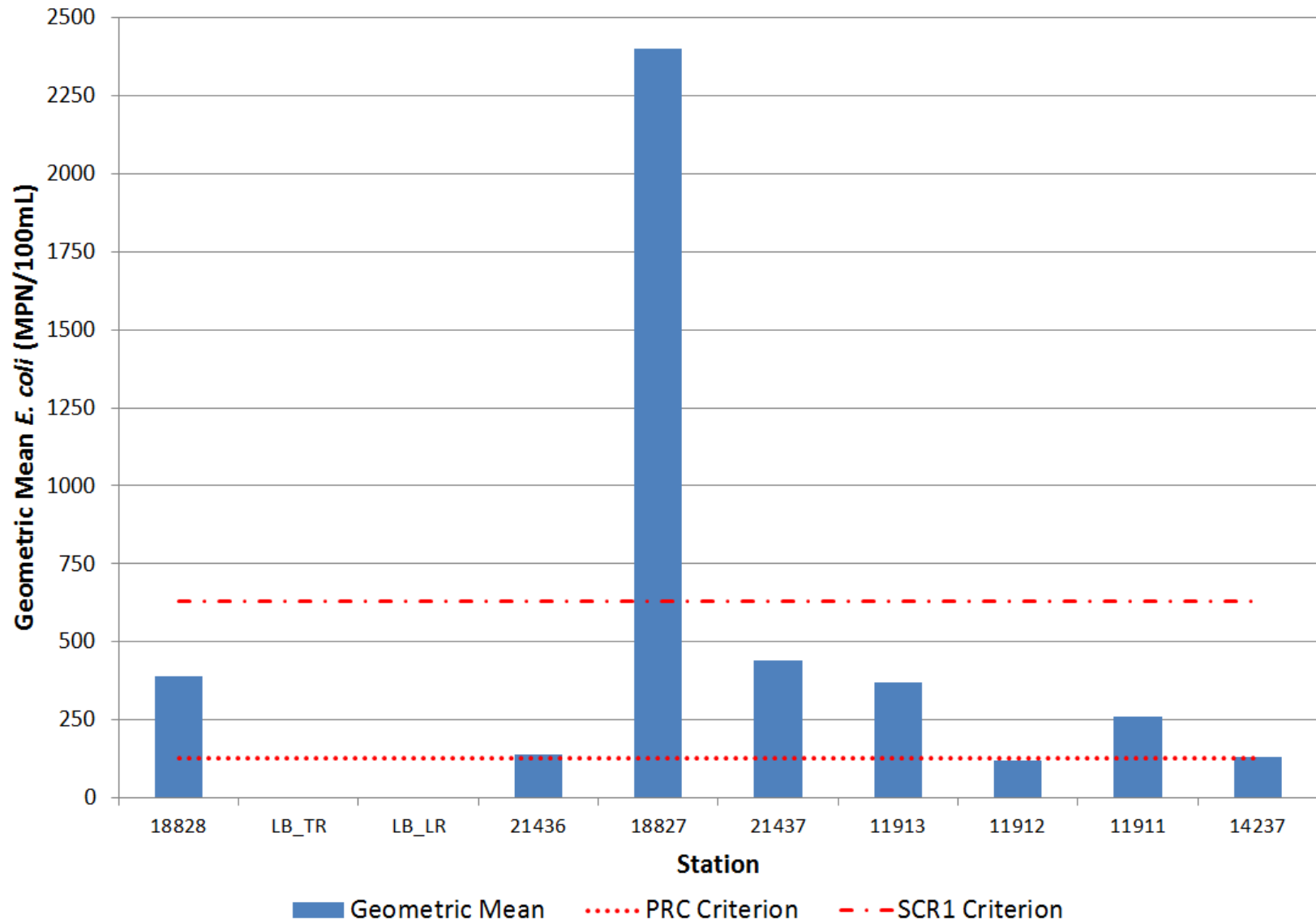
Due to individual meetings and the holiday season, the next Nolan Creek/South Nolan Creek Advisory Committee Group will not meet until January/February of 2017.

Attachments

1. September and October preliminary data
2. Nolan Creek/South Nolan Creek WPP Timeline
3. Nolan Creek/South Nolan Creek Watershed Plan-of-Action
4. Alternate site selections
5. Map of watershed with alternate sites
6. Task 3.1 Management of Measure Evaluation

Date of collection: September 21, 216

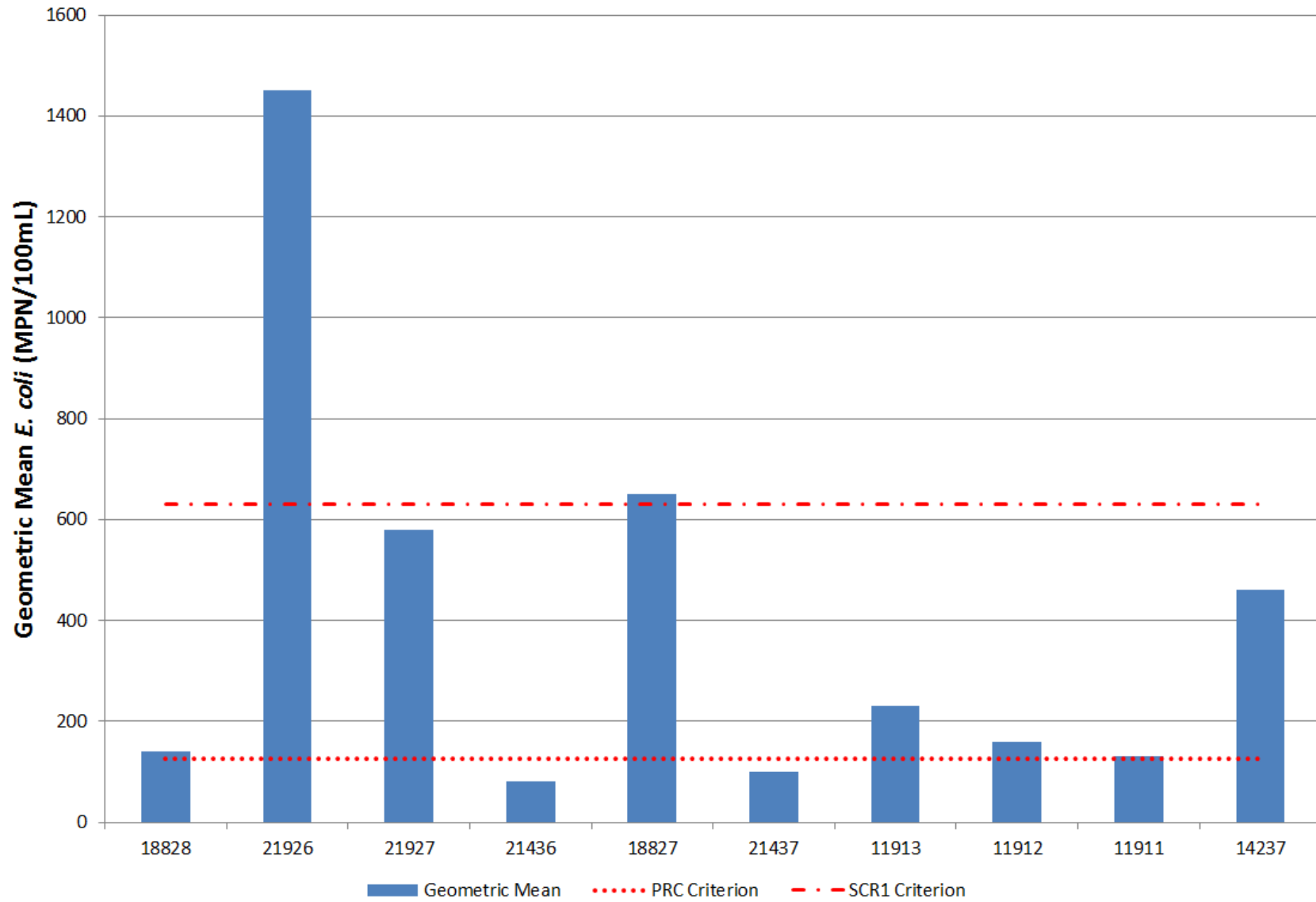
All data are preliminary and subject to change.



Attachment 1.

Date of collection: October 11, 2016

All data are preliminary and subject to change.



Nolan Creek/South Nolan Creek WPP Timeline



Nolan Creek/South Nolan Creek Watershed Plan-of-Action

The Watershed Plan-of-Action defines how watershed needs and opportunities should be addressed.

Implementation Activities – for each need to define the following:

Management Measure

- Scope
- Location
- Critical Areas
- Goal
- Description

Implementation

- Who Needs to be Involved?
- Responsible Party
- Costs (Annual or Total)
- Funding Source
- Technical Assistance Needs
- Implementation Schedule

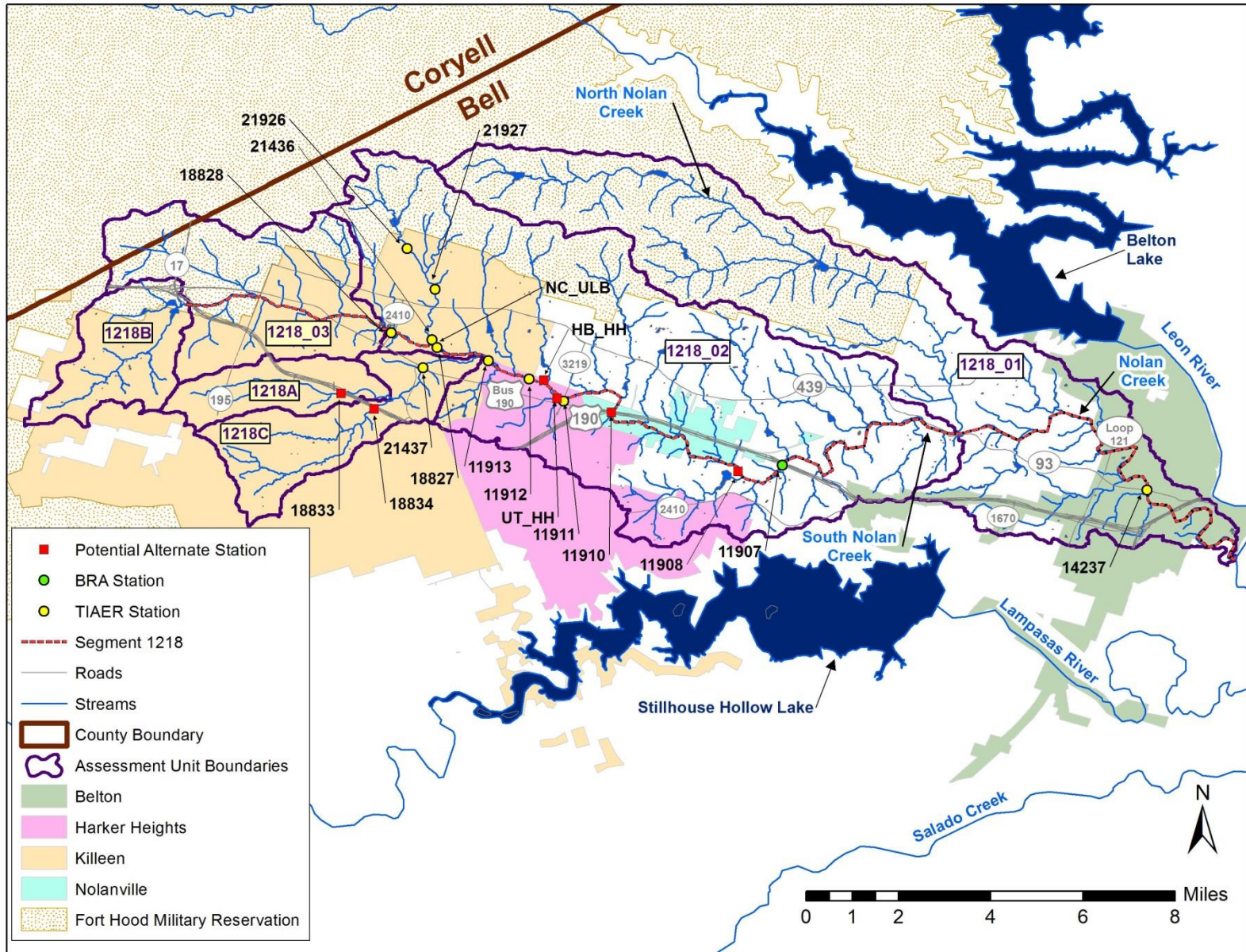
Evaluation Process

- Expected Load Reduction
- Expected Effectiveness
- Difficulty in Implementing
- Monitoring of Success (How can we measure success in meeting our goal either directly or indirectly?)

Attachment 4.

Potential Alternate Monitoring Stations						
Nolan Creek/South Nolan Creek Watershed						
Station Type	TCEQ Station ID	Temp. ID	Station Description	Latitude	Longitude	Notes
Mainstem	11910		South Nolan Creek at US 190 in Nolanville (between Nola Ruth Blvd and Pleasant Hill Rd)	31.08310	-97.63308	Upstream outfall Bell County WCID 1 South Plant
Mainstem	11908		Nolan Creek at Levi Crossing (downstream of Nolanville)	31.06467	-97.59333	Downstream outfalls of WCID 1 South Plant and WCID 3
Little Nolan (1218A)	18833		Unnamed Tributary of Little Nolan Creek at US 190 (between South WS Young Dr and OW Curry Dr)	31.08907	-97.71790	Northern tributary fork, station located behind Academy & across US190 from Killeen Mall
Little Nolan (1218C)	18834		Little Nolan Creek at US 190 (between Cunningham Rd and Little Nolan Rd)	31.08423	-97.70760	Southern fork, station located near GEICO Insurance Agent & Faith Point Church
Hay Branch		HB_HH	Hay Branch in Harker Heights (access through Harker Heights property via Amy Ln)	31.09321	-97.65430	Access via Amy Ln through HH property (behind locked gate). HH WWTF discharge just upstream confluence with Hay Branch.
Unnamed Tributary		UT_HH	Unnamed Tributary to Nolan Creek (joins South Nolan Creek just prior to crossing with FM 3219)	31.08756	-97.65014	Access via Big Oaks Estates Manufactured Home Community or Disabled American Veterans parking lot.

Attachment 5.



Attachment 6.

Link to Task 3.1 Management Measure Evaluation – Inventory of Evaluation of Existing Watershed Management Programs:

<http://nebula.wsimg.com/756de6da0734d55aeb793b9993290214?AccessKeyId=D291B218237505B931BF&disposition=0&alloworigin=1>