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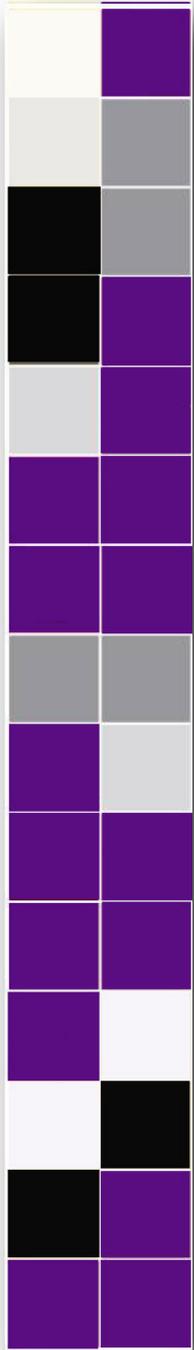


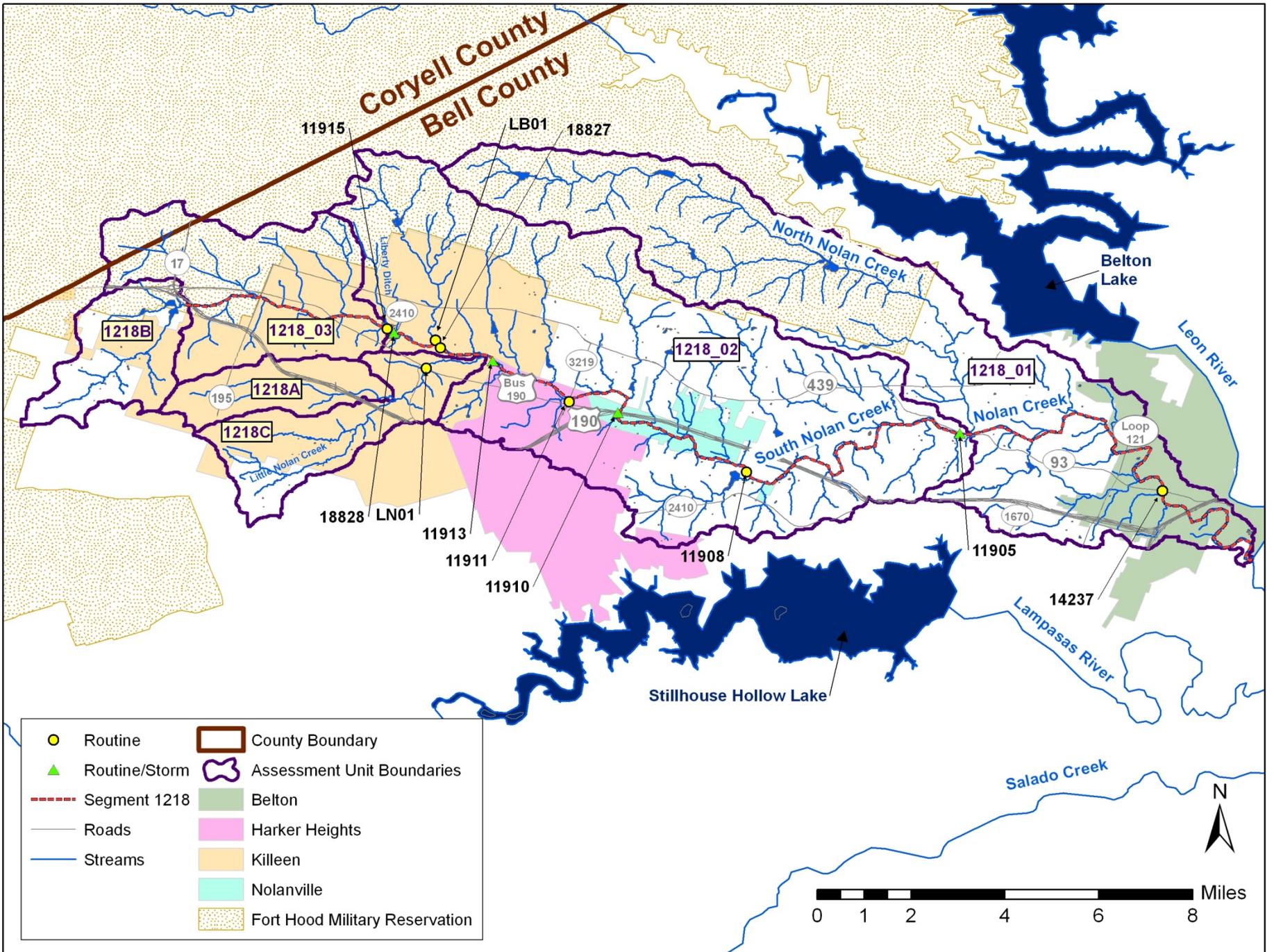
Nolan Creek/South Nolan Creek

Water Quality Monitoring Plan

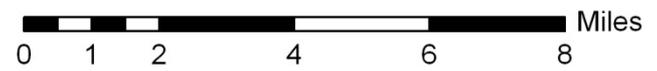
Texas Institute for Applied Environmental Research
Stephenville, Texas

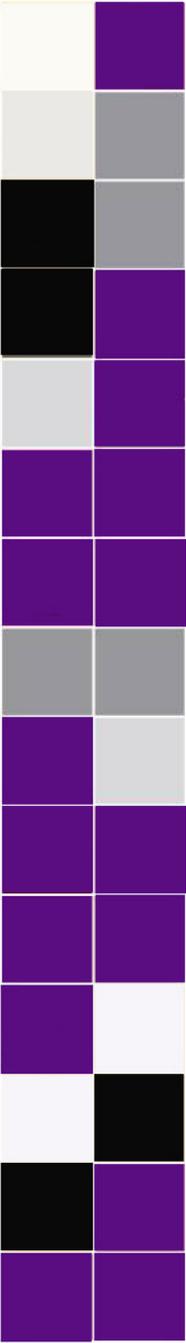
July 31, 2013





- | | | | |
|---|---------------|---|--------------------------------|
|  | Routine |  | County Boundary |
|  | Routine/Storm |  | Assessment Unit Boundaries |
|  | Segment 1218 |  | Belton |
|  | Roads |  | Harker Heights |
|  | Streams |  | Killeen |
| | |  | Nolanville |
| | |  | Fort Hood Military Reservation |



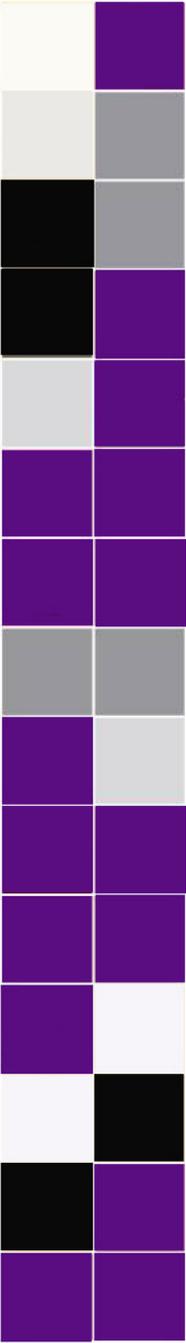


Monthly Routine Monitoring

11 Stations (upstream to downstream)

- **11915 – South Nolan upstream Killeen WWTF outfall**
 - **18828 – South Nolan at 38th St**
 - **LB01 – Long Branch near Twin Creek Dr**
 - **18827 – South Nolan at Twin Creek Dr**
 - **LN01 – Little Nolan Creek at US 190**
 - **11913 – South Nolan at Roy Reynolds Road**
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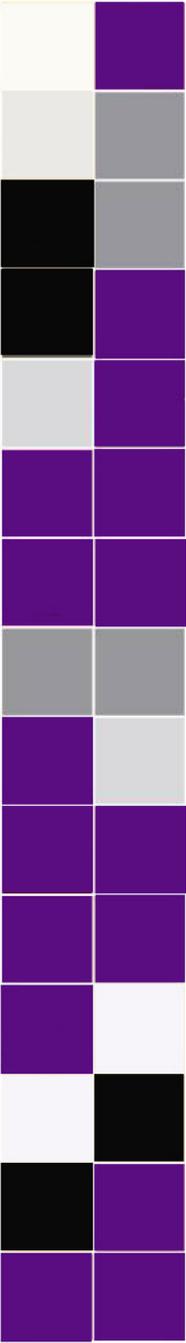


Monthly Routine Monitoring

11 Stations (continued)

- **11911 – South Nolan Creek at FM 3219**
- **11910 – South Nolan Creek at US 190**
- **11908 – South Nolan Creek at Levi Crossing**
- **11905 – South Nolan Creek at Backstrom Crossing**
- **14237 – Nolan Creek at SH 93 in Belton**



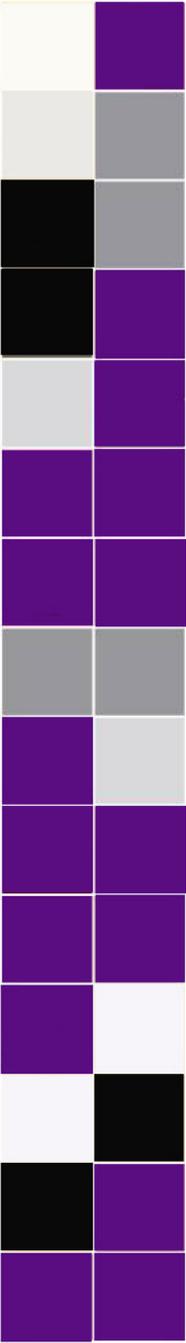


Monthly Routine Monitoring

Field Parameters

- Flow
- Dissolved Oxygen (DO)
- Water Temperature
- Specific Conductance
- pH



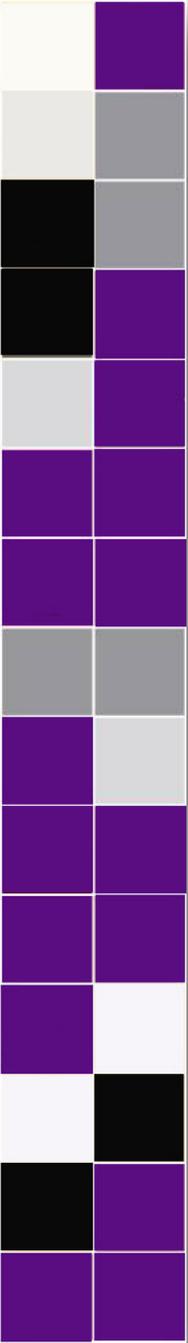


Monthly Routine Monitoring

Laboratory Parameters

- Bacteria as *E. coli*
- Nitrite-Nitrogen + Nitrate-Nitrogen
(NO₂-N+NO₃-N)
- Orthophosphate-Phosphorus (PO₄-P)
- Total Phosphorus (TP)
- Total Kjeldahl Nitrogen (TKN)
- Total Suspended Solids (TSS)





Quarterly Storm Monitoring

4 Stations

- **18828 – South Nolan at 38th St**
- **11913 – South Nolan at Roy Reynolds Road**
- **11910 – South Nolan Creek at US 190**
- **11905 – South Nolan Creek at Backstrom Crossing**



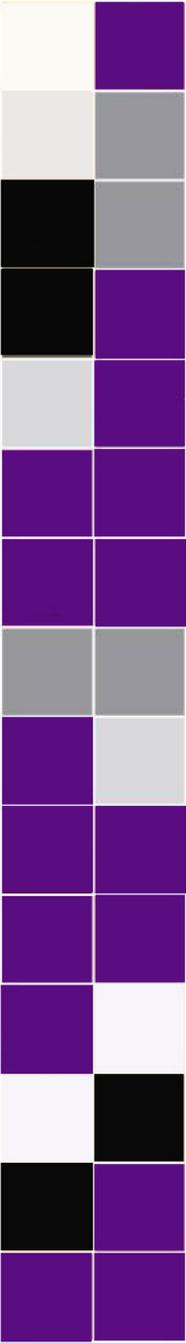


Automated Sampling Station

- 18828 – South Nolan at 38th St







Storm Monitoring

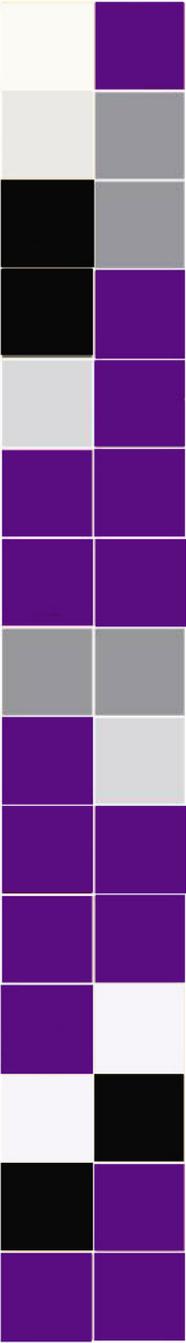
Laboratory Parameters

- Same as for Routine Monitoring

Field Parameters

- Flow if safety allows

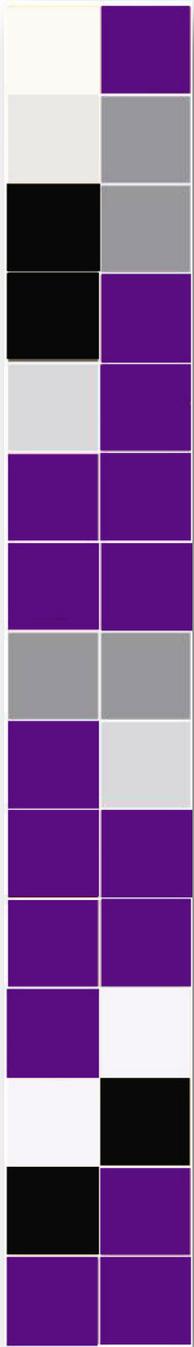




Monitoring Goal

**Provide additional data to help
address elevated bacteria and
nutrient concentrations**





**Questions?
Suggestions**



