

TMDL FY05 Sampling Segment 2107 Atascosa

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Sampling Components

▶ Event Based Monitoring

▶ Bacterial Source Tracking (BST)

Event Based Monitoring

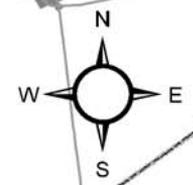
- ▶ Event based monitoring will occur within the watershed in support of modeling activities for FY05.
- ▶ Event based monitoring will include sampling of a network of spatially distributed stations.
- ▶ These surveys will be mounted in response to significant rainfall in the project area. Rainfall must be sufficient to produce runoff in the segment.

Event Based Monitoring

- ▶ Generally, it is anticipated that rainfall on the order of 1.0 inch will be necessary to produce the required runoff condition.
- ▶ Field crews will keep track of local weather forecasts during preparation for sampling.
- ▶ Three separate Events scheduled for FY05.
- ▶ Average storm event is four days.
- ▶ Samples will be taken every eight hours during the Event.

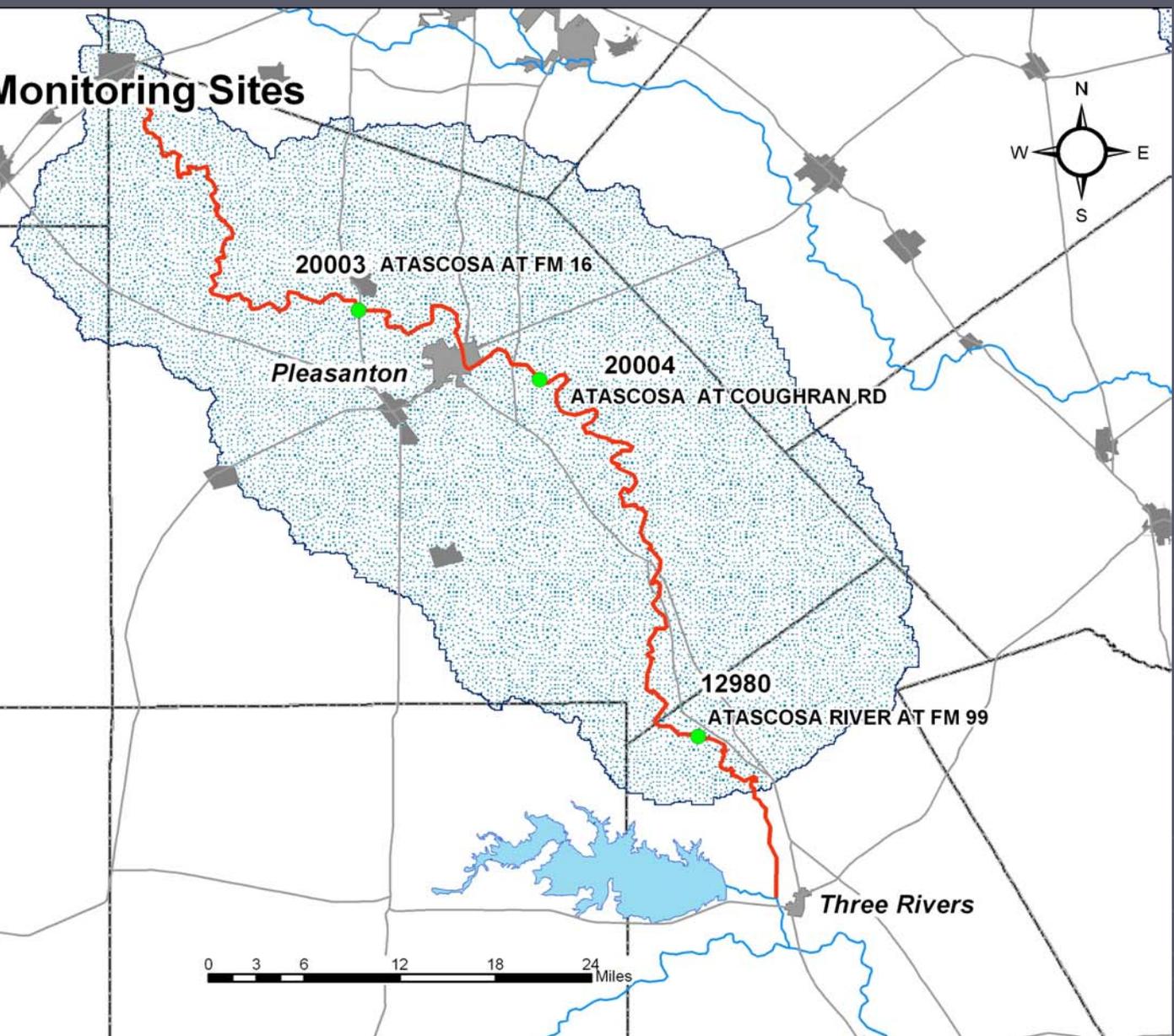
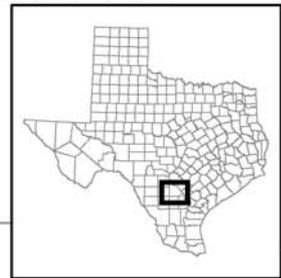
Event Based Monitoring Sites

2107 Atascosa



Legend

- Impaired Segements
- Rivers
- Major Roads
- Nearby Cities
- Watersheds
- Counties
- Event_Sites



20003 ATASCOSA AT FM 16

Pleasanton

20004

ATASCOSA AT COUGHRAN RD

12980

ATASCOSA RIVER AT FM 99

Three Rivers

Data Collected During an Event

- ▶ Instantaneous dissolved oxygen, temperature, pH, and conductivity using a Hydrolab Datasonde 4a.



Data Collected During an Event

- ▶ Water samples collected every eight hours.
- ▶ Samples transported to San Antonio Testing Labs and analyzed for: alkalinity, chloride, sulfate, nitrate/nitrite, TKN, total phosphate, orthophosphate, ammonia, TOC, TSS, Chlorophyll-a, and phenophytin-a.



Data Collected During an Event

- ▶ Bacterial samples collected every eight hours during an Event and analyzed in field for E-coli colony counts using MPN assays.



Data Collected During an Event

- ▶ Instantaneous in-stream flow measurements will be taken every eight hours with an downward-looking Acoustic Doppler Current Profiler (ADCP) Mounted in a specially designed "Riverboat".



Bacterial Source Tracking

- ▶ Bacterial Source Tracking (BST) is another form of specialized monitoring that will occur in FY05.
- ▶ BST uses DNA analysis to identify the sources of bacterial indicators.
- ▶ Samples will be taken during an Event and transported to SATL for E-coli culture and preservation.
- ▶ Samples will later be compared to a segment specific library of possible bacteria sources.