

Amendment # 1 Update to Appendix B Sampling Process Design and Monitoring Schedule to the Sulphur River Basin Authority Clean Rivers Program FY 2014/2015 QAPP

***Prepared by the Sulphur River Basin
Authority in Cooperation with the Texas
Commission on Environmental Quality
(TCEQ)***

Effective: Immediately upon approval by all parties

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Justification

This document details the changes made to the basin-wide Quality Assurance Project Plan to update Appendix B for fiscal year 2015. This document also updates the field quality control activities and bacteria holding time requirements to match those of the TCEQ SWQM program to ensure a consistent state-wide monitoring program.

Summary of Changes

Table B2 footnote regarding E. coli sample hold time is amended to allow a maximum of 30 hours between sample collection and analysis.

Section B5 Quality Control is amended to remove the requirement for field split collection.

The following tables in Appendix A are amended to allow a maximum of 30 hours' time elapsed between sample collection and analysis

- Table A7.1 Measurement Performance Specifications for Sulphur River Basin Authority

The following information in Appendix B is amended to reflect changes to:

- Sample design rationale FY 2015
- Monitoring Sites table with updated legends
- Maps of sampling sites

Detail of Changes

Sample Design Rationale FY 2015

The monitoring of three stations on Wright Patman Lake will be discontinued because enough diurnal data for assessment is available. A station on Stouts Creek and a station Rock Creek are included for diurnal studies because additional data is required for assessment purposes. Biological studies of Wagner Creek are complete and will not be on the FY 2015 schedule.

Monitoring Sites Table

The attached monitoring Table B1.1 in Appendix B is added to reflect monitoring for FY 2015.

Maps

The attached maps are added to Appendix C to reflect monitoring sites for FY 2015.

B2 Sampling Methods

Table B2.1 Sample Storage, Preservation and Handling Requirements

Table B2.1 Sample Storage, Preservation and Handling Requirements

Parameter	Matrix	Container	Preservation*	Sample Volume	Holding Time
TSS	Water	Plastic or Glass Bottles	Cool to 4 °C, dark	400 mL	7 days
TDS	Water	Plastic or Glass Bottles	Cool to 4 °C, dark	250 mL	7 days
Chloride	Water	Plastic or Glass Bottles	Cool to 4 °C, dark	100 mL	28 days
Sulfate	Water	Plastic or Glass Bottles	Cool to 4 °C, dark	100 mL	28 days
Nitrate-N	Water	Plastic or Glass Bottles	Cool to 4 °C, dark	150 mL	48 hours
Nitrite-N	Water	Plastic or Glass Bottles	Cool to 4 °C, dark	150 mL	48 hours
Ammonia-N	Water	Plastic or Glass Bottles Pre-acidified with 1-2 ml H ₂ SO ₄	1-2mL conc. H ₂ SO ₄ to pH<2 and cool to 4 °C, dark	250 mL	28 days
Total Kjeldahl Nitrogen	Water	Plastic or Glass Bottles Pre-acidified with 1-2 ml H ₂ SO ₄	1-2mL conc. H ₂ SO ₄ to pH<2 and cool to 4 °C, dark	250 mL	28 days
Total Phosphorus	Water	Plastic or Glass Bottles Pre-acidified with 1-2 ml H ₂ SO ₄	Pre-acidified with 1-2mL conc. H ₂ SO ₄ to pH<2 and cool to 4 °C, dark	250 mL	28 days
Chlorophyll a	Water	Amber Glass or plastic Bottles	Cool to 4 °C, dark	1000 mL	Filter with less than 48 hours Filters can be stored frozen at -20 or -70 C for as long as 3½ weeks
E. coli	Water	Plastic with Sodium thiosulfate	Cool to 4 °C, dark	120 mL (240 mL for duplicate)	8 hours**

Benthic Macroinvertebrates	Tissue	Glass	70% ethyl alcohol or 70% isopropyl alcohol	8 oz	5 years
Nekton (Fish)	Tissue	Glass	Samples are fixed in a 10% formalin solution for one week, and then soaked in water for three days, changing the water daily. They are then transferred to 50% isopropanol or 75% ethanol.	16 or 32 oz	5 years

*Preservation is performed within 15-minutes of collection.

**E.coli samples analyzed by SM 9223-B should always be processed as soon as possible and within 8 hours. When transport conditions necessitate delays in delivery, the holding time may be extended and samples must be processed as soon as possible and within 30 hours.

B5 Quality Control

Field Split

Field split samples are not required as part of the routine Clean Rivers Program, but if needed, may be inserted into the sample regime. The frequency is determined by the needs of the project.

Appendix A: Measurement Performance Specifications (Table A7.1)

An updated Table A7.1 is included as a separate file.

Appendix B Sampling Process Design and Monitoring Schedule (plan)

Sample Design Rationale FY 2015

The sample design is based on the legislative intent of CRP. Under the legislation, the Basin Planning Agencies have been tasked with providing data to characterize water quality conditions in support of the Texas Water Quality Integrated Report, and to identify significant long-term water quality trends. Based on Steering Committee input, achievable water quality objectives and priorities and the identification of water quality issues are used to develop work plans which are in accord with available resources. As part of the Steering Committee process, the Sulphur River Basin Authority coordinates closely with the TCEQ and other participants to ensure a comprehensive water monitoring strategy within the watershed. The following changes or additions have been made to the monitoring schedule. These changes have come about because of current monitoring needs in the basin. The needs were discussed at the CMM meeting.

1. The monitoring by SRBA will be discontinued for two stations on Wright Patman Lake. The number of diurnal studies as these stations (IDs 10213 and 14097) is adequate for assessment purposes. TCEQ will continue to monitor these sites for conventional parameters.
2. The monitoring by SRBA will be discontinued for station 10214 on Wright Patman. After consulting with TCEQ personnel, the station location has been designated as riverine and it is recommended that not be used for lake assessment purposes.
3. At the request of TCEQ personnel, station (ID 10200) on Rock Creek will be included in the FY 2015 monitoring. The station needs two additional sets of diurnal data for assessment purposes.
4. At the request of TCEQ personnel, station (ID 18189) on Stouts Creek will be included in the FY 2015 monitoring. The station needs two additional sets of diurnal data for assessment purposes.
5. Biological monitoring on Wagner Creek is complete and will not be included in the FY 2015 monitoring schedule

Monitoring Sites for FY 2015

The sample design for SWQM is shown in Table B1.1 below.

Table B1.1 Sample Design and Schedule, FY 2014

Site Description	Station ID	Waterbody ID	Region	SE	CE	MT	24 hr DO	AqHab	Benthics	Nekton	Conv	Bacteria	Flow	Field	Comments
WRIGHT PATMAN LAKE USGS SITE EC MID LAKE 0.8 MILES SOUTHWEST OF BERRY FARM PARK 1.3 MILES NORTH OF ATLANTA STATE PARK ROAD 42	14103	0302	5	SU	TC	RT	4							4	
WRIGHT PATMAN LAKE WRIGHT PATMAN LAKE 450 METERS SOUTH AND 80 METERS WEST OF CORPS ROAD 12 BOAT RAMP IN NORTH SHORE PARK	15061	0302	5	SU	TC	RT	4							4	
WRIGHT PATMAN LAKE 215 METERS WEST AND 370 METERS NORTH OF KNIGHTS BLUFF LANDING BOAT RAMP IN ATLANTA STATE PARK	16205	0302	5	SU	TC	RT	4							4	
WRIGHT PATMAN LAKE IN BIG CREEK ARM APPROX 2.4MI /3.9KM EAST OF FM991 BRIDGE	16860	0302	5	SU	TC	RT	4							4	
AIKEN CREEK AKA AKIN CREEK IMMEDIATELY DOWNSTREAM OF US HIGHWAY 67	18356	0301	5	SU	TC	RT							4	4	
TP LAKE 320 METERS SOUTH AND 110 METERS EAST OF THE INTERSECTION OF TP ACCESS ROAD AND US HIGHWAY 82 IN NEW BOSTON	20813	0302C	5	SU	TC	BS	2				2			2	
TP LAKE 320 METERS SOUTH AND 110 METERS EAST OF THE INTERSECTION OF TP ACCESS ROAD AND US HIGHWAY 82 IN NEW BOSTON	20813	0302C	5	SU	TC	RT					4	4		4	
WHITE OAK CREEK AT FM 900 NORTHWEST OF SALTILLO	10201	0303B	5	SU	TC	RT	4						4	4	
WHITE OAK CREEK AT US 259 NORTH OF OMAHA	10198	0303B	5	SU	TC	RT	4						4	4	
WHITE OAK CREEK AT US 271 SOUTHEAST OF TALCO 20 M DOWNSTREAM OF US HWY 271 BRIDGE	10199	0303B	5	SU	TC	RT	4						4	4	
WHITE OAK CREEK AT TITUS COUNTY FM 1402 NORTH OF MT PLEASANT	21412	0303B	5	SU	TC	RT	4						4	4	
ROCK CREEK AT FM 69 8.0 KM UPSTREAM OF CONFLUENCE WITH WHITE OAK CREEK NORTHEAST OF SULPHUR SPRINGS	10200	0303D	5	SU	TC	BS	2						2	2	
STOUTS CREEK AT US HIGHWAY 67 HOPKINS COUNTY	18189	0303F	5	SU	TC	BS	2						2	2	
DAYS CREEK AT STATELINE ROAD SOUTH OF TEXARKANA	10226	0304	5	SU	TC	RT					4	4	4	4	
WAGNER CREEK AT US HWY 67 / W 7TH STREET IN TEXARKANA	21176	0304C	5	SU	TC	RT					4	4	4	4	

Critical vs. non-critical measurements

All data collected under this QAPP and entered into SWQMIS are considered critical.

Appendix C: Station Location Maps

Station Location Maps

Maps of stations monitored by the Sulphur River Basin Authority are provided below. The maps were generated by the Sulphur River Basin Authority. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact Mike Buttram 903-278-4069 or 903-823-3280.

Sulphur River Basin Authority Monitoring Sites Fy 2015

