Amendment # 2
to the Red River Authority of Texas'
Clean Rivers Program FY 2016-2017 QAPP

Prepared by the Red River Authority of Texas
In Cooperation with the
Texas Commission on Environmental Quality (TCEQ)

Questions concerning this QAPP should be directed to:

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Effective: Immediately Upon Approval by all parties

JUSTIFICATION

This document details the changes made to the Authority's basin-wide Quality Assurance Project Plan to update **Appendix A**, specifically **Table A7.1 – Measurement Performance Specifications**, to include TCEQ parameter code 00021, Air Temperature (Degrees Fahrenheit).

SUMMARY OF CHANGES

Appendix A, Table A7.1-A – Measurement Performance Specifications

Table A7.1-A – Measurement Performance Specifications was updated to reflect TCEQ parameter code 00021, Air Temperature (Degrees Fahrenheit).

DETAIL OF CHANGES

Appendix A, Table A7.1-A – Measurement Performance Specifications

Table A7.1-A – Measurement Performance Specifications was updated to reflect TCEQ parameter code 00021, Air Temperature (Degrees Fahrenheit). This parameter was not included in the original submission of the FY 2016-17 QAPP.

DISTRIBUTION

QAPP Amendments/Revisions to Appendices will be distributed to all personnel on the distribution list maintained by the Authority.

These changes will be incorporated into the FY 2016-17 QAPP document and TCEQ, the Authority and all program participants will acknowledge and accept these changes by signing this amendment.

Red River Authority of Texas

Approved Electronically Effective 6/2/2016

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Allen M. Pappas, Date
Red River Authority Project Manager

Approved Electronically Effective 6/2/2016

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Jose Martinez, Date
Red River Authority CRP QA Officer

Texas Commission on Environmental Quality

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Russell Bond, Date
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Kelly Rodibaugh, Date
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Sarah Eagle, Date
CRP Work Leader

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Daniel R. Burke, Date
Lead CRP Quality Assurance Specialist

Table A7.1-A Measurement Performance Specifications

Parameter	Units	Matrix	Method	Parameter Code	AWRL	Limit of Quantitation (LOQ)	LOQ Check Standard %Rec	Precision (RPD of LCS/LCSD)	Bias % Rec. of LCS	Lab
FIELD PARAMETERS										
Days Since Precipitation Event (days)	Days	Other	TCEQ SOP V1	72053	NA[3]	NA	NA	NA	NA	Field
Depth of Bottom of Water Body at Sample Site	Meters	Water	TCEQ SOP V2	82903	NA[3]	NA	NA	NA	NA	Field
Dissolved Oxygen (mg/L)	mg/L	Water	TCEQ SOP V1, SM 4500-O G	00300	NA[3]	NA	NA	NA	NA	Field
Evidence of Primary Contact Recreation (1 = Observed, 0 = Not Observed)	NU	Other	NA	89979	NA[3]	NA	NA	NA	NA	Field
Flow Mth: 1=GAGE 2=ELEC 3=MECH 4=WEIR/FLU 5=DOPPLER	NU	Water	TCEQ SOP V1	89835	NA[3]	NA	NA	NA	NA	Field
Flow Severity: 1=No Flow, 2=Low, 3=Normal, 4=Flood, 5=High, 6=Dry	NU	Water	TCEQ SOP V1	01351	NA[3]	NA	NA	NA	NA	Field
Maximum Pool Width at Time of Study (Meters)	Meters	Other	TCEQ SOP V2	89864	NA[3]	NA	NA	NA	NA	Field
Maximum Pool Depth at Time of Study (Meters)	Meters	Other	TCEQ SOP V2	89865	NA[3]	NA	NA	NA	NA	Field
pH (Standard Units)	Standard Units	Water	TCEQ SOP V1, EPA 150.1	00400	NA[3]	NA	NA	NA	NA	Field
% Pool Coverage in 500 Meter Reach[1]	%	Other	TCEQ SOP V2	89870	NA[3]	NA	NA	NA	NA	Field
Pool Length, Meters[1]	Meters	Other	TCEQ SOP V2	89869	NA[3]	NA	NA	NA	NA	Field
Present Weather (1=CLEAR,2=PTC LDY,3=CLDY,4=R AIN,5=OTHER)	NU	Other	NA	89966	NA[3]	NA	NA	NA	NA	Field
Primary Contact Observed Activity(# of People observed)	# of people observed	Other	NA	89978	NA[3]	NA	NA	NA	NA	Field
Reservoir Access Not Possible Level Too Low Enter 1 if Reporting	NS	Other	TCEQ Drought Guidance	00051	NA[3]	NA	NA	NA	NA	Field
Reservoir Percent Full[2]	% Reservoir Capacity	Water	TWDB	00053	NA[3]	NA	NA	NA	NA	Field
Reservoir Stage (Feet Above Mean Sea Level)[2]	FT Above MSL	Water	TWDB	00052	NA[3]	NA	NA	NA	NA	Field
Reservoir Storage (Acre-Feet)	Acre-Feet	Water	TWDB	00054	NA[3]	NA	NA	NA	NA	Field
Transparency, Secchi Disc (Meters)	meters	Water	TCEQ SOP V1	00078	NA[3]	NA	NA	NA	NA	Field

Table A7.1-A Continued Measurement Performance Specifications

Parameter	Units	Matrix	Method	Parameter Code	AWRL	Limit of Quantitation (LOQ)	LOQ Check Standard %Rec	Precision (RPD of LCS/LCSD)	Bias % Rec. of LCS	Lab
FIELD PARAMETERS										
Specific Conductance, Field (µS /cm @ 25°C)	µS /cm	Water	TCEQ SOP V1, SM 2510 B, EPA 120.1	00094	NA[3]	NA	NA	NA	NA	Field
Stream Flow, Estimate (CFS)	cfs	Water	TCEQ SOP V1	74069	NA[3]	NA	NA	NA	NA	Field
Stream Flow, Instantaneous (CFS)	cfs	Water	TCEQ SOP V1	00061	NA[3]	NA	NA	NA	NA	Field
Temperature, Air (Degrees Fahrenheit)	°F	Water	N/A	00021	NA[3]	NA	NA	NA	NA	Field
Temperature, Water (Degrees Celsius)	°C	Water	TCEQ SOP V1 SM 2550 B	00010	NA[3]	NA	NA	NA	NA	Field
Water Clarity 1=Excellent 2=Good 3=Fair 4=Poor	NU	Water	NA	20424	NA[3]	NA	NA	NA	NA	Field
Water Color 1=BRWN 2=RED 3=GRN 4=BLCK 5=CLR 6=OT	NS	Water	NA	89969	NA[3]	NA	NA	NA	NA	Field
Water Odor (1=Sewage, 2=Oily/Chemical, 3=Rotten Eggs, 4= Musky, 5=Fishy, 6=None, 7=Other (Write in Comments))	NU	Water	NA	89971	NA[3]	NA	NA	NA	NA	Field
Water Surface (1=CALM,2=RIPPLE,3=WAVE,4=WHITECAP)	NU	Water	NA	89968	NA[3]	NA	NA	NA	NA	Field
Wind Intensity (1=Calm,2=Slight,3=Mod.,4=Strong)	NS	Other	NA	89965	NA[3]	NA	NA	NA	NA	Field

[1] To be routinely reported when collecting data from perennial pools.
[2] As published by the Texas Water Development Board on their website http://waterdatafortexas.org/reservoirs/statewide.
[3] Reporting to be consistent with SWQM guidance and based on measurement capability.

References:
1. TCEQ SOP, V1 - TCEQ Surface Water Quality Monitoring Procedures, Volume 1: Physical and Chemical Monitoring Methods for Water, 2012 (RG-415).
2. TCEQ SOP, V2 - TCEQ Surface Water Quality Monitoring Procedures, Volume 2: Methods for Collecting and Analyzing Biological Community and Habitat Data, 2014 (RG-416)