

SOAH DOCKET NO. 582-24-22552
TCEQ DOCKET NO. 2023-1591-MWD

APPLICATION OF CORIX
UTILITIES (TEXAS) INC.
FOR TPDES PERMIT NO.
WQ0013977001

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BEFORE THE STATE OFFICE
OF
ADMINISTRATIVE HEARINGS

PREFILED DIRECT TESTIMONY

OF

MICHAEL MACLEOD, PH.D.

ON BEHALF OF

ENVIRONMENTAL STEWARDSHIP

SUBMITTED ON DECEMBER 19, 2024

**SOAH DOCKET NO. 582-24-22552
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306	Current Conditions Along the Colorado River: Nitrite+Nitrate, Total Phosphorus

1 **I. INTRODUCTION**

2 **Q. Please state your name.**

3 **A.** My name is Dr. Michael MacLeod

4 **Q. Please state your address.**

5 **A.** My address is 160 Abbey Lane, Smithville, Texas 78957.

6 **Q. What have you been asked to do with regard to this matter, SOAH Docket No. 582-**
7 **24-22552?**

8 **A.** I have been retained by Environmental Stewardship, to evaluate the reliability of the
9 Executive Director's conclusions as to the quality of the receiving waters for Corix's
10 proposed discharge.

11 **II. QUALIFICATIONS**

12 **Q. Please briefly describe your educational background**

13 **A.** I earned a Bachelor of Science in Biology from the California Institute of Technology and
14 a Doctor of Philosophy degree in Biology from the University of Oregon, where I was
15 supported by a Fellowship from the Institute of Molecular Biology. Both courses of study
16 were heavily weighted toward quantitative sciences, including 2 years of math, 2 years of
17 physics, and at least 5 years of chemistry.

18 **Q. Please briefly describe your relevant professional experience.**

19 **A.** In my professional career, I published a total of 82 papers in peer-reviewed journals
20 describing my research. Many of these papers were concerned with both theoretical and
21 lab-based biochemistry, pharmacology, and toxicology. I worked with and learned from
22 statisticians, and in many cases developed quantitative mathematical models for biological
23 and chemical phenomena.

24 For many of the journals in which I published, I also acted as a reviewer of manuscripts
25 that other scientists had submitted for publication and provided my opinion as to whether

1 they should be published or not. I also reviewed grant proposals for the National Institutes
2 of Health and the American Cancer Society. I was awarded three U.S. Patents for inventions
3 related to the prevention of cancer and to Quantitative analysis of specific messenger RNA
4 molecules at zeptomole levels.

5 **Q. Have you previously testified as an expert in any matter?**

6 **A.** No.

7 **Q. Please refer to the document that has been marked as Exhibit ES-301. Can you**
8 **identify this document?**

9 **A.** Yes, this is a copy of my resume.

10 **Q. Is this a true and correct copy of your resume?**

11 **A.** Yes.

12 **Q. Please refer to the document that has been marked as Exhibit ES-302. Can you**
13 **identify this document?**

14 **A.** This document is my report on the water quality of Colorado River Segments 1428 and
15 1434.

16 **Q. What materials have you reviewed, if any, in developing your opinions in this matter?**

17 **A.** I have reviewed TPDES Permit No. WQ0013977001, TCEQ's 2024 Draft Integrated
18 Report, TCEQ's Surface Water Quality Monitoring Database, TCEQ Publication SFR-127
19 "2024 Guidance for Assessing and Reporting Surface Water Quality in Texas", TCEQ
20 Publication PG-001 "Exhibit 5E. Data Analysis Steps (for the Basin Summary Report
21 Watershed Summaries)", and LCRA's water quality database (<https://waterquality.lcra.org>).

22 III. OPINIONS

23 **Q. Have you developed any opinions regarding the application of Corix Utilities (Texas)**
24 **Inc. for TPDES Permit No. WQ0013977001?**

25 **A.** Yes.

26 **Q. On what topics have you developed an opinion?**

1 A. I have evaluated the data which is available in TCEQ's SWQM online database to
2 determine whether it supports the Executive Director's conclusion that the receiving waters
3 are not impaired for the designated and attainable uses, particularly the exceptional aquatic
4 life use. I have also evaluated the impact of the proposed discharge on the attainable uses
5 of the Colorado River downstream of the discharge.

6 **Q. What are your opinions on those subjects?**

7 A. The historical water quality sampling data for the Colorado River indicates a consistent
8 trend toward increasing concentration of nutrients and bacteria in the receiving waters. For
9 this reason, it was not accurate for the Executive Director to evaluate the permit on the
10 assumption that there is no information indicating that degradation in ambient water quality
11 has occurred in the receiving waters since November 28, 1975. Figure 2 of Exhibit ES-
12 302 shows in graphic form the TCEQ data on concentrations of (nitrite + nitrate) collected
13 at monitoring stations #12466 in Webberville, #12462 in Bastrop and #12293 in Smithville
14 from the earliest consistent measurements in the 1980s up to 2022. Generally, these
15 concentrations have increased over this time period at all three monitoring stations. The
16 data at the Bastrop station can be approximated as a linear increase with time (Exhibit ES-
17 302, Figure 1) or as an exponential increase (not shown), but the correlation coefficients
18 for these models are between 0.5 and 0.6, indicating a moderate degree of association. This
19 degree of correlation is not consistent with a model in which the concentration is not
20 changing with time. Thus, the linear and exponential models may not be correct, and a step
21 function model is a more likely representation of the data. The available data also indicate
22 that the current quality of the receiving waters cannot fully enable the attainable uses of the
23 receiving area of the Colorado River, including Exceptional Aquatic Life uses. The addition

1 of nutrients, as authorized by the draft permit, would potentially worsen these existing
2 negative impacts upon the attainable uses of the Colorado River downstream of the
3 discharge. Per- and polyfluoroalkyl substances (PFAS) contained in the discharge also
4 have the potential to impact the designated uses of the receiving stream, including
5 exceptional aquatic life uses. Furthermore, the available data indicates that Segments 1428
6 and 1434 of the Colorado River are out of compliance with the General Use criterion under
7 the Clean Water Act and therefore should be recognized as already at risk in the TCEQ's
8 consideration Corix's permit application. The Executive Director has not adequately
9 recognized the negative prior changes in water quality of the receiving waters downstream
10 of the discharge.

11 **Q. Please identify Exhibit ES-303.**

12 **A.** Exhibit ES-303 is a copy of a report I authored examining water quality sampling data and
13 its relationship to whether the water quality within the Colorado River in Segments 1428
14 and 1434 should be considered impaired.

15 **Q. Have you relied upon this in the developing your opinions in this case?**

16 **A.** Yes. This reflects my opinions at that stage of my analysis.

17 **Q. In this report, what are you referring to when you use the term "2024 Draft IR"?**

18 **A.** I will often use that abbreviation in reference to TCEQ's 2024 Draft Integrated Report of
19 Surface Water Quality for Clean Water Act Sections 305(b) and 303(d). I also use that
20 abbreviation in this testimony.

21 **Q. What does your report find regarding the current nitrate levels of Segment 1428 as
22 listed in the 2024 Draft IR, "Assessment Results for Basin 14 – Colorado"?**

23 **A.** The 2024 Draft IR, "Assessment Results for Basin 14 - Colorado River" at pp. 55-56 and
24 66-67 lists the nutrient screening level "Nitrate" for General Use for Segment 1428 as 1.95

1 mg/L. The dataset for the current 7-year period (12/1/2015 - 11/30/2022) was judged
2 “Adequate” (10 or more data points, representation of all seasons); the number of data
3 points varied from 36 - 39 for the three assessment units 1428_01, 1428_02 and 1428_03
4 in this segment. The numbers of exceedances of the Nitrate criterion, which should not be
5 more than 20% of the total data points, were:

- 6 ● 34 out of 37 for Segment 1428-01
- 7 ● 28 out of 36 for Segment 1428_02
- 8 ● 0 out of 39 for Segment 1428_03

9 Thus, the first two assessment units (“AUs”) are out of compliance, exhibiting exceedance
10 rates of 91.9% and 77.8%, respectively. The criterion level was missed by a large margin.
11 Taken together, these two AUs exhibit about 4 times the allowed level of exceedances.

12 **Q. What do you mean when you say that the data was judged to be “adequate”?**

13 **A.** That simply means that the data was considered reliable enough to be used in drawing
14 conclusions related to water quality. That does not mean that the water quality reflected in
15 the data was sufficient to support the relevant attainable uses.

16 **Q. Please identify Exhibit ES-304?**

17 **A.** Exhibit ES-304 is a copy of the Draft 2024 Texas Integrated Report – Assessment Results
18 for Basin 14 – Colorado River.

19 **Q. Does this report identify 1.95 mg/l as the nutrient screening level for Nitrate?**

20 **A.** Yes. The basis for this can be found in Table 3-11 “Screening Levels for Nutrient
21 Parameters” in Chapter 3 of TCEQ Publication SFR-127 “2024 Guidance for Assessing
22 and Reporting Surface Water Quality in Texas.”

23 **Q. How many exceedances does this report reflect of the Nitrate screening level?**

24 **A.** 28.

1 **Q. Why do you say that the number of exceedances should not exceed 20%?**

2 **A.** This is the guidance given in Chapter 3 p.76 of TCEQ Publication SFR-127 “2024
3 Guidance for Assessing and Reporting Surface Water Quality in Texas.” The guidance
4 states “A concern for water quality is identified if the screening level is exceeded greater
5 than 20% of the time.”

6 **Q. What does your report find regarding the historic nitrate levels of Segment 1428 as**
7 **listed in TCEQ’s Surface Water Quality Monitoring Database (“SWQM”)?**

8 **A.** An examination of the SWQM database indicates that this lack of compliance is not a
9 recent phenomenon. In the lower section of Table 3, Exhibit ES-303, historical data for
10 monitoring station 12466 at Webberville, located in AU 1428_01, has been collected for
11 the current 7-year period (~2015—2022). In addition, data has been collected from several
12 previous 7-year periods in the same format as used in the IR. (The earliest period is only 5
13 years long because data for 1987 and 1988 were not available in the database.) Each of
14 these datasets is “Adequate” according to the criteria used in the IR, with between 39 and
15 44 measurements. For the current 7-year period, an exceedance rate of 85.4% was found,
16 similar to the exceedance rate of the AU1428_01 discussed above. In previous 7-year
17 periods, exceedance rates for station 12466 were 88.1%, 60.0%, 56.4%, and 31.8%, all
18 well above the 20% allowable number of screening criterion exceedances. In summary,
19 segment 1428 has been out of compliance for over 30 years. The current annual mean
20 nitrate level at station 12466 is 5.45 mg/L, almost 3 times the screening criterion.

21 **Q. What does your report find regarding the current and historic Total Phosphorus**
22 **levels of Segment 1428?**

23 **A.** Datasets during the current 7-year period for Segments 1428_01, 1428_02, and 1428_03
24 were all judged “Adequate” in terms of the number of measurements for Total Phosphorus.
25 Datasets for several historical 7-year periods the Webberville Station 12466 were also

1 “Adequate” for Total Phosphorus measurements. The number of data points assessed
2 varied from 36-44. Current data for AU 1428_01 and 1428_02, shown in Table 4, Exhibit
3 ES-303, were noncompliant with the screening criterion, with screening criterion
4 exceedance rates of 55.3% and 46.2%, respectively. The third AU was compliant. (But note
5 an examination of the actual measurements in the TCEQ database, indicated non-
6 compliance). In all of the historical 7-year periods extending back through 1989,
7 phosphorus levels at station #12466 in Webberville were non-compliant.

8 **Q. What does your report find regarding the current and historic nitrate and Total**
9 **Phosphorus levels of Segment 1434?**

10 **A.** The same methods were applied to segment 1434, looking at AUs 1434_01,1434_02 and
11 1434_03 and at data from the Smithville monitoring Station 12293, located in AU 1434_02
12 and data from the Bastrop monitoring station 12462 located in AU1434_03. Again, all
13 datasets were judged “Adequate,” with data points assessed ranging from 29 to 48. As
14 shown in Tables 5 and 6 of Exhibit ES-303, these Segments and the Smithville station were
15 currently out of compliance for both Nitrate and Total Phosphate screening criterion,
16 similar to the findings in segment 1428. For Nitrate, all historical monitoring periods
17 available were out of compliance with the screening criterion. For total phosphorus, the
18 two most recent time periods were out of compliance with the screening criterion. Such a
19 significant exceedance of the screening criterion creates a likelihood for impairment that
20 the Executive Director has not adequately accounted for. Tables 7 and 8, Exhibit ES-303,
21 showing data from the Bastrop station, lead to similar conclusions.

22 **Q. Prior to these periods, were the receiving waters of the Colorado River in compliance**
23 **with the general use water quality criteria for nutrients?**

24 **A.** Data from the TCEQ’s database for the Bastrop monitoring station #12462 indicate that the
25 water quality was significantly higher prior to the time periods described above. In

1 particular, in the years 1982-1987, 58 separate measurements of (nitrite + nitrate) and (total
2 phosphorus) were made at this station. For (nitrite + nitrate), only 7 of these measurements
3 (12.1%) exceeded the 1.95 ppm screening criterion; the mean value was 1.09 ppm and the
4 median was 0.79 ppm. For total phosphorus, only 9 of these measurements (15.5%)
5 exceeded the 0.69 ppm screening criterion; the mean value was 0.52 ppm and the median
6 value was 0.37 ppm.

7 **Q. Over the past 30 years or so, has the water quality in the receiving waters of the**
8 **Colorado River been lowered for bacteria?**

9 **A.** I examined data from the LCRA Water Quality database collected at the monitoring stations
10 located in Del Valle, Webberville, Bastrop, Smithville and LaGrange for Most Probable
11 Number of E. coli bacteria in 100 mL. The screening level of Recreational Use for this
12 parameter is 126. The results for the most recent 7-year period, similar to the reporting
13 period for the 2024 IR, are summarized in Exhibit ES-305. Data for each of these stations
14 was “Adequate” by the 2024 IR criteria, and each of the stations was out of compliance
15 (>20% exceedances). The earliest 7-year dataset from the Bastrop monitoring station in the
16 database for this parameter was from 2001-2008. The number of data points measured was
17 “Adequate” (43) and the number of exceedances of the screening criterion was 8, for an
18 exceedance rate of 18.6%, lower than the 20% criterion. Prior to 2001, bacterial
19 measurements were made using a somewhat different collection procedure (Parameter
20 31648). The earliest 7-year set of measurements according to this parameter at Bastrop was
21 from 1994-2001: the number of measurements was 40 with 6 exceedances of the screening
22 criterion, for an exceedance rate of 15.0%; in other words, compliant with the 20%
23 criterion. Based on these data, it seems that the summaries in the 2024 IR for the assessment

1 units in question claiming no exceedances for bacteria between 2015 and 2022 are
2 incorrect.

3 **Q. Are the levels of (nitrite + nitrate) and total Phosphorus currently compliant with the**
4 **aquatic Life Use screening criteria?**

5 **A.** The TCEQ database currently contains data up through 2022. However, the LCRA Water
6 Quality database additionally contains data collected for 2023 and part of 2024. (The data
7 are collected and reported by LCRA, but have to be approved by TCEQ before inclusion
8 in the SWQM database.) Data collected from 10/19/2022 through 8/20/2024 at five
9 monitoring stations in segments 1434 and 1428 from the LCRA database are shown in
10 Exhibit ES-306. For each station, the dataset is judged “Adequate”, containing 12
11 measurements at each station and representing the entire year. Individual measurements
12 are highlighted in yellow if they are out of compliance with the ALU criterion of 1.95 ppm.
13 For (nitrite + nitrate) the majority of the measurements are out of compliance with the ALU
14 criterion of 1.95 ppm at all five monitoring stations. Several measurements at Austin’s
15 Colony and Webberville also exceed the EPA’s drinking water human health criterion (10.0
16 ppm); these are highlighted in red. The Webberville station is particularly of concern since
17 both the mean and the median (nitrite + nitrate) levels are close to the EPA’s human health
18 standard. For total phosphorus, the rate of exceedance is between 50 and 100% at all five
19 monitoring stations.

20 **Q. Please summarize your findings based on these data.**

21 **A.** In summary, data in the Draft Integrated Report clearly show that segments 1428 and 1434
22 of the Colorado River are not in compliance with the General Use criteria for either Nitrate
23 or Total Phosphorus. In fact, the exceedances are far above the 20% limit. Historical data
24 from monitoring stations in both segments indicate that they have been out of compliance

1 for many years. I therefore believe that these segments should be listed in Category 5,
2 (303)d with respect to nutrient impairment. This impairment, as well as the impairment of
3 the receiving waters for bacteria, should have been considered in the examination of
4 Corix's Application. Even so, the receiving waters in the Colorado River were previously
5 in compliance with general use criteria for Nitrate, Total Phosphorus, and bacteria. Thus,
6 available information indicates that the existing water quality for these parameters has been
7 lowered from the highest water quality achieved for these parameters since 1975.

8 **A.** The elevated levels of nutrients are especially critical to the health of the river since TCEQ
9 is currently considering several wastewater permits that will allow disposal of over 1
10 million gallons nitrate- and phosphorus-rich wastewater per day into segment 1428 and
11 Cedar Creek, which flows into segment 1434 of the Colorado River.

12 **IV. CONCLUSION**

13 **Q. Does this conclude your testimony?**

14 **A.** Yes, though I reserve my right to amend or supplement this testimony.

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EXHIBIT ES-301

CURRICULUM VITAE

NAME: Michael C. MacLeod, Ph.D.

TITLE/AFFILIATION (AT RETIREMENT 2012):

Primary Appointments: Professor of Carcinogenesis (Biochemistry)
University of Texas M.D. Anderson Cancer Center
Science Park-Research Division
Smithville, Texas

Joint/Adjunct Appointments: Adjunct Professor
College of Pharmacy
The University of Texas – Austin
Austin, Texas

CITIZENSHIP: U.S.A.

HOME ADDRESS: 160 Abbey Lane
Smithville, Texas 78957
Telephone: (512) 237-0237
email: mcmacleod47@gmail.com

EDUCATION:

Degree-Granting Education:

1969	B.S. (Biology) California Institute of Technology Pasadena, CA
1974	Ph.D. (Biology) University of Oregon Eugene, OR

Postgraduate Training:

1974-75

Research Associate
Department of Biology
University of Oregon
Eugene, OR (Dr. J. Postlethwait)

1975-77

Research Associate
Biology Division
Oak Ridge National Laboratory
Oak Ridge, TN (Dr. F.T. Kenney)

EXPERIENCE/SERVICE:Academic Appointments:

1977-1982

Research Associate III, Biology Division
Oak Ridge National Laboratory, Oak Ridge, TN

1982-1986

Assistant Biochemist & Assistant Professor of
Biochemistry
University of Texas M.D. Anderson Cancer Center
Science Park-Research Division, Smithville, TX

1983-2011

Member of the Graduate Faculty
University of Texas Health Science Center at Houston
Graduate School of Biomedical Sciences, Houston, TX

1985-1994

Staff Member
Center for Developmental Biology
University of Texas at Austin, Austin, TX

1986-1995

Associate Professor of Carcinogenesis (Biochemistry)
University of Texas M.D. Anderson Cancer Center
Science Park-Research Division, Smithville, TX

1995-2012

Professor of Carcinogenesis (Biochemistry)
University of Texas M.D. Anderson Cancer Center
Science Park-Research Division, Smithville, TX

1996-2009

Deputy Director
Center for Research on Environmental Disease
Science Park - Research Division, Smithville, TX

2010

Director
Center for Research on Environmental Disease

1998-2011 Adjunct Professor
 College of Pharmacy
 The University of Texas – Austin
 Austin, Texas

Academic Administrative Appointments/Responsibilities:

1985-1991 Associate Director
 University of Texas M.D. Anderson Cancer Center
 Science Park-Research Division, Smithville, TX

1997-2009 Associate Director
 University of Texas M.D. Anderson Cancer Center
 Science Park-Research Division, Smithville, TX

Institutional Committee Activities:

1983-1989 Undergraduate Education Committee, Chair
 1983-1991 Computer and Biotechnical Services Committee, Chair
 1984-1988 Institutional Research Grant Committee, Member
 1986-2000 Laboratory III Design Committee, Chair
 1988-1989 UTMDACC Faculty Development & Support Working Group, Co-chair
 1989-1996 Undergraduate Education Committee, Member
 1990-1995 Faculty Search Committee, Chair
 1992-1997 Research Division Shared Resources Committee, Member, Chair
 1993 Strategic Planning Committee: Campus and Facilities, Chair
 1993-2000 Postdoctoral Training Grant Committee, Member
 1994-1997 Biosafety Committee (Dept. of Carcinogenesis), Chair
 1997-2000 Telecommunications Committee, Member
 1997-2012 Shared Resources Committee, Chair
 1998-2012 Faculty Tenure & Promotions Committee, Member
 2001 SPRD Master Planning Committee, Member
 2004-2005 Breeding Colony Management Working Group, Member
 2005-2012 Information Resources Advisory Committee, Chair

Other Appointments/Responsibilities (Institutional):

1984-1989 Seminar Program, Coordinator
 1997-1999 UTMDACC Faculty Senate, Senator

Consultantships:

KPL, Inc., 9/99 - 2005

HONORS AND AWARDS:

- 1967 NSF Undergraduate Research Participant, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY.
- 1968 NSF Undergraduate Research Participant, Division of Biology, California Institute of Technology, Pasadena, CA.
- 1969 Recipient of a Ford Foundation Grant through the Associated Students of the California Institute of Technology Research Center, Pasadena, CA.
- 1970-74 Institute for Molecular Biology, University of Oregon, Eugene, OR. Public Health Service Trainee.
- 1978 NRC Travel Fellowship for XII International Cancer Congress, Buenos Aires, Argentina.

RESEARCH:Grants and Contracts (funded and pending)-past ten years:Past

NCI, CA 35581-16, "Specificity of Diol Epoxide: Chromatin Interactions". P.I., M.C. MacLeod, 8/1/83-1/31/02, direct costs, \$160,480, 25% effort.

NCI, CA 09480-11, "Research Training in Carcinogenesis and Mutagenesis". P.I., Thomas J. Slaga, Co-investigator, M.C. MacLeod, 5% effort, 4/1/84-06/30/01, direct costs, \$133,916.

UTMDA, Tobacco Program, "Molecular Mechanisms of Tobacco Carcinogenesis"- Alterations in Gene Expression Induced By the Tobacco Carcinogen B[a]P and its Ultimate Carcinogenic Metabolite in Tracheal Epithelial Cells - Project 3. P.I., MacLeod, 5% effort, 11/1/99 - 8/31/01, direct costs, \$97,230.

NCI, S/C 5R41 ES11235-02, "Gene Expression in Engineered Human Skin". P.I., Walborg, 10% effort, 10/01/01 - 9/30/03, direct costs, \$32,685.

NIEHS, CRED Pilot Project, "The Role of BTG2 in the DNA Damage Response: Use of RNAi" P.I., MacLeod, 5% effort, 7/1/03-6/30/04, direct costs, \$20,000.

Active

NCI, 1U19 CA84978-04, "Gene Expression Signature of Early Breast Cancer", Project 2 - Construction of Gene Expression Signatures with RAGE. P.I., Aldaz; Proj Director, MacLeod, 10% effort, 04/06/01 - 03/31/06, direct costs, \$275,731.

NCI, 1U19 CA84978-04, "Gene Expression Signature of Early Breast Cancer"-Core B, Statistics and Database Management Core. P.I., Aldaz, Core director, MacLeod, 10% effort, 04/06/01 - 03/31/06, direct costs, \$84,890.

NCI, 1U19 CA84978-04 "Gene Expression Signature of Early Breast Cancer", Core C - Shared Administrative Resources Core. P.I., Aldaz, 10% effort, 04/06/01 - 03/31/06, direct costs, \$37,216.

NIEHS, 1U01 ES11047-05, "Mouse Models of Cell Cycle Deregulation in Cancer". P.I., Johnson, 10% effort, 4/1/01 - 3/31/07, direct costs, \$795,701.

NIEHS, 2P30 ES07784-10, "Mechanisms and Prevention of Environmental Disease". P.I., DiGiovanni; Co-investigator, M.C. MacLeod, 10% effort; 04/01/01-03/31/06, direct costs, \$987,213.

NIEHS, 2P30 ES07784-10, "Mechanisms and Prevention of Environmental Disease"-Administrative Core. P.I., DiGiovanni; Co-investigator, M.C. MacLeod, 10% effort, 04/01/01-03/31/06, direct costs, \$102,701.

NIEHS, 2P30 ES07784-10, "Mechanisms and Prevention of Environmental Disease"-Mechanisms and Prevention of Environmental Disease, Functional Genomics - Facility Core 7. P.I., DiGiovanni; Core Director, M.C. MacLeod, 10% effort, 4/1/01 - 03/31/06, direct costs, \$98,286.

Pending

NIH, 1 R01 CA116620-01 (Pending), "Mechanisms of ATF3-induced Mammary Tumorigenesis" P.I., MacLeod, 20% effort, 07/01/05-06/30/10, direct costs, \$1,250,000 (\$250,000/year).

NIH, R01 CA120291-01 (Pending), "Role of HMGB1 in the response to DNA damage in mammalian cells" P.I., Vasquez; Co-Inv., MacLeod, 5% effort, 04/01/2006-03/31/2011, direct costs, \$1,250,000 (\$250,000/year).

NIEHS, 2P30 ES07784-11 (Pending), "Mechanisms and Prevention of Environmental Disease". P.I., DiGiovanni; Co-investigator, M.C. MacLeod, 10% effort; 04/01/06-03/31/11, direct costs, \$5,495,373 (\$1,099,351/year).

NIEHS, 2P30 ES07784-11 (Pending), "Mechanisms and Prevention of Environmental Disease"-Administrative Core. P.I., DiGiovanni; Co-investigator, M.C. MacLeod, 10% effort, 04/01/06-03/31/11, direct costs, \$108,709.

NIEHS, 2P30 ES07784-11 (Pending), "Mechanisms and Prevention of Environmental Disease"-Mechanisms and Prevention of Environmental Disease, Functional Genomics - Facility Core 7. P.I., DiGiovanni; Core Director, M.C. MacLeod, 10% effort, 4/1/06-03/31/11, direct costs, \$78,143.

Patents and Technology Licenses Pending and Granted:

MacLeod, M.C., Chemoprevention of electrophilic damage by mercaptopurine analogs. U.S. Patent # 5,120,753, issued June 9, 1992.

MacLeod, M.C., Chemoprevention of electrophilic damage by mercaptopurine analogs. U.S. Patent # 5,231,108, issued July 27, 1993.

MacLeod, M.C., Aldaz, C.M., Gaddis, S., Combinatorial oligonucleotide PCR: A method for rapid global expression analysis. U.S. Patent # 6,221,600, issued April 24, 2001.

MacLeod, M.C., License to KPL Laboratories. July 8, 1999.

Grant Reviewer/Service on NIH/Other Study Sections:

1985	Advisory Committee on Biochemistry and Chemical Carcinogenesis, American Cancer Society (ad hoc member)
1986	Advisory Committee on Nucleic Acids and Protein Synthesis, American Cancer Society (ad hoc member)
1987	Advisory Committee on Biochemistry and Carcinogenesis, American Cancer Society (ad hoc member)
1988-1991	Advisory Committee on Biochemistry and Carcinogenesis, American Cancer Society (Member, 1988-89; Vice-Chairman, 1989-90; Chairman, 1991).
1989	Department of Energy ReMPrograms Peer Review.
1989	NIEHS Site Visit, Program Project Grant in Molecular Toxicology.
1990	NCI Site Visit/Special Review Committee, Program Project Grant in Chemoprevention.
1991	Ad hoc Technical Review Group, NCI, Multidisciplinary Technical Resources and Support for Chemoprevention Branch
1994	Special Review Committee, NIEHS, Superfund Hazardous Substances Basic Research Program
1995	Special Review Committee, NIEHS, RFA94-009
1997-1999	Cancer Study Section, Tobacco-Related Disease Research Program of the State of California
1998	NIEHS Site Visit/Initial Review Group, Southwest Environmental Health Sciences Center
1999	NIEHS SEP: Carcinogenesis of Drinking Water Disinfectant By-Products
1999	NIEHS SEP: Superfund Basic Research Program, Panel 2
1999	NIEHS Site Visit/Initial Review Group, SUNY-Stony Brook
2001	NIEHS SBIR Contract Review Committee (Chair): Development of a database of genetic alterations from environmental chemicals
2001	NIEHS SBIR Contract Review Committee: Development of Alternatives to Animals for Toxicity Testing
2002	NIEHS SEP: Site Visit for P01ES008131, Johns Hopkins University
2002	NIEHS SEP: Site Visit for P30ES11961, Duke University
2003	NIEHS Site Visit for P30 ES03828-17, Mount Desert Island Biological Laboratory

- 2003 NIEHS Site Visit, "Marine & Freshwater Biomedical Sciences Center", Oregon State University
- 2004 NIEHS Site Visit for P30 ES013517-01, "Center for the Environmental Basis of Human Disease," University of Pittsburgh
- 2005 Cancer Study Section, Tobacco-Related Disease Program of the State of California
- 2005 NIEHS Phase I Review Panel, Superfund Basic Research and Training Program

PUBLICATIONS :

Articles in refereed journals:

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Invited articles:

1. Selkirk, J. K., Cohen, G. M., and MacLeod, M. C. Glucuronic acid conjugation in the metabolism of chemical carcinogens by rodent cells. *Arch. of Toxicol. Suppl.* 3, pp. 171-178, 1980.
2. Selkirk, J. K. and MacLeod, M. C. Chemical carcinogenesis: Nature's metabolic mistake. *BioScience* 32: 601-605, 1982.
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Abstracts: (past five years)

1. Charpentier, A., Bednarek, A., Hawkins, K.A., Laflin, K., Daniel, R., MacLeod, M.C., and Aldaz, C.M. Global gene expression changes in estrogen treated cells. *Proc. Am. Assoc. Cancer Res.*, 41, 174, 2000.
2. Wang, A., Johnson, D.G., and MacLeod, M.C. Novel genes upregulated by E2F1 overexpression in murine keratinocytes. *Proc. Am. Assoc. Cancer Res.*, 41, 2323, 2000.
3. Gu, J., Watkins, D., Judson-Kremer, K., Wang, A., Aldaz, C.M., and MacLeod, M.C. Gene expression changes in normal human mammary epithelial cells exposed to benzo[a]pyrene diol epoxide. *Proc. Am. Assoc. Cancer Res.*, 41, 3633, 2000.
4. Wang, A., Powell, K.L., Yandle, K., Mistry, H., and MacLeod, M.C. Gene expression changes in normal human bronchial epithelial cells exposed to benzo[α]pyrene diol epoxide. *Proc. Am. Assoc. Cancer Res.*, 42, 1726, 2001.
5. Wang, A., Johnson, D.G., and MacLeod, M.C. Expression of Eig3 in murine epidermal papillomas and identification of a family of genes related to the SPRR family. *Proc. Am. Assoc. Cancer Res.*, 42, 4329, 2001.
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9. MacLeod, M.C., Aldaz, C.M., High, S., Sahin, A.A., Powell, K.L., Liburd, N., and Wang, A. Transgenic overexpression of ATF3 is oncogenic in mouse mammary gland. *Proc. Am. Assoc. Cancer Res.*, *46*, 1071, 2005.

Book chapters:

1. Selkirk, J. K. and MacLeod, M. C. Polycyclic hydrocarbon activation in rodent liver and fibroblasts. *In: L. Severi, (ed.), Tumor of Early Life in Man and Animals*, pp. 851-864. Perugia, 1978.
2. Selkirk, J. K. and MacLeod, M. C. Metabolism and macromolecular binding of benzo(a)pyrene and its noncarcinogenic isomer benzo(a)pyrene in cell cultures. *In: P.W. Jones (ed.), Polynuclear Aromatic Hydrocarbons. Third International Symposium on Chemistry and Biology*, pp. 21-35. Ann Arbor, 1979.
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4. MacLeod, M. C., Moore, C. J., and Selkirk, J. K. Analysis of water-soluble conjugates produced by hamster embryo cells exposed to polynuclear aromatic hydrocarbons. *In: A Bjorseth and A.J. Dennis (eds.), Polynuclear Aromatic Hydrocarbons: Chemistry and Biological Effects*, pp. 9-23. Battelle, 1980.
5. MacLeod, M. C., Kootstra, A., Slaga, T. J., and Selkirk, J. K. Covalent modification of nuclear and cytoplasmic proteins of hamster embryo cells during PAH metabolism. *In: M. Cooke and A. J. Dennis (eds.), Polynuclear Aromatic Hydrocarbons: Chemical Analysis and Biological Fate*, pp. 85-96. Battelle, 1981.
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EDITORIAL AND REVIEW ACTIVITIES:

Editor/Service on Editorial Board(s):

Editorial Advisory Board Member, *Environmental Health Perspectives: Toxicogenomics*, 2002-2004

Associate Editor, *Molecular Carcinogenesis*, - 2011

Editorial Board Member, *BMC Cancer*, 2004 - 2011

Journal Reviewer (past five years):

BMC Cancer

Biochemistry

Cancer Letters

Cancer Research

Carcinogenesis

Chemical Research in Toxicology

Clinical Cancer Research

Journal of Theoretical Biology

Molecular Carcinogenesis

Nucleic Acids Research

Trends in Molecular Medicine

TEACHING:*Within Current Institution*Formal Teaching:Courses taught:

- 1968-1969 California Institute of Technology
Division of Biology, Undergraduate teaching assistant in Biochemistry and Genetics core courses
- 1969-1971 University of Oregon
Department of Biology, Instructor, Cell biology labs for biology majors
- 1979-1982 University of Tennessee - Oak Ridge Graduate School of Biomedical Sciences, Lecturer (part-time) in Carcinogenesis and Biochemistry
- 1984-2012 University of Texas Health Science Center at Houston
Graduate School of Biomedical Sciences, Lecturer in Carcinogenesis
- 1994-1995 University of Texas Health Science Center at Houston
Graduate School of Biomedical Sciences
Faculty Coordinator, Graduate Student Seminars at Science Park
- 1998-2012 University of Texas at Austin
School of Pharmacy, Lectures in Toxicology

Training programs:

- Faculty, Research Training in Carcinogenesis & Mutagenesis
Faculty, UT – Austin Toxicology Program
Faculty, Training Program in Cancer Biology
Faculty, Center for Molecular and Cellular Toxicology Program (CMCT)

Supervisory Teaching:Advisory Committees:

- 2001-2005 Jennifer Cook, GSBS
2003-2005 Xiaojun Xia, GSBS
2003-2005 Lubna Patrawala, GSBS

Preliminary Examination Committees:

2004. Jamie Russell, GSBS
2005 – 2008 Sabine Lange, GSBS

2005 –2008 Regina Weaks, GSBS
 2005 Lubna Patrawala, GSBS

Supervisory Committees (memberships/chairmanships):

Co-Chairman, Thesis Supervisory Committee, Bettye Smith, The University of Texas at Austin, 1985-1992
 Member, Thesis Supervisory Committee, David Mitchell, University of Texas at Austin, 1987-1989
 Member, Thesis Supervisory Committee, Rosalyn Gill, University of Texas at Austin, 1990-1993
 Member, Thesis Supervisory Committee, Ying-Na Cai, GSBS, 1993-1996
 Co-Chairman, Thesis Supervisory Committee, Wei-Guo Qing, The University of Texas at Austin, 1993-1996
 Member, Thesis Supervisory Committee, Jeongmi Kim Jeong, University of Texas at Austin, 1995-1996
 Member, Thesis Supervisory Committee, Hangwen Li, University of Texas at Austin, 2005 - present
 Member, Thesis Supervisory Committee, Angela Coleman, University of Texas at Austin, 1996-1998
 Member, Thesis Supervisory Committee, Mark Lyles, UTHSC, San Antonio, 1999-2001

Direct supervision:

Undergraduate and Allied Health Students:

Spring, 1978	Anne Huff, Centre College, Centre, Kentucky
Spring, 1980	Linda Fenn, Millsaps College, Jackson, Mississippi
Summer, 1983	Karen Crotty, Texas A & M University, College Station, TX
Summer, 1984	John McClay, Texas A & M University, College Station, TX
Summer, 1985	Thomas Pevny, Texas A & M University, College Station, TX
Summer, 1986	Melissa O'Brien, University of Texas at Austin, Austin, TX
Summer, 1988	Jamie Fung, University of Texas at San Antonio, Texas
Summer, 1991	Anna Beceiro, University of Texas at Austin, Austin, Texas
Summer, 1993	Angela Keeling, Southwest Texas State University, San Marcos, TX
Summer, 1993	Ngoc Tran, University of Texas at Austin, Austin Texas
Summer, 1994	Lori Ryza, University of Texas at Austin, Austin, Texas
Summer, 1994	Ngoc Tran, University of Texas at Austin, Austin, Texas
Summer, 1996	Rebecca Hernandez, Blinn College, Brenham, Texas
Summer, 1997	Andy Chang, Harvard University, Cambridge, Massachusetts
Summer, 1997	Conchita Almedina, Texas A&M University, College Station, Texas
Summer, 1998	Howard Stroupe, Duke University, Durham, North Carolina
Summer, 2000	Jean Onwuchekwa, University of Texas at Austin, Austin, Texas
Summer, 2001	Gulnaz Bachlani, Texas A&M University, College Station, Texas
Summer, 2002	Gulnaz Bachlani, University of Texas at Arlington, Arlington, TX

Medical and undergraduate students: N/A

Graduate:

09/85-12/92	Bettye Smith, Ph.D., University of Texas at Austin, Austin, Texas
01/91-96	Wei-Guo Qing, Ph.D., University of Texas at Austin, Austin, TX
02/94-06/95	Haejin Kang, University of Texas at Austin, Austin, Texas
05/94-10/94	Jennifer Ho, University of Texas at Austin, Austin, Texas
09/98-12/98	Kevin Houston, GSBS
06/02-09/02	Lubna Patrawala, GSBS
03/03-06/03	Xiaojun Xia, GSBS

Postdoctoral Research Fellows:

07/83-05/86	Masahiko Kurokawa, Toyama University, Toyama, Japan
11/83-11/84	Lennart Dock, Karolinska Institutet, Stockholm, Sweden
09/86-07/88	Edwin Stewart, University of Texas at Austin, Austin, Texas
01/94-12/96	Ann Milliman, University of Illinois at Chicago, Chicago, Illinois
02/98-02/01	Aijin Wang, Zhejiang Medical University, Hangzhou, China
04/98-09/99	Jing Gu, Oita Medical University, Japan
06/02-5/05	Lea Spyrès, University of Oklahoma, Norman, OK

*Outside of Current Institution*Presentations at National or International Conferences:Invited:

01/30/95	Gordon Conference on Mammalian DNA Repair Mechanisms, Ventura, CA
07/26/98	Gordon Conference on Mechanisms of Toxicity, Henniker, NH
08/28/01	American Chemical Society National Meeting, Chicago, IL
12/05/05	Genotype-to-Phenotype Correlation in Health and Disease, Welches, OR (sponsored by NIEHS and NAS)

Seminar Invitations from other Institutions (dates):

03/04/85	College of Veterinary Medicine, Texas A&M University, College Station, TX
10/27/87	Burroughs-Wellcome Pharmaceuticals, Research Triangle Park, NC
03/10/89	Clayton Foundation, University of Texas at Austin, Austin, TX
02/07/90	Lineberger Cancer Research Center, University of North Carolina, Chapel Hill, NC
02/08/90	National Institute of Environmental Health Sciences, Research Triangle Park, NC
06/18/90	Beatson Institute for Cancer Research, Glasgow, Scotland
04/16/93	Department of Pharmacology, Medical College of Virginia, Richmond, VA
07/20/93	Department of Biology, Boston University, Boston, MA
06/14/94	College of Pharmacy, University of Texas at Austin, Austin, TX
12/09/94	Department of Chemistry, New York University, New York, NY

09/11/97 Department of Human Biological Chemistry and Genetics, University of
Texas Medical Branch, Galveston, TX
10/22/97 School of Pharmacy, University of Texas at Austin, Austin, TX
11/09/98 College of Veterinary Medicine, Texas A&M University, College Station, TX
04/07/99 Center for Research on Occupational and Environmental Toxicology, Oregon
Health Sciences University, Portland, OR
04/29/99 KPL, Inc., Gaithersburg, MD
07/14/05 Children's Cancer Research Institute, UTHSC – San Antonio

Other Presentations at State and Local Conferences:

04/21/04 NIEHS CRED Joint Retreat – Research Cores 2 and 3, “Quantitative Views of
Gene Expression in Breast Tumors and Normal Epithelial Cells,” Bastrop, TX

PROFESSIONAL MEMBERSHIPS

Professional Society Memberships

Member, American Association for Cancer Research
Member, American Society for Biochemistry and Molecular Biology
Member, American Association for the Advancement of Science

SOAH DOCKET NO. 582-24-22552
TCEQ DOCKET NO. 2023-1591-MWD

APPLICATION OF CORIX
UTILITIES (TEXAS) INC.
FOR TPDES PERMIT NO.
WQ0013977001

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BEFORE THE STATE OFFICE

OF

ADMINISTRATIVE HEARINGS

EXHIBIT ES-302

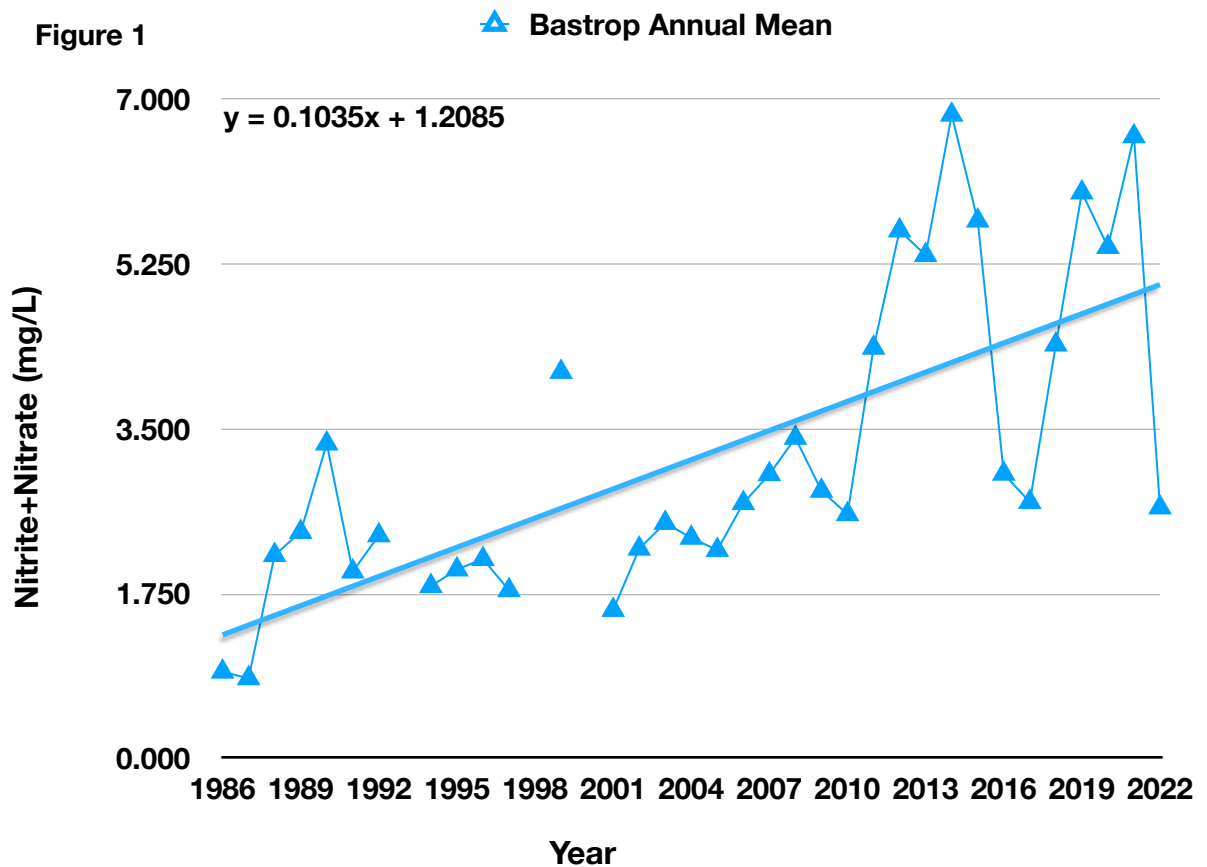
Is the Colorado River an Exceptional Aquatic-Life Use Waterway?
An Analysis of Data from the TCEQ Database
by Michael C. MacLeod, PH.D.
1/21/2024

Abstract

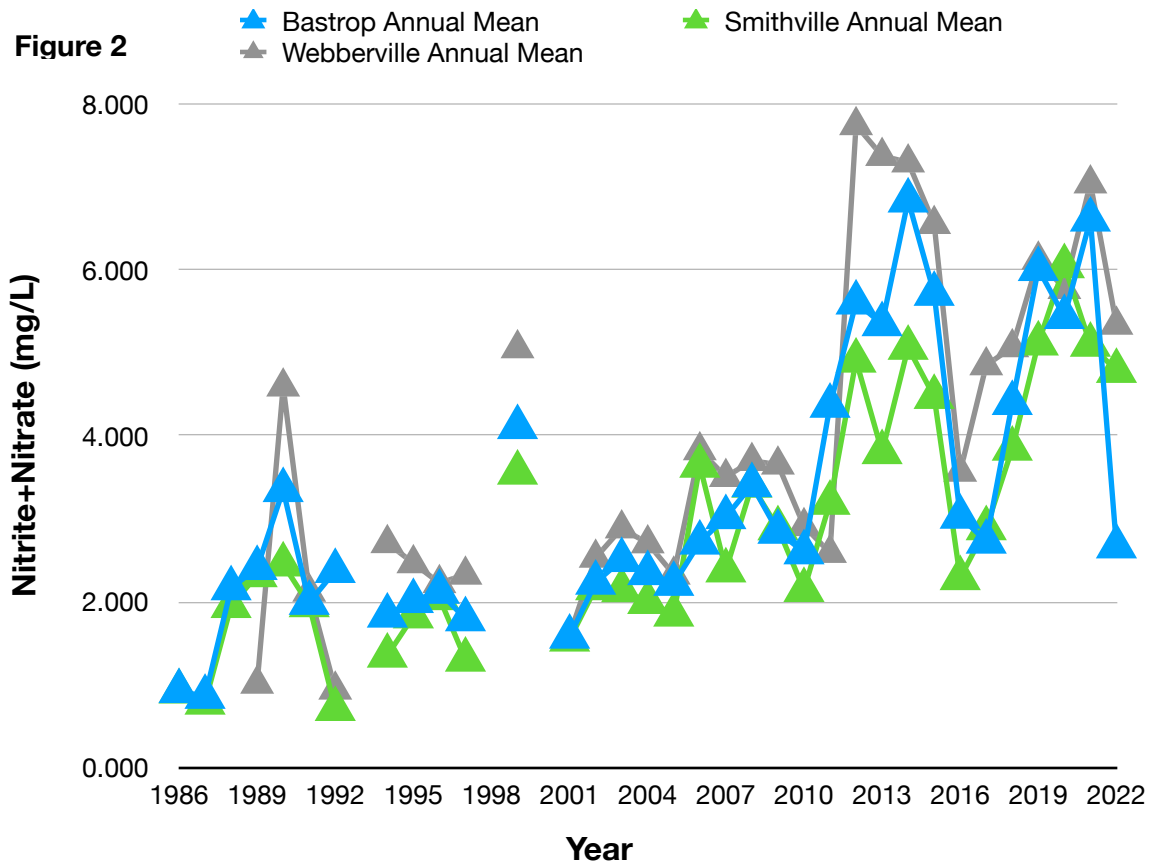
The Colorado River in segments downstream from Lady Bird Lake has long been given the designation “Exceptional Aquatic-Life Use” by TCEQ. However, as amply demonstrated at the Public Meeting held June 1, 2023 concerning the Corix application to amend a wastewater discharge system permit #WQ0013977001, an increasing number of users of the river have expressed concern that water quality has been seriously degraded in recent years. In order to illuminate this question, I have downloaded and analyzed data from the TCEQ-curated water quality database (<https://tceq.maps.arcgis.com/apps/webappviewer>). The results of these analyses, including both macronutrients that enhance bacterial and algal growth, and toxic chemical pollutants, do not fully support the designation “Exceptional Aquatic-Life Use” .

After the Public Meeting concerning the Corix application to amend wastewater discharge system permit #WQ0013977001, held June 1, 2023 in Bastrop County, I submitted a formal response expressing my concerns as to whether the Colorado River is still an exceptional waterway. Specifically, I asked for responses concerning the present and future levels of harmful macronutrients such as nitrate and phosphorus in the river, and the levels of toxic organic and heavy metal pollutants. These questions were not answered in the TCEQ response. Accordingly, I have downloaded water quality data from the TCEQ SWQMIS database and analyzed it for several macronutrients and a variety of toxicants. The following four points indicate that segments 1428 and 1434 of the Colorado River in Bastrop County are in fact not pristine.

1. I have analyzed data for (nitrate+nitrite, parameter code 630) from 3 stations in this stretch of the river: #12466 in Webberville, #12462 in the City of Bastrop, and #12293 in Smithville. (There are currently no active sampling stations closer to the McKinney Roughs site than the Webberville and Bastrop stations). To overcome seasonal bias in the data I have calculated the annual mean of this parameter from 1986 through 2022, leaving out years in which less than three measurements were reported (Table 1). The data from the Bastrop station are plotted in Figure 1, along with the least squares fit to a linear model. It can easily be seen that the concentration of (nitrate+nitrite) has been increasing over this time period at a rate of about 0.1 mg/L/year.



2. In Figure 2, the levels for the three stations in this section of the Colorado (Webberville, Bastrop and Smithville) are plotted, showing that the apparent increase analyzed in Figure 1 at the Bastrop site is closely similar to results at all three sites. Preliminary analysis of data from the next nearest stations at Del Valle (#12469) and LaGrange (#12292) gave similar results (data not shown).

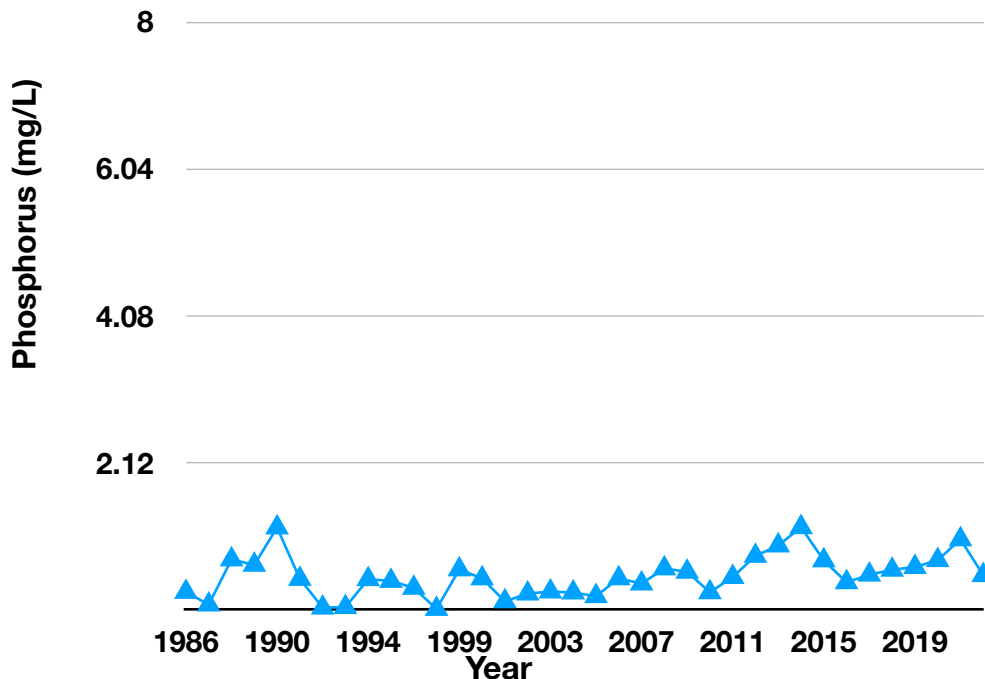


According to Table 2 (Criteria for Specific Toxic Materials, Human Health Protection) in Chapter 307 of the TCEQ’s “Texas Water Quality Standards” document, the maximal, non-toxic level of nitrate, called the criterion level, is 10.0 mg/L. The current overall mean level for the Bastrop station, calculated for the last 5 years (2018-2022), is 5.0 mg/L. Thus the current average level of nitrate in segments 1428 and 1434 is just about half of the criterion level. Indeed, when we look at the individual measurements at station 12462 in Webberville over the past 7 years, the level has exceeded the criterion level in 7 out of 40 assays (17.5%, Table 2). According to the TCEQ’s guidance, these data (greater than 10% of measurements not achieving the criterion) should be cause for listing this segment as “303(d)”. If the outfall of the Corix plant and other plants in the permitting pipeline contribute increased loads of (nitrate+nitrite), exceeding the criterion level will soon be commonplace.

3. I have analyzed (nitrate+nitrite) data for several other exceptional waterways in the region: the South Fork of the San Gabriel River (station 12115 downstream from the Liberty Hill Wastewater plant) and Middle Yegua Creek (Station 11840 at IH35). Looking at 70 South Fork San Gabriel River measurements in the database, covering the period 1987 -2023, the average concentration of (nitrate+nitrite) was 0.42 mg/L; for the last 5 years, the mean was about 1.1 mg/L. This is 5-fold lower than the average value for the same time period for the Colorado River at Bastrop given above. Indeed, (nitrate+nitrite) concentrations in Middle Yegua Creek are even lower. Although the available data are sparse, all 6 measurements in the period 2018-2020 were less than 0.1 mg/L, more than 10-fold lower than at the Colorado stations. Thus, it is not unreasonable to expect the “exceptional”Colorado River to be much cleaner than it is, and to take steps to decrease the rate of increase of this important algal nutrient immediately.
4. I have also analyzed phosphorus levels in the segments 1428 and 1434 of the Colorado River , and compared them to phosphorus levels in the South Fork of the San Gabriel River. Mean annual levels of phosphorus (parameter 665) at station #12462 in the City of Bastrop, are plotted in Figure 3. Phosphorus levels do not appear to be increasing or decreasing over the time period shown. Similar data were found at the other stations in segments 1428 and 1434 (data not shown). The average phosphorus level over the last 5 years (2018-2022) was 0.81 mg/L (n=29). However, over the same time period phosphorus concentrations at station 11840 on Middle Yegua Creek (n=6) and at station 12115 on the South Fork of the San Gabriel River (n=14) were all less than 0.02 mg/L . Thus, although phosphorus concentrations in the Colorado are fairly low and stable, there is clearly room for improvement.

Figure 3

▲ Bastrop Annual Mean



5. Measurements of toxic organic chemicals in segments 1428 and 1434 of the Colorado River have not been reported in the TCEQ database since 1991, almost 33 years ago. In 1990-1991, 13 such chemicals for which TCEQ has established a chronic freshwater benchmark maximum were assayed at the Webberville station (Table 3). For one of these chemicals (aldrin), the measured level was below the benchmark. For the remaining 11 compounds, the assays used were not sensitive enough to detect the compound at the level of the benchmark. For example, the limit of detection for chlordane was 0.4 ppb while the benchmark level was 0.004 ppb, a concentration 100-fold lower. The most extreme example of this kind of deficiency was toxaphene for which the detection limit (also called the limit of quantitation or LOQ) was 5 ppm and the benchmark was about 200,000-fold lower. Thus, with the exception of aldrin, there is no evidence in the TCEQ database that the water did **not** contain toxic levels of these compounds. Similarly, very few measurements of metals in the water at the Webberville station were reported for the period 1990-1996, over 25 years ago (Table 3). For 3 metals (cadmium, lead and silver) the assays used were not sensitive enough to detect the metal at the level of the benchmark. For a fourth metal, manganese, the measured value, 21 ppb, was more than 15-times higher than the benchmark (1.31 ppb). Although this was a single measurement, there does not seem to be any follow-up.

At a time when segments 1428 and 1434 of the Colorado River are being subjected to increased stress from wastewater treatment plants potentially adding large amounts of treated residential waste and industrial waste to the river and its tributaries, it is imperative to establish current baselines for toxic organics and metals, using assay methods that can actually detect the compounds at low but toxic levels. In addition, the data presented in Point # 2 and Table 2 above, indicate that pursuant to TCEQ rules (Texas Integrated Report Assessment Results, 2022, Basin 14, Colorado River, p.2) the Colorado River in segments 1428 and 1434 should be placed into Category 5 and a TMDL should be developed. In summary, TCEQ can no longer afford to assume that the river is exceptional, but needs to provide accurate, timely measurements and develop strategies to overcome deficiencies.

Table 1 Annual Mean Levels in Colorado River

Year	Station #12466 (Nitrite+Nitrate) (mg/L)	Station #12466 Phosphorus (mg/L)	Station #12462 (Nitrite+Nitrate) (mg/L)	Station #12293 (Nitrite+Nitrate) (mg/L)
1986		0.41	0.92	0.91
1987		0.24	0.85	0.78
1988		0.84	2.16	1.95
1989	1.01	0.77	2.41	2.32
1990	4.60	1.27	3.35	2.45
1991	2.12	0.58	1.99	1.96
1992	0.94	0.2	2.37	0.70
1994	2.71	0.58	1.83	1.35
1995	2.46	0.55	2.01	1.82
1996	2.22	0.46	2.12	2.04
1997	2.32	-	1.79	1.30
1999	5.06	0.71	4.11	3.56
2001	1.59	0.28	1.58	1.54
2002	2.53	0.39	2.23	2.16
2003	2.88	0.41	2.50	2.14
2004	2.70	0.4	2.34	2.00
2005	2.32	0.23	2.21	1.84
2006	3.83	0.59	2.71	3.64
2007	3.50	0.52	3.02	2.38
2008	3.70	0.72	3.41	3.40
2009	3.65	0.68	2.84	2.89
2010	2.91	0.4	2.60	2.14
2011	2.59	0.61	4.37	3.19
2012	7.75	0.89	5.61	4.91
2013	7.38	1.03	5.35	3.81
2014	7.30	1.27	6.84	5.07
2015	6.56	0.83	5.72	4.47
2016	3.57	0.54	3.03	2.28
2017	4.85	0.64	2.72	2.89
2018	5.07	0.7	4.40	3.85
2019	6.13	0.74	6.02	5.12
2020	5.77	0.83	5.44	6.05
2021	7.05	1.11	6.61	5.10
2022	5.34	0.63	2.67	4.79

Table 2 (Nitrite +nitrate) levels exceeding the criterion at station 12462

Date	Level (mg/L)			
12/6/17	11.2			
2/8/18	11.8			
10/14/19	11.6			
12/5/19	11.4			
12/14/2020	11.1			
2/2/21	11.6			
4/1/21	12.4			

Table 3 Assays of toxic chemicals at Station 12466			
Compound	TCEQ Chronic Freshwater Criterion Benchmark	Limit of Detection of Assay	Measured Value
	(ppb)	(ppb)	(ppb)
ORGANICS			
aldrin	0.3	–	0.2
chlordan	0.004	<0.4	–
DDD	0.011	<0.3	–
DDE	0.11	<0.2	–
DDT	0.001	<0.3	–
diazinon	0.17	<0.3	–
dieldrin	0.002	<0.1	–
endrin	0.002	<0.2	–
heptachlor	0.004	<0.02	–
heptachlor epoxide	0.0038	<0.06	–
malathion	0.01	<0.4	–
parathion	0.013	<0.25	–
toxaphene	0.0002	<5	–
METALS			
cadmium	0.15	<1 - <4	–
lead	1.17	<2 - <5	–
manganese	1.31	–	21
silver	0.1	<0.5 - <10	–

For aldrin and manganese, the measured value was within the limits of quantitation of the assay. For all other chemicals in the Table, the assay was not sensitive enough to detect samples at the criterion level.

SOAH DOCKET NO. 582-24-22552
TCEQ DOCKET NO. 2023-1591-MWD

APPLICATION OF CORIX
UTILITIES (TEXAS) INC.
FOR TPDES PERMIT NO.
WQ0013977001

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BEFORE THE STATE OFFICE

OF

ADMINISTRATIVE HEARINGS

EXHIBIT ES-303



**Is the Colorado River an Exceptional Aquatic-Life Use Waterway?
An Analysis of Data from the TCEQ Database with comments focused
on how an analysis of the data might be viewed when considered in
the context of Members and all Constituents of Environmental
Stewardship relative to the DRAFT 2024 Integrated Report.**

Submitted to:
**SWQM Program Supervisor
Water Quality Planning Division, MC 234
Texas Commission on Environmental Quality
P.O. Box 13087, Austin, TX 78711-3087**

Submitted By:
**Steve Box, Executive Director
Environmental Stewardship
and
Michael MacLeod, PH.D.
Science Advisor to Environmental Stewardship**

Initially Submitted March 12, 2024
Corrected and Resubmitted March 22, 2024

INTRODUCTION

The Colorado River in segments 1428 and 1434 downstream from Lady Bird Lake has long been given the designation "Exceptional Aquatic-Life Use" by TCEQ. These segments have Exceptional Aquatic-Life, Primary Recreational, and Drinking Water Use Standards in common. They are also segments where Environmental Stewardship believes major municipal and industrial development have likely resulted in degradation of the Colorado River and its tributaries. This assertion was amply demonstrated at the Public Meeting held June 1, 2023, concerning the Corix application to amend a wastewater discharge system permit #WQ0013977001, where an increasing number of users of the river have expressed concern that water quality has been seriously degraded in recent years. In order to illuminate this question, Michael MacLeod, PH.D. took the lead as Science Advisor for Environmental Stewardship in analyzing the data available by downloading and analyzing data from the TCEQ-curated water quality database (<https://tceq.maps.arcgis.com/apps/webappviewer>). The results of these analyses, including both macronutrients that enhance bacterial and algal growth, and toxic chemical pollutants that degrade ecosystem functions, do not fully support the designation "Exceptional Aquatic-Life Use" leaving the current status of these segments in doubt.

Steve Box, Executive Director for Environmental Stewardship also reviewed data contained in the TCEQ's 2024 Draft Integrated Report to more broadly consider all known and possible event locations where use standards in segments (SEGIDs) and assessment units (AUIDs) are of importance to our members, citizen groups, as well as both terrestrial and aquatic plant and animal species found in the lower Basin of the Colorado River and connected aquifers. These data are reported in Table 1. Lower Basin Reported by Segments, and Table 2. Lower Basin Reported by Parameters and containing "Data Set Qualifiers reported as "Adequate". However, the focus of these comments are on the data analyzed in the MacLeod study that follows.

Michael MacLeod, PH.D. has used his analytical skills and biological knowledge to undertake the analysis found in the following documented analysis. In his work he has focused on the important parameters that fall with the Use Category "General Use" of the Colorado River in segments 1428 and 1434, supplemented with historical data from the TCEQ's SWQM Database. These analyses clearly show that segments 1428 and 1434 are, in his opinion, out of compliance with the General Use criterion. Environmental Stewardship concurs with Dr. MacLeod, that these segments of the Colorado likely should be listed as Category 5, on the Texas 303(d) list of impaired waterways.

ANALYSIS METHOD

The relevant data from the 2024 Draft IR , “Assessment Results for Basin 14 - Colorado River” pp 55-56 and 66-67, are reproduced in the top section of Table 3. Webberville Nitrate. The criterion for the nutrient level “Nitrate” for General Use is given in the draft IR as 1.95 mg/L. The dataset for the current 7 year period (12/1/2015 - 11/30/2022) was judged “Adequate” (10 or more data points, representation of all seasons); the number of data points varied from 36 - 39 for the three assessment units 1428_01, 1428_02 and 1428_03 in this segment. The numbers of exceedances of the criterion¹, which should not be more than 20% of the total data points, were 34 out of 37 for 1428-01, 28 out of 36 for 1428_02 and 0 out of 39 for 1428_03. Thus, the first two assessment units (AUs) are out of compliance, exhibiting exceedance rates of 91.9% and 77.8%, respectively. The criterion level was missed by a large margin. Taken together these two AUs exhibit about 4-times the allowed level of exceedances.

An examination of the SWQM database indicates that this lack of compliance is not a recent phenomenon. In the lower section of Table 3 Webberville Nitrate, historical data for monitoring station 12466 at Webberville, located in AU 1428_01, has been collected for the current 7 year period (~2015 -2022). In addition, data has been collected from several previous 7 year periods in the same format as used in the IR. (The earliest period is only 5 years long because data for 1987 and 1988 were not available in the database.) Each of these datasets is “Adequate” according to the criteria used in the IR, with between 39 and 44 measurements. For the current 7 year period, an exceedance rate of 85.4% was found, similar to the exceedance rate of the AU1428_01 discussed above. In previous 7 year periods, exceedance rates for station 12466 were 88.1%, 60.0%, 56.4%, and 31.8%, all well above the 20% allowable level. In summary, segment 1428 has been out of compliance for over 30 years. The current mean nitrate level at station 12466 is 5.45 mg/L, almost 3 times the criterion.

¹ Draft 2024 Guidance for Assessing and Reporting Surface Water Quality in Texas, Table 2.5, pages 39-40. The 1.95 criterion for nitrate general use is in the tables of the Draft 2024 IR from which the data were taken. The 20% Exceedance limit is from TCEQ SFR-127 2024 Guidance for Assessing and Reporting Surface Water Quality in Texas, p. 76 "Screening Levels for Nutrients and Chlorophyll a". .

We also analyzed data for the nutrient level "Total Phosphorus" in Table 4. Webberville Total Phosphorous" AUs 1428_01,1428_02 and 1428_03, during the current 7-year period, and at the Webberville Station 12466 for several historical 7-year periods. All datasets were "Adequate", and the number of data points assessed varied from 32-54. Current data for AUs 1428-01 and 1428_02, shown in Table, were non-compliant, with exceedance rates of 55.3% and 46.2%, respectively. The third AU was compliant. In all of the historical 7-yr. periods extending back through 1989, phosphorus levels at Station12466 in Webberville were non-compliant.

The same methods were applied to segment 1434 Table 5. Smithville Nitrates and Table 6. Smithville Total Phosphorous , looking at AUs 1434_01,1434_02 and 1434_03, and at data from the Smithville monitoring Station 12293, located in AU 1434_02. Again, all datasets were judged "Adequate", with data points assessed ranging from 29 to 42 and 31 to 48 respectively. As shown in Tables 3 and 4 for Webberville, these AUs and the Smithville station were currently out of compliance for both Nitrate and Total Phosphate, similar to the findings in segment 1428. For Nitrate, all historical monitoring periods available were out of compliance. For total phosphorus, the two most recent time periods were out of compliance.

Similar analysis was performed for monitoring station 12462 located in the city of Bastrop in AU1434_03. These data are summarized in Table 7 Bastrop Nitrate and Table 8 Bastrop Total Phosphate. The exceedance rates are seen to be similar to those found at the Smithville monitoring station for both nutrients and lead to the same conclusions.

SUMMARY

In summary, data in the Draft Integrated Report clearly show that segments 1428 and 1434 of the Colorado River are not in compliance with the General Use criteria for either Nitrate or Total Phosphorus. In fact, the exceedances are far above the 20% limit. Historical data from monitoring stations in both segments indicate that these segments have been out of compliance for many years. Environmental Stewardship respectfully submits that these segments should be listed in Category 5, 303(d). This is especially critical in determining the current status of the health of the river since TCEQ is currently considering several wastewater permits that will allow disposal of over 1 million gallons of nitrate- and phosphorus-rich wastewater per day into segments 1428 and 1434 of the Colorado River.

Table 1. Lower Basin Reported by Segments

Segment	Description	AUID	Description	USE	Method	Parameter	Start Date	End Date	Criteria	# Data Assessed	Mean Data Assessed	# Exceed	Mean Exceed	Data Set Qualifier	level of Concern	Category	
1401	River above Tidal	1401_01	River above Tidal	General Use	Nutrient Screening Level	Chlorophyll-a	12/1/15	11/30/22		21	42		22	44.41	Adequate Data	Chlorophyll-a in water	
	River above Tidal	1401_01	River above Tidal	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.1	37		20	2.17	Adequate Data	Nitrate in water	
1402	R. Below La Grange	1402_01	R. below La Grange	General Use	Nutrient Screening Level	Chlorophyll-a	12/1/15	11/30/22		14.1	40		28	63.64	Adequate Data	Chlorophyll-a in water	
	R. Below La Grange	1402_01	R. below La Grange	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.95	40		14	3.35	Adequate Data	Nitrate in water	
	R. Below La Grange	1402_02	R. Below La Grange	General Use	Nutrient Screening Level	Chlorophyll-a	12/1/15	11/30/22		14.1	40		29	65.88	Adequate Data	Chlorophyll-a in water	
	R. Below La Grange	1402_02	R. Below La Grange	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.95	39		18	3.69	Adequate Data	Nitrate in water	
	R. Below La Grange	1402_05	R. below La Grange	General Use	Nutrient Screening Level	Chlorophyll-a	12/1/15	11/30/22		14.1	40		18	65.06	Adequate Data	Chlorophyll-a in water	
	R. Below La Grange	1402_05	R. below La Grange	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.95	39		20	4.18	Adequate Data	Nitrate in water	
	R. Below La Grange	1402_06	R. below La Grange	General Use	Nutrient Screening Level	Total Phosphorus	12/1/15	11/30/22		0.69	39		11	0.88	Adequate Data	Total Phosphorus in water	
	R. Below La Grange	1402_06	R. below La Grange	General Use	Nutrient Screening Level	Chlorophyll-a	12/1/15	11/30/22		14.1	39		15	85.94	Adequate Data	Total Chlorophyll-a in water	
	R. Below La Grange	1402_06	R. below La Grange	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.95	36		26	4.01	Adequate Data	Total Nitrate in water	
	R. Below La Grange	1402_07	R. below La Grange	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22			0				Inadequate data	Total Nitrate in water	
1402A	R. Below La Grange	1402A_01	Cummins Creek	Aquatic-Life Use	Fish Community Regional	Fish Community	12/1/15	11/30/22		52	2	50.29			Adequate	Impaired Fish Community in Water	5c
	R. Below La Grange	1402A_01	Cummins Creek	Aquatic-Life Use	Habitat	Habitat	12/1/15	11/30/22		20	2	19.5			Adequate	Impaired Habitat in Water	
	R. Below La Grange	1402A_01	Cummins Creek	Aquatic-Life Use	Macrobenthic Community (Qualitative)	Macrobenthic Community	12/1/15	11/30/22		35	2	26.64			Adequate	Impaired Macrobenthic Community in water	5c
	R. Below La Grange	1402C_01	Buchners Creek	Aquatic-Life Use	Dissolved Oxygen 24 hr Avg	Dissolved Oxygen 24 hr	12/1/15	11/30/22		5	3		0		Inadequate Data	Depressed Dissolve Oxygen in Water	5c
	R. Below La Grange		Buchners Creek	Aquatic-Life Use	Dissolved Oxygen 24 hr Minimum	Dissolved Oxygen 24 hr	12/1/15	11/30/22		3	3		1	0.8	Inadequate Data	Depressed Dissolve Oxygen in Water	5c
	R. Below La Grange	1402H_01	Skull Creek	Aquatic-Life Use	Dissolved Oxygen 24 hr Avg	Dissolved Oxygen 24 hr	12/1/15	11/30/22		3	2		0		Inadequate Data	Depressed Dissolve Oxygen in Water	5c
R. Below La Grange		Skull Creek	Aquatic-Life Use	Dissolved Oxygen 24 hr Minimum	Dissolved Oxygen 24 hr	12/1/15	11/30/22		2	2		0		Inadequate Data	Depressed Dissolve Oxygen in Water	5c	
1403	Bull Creek	1403A_03	Bull Creek	Recreational	Bacteria Geomean	E. coli	12/1/15	11/30/22		126	14	66.64	0		Limited Data	Bacteria in Water	
1434	R. Above La Grange	1434_01	R. Downstream of SW 71 to Souther Pacific RR	General Use	Nutrient Screening Level	Total Phosphorus	12/1/15	11/30/22		0.69	39		13	0.94	Adequate	Total Phosphorus in water	
	R. Above La Grange	1434_01	R. Downstream of SW 71 to Souther Pacific RR	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.95	37		31	4.2	Adequate	Nitrate in water	
	R. Above La Grange	1434_02	R. Sothern-Pacific RR upstream to Reed Creek	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.95	37		32	5.07	Adequate	Nitrate in water	
	R. Above La Grange	1434_02	R. Sothern-Pacific RR upstream to Reed Creek	General Use	Nutrient Screening Level	Total Phosphorus	12/1/15	11/30/22		0.69	39		16	1.04	Adequate	Chlorophyll-a in water	
	R. Above La Grange	1434_03	R. Reeds Creek to end of Segment at FR 969 Bridge	General Use	Nutrient Screening Level	Total Phosphorus	12/1/15	11/30/22		0.69	38		16	1.17	Adequate	Total Phosphorus in water	
	R. Above La Grange	1434_03	R. Reeds Creek to end of Segment at FR 969 Bridge	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.95	35		31	5.46	Adequate	Nitrate in water	
	R. Above La Grange	1434_03	R. Reeds Creek to end of Segment at FR 969 Bridge	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.95	35		31	5.46	Adequate	Nitrate in water	
1434B	Cedar Creek	1434B_01	Cedar Creek	Aquatic-Life Use	Dissolved Oxygen Grab Screening Level	Dissolved Oxygen Grab	12/1/15	11/30/22			0				Inadequate Data	Depressed Dissolve Oxygen in Water	
1434B	Cedar Creek	1434B_01	Cedar Creek	Recreational Use	Bacteria Geomean	E. coli	12/1/15	11/30/22			0				Inadequate Data	Bacteria in Water	
1434D	Wilbarger Creek	1434D_01	Wilbarger Creek	Recreational Use	Bacteria Geomean	E. coli	12/1/15	11/30/22		126	3	312.7	1		Inadequate Data	Bacteria in Water	

1434D	Wilbarger Creek	1434D_02	Wilbarger Creek	Recreational Use	Bacteria Geomean	E. coli	12/1/15	11/30/22	126	3	200.76	1		Inadequate Data	Bacteria in Water	
1434J	Piney Creek	1434J_01	Piney Creek	Aquatic-Life Use	Macrobenthic Community (Qualitative)	Macrobenthic Community	12/1/15	11/30/22	30	2	28.77			Adequate Data	Impaired Macrobenthic Community in water	
1427	Onion Creek	1427_03	Onion Creek	General Use	Dissolved Solids	Sulfate	12/1/15	11/30/22	50	62	50.38	1		Adequate	Sulfate in Water	5c
	Onion Creek	1427_04	Onion Creek	General Use	Dissolved Solids	Sulfate	12/1/15	11/30/22	50	62	50.38	1		Adequate	Sulfate in Water	5c
1428	R. Below Lady Bird Lake	1428_01	R. between lower end of segment and Gilleland Creek	General Use	Nutrient Screening Level	Total Phosphorus	12/1/15	11/30/22	0.69	38		21	1.23	Adequate	Screening Level	
	R. Below Lady Bird Lake	1428_02	R. between Gilleland and Walnut Creek	General Use	Nutrient Screening Level	Total Phosphorus	12/1/15	11/30/22	0.69	39		18	1.16	Adequate	Screening Level	
	R. Below Lady Bird Lake	1428_03	R. between WC and LH Dam	General Use	Nutrient Screening Level	Total Phosphorus	12/1/15	11/30/22	0.69	38		0		Adequate	No Concern	
	R. Below Lady Bird Lake	1428_01	R. between lower end of segment and Gilleland Creek	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22	1.95	37		34	6.32	Adequate	Screening Level	
	R. Below Lady Bird Lake	1428_02	R. between Gilleland and Walnut Creek	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22	1.95	36		28	5.4	Adequate	Screening Level	
	R. Below Lady Bird Lake	1428_03	R. between WC and LH Dam	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22	1.95	39		0		Adequate	No Concern	
	R. Below Lady Bird Lake	1428_01	Colorado River	Aquatic-Life Use	Fish Community Regional	Fish Community	12/1/15	11/30/22		0				Inadequate Data	Impaired Fish Community in Water	
	R. Below Lady Bird Lake	1428_01	Colorado River	Aquatic-Life Use	Macrobenthic Community (Qualitative)	Macrobenthic Community	12/1/15	11/30/22		0				Inadequate Data	Impaired Macrobenthic Community in water	
1428B	Walnut Creek	1428B_03	Walnut Creek	Aquatic-Life Use	Habitat	Habitat	12/1/15	11/30/22		0				Inadequate Data	Impaired Habitat in Water	
	Walnut Creek	1428B-04	Walnut Creek	Aquatic-Life Use	Macrobenthic Community (Qualitative)	Macrobenthic Community	12/1/15	11/30/22		0				Inadequate Data	Impaired Macrobenthic Community in water	
1428C	Gilleland Creek	1428C_01	Gilleland Creek	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22	1.95	40	34		6.8	Adequate	Nitrate in water	
	Gilleland Creek	1428C_01	Gilleland Creek	Recreational	Bacteria Geomean	E. coli	12/1/15	11/30/22	126	42	203.87	1		Adequate	Bacteria in Water	4a
	Gilleland Creek	1428C_02	Gilleland Creek	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22	1.95	12		12	8.64	Adequate	Nitrate in water	
	Gilleland Creek	1428C_03	Gilleland Creek	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22	1.95	12		11	8.44	Adequate	Nitrate in water	
	Gilleland Creek	1428C_03	Gilleland Creek	Recreational	Bacteria Geomean	E. coli	12/1/15	11/30/22	126	12	151.78	1		Limited Data	Bacteria in Water	4a
	Gilleland Creek	1428C_04	Gilleland Creek	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22	1.95	27		19	6.7	Adequate	Nitrate in water	

Table 2. Lower Basin Reported by Parameters

Segment	Description	AUID	Description	USE	Method	Parameter	Start Date	End Date	Criteria	# Data Assessed	Mean Data Assessed	# Exceed	Mean Exceed	Data Set Qualifier	level of Concern	Category	
1401	River above Tidal	1401_01	River above Tidal	General Use	Nutrient Screening Level	Chlorophyll-a	12/1/15	11/30/22		21	42		22	44.41	Adequate Data	Chlorophyll-a in water	
1402	R. Below La Grange	1402_01	R. below La Grange	General Use	Nutrient Screening Level	Chlorophyll-a	12/1/15	11/30/22		14.1	40		28	63.64	Adequate Data	Chlorophyll-a in water	
1402	R. Below La Grange	1402_02	R. Below La Grange	General Use	Nutrient Screening Level	Chlorophyll-a	12/1/15	11/30/22		14.1	40		29	65.88	Adequate Data	Chlorophyll-a in water	
1402	R. Below La Grange	1402_05	R. below La Grange	General Use	Nutrient Screening Level	Chlorophyll-a	12/1/15	11/30/22		14.1	40		18	65.06	Adequate Data	Chlorophyll-a in water	
1402	R. Below La Grange	1402_06	R. below La Grange	General Use	Nutrient Screening Level	Chlorophyll-a	12/1/15	11/30/22		14.1	39		15	85.94	Adequate Data	Total Chlorophyll-a in water	
Chlorophyll-a TOTAL No. of Events					5												
1402C	R. Below La Grange	1402C_01	Buchners Creek	Aquatic-Life Use	Dissolved Oxygen 24 hr Avg	Dissolved Oxygen 24 hr	12/1/15	11/30/22		5	3		0		Inadequate Data	Depressed Dissolve Oxygen in Water	5c
1402C	R. Below La Grange		Buchners Creek	Aquatic-Life Use	Dissolved Oxygen 24 hr Minimum	Dissolved Oxygen 24 hr	12/1/15	11/30/22		3	3		1	0.8	Inadequate Data	Depressed Dissolve Oxygen in Water	5c
1402H	R. Below La Grange	1402H_01	Skull Creek	Aquatic-Life Use	Dissolved Oxygen 24 hr Avg	Dissolved Oxygen 24 hr	12/1/15	11/30/22		3	2		0		Inadequate Data	Depressed Dissolve Oxygen in Water	5c
1402H	R. Below La Grange	1402H_01	Skull Creek	Aquatic-Life Use	Dissolved Oxygen 24 hr Minimum	Dissolved Oxygen 24 hr	12/1/15	11/30/22		2	2		0		Inadequate Data	Depressed Dissolve Oxygen in Water	5c
1434B	Cedar Creek	1434B_01	Cedar Creek	Aquatic-Life Use	Dissolved Oxygen Grab Screening Level	Dissolved Oxygen Grab	12/1/15	11/30/22			0				Inadequate Data	Depressed Dissolve Oxygen in Water	
Dissolved Oxyent Total Events					5												
1403	Bull Creek	1403A_03	Bull Creek	Recreational	Bacteria Geomean	E. coli	12/1/15	11/30/22		126	14		66.64	0	Limited Data	Bacteria in Water	
1434B	Cedar Creek	1434B_01	Cedar Creek	Recreational Use	Bacteria Geomean	E. coli	12/1/15	11/30/22			0				Inadequate Data	Bacteria in Water	
1434D	Wilbarger Creek	1434D_01	Wilbarger Creek	Recreational Use	Bacteria Geomean	E. coli	12/1/15	11/30/22		126	3		312.7	1	Inadequate Data	Bacteria in Water	
1434D	Wilbarger Creek	1434D_02	Wilbarger Creek	Recreational Use	Bacteria Geomean	E. coli	12/1/15	11/30/22		126	3		200.76	1	Inadequate Data	Bacteria in Water	
1428C	Gilleland Creek	1428C_01	Gilleland Creek	Recreational	Bacteria Geomean	E. coli	12/1/15	11/30/22		126	42		203.87	1	Adequate	Bacteria in Water	4a
1428C	Gilleland Creek	1428C_03	Gilleland Creek	Recreational	Bacteria Geomean	E. coli	12/1/15	11/30/22		126	12		151.78	1	Limited Data	Bacteria in Water	4a
E. Coli Total No. of Events					6												
1402A	R. Below La Grange	1402A_01	Cummins Creek	Aquatic-Life Use	Fish Community Regional	Fish Community	12/1/15	11/30/22		52	2		50.29		Adequate	Impaired Fish Community in Water	5c
1428	R. Below Lady Bird Lake	1428_01	Colorado River	Aquatic-Life Use	Fish Community Regional	Fish Community	12/1/15	11/30/22			0				Inadequate Data	Impaired Fish Community in Water	
Fish Community Total No. of Events					2												
1402A	R. Below La Grange	1402A_01	Cummins Creek	Aquatic-Life Use	Habitat	Habitat	12/1/15	11/30/22		20	2		19.5		Adequate	Impaired Habitat in Water	
1428B	Walnut Creek	1428B_03	Walnut Creek	Aquatic-Life Use	Habitat	Habitat	12/1/15	11/30/22			0				Inadequate Data	Impaired Habitat in Water	
Habitat Total No. of Events					2												
1402A	R. Below La Grange	1402A_01	Cummins Creek	Aquatic-Life Use	Macrobenthic Community (Qualitative)	Macrobenthic Community	12/1/15	11/30/22		35	2		26.64		Adequate	Impaired Macrobenthic Community in water	5c
1434J	Piney Creek	1434J_01	Piney Creek	Aquatic-Life Use	Macrobenthic Community (Qualitative)	Macrobenthic Community	12/1/15	11/30/22		30	2		28.77		Adequate Data	Impaired Macrobenthic Community in water	
1428	R. Below Lady Bird Lake	1428_01	Colorado River	Aquatic-Life Use	Macrobenthic Community (Qualitative)	Macrobenthic Community	12/1/15	11/30/22			0				Inadequate Data	Impaired Macrobenthic Community in water	
1428B	Walnut Creek	1428B-04	Walnut Creek	Aquatic-Life Use	Macrobenthic Community (Qualitative)	Macrobenthic Community	12/1/15	11/30/22			0				Inadequate Data	Impaired Macrobenthic Community in water	
Macrobenthic Community Total No. Events					4												
1401	River above Tidal	1401_01	River above Tidal	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.1	37		20	2.17	Adequate Data	Nitrate in water	
1402	R. Below La Grange	1402_01	R. below La Grange	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.95	40		14	3.35	Adequate Data	Nitrate in water	
1402	R. Below La Grange	1402_02	R. Below La Grange	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.95	39		18	3.69	Adequate Data	Nitrate in water	
1402	R. Below La Grange	1402_05	R. below La Grange	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.95	39		20	4.18	Adequate Data	Nitrate in water	
1402	R. Below La Grange	1402_06	R. below La Grange	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.95	36		26	4.01	Adequate Data	Total Nitrate in water	
1402	R. Below La Grange	1402_07	R. below La Grange	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22			0				Inadequate data	Total Nitrate in water	
1434	R. Above La Grange	1434_01	R. Downstream of SW 71 to Souther Pacific RR	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.95	37		31	4.2	Adequate	Nitrate in water	
1434	R. Above La Grange	1434_02	R. Sothern-Pacific RR upstream to Reed Creek	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22		1.95	37		32	5.07	Adequate	Nitrate in water	

1434	R. Above La Grange	1434_03	R. Reeds Creek to end of Segment at FR 060 Bridge	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22	1.95	35		31	5.46	Adequate	Nitrate in water		
1428	R. Below Lady Bird Lake	1428_01	R. between lower end of segment and Gilleland Creek	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22	1.95	37		34	6.32	Adequate	Screening Level		
1428	R. Below Lady Bird Lake	1428_02	R. between Gilleland and Walnut Creek	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22	1.95	36		28	5.4	Adequate	Screening Level		
1428	R. Below Lady Bird Lake	1428_03	R. between WC and LH Dam	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22	1.95	39		0		Adequate	No Concern		
1428C	Gilleland Creek	1428C_01	Gilleland Creek	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22	1.95	40	34		6.8	Adequate	Nitrate in water		
1428C	Gilleland Creek	1428C_02	Gilleland Creek	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22	1.95	12		12	8.64	Adequate	Nitrate in water		
1428C	Gilleland Creek	1428C_03	Gilleland Creek	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22	1.95	12		11	8.44	Adequate	Nitrate in water		
1428C	Gilleland Creek	1428C_04	Gilleland Creek	General Use	Nutrient Screening Level	Nitrate	12/1/15	11/30/22	1.95	27		19	6.7	Adequate	Nitrate in water		
Nitrate Total No. of Events										16							
1427	Onion Creek	1427_03	Onion Creek	General Use	Dissolved Solids	Sulfate	12/1/15	11/30/22	50	62	50.38	1		Adequate	Sulfate in Water	5c	
	Onion Creek	1427_04	Onion Creek	General Use	Dissolved Solids	Sulfate	12/1/15	11/30/22	50	62	50.38	1		Adequate	Sulfate in Water	5c	
Sulfate Total No. of Events										2							
1402	R. Below La Grange	1402_06	R. below La Grange	General Use	Nutrient Screening Level	Total Phosphorus	12/1/15	11/30/22	0.69	39		11	0.88	Adequate Data	Total Phosphorus in water		
	R. Above La Grange	1434_01	R. Downstream of SW 71 to Southern Pacific RR	General Use	Nutrient Screening Level	Total Phosphorus	12/1/15	11/30/22	0.69	39		13	0.94	Adequate	Total Phosphorus in water		
1434	R. Above La Grange	1434_02	R. Sothern-Pacific RR upstream to Reed Creek	General Use	Nutrient Screening Level	Total Phosphorus	12/1/15	11/30/22	0.69	39		16	1.04	Adequate	Chlorophyll-a in water		
1434	R. Above La Grange	1434_03	R. Reeds Creek to end of Segment at FR 060 Bridge	General Use	Nutrient Screening Level	Total Phosphorus	12/1/15	11/30/22	0.69	38		16	1.17	Adequate	Total Phosphorus in water		
1428	R. Below Lady Bird Lake	1428_01	R. between lower end of segment and Gilleland Creek	General Use	Nutrient Screening Level	Total Phosphorus	12/1/15	11/30/22	0.69	38		21	1.23	Adequate	Screening Level		
1428	R. Below Lady Bird Lake	1428_02	R. between Gilleland and Walnut Creek	General Use	Nutrient Screening Level	Total Phosphorus	12/1/15	11/30/22	0.69	39		18	1.16	Adequate	Screening Level		
1428	R. Below Lady Bird Lake	1428_03	R. between WC and LH Dam	General Use	Nutrient Screening Level	Total Phosphorus	12/1/15	11/30/22	0.69	38		0		Adequate	No Concern		
Total Phosphorus Total No. of Events										7							
Total No. of Events										49							

Table 3 Webberville Nitrate

Dataset	Use	Parameter	Start date	End Date	Criterion	# Data Points Assessed	# Data Points Exceeding Criterion	Exceedance Rate (%)
Data Source: 2024 Draft IR								
AU: 1428-_01	General Use	Nitrate	12/1/15	11/30/22	1.95	37	34	91.9
AU: 1428_02	General Use	Nitrate	12/1/15	11/30/22	1.95	36	28	77.8
AU: 1428-03	General Use	Nitrate	12/1/15	11/30/22	1.95	39	0	0
Data Source: TCEQ SWQM dataabase								
1428 - Station 12466 (Webberville)	General Use	Nitrate	12/1/15	11/30/22	1.95	41	35	85.4
1428 - Station 12466 (Webberville)	General Use	Nitrate	12/1/08	11/30/15	1.95	42	37	88.1
1428 - Station 12466 (Webberville)	General Use	Nitrate	12/1/01	11/30/08	1.95	40	24	60
1428 - Station 12466 (Webberville)	General Use	Nitrate	12/1/94	11/30/01	1.95	39	22	56.4
1428 - Station 12466 (Webberville)	General Use	Nitrate	4/10/89	11/30/94	1.95	44	14	31.8

Table 4 Webberville Total Phosphate

Dataset	Use	Parameter	Start date	End Date	Criterion	# Data Points Assessed	# Data Points Exceeding Criterion	Exceedance Rate (%)
Data Source: 2024 Draft IR								
AU: 1428-_01	General Use	Total Phosphorus	12/1/15	11/30/22	0.69	38	21	55.3%
AU: 1428_02	General Use	Total Phosphorus	12/1/15	11/30/22	0.69	39	18	46.2%
AU: 1428-03	General Use	Total Phosphorus	12/1/15	11/30/22	0.69	38	0	0.0%
Data Source: TCEQ SWQM dataabase								
1428 - Station 12466 (Webberville)	General Use	Total Phosphorus	12/1/15	11/30/22	0.69	32	23	71.9%
1428 - Station 12466 (Webberville)	General Use	Total Phosphorus	12/1/08	11/30/15	0.69	42	26	61.9%
1428 - Station 12466 (Webberville)	General Use	Total Phosphorus	12/1/01	11/30/08	0.69	41	14	34.1%
1428 - Station 12466 (Webberville)	General Use	Total Phosphorus	12/1/94	11/30/01	0.69	54	14	25.9%
1428 - Station 12466 (Webberville)	General Use	Total Phosphorus	4/10/89	11/30/94	0.69	46	19	41.3%

Table 5 Smithville Nitrates

Dataset	Use	Parameter	Start date	End Date	Criterion	# Data Points Assessed	# Data Points Exceeding Criterion	Exceedance Rate (%)
Data Source: 2024 Draft IR								
AU: 1434_01	General Use	Nitrate	12/1/15	11/30/22	1.95	37	31	83.8%
AU: 1434_02	General Use	Nitrate	12/1/15	11/30/22	1.95	37	32	86.5%
AU: 1434-03	General Use	Nitrate	12/1/15	11/30/22	1.95	38	16	42.1%
Data Source: TCEQ SWQM dataabase								
1434 - Station 12293 (Smithville)	General Use	Nitrate	12/1/15	11/30/22	1.95	40	32	80.0%
1434 - Station 12293 (Smithville)	General Use	Nitrate	12/1/08	11/30/15	1.95	42	34	81.0%
1434 - Station 12293 (Smithville)	General Use	Nitrate	12/1/01	11/30/08	1.95	42	19	45.2%
1434 - Station 12293 (Smithville)	General Use	Nitrate	12/1/94	11/30/01	1.95	29	9	31.0%
1434 - Station 12293 (Smithville)	General Use	Nitrate	4/10/87	11/30/94	1.95	42	15	35.7%

Table 6 Smithville Total Phosphate

Dataset	Use	Parameter	Start date	End Date	Criterion	# Data Points Assessed	# Data Points Exceeding Criterion	Exceedance Rate (%)
Data Source: 2024 Draft IR								
AU: 14234- 01	General Use	Total Phosphorus	12/1/15	11/30/22	0.69	39	13	33.3%
AU: 1434_02	General Use	Total Phosphorus	12/1/15	11/30/22	0.69	39	16	41.0%
AU: 1434-03	General Use	Total Phosphorus	12/1/15	11/30/22	0.69	38	16	42.1%
Data Source: TCEQ SWQM database								
1434- Station 12293 (Smithville)	General Use	Total Phosphorus	12/1/15	11/30/22	0.69	42	17	40.5%
1434- Station 12293 (Smithville)	General Use	Total Phosphorus	12/1/08	11/30/15	0.69	42	20	47.6%
1434- Station 12293 (Smithville)	General Use	Total Phosphorus	12/1/01	11/30/08	0.69	41	7	17.1%
1434- Station 12293 (Smithville)	General Use	Total Phosphorus	12/1/94	11/30/01	0.69	31	6	19.4%
1434- Station 12293 (Smithville)	General Use	Total Phosphorus	4/10/87	11/30/94	0.69	48	12	25.0%

Table 7 Bastrop Nitrate

Dataset	Use	Parameter	Start date	End Date	Criterion	# Data Points Assessed	# Data Points Exceeding Criterion	Exceedance Rate (%)
Data Source: 2024 Draft IR								
AU: 1434-01	General Use	Nitrate	12/1/15	11/30/22	1.95	37	31	83.8%
AU: 1434-02	General Use	Nitrate	12/1/15	11/30/22	1.95	37	32	86.5%
AU: 1434-03	General Use	Nitrate	12/1/15	11/30/22	1.95	38	16	42.1%
Data Source: TCEQ SWQM dataabase								
1434 - Station 12462 (Bastrop)	General Use	Nitrate	12/1/15	11/30/22	1.95	39	32	82.1%
1434 - Station 12462 (Bastrop)	General Use	Nitrate	12/1/08	11/30/15	1.95	42	38	90.5%
1434 - Station 12462 (Bastrop)	General Use	Nitrate	12/1/01	11/30/08	1.95	41	24	58.5%
1434 - Station 12462 (Bastrop)	General Use	Nitrate	12/1/94	11/30/01	1.95	30	16	53.3%
1434 - Station 12462 (Bastrop)	General Use	Nitrate	4/10/87	11/30/94	1.95	42	16	38.1%

Table 8 Bastrop Total Phosphate

Dataset	Use	Parameter	Start date	End Date	Criterion	# Data Points Assessed	# Data Points Exceeding Criterion	Exceedance Rate (%)
Data Source: 2024 Draft IR								
AU: 14234-_01	General Use	Total Phosphorus	12/1/15	11/30/22	0.69	39	13	33.3%
AU: 1434_02	General Use	Total Phosphorus	12/1/15	11/30/22	0.69	39	16	41.0%
AU: 1434-03	General Use	Total Phosphorus	12/1/15	11/30/22	0.69	38	16	42.1%
Data Source: TCEQ SWQM database								
434 - Station 12462 (Bastrop)	General Use	Total Phosphorus	12/1/15	11/30/22	0.69	42	17	40.5%
434 - Station 12462 (Bastrop)	General Use	Total Phosphorus	12/1/08	11/30/15	0.69	42	23	54.8%
434 - Station 12462 (Bastrop)	General Use	Total Phosphorus	12/1/01	11/30/08	0.69	41	7	17.1%
434 - Station 12462 (Bastrop)	General Use	Total Phosphorus	12/1/94	11/30/01	0.69	31	7	22.6%
434 - Station 12462 (Bastrop)	General Use	Total Phosphorus	4/10/87	11/30/94	0.69	46	14	30.4%

12-Mar-24

SEGID	AUID	Description (from 2020 Basin 14, Colorado River Integrated Report)
1401		
1402	1402_01	<i>R. From a point 2.1 km (1.3 mi) downstream of the Missouri-Pacific Railroad in Matagorda County</i>
	1402_02	<i>R. From the confluence of Blue Creek in Matagorda County upstream to the confluence of Pierce</i>
	1402_03	<i>R. From the confluence of Pierce Canal west of Wharton in Wharton County upstream to the confi</i>
	1402_04	<i>R. From the confluence of Robb Slough in Wharton County upstream to the confluence of Skull C</i>
	1402_05	<i>R. From the confluence of Skull Creek in Colorado County upstream to the confluence of Cummi</i>
	1402_06	<i>R. From the confluence of Cummins Creek northeast of Columbus in Colorado County upstream</i>
	1402_07	<i>R. From the confluence of Williams Creek in Fayette County upstream to a point 100 meters (110</i>
1428		<i>Colorado River Below Lady Bird Lake (formerly Town Lake</i>
	1428_01	<i>R. From end of segment to Gilleland Creek confluence</i>
	1428_02	<i>R. From the confluence of Gilleland Creek upstream to the confluence of Walnut Ck.</i>
	1428_03	<i>R. From Walnut Creek confluence to Longhorn Dam</i>
1428B	1428B_01	<i>CR. From the Colorado River upstream to FM 969</i>
	1428B_02	<i>CR. From FM 969 upstream to Old Manor Rd.</i>
	1428B_03	<i>CR. From old Manor Road upstream to Dessau Road</i>
	1428B_04	<i>CR. Frrom Dessau Rd. upstream to MoPac/Loop 1</i>
	1428B_05	<i>CR. From MoPac/Loop 1 upstream to Union Pacific Railroad tracks south of McNeil Drive</i>
1428C		<i>CR. From</i>
1428K		<i>Walter E. Long Lake</i>
1402A	1402A_01	<i>Cr. from the confluence with the Colorado River northeast of the city of Columbus upstream to the</i>
1434	1434_01	<i>R. From a point 100 m downstream of SH 71 upstream to the Sothern Pacific Railroad crossing</i>
	1434_02	<i>R. From Southern-Pacific RR upstream to the confluence of Reeds Creek west of Smithville</i>
	1434_03	<i>R. From the confluence of Reeds Creek west of Smithville upstream to the end of segment</i>

- 1434B** 1434B_01 *CR. Perennial stream from the confluence with the Colorado River upstream to the confluence of*
- 1434C** 1434C_01 *Lake, South arm of lake near intake*
1434C_02 *Lake, Mid-lake*
1434C_03 *Lake, North arm of lake near discharge*
- 1434D** 1434D_01 *CR. From the confluence with the Colorado River at Hemphill Bend in Bastrop County upstream to*
1434D_02 *CR. From the confluence with Cottonwood Creek upstream to Schultz lane east of Pflugerville He*
- 1434E** 1434E_01 *CR. From the confluence of the Colorado River in Bastrop County upstream to a point east of CR*
- 1434G** 1434G_01 *CR. From the confluence with the Colorado River in Bastrop County upstream to the headwaters*

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Professor of Carcinogenesis (Retired),
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EDUCATION

1969, B.S. (Biology) California Institute of Technology, Pasadena, CA
1974, Ph.D. (Biology) University of Oregon, Eugene, OR
1974-75 Postdoctoral Research Associate, Dept. of Biology, University of Oregon
1975-77 Postdoctoral Research Associate, Biology Division, Oak Ridge National Laboratory,
Oak Ridge, TN

ACADEMIC APPOINTMENTS

1977-82 Research Associate III, Biology Division, Oak Ridge National Laboratory,
Oak Ridge, TN
1982-86 Assistant Professor of Biochemistry, UTMDACC, Science Park Research
Division, Smithville, TX
1983-2011 Member of the Graduate Faculty, University of Texas Health Science Center at
Houston, Graduate School of Biomedical Sciences, Houston, TX
1985-94 Staff Member, Center for Developmental Biology, University of Texas, Austin, TX
1986-95 Associate Professor of Carcinogenesis (Biochemistry), UTMDACC, Science Park
Research Division, Smithville, TX
1995-2012 Professor of Carcinogenesis (Biochemistry), UTMDACC, Science Park
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1996-2009 Deputy Director, Center for Research on Environmental Disease, Science Park
Research Division, Smithville, TX
1998-2011 Adjunct Professor, College of Pharmacy, University of Texas, Austin, T

ADMINISTRATIVE APPOINTMENTS

1985-91 Associate Director, Center for Research on Environmental Disease, Science Park
Research Division, Smithville, TX
1997-2009 Associate Director, Center for Research on Environmental Disease, Science Park
Research Division, Smithville, TX

PATENTS & LICENSES

MacLeod, M.C., Chemoprevention of electrophilic damage by mercaptopurine analogs.
U.S. Patent # 5,120,753, issued June 9, 1992.
MacLeod, M.C., Chemoprevention of electrophilic damage by mercaptopurine analogs.
U.S. Patent # 5,231,108, issued July 27, 1993.
MacLeod, M.C., Aldaz, C.M., Gaddis, S., Combinatorial oligonucleotide PCR: A method for
rapid global expression analysis. U.S. Patent # 6,221,600, issued April 24, 2001.
MacLeod, M.C., License to KPL Laboratories. July 8, 1999.

FUNDING

My research was continuously funded from 1986-2011 by grants from the American Cancer Society, the National Cancer Institute, the National Institute of Environmental Health Sciences, and the Department of Energy.

SERVICE

From 1985 to 2005 I reviewed grant applications as a Reviewer, Study Section Member, and Site Visitor for the American Cancer Society, the US Department of Energy, the National Institute of Environmental Health Sciences, the Tobacco-Related Disease Research Program of the State of California, and the Superfund Hazardous Substances Basic Research Program. I reviewed articles submitted for publication to numerous scientific journals including Biochemistry, Cancer Research, Carcinogenesis, Chemical Research in Toxicology, Journal of Theoretical Biology, and Nucleic Acids Research.

PUBLICATIONS IN PEER-REVIEWED JOURNALS (selected from a list of 81)

- Gould, J. L., Henerey, M., and MacLeod, M. C. Communication of direction by the honeybee. *Science* 169: 544-554, 1970.
- MacLeod, M. C., Cohen, G. M., and Selkirk, J. K. The metabolism and macromolecular binding of the carcinogen benzo(a)pyrene and its relatively inert isomer benzo(e)pyrene by hamster embryo cells. *Cancer Res.* 39: 3463-3470, 1979.
- MacLeod, M. C., Kootstra, A., Mansfield, B. K., Slaga, T. J., and Selkirk, J. K. Specificity in interaction of benzo(a)pyrene with nuclear macromolecules: Implication of derivatives of two dihydrodiols in protein binding. *Proc. Natl. Acad. Sci. USA* 77: 6396-6400, 1980.
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- MacLeod, M. C., Smith, B., and McClay, J. Equilibrium binding of derivatives of the carcinogen, benzo(a)pyrene, to DNA: Thermodynamic analysis. *J. Biol. Chem.* 262: 1081-1087, 1987.
- MacLeod, M. C., Adair, G., and Humphrey, R. M. Differential efficiency of mutagenesis at three genetic loci in CHO cells by a benzo(a)pyrene diol epoxide. *Mutation Res.* 199: 243-254, 1988.
- MacLeod, M. C. The importance of intercalation in the covalent binding of benzo(a)pyrene diol epoxide to DNA. *J. Theor. Biol.* 142: 113-122, 1990.
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- Datta, K., Chin, A., Ahmed, T., Qing, W.-G., Powell, K.L., Simhambhatla, P., MacLeod, M.C., Stoica, G., and Kehrer, J.P. Mixed effects of 2,6-dithiopurine against cyclophosphamide mediated bladder and lung toxicity in mice. *Toxicology* 125: 1-11, 1998.
- Spyres, L., Gaddis, S., Bedford, E., High, S., Liburd, N., Powell, K.L., Thames, H., Mitchell, D., Walborg, E., Rouabhiad, M., Aldaz, C.M., and MacLeod, M.C. Quantitative, high throughput measurement of gene expression with sub-zmol sensitivity by capillary electrophoresis, *Analytical Biochem.* 345: 284-295, 2005.
- Boulware S, Fields T, McIvor E, Powell KL, Abel EL, Vasquez KM, MacLeod MC. 2,6-Dithiopurine, a nucleophilic scavenger, protects against mutagenesis in mouse skin treated in vivo with 2-(chloroethyl) ethyl sulfide, a mustard gas analog. *Toxicol Appl Pharmacol* 263(2):203-9, 2012.

SOAH DOCKET NO. 582-24-22552
TCEQ DOCKET NO. 2023-1591-MWD

APPLICATION OF CORIX
UTILITIES (TEXAS) INC.
FOR TPDES PERMIT NO.
WQ0013977001

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BEFORE THE STATE OFFICE

OF

ADMINISTRATIVE HEARINGS

EXHIBIT ES-304

Explanation of Column Headings

SEGID: The unique identifier (SegID), segment name, and location of the water body. Items may be one of three types of numbers for SegID. The first type is a classified segment number (4 digits, e.g., 0218), as defined in the Texas Surface Water Quality Standards. The second type is an unclassified water body (e.g., 0218A), not defined in the Standards and associated with a classified water body because it is in the same watershed. The third type includes special Segments for Oyster Water Use (e.g., 2421OW) and Beach Watch Use (e.g., 2481CB) special areas. The segment name and description follow SegID.

AU ID: Identifies the assessment unit (AU_ID, six or seven digits, e.g., 0101A_01) and describes the location of the specific area within a classified or unclassified water body for which one or more water quality standards are not met.

Start Date: The start date of the period of record data for this method was selected; the official 2024 period of record is from 12/1/2015 to 11/30/2022. In some cases it may be necessary to extend the period of record back 10 years (12/1/2012) to select more data, according to assessment guidance.

End Date: The end date of the period of record data for this method was selected; the official 2024 period of record dates are 12/1/2015 to 11/30/2022. In some cases more recently collected data than 12/01/2022 can be included, if available

#Data Assessed: Number of samples assessed some data are averaged, as with profile data, some are eliminated because criteria do not apply during certain conditions such as a low flow.

Mean Data Assessed: Mean of samples assessed includes averaged methods like chronic criteria as well as geometric mean calculations for bacteria.

Exceedances: Number of samples that exceed criteria for single sample, or binomial, methods (not averaged data).

Mean Exceedances: Mean of the samples that exceeded criteria for the single sample, or binomial, methods (not averaged data).

Criteria: Value that the data is compared to determine the level of support; Note: for acute metals in water, each value is compared to a calculated criterion and not all criteria could be reported here, only the minimum in the range of criteria calculated are included.

DS Qual: Dataset Qualifier - indicates characteristics of the methods or dataset used in the assessment:

- AD:** Adequate Data (10 or more samples).
- LD:** Limited Data (less than 9, greater than 3).
- ID:** Inadequate Data (less than 4).
- JQ:** Level of support is based on judgment of the assessor.
- SM:** This assessment method is superseded by another method.
- TR:** Temporally Not Representative, used with NA.
- SR:** Spatially Not Representative, used with NA.
- OE:** Other information than ambient samples evaluated.
- OS:** Assessment area outside state boundaries.

LOS: Level of support for this use, method, assessment parameter:

- FS:** Fully Supporting.
- NC:** No Concern.
- NA:** Not Assessed.
- NS:** Nonsupport.
- CS:** Screening Level Concern.
- CN:** Use Concern.

CF: Carry Forward indicates that the Integrated level of support of CS, CN, or NS was carried forward from a previous assessment due to inadequate data for this method in this assessment.

Int LOS: *Integrated level of support. This is the overall level of support for this use, method, parameter group, which could be different from the LOS (described above) due to carry forward information or other types of changes. New Code added in 2010: PI = Pending Issue*

TCEQ Cause: *This is the impairment description (e.g., bacteria, depressed dissolved oxygen, etc.).*

Cat:

Category 3: There is insufficient or unreliable available data and/or information to make a use support determination.

Category 4: Available data and/or information indicate that at least one designated use is not being supported or is threatened, but a TMDL is not needed.

Category 4a: A state-developed TMDL has been approved by EPA or a TMDL has been established by EPA for any water-pollutant combination.

Category 4b: Other required control measures are expected to result in the attainment of an applicable water quality standard in a reasonable period of time.

Category 4c: The impairment or threat is not caused by a pollutant.

Category 5: Available data and/or information indicate that at least one designated use is not being supported or is threatened, and a TMDL is needed.

Category 5a: A TMDL is underway, scheduled, or will be scheduled.

Category 5b: A review of the standards for the water body will be conducted before a management strategy is selected.

Category 5c: Additional data and information will be collected or evaluated before a management strategy is selected.

Category 5n: Water body does not meet its applicable Chl a criterion, but additional study is needed to verify whether exceedance is associated with causal nutrient parameters or impacts to response variables.

Category 5r: A WPP is under development or accepted by EPA for this parameter.

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Seg ID: 1401 - Colorado River Tidal

AU ID: 1401_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat	
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	42	.	0	.	AD	FS	N	FS			
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	4	42	.	0	.	AD	NC	N	NC			
General Use	High pH	pH	12/01/15	11/30/22	9	42	.	0	.	AD	FS	N	FS			
	Low pH	pH	12/01/15	11/30/22	6.5	42	.	0	.	AD	FS	N	FS			
	Nutrient Screening Levels	Chlorophyll-a	Chlorophyll-a	12/01/15	11/30/22	21	42	.	22	44.41	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	Total phosphorus	12/01/15	11/30/22	0.66	41	.	0	.	AD	NC	N	NC		
		Nitrate	Nitrate	12/01/15	11/30/22	1.1	37	.	20	2.17	AD	CS	N	CS	Nitrate in water	
		Ammonia	Ammonia	12/01/15	11/30/22	0.46	41	.	1	0.51	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	35	42	.	0	.	AD	FS	N	FS				
Recreation Use	Bacteria Geomean	Enterococcus	12/01/15	11/30/22	35	41	25.75	0	.	AD	FS	N	FS			

Seg ID: 1402 - Colorado River below La Grange

AU ID: 1402_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat	
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	40	.	2	2	AD	FS	N	FS			
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	40	.	3	2.63	AD	NC	N	NC			
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	158	51.61	0	.	AD	FS	N	FS			
		Chloride	12/01/15	11/30/22	100	157	44.52	0	.	AD	FS	N	FS			
		Total dissolved solids	12/01/15	11/30/22	500	241	377.34	0	.	AD	FS	N	FS			
	High pH	pH	12/01/15	11/30/22	9	40	.	0	.	AD	FS	N	FS			
	Low pH	pH	12/01/15	11/30/22	6.5	40	.	0	.	AD	FS	N	FS			
	Nutrient Screening Levels	Chlorophyll-a	Chlorophyll-a	12/01/15	11/30/22	14.1	40	.	28	63.64	AD	CS	N	CS	Chlorophyll-a in water	
		Nitrate	Nitrate	12/01/15	11/30/22	1.95	40	.	14	3.35	AD	CS	N	CS	Nitrate in water	
		Total phosphorus	Total phosphorus	12/01/15	11/30/22	0.69	40	.	2	0.88	AD	NC	N	NC		
Ammonia		Ammonia	12/01/15	11/30/22	0.33	40	.	1	0.34	AD	NC	N	NC			
Water Temperature	Water temperature	12/01/15	11/30/22	35	40	.	0	.	AD	FS	N	FS				
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	154	2.44	0	.	AD	FS	N	FS			
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	40	59.62	0	.	AD	FS	N	FS			

Seg ID: 1402 - Colorado River below La Grange

AU ID: 1402_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat	
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	81	.	0	.	AD	FS	N	FS			
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	81	.	0	.	AD	NC	N	NC			
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	500	241	377.34	0	.	AD	FS	N	FS			
		Chloride	12/01/15	11/30/22	100	157	44.52	0	.	AD	FS	N	FS			
		Sulfate	12/01/15	11/30/22	100	158	51.61	0	.	AD	FS	N	FS			
	High pH	pH	12/01/15	11/30/22	9	81	.	0	.	AD	FS	N	FS			
	Low pH	pH	12/01/15	11/30/22	6.5	81	.	0	.	AD	FS	N	FS			
	Nutrient Screening Levels	Ammonia	Ammonia	12/01/15	11/30/22	0.33	40	.	0	.	AD	NC	N	NC		
		Total phosphorus	Total phosphorus	12/01/15	11/30/22	0.69	40	.	5	0.91	AD	NC	N	NC		
		Chlorophyll-a	Chlorophyll-a	12/01/15	11/30/22	14.1	40	.	29	65.88	AD	CS	N	CS	Chlorophyll-a in water	
		Nitrate	Nitrate	12/01/15	11/30/22	1.95	39	.	18	3.69	AD	CS	N	CS	Nitrate in water	
Water Temperature	Water temperature	12/01/15	11/30/22	35	81	.	0	.	AD	FS	N	FS				

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Seg ID: 1402 - Colorado River below La Grange

AU ID: 1402_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	154	2.44	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	85	77.3	0	.	AD	FS	N	FS		

Seg ID: 1402 - Colorado River below La Grange

AU ID: 1402_03

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	37	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	37	.	1	4.5	AD	NC	N	NC		
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	100	157	44.52	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	241	377.34	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	100	158	51.61	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	37	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	37	.	0	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	35	37	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	154	2.44	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	37	76.94	0	.	AD	FS	N	FS		

Seg ID: 1402 - Colorado River below La Grange

AU ID: 1402_04

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	500	241	377.34	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	157	44.52	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	100	158	51.61	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	154	2.44	0	.	AD	FS	N	FS		

Seg ID: 1402 - Colorado River below La Grange

AU ID: 1402_05

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	40	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	40	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	100	157	44.52	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	100	158	51.61	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	241	377.34	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	40	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	40	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	40	.	18	65.06	AD	CS	N	CS	Chlorophyll-a in water	
		Nitrate	12/01/15	11/30/22	1.95	39	.	20	4.18	AD	CS	N	CS	Nitrate in water	
		Ammonia	12/01/15	11/30/22	0.33	40	.	0	.	AD	NC	N	NC		
	Total phosphorus	12/01/15	11/30/22	0.69	40	.	9	0.83	AD	NC	N	NC			
	Water Temperature	Water temperature	12/01/15	11/30/22	35	40	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	154	2.44	0	.	AD	FS	N	FS		

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Seg ID: 1402 - Colorado River below La Grange

AU ID: 1402_05

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	40	53.56	0	.	AD	FS	N	FS		

Seg ID: 1402 - Colorado River below La Grange

AU ID: 1402_06

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	39	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	39	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	500	241	377.34	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	100	158	51.61	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	157	44.52	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	39	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	39	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	39	.	11	0.88	AD	CS	N	CS	Total Phosphorus in water	
		Ammonia	12/01/15	11/30/22	0.33	39	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	39	.	15	85.94	AD	CS	N	CS	Chlorophyll-a in water	
	Nitrate	12/01/15	11/30/22	1.95	36	.	26	4.01	AD	CS	N	CS	Nitrate in water		
	Water Temperature	Water temperature	12/01/15	11/30/22	35	39	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	154	2.44	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	39	70.4	0	.	AD	FS	N	FS		

Seg ID: 1402 - Colorado River below La Grange

AU ID: 1402_07

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	100	157	44.52	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	100	158	51.61	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	241	377.34	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Nitrate in water	
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	154	2.44	0	.	AD	FS	N	FS		

Seg ID: 1402A - Cummins Creek

AU ID: 1402A_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen 24hr average	Dissolved oxygen 24hr Avg	12/01/15	11/30/22	6	1	.	0	.	SM	NA	N	NA		
	Dissolved Oxygen 24hr minimum	Dissolved oxygen 24hr Min	12/01/15	11/30/22	4	1	.	0	.	SM	NA	N	NA		
	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	4	4	.	0	.	LD	NC	N	NC		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	6	4	.	1	5.9	LD	NC	N	NC		
	Fish Community (Regional)	Fish community	12/01/15	11/30/22	52	2	50.29	.	.	AD	NS	N	NS	Impaired fish community in water	5c
	Habitat	Habitat	12/01/15	11/30/22	20	2	19.5	.	.	AD	CS	N	CS	Impaired habitat in water	
	Macrobenthic community (Qualitative)	Macrobenthic community	12/01/15	11/30/22	35	2	26.64	.	.	AD	NS	N	NS	Impaired macrobenthic community in water	5c
General Use	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	5	.	2	23.9	LD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	4	.	0	.	LD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	4	.	0	.	LD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	4	.	0	.	LD	NC	N	NC		

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**Seg ID: 1402A - Cummins Creek
AU ID: 1402A_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	5	63.64	0	.	ID	NA	N	NA		

**Seg ID: 1402C - Buckners Creek
AU ID: 1402C_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen 24hr average	Dissolved oxygen 24hr Avg	12/01/15	11/30/22	5	3	.	0	.	ID	NA	Y	NS	Depressed dissolved oxygen in water	5c
	Dissolved Oxygen 24hr minimum	Dissolved oxygen 24hr Min	12/01/15	11/30/22	3	3	.	1	0.8	ID	NA	Y	NS	Depressed dissolved oxygen in water	5c
	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	4	.	0	.	SM	NC	N	NA		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	4	.	1	4	SM	NC	N	NA		
General Use	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Chlorophyll-a in water	

**Seg ID: 1402G - Cedar Creek Reservoir / Lake Fayette
AU ID: 1402G_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	42	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	42	.	3	4.47	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.2	41	.	4	0.6	JQ	NA	N	NA		
		Chlorophyll-a	12/01/15	11/30/22	26.7	42	.	36	54.55	JQ	NA	N	NA		
		Nitrate	12/01/15	11/30/22	0.37	42	.	3	0.6	JQ	NA	N	NA		
		Ammonia	12/01/15	11/30/22	0.11	42	.	1	0.68	JQ	NA	N	NA		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	42	2.68	0	.	AD	FS	N	FS		

**Seg ID: 1402H - Skull Creek
AU ID: 1402H_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Acute Toxic Substances in water	Aluminum (dissolved)	12/01/15	11/30/22	991	1	.	0	.	ID	NA	N	NA		
		Arsenic (dissolved)	12/01/15	11/30/22	340	2	.	0	.	ID	NA	N	NA		
		Copper (dissolved)	12/01/15	11/30/22	9.33	2	.	0	.	ID	NA	N	NA		
		Pentachlorophenol (PCP)	12/01/15	11/30/22	7.13	1	.	0	.	ID	NA	N	NA		
		Zinc (dissolved)	12/01/15	11/30/22	80.29	2	.	0	.	ID	NA	N	NA		
		Phenanthrene	12/01/15	11/30/22	30	1	.	0	.	ID	NA	N	NA		
		Selenium	12/01/15	11/30/22	20	2	.	0	.	ID	NA	N	NA		
		Mercury	12/01/15	11/30/22	2.4	2	.	0	.	ID	NA	N	NA		
		Chromium (Tri)(dissolved)	12/01/15	11/30/22	395.35	2	.	0	.	ID	NA	N	NA		
		2,4,5-Trichlorophenol	12/01/15	11/30/22	136	1	.	0	.	ID	NA	N	NA		
	Chronic Toxic Substances in water	Cadmium (dissolved)	12/01/15	11/30/22	5.56	2	.	0	.	ID	NA	N	NA		
		Nickel (dissolved)	12/01/15	11/30/22	321.01	2	.	0	.	ID	NA	N	NA		
		Cadmium (dissolved)	12/01/15	11/30/22	0.4	2	0.05	0	.	ID	NA	N	NA		
		Phenanthrene	12/01/15	11/30/22	30	1	0.25	0	.	ID	NA	N	NA		
		2,4,5-Trichlorophenol	12/01/15	11/30/22	64	1	0.48	0	.	ID	NA	N	NA		
		Selenium	12/01/15	11/30/22	5	2	0.25	0	.	ID	NA	N	NA		
		Chromium (Tri)(dissolved)	12/01/15	11/30/22	130.75	2	2	0	.	ID	NA	N	NA		
		Arsenic (dissolved)	12/01/15	11/30/22	150	2	1.25	0	.	ID	NA	N	NA		
		Mercury	12/01/15	11/30/22	1.3	2	0	0	.	ID	NA	N	NA		
		Nickel (dissolved)	12/01/15	11/30/22	93.48	2	2.5	0	.	ID	NA	N	NA		
Pentachlorophenol (PCP)	12/01/15	11/30/22	11.06	1	0.28	0	.	ID	NA	N	NA				
Zinc (dissolved)	12/01/15	11/30/22	212.55	2	2	0	.	ID	NA	N	NA				

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Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat	
Aquatic Life Use	Chronic Toxic Substances in water	Copper (dissolved)	12/01/15	11/30/22	17.12	2	0.75	0	.	ID	NA	N	NA			
	Dissolved Oxygen 24hr average	Dissolved oxygen 24hr Avg	12/01/15	11/30/22	3	2	.	0	.	ID	NA	Y	NS	Depressed dissolved oxygen in water	5c	
	Dissolved Oxygen 24hr minimum	Dissolved oxygen 24hr Min	12/01/15	11/30/22	2	2	.	0	.	ID	NA	Y	NS	Depressed dissolved oxygen in water	5c	
	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	23	.	1	0.7	SM	FS	N	NA			
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	23	.	5	2.74	SM	CS	N	NA			
	Toxic Substances in sediment	Arachlor 1016	Arachlor 1016	12/01/15	11/30/22	530	5	.	0	.	LD	NC	N	NC		
		Arachlor1260	Arachlor1260	12/01/15	11/30/22	240	4	.	0	.	LD	NC	N	NC		
		1,2-Dichlorobenzene	1,2-Dichlorobenzene	12/01/15	11/30/22	4950	10	.	0	.	AD	NC	N	NC		
		2-Methylnaphthalene	2-Methylnaphthalene	12/01/15	11/30/22	201	6	.	0	.	LD	NC	N	NC		
		Xylene	Xylene	12/01/15	11/30/22	12010	2	.	0	.	ID	NA	N	NA		
		Vinyl chloride	Vinyl chloride	12/01/15	11/30/22	4180	2	.	0	.	ID	NA	N	NA		
		Chloroform	Chloroform	12/01/15	11/30/22	5670	2	.	0	.	ID	NA	N	NA		
		Ethylbenzene	Ethylbenzene	12/01/15	11/30/22	7880	2	.	0	.	ID	NA	N	NA		
		Carbon tetrachloride	Carbon tetrachloride	12/01/15	11/30/22	21000	2	.	0	.	ID	NA	N	NA		
		1,1,1-Trichloroethane	1,1,1-Trichloroethane	12/01/15	11/30/22	24790	2	.	0	.	ID	NA	N	NA		
		gamma-BHC (Lindane)	gamma-BHC (Lindane)	12/01/15	11/30/22	4.99	6	.	0	.	LD	NC	N	NC		
		1,2,4-Trichlorobenzene	1,2,4-Trichlorobenzene	12/01/15	11/30/22	5310	10	.	0	.	AD	NC	N	NC		
		Di-n-butyl phthalate	Di-n-butyl phthalate	12/01/15	11/30/22	80000	10	.	0	.	AD	NC	N	NC		
		Benzene	Benzene	12/01/15	11/30/22	2870	2	.	0	.	ID	NA	N	NA		
		4-Methyl-2-Pentanone (MIBK)	4-Methyl-2-Pentanone (MIBK)	12/01/15	11/30/22	116590	2	.	0	.	ID	NA	N	NA		
		alpha-BHC	alpha-BHC	12/01/15	11/30/22	100	6	.	0	.	LD	NC	N	NC		
		Nitrobenzene	Nitrobenzene	12/01/15	11/30/22	6290	10	.	0	.	AD	NC	N	NC		
		PCBs	PCBs	12/01/15	11/30/22	676	6	.	0	.	LD	NC	N	NC		
		Phenanthrene	Phenanthrene	12/01/15	11/30/22	1170	10	.	0	.	AD	NC	N	NC		
		Toxaphene	Toxaphene	12/01/15	11/30/22	32	6	.	0	.	LD	NC	N	NC		
		Chlordane	Chlordane	12/01/15	11/30/22	17.6	6	.	0	.	LD	NC	N	NC		
		Trichloroethene	Trichloroethene	12/01/15	11/30/22	13690	2	.	0	.	ID	NA	N	NA		
		Hexachloroethane	Hexachloroethane	12/01/15	11/30/22	3945	10	.	0	.	AD	NC	N	NC		
		Naphthalene	Naphthalene	12/01/15	11/30/22	561	10	.	0	.	AD	NC	N	NC		
		Fluorene	Fluorene	12/01/15	11/30/22	536	10	.	0	.	AD	NC	N	NC		
		Endrin	Endrin	12/01/15	11/30/22	207	6	.	0	.	LD	NC	N	NC		
		Heptachlor epoxide	Heptachlor epoxide	12/01/15	11/30/22	16	6	.	0	.	LD	NC	N	NC		
		Hexachlorobenzene (HCB)	Hexachlorobenzene (HCB)	12/01/15	11/30/22	240	6	.	0	.	LD	NC	N	NC		
		DDT	DDT	12/01/15	11/30/22	62.9	4	.	0	.	LD	NC	N	NC		
		DDE	DDE	12/01/15	11/30/22	31.3	6	.	0	.	LD	NC	N	NC		
		Dieldrin	Dieldrin	12/01/15	11/30/22	61.8	6	.	0	.	LD	NC	N	NC		
		DDD	DDD	12/01/15	11/30/22	28	6	.	0	.	LD	NC	N	NC		
		Chrysene	Chrysene	12/01/15	11/30/22	1290	10	.	0	.	AD	NC	N	NC		
		Benzo(a)pyrene	Benzo(a)pyrene	12/01/15	11/30/22	1450	10	.	0	.	AD	NC	N	NC		
		Chloromethane	Chloromethane	12/01/15	11/30/22	106800	2	.	0	.	ID	NA	N	NA		
		Acrylonitrile	Acrylonitrile	12/01/15	11/30/22	1650	2	.	0	.	ID	NA	N	NA		
		Aldrin	Aldrin	12/01/15	11/30/22	80	6	.	0	.	LD	NC	N	NC		
		Acenaphthylene	Acenaphthylene	12/01/15	11/30/22	128	10	.	0	.	AD	NC	N	NC		
		Diethyl phthalate	Diethyl phthalate	12/01/15	11/30/22	11000	6	.	0	.	LD	NC	N	NC		
		Dimethyl phthalate	Dimethyl phthalate	12/01/15	11/30/22	8900	6	.	0	.	LD	NC	N	NC		
	Anthracene	Anthracene	12/01/15	11/30/22	845	10	.	0	.	AD	NC	N	NC			
	N-Butyl benzyl phthalate	N-Butyl benzyl phthalate	12/01/15	11/30/22	150000	6	.	0	.	LD	NC	N	NC			
delta-BHC	delta-BHC	12/01/15	11/30/22	2300	6	.	0	.	LD	NC	N	NC				
Di-n-octyl phthalate	Di-n-octyl phthalate	12/01/15	11/30/22	1100	6	.	0	.	LD	NC	N	NC				
Acenaphthene	Acenaphthene	12/01/15	11/30/22	88.9	10	.	0	.	AD	NC	N	NC				
2,4-Dinitrotoluene	2,4-Dinitrotoluene	12/01/15	11/30/22	8020	6	.	0	.	LD	NC	N	NC				
Hexachlorocyclopentadiene	Hexachlorocyclopentadiene	12/01/15	11/30/22	202	6	.	0	.	LD	NC	N	NC				
Diazinon	Diazinon	12/01/15	11/30/22	7.3	6	.	0	.	LD	NC	N	NC				
Silver	Silver	12/01/15	11/30/22	1.7	10	.	0	.	AD	NC	N	NC				
Endosulfan I (alpha)	Endosulfan I (alpha)	12/01/15	11/30/22	7.4	6	.	0	.	LD	NC	N	NC				
Methoxychlor	Methoxychlor	12/01/15	11/30/22	95	4	.	0	.	LD	NC	N	NC				

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Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Toxic Substances in sediment	Parathion (ethyl)	12/01/15	11/30/22	3.7	6	.	0	.	LD	NC	N	NC		
		1,1-Dichloroethylene	12/01/15	11/30/22	11200	2	.	0	.	ID	NA	N	NA		
		Fluoranthene	12/01/15	11/30/22	2230	10	.	0	.	AD	NC	N	NC		
		Dibenz(a,h)anthracene	12/01/15	11/30/22	135	10	.	0	.	AD	NC	N	NC		
		Hexachlorobutadiene (HCBd)	12/01/15	11/30/22	550	10	.	0	.	AD	NC	N	NC		
		Phenol (single compound)	12/01/15	11/30/22	210	6	.	0	.	LD	NC	N	NC		
		Heptachlor	12/01/15	11/30/22	2.74	6	.	0	.	LD	NC	N	NC		
		1,4-Dichlorobenzene	12/01/15	11/30/22	4650	10	.	0	.	AD	NC	N	NC		
		Pyrene	12/01/15	11/30/22	1520	10	.	0	.	AD	NC	N	NC		
		Acetone	12/01/15	11/30/22	360180	2	.	0	.	ID	NA	N	NA		
		1,3-Dichlorobenzene	12/01/15	11/30/22	350	10	.	0	.	AD	NC	N	NC		
		Nickel	12/01/15	11/30/22	48.6	10	.	0	.	AD	NC	N	NC		
		Mercury	12/01/15	11/30/22	1.06	10	.	0	.	AD	NC	N	NC		
		beta-BHC	12/01/15	11/30/22	210	6	.	0	.	LD	NC	N	NC		
		Benzo(a)anthracene	12/01/15	11/30/22	1050	10	.	0	.	AD	NC	N	NC		
		1,2-Dichloropropane	12/01/15	11/30/22	21120	2	.	0	.	ID	NA	N	NA		
		Cadmium	12/01/15	11/30/22	4.98	10	.	0	.	AD	NC	N	NC		
		Copper	12/01/15	11/30/22	149	10	.	0	.	AD	NC	N	NC		
		Zinc	12/01/15	11/30/22	459	10	.	0	.	AD	NC	N	NC		
		Carbon disulfide	12/01/15	11/30/22	780	2	.	0	.	ID	NA	N	NA		
		Methylene chloride	12/01/15	11/30/22	46520	2	.	0	.	ID	NA	N	NA		
		Malathion	12/01/15	11/30/22	6.2	6	.	0	.	LD	NC	N	NC		
		Iron	12/01/15	11/30/22	40000	8	.	0	.	LD	NC	N	NC		
		Arsenic	12/01/15	11/30/22	33	10	.	0	.	AD	NC	N	NC		
		Manganese	12/01/15	11/30/22	1100	9	.	0	.	LD	NC	N	NC		
		Chromium	12/01/15	11/30/22	111	10	.	0	.	AD	NC	N	NC		
		3-Methyl-4-chlorophenol	12/01/15	11/30/22	5620	6	.	0	.	LD	NC	N	NC		
		1,1,2-Trichloroethane	12/01/15	11/30/22	5880	2	.	0	.	ID	NA	N	NA		
		Arachlor 1254	12/01/15	11/30/22	340	6	.	0	.	LD	NC	N	NC		
		Toluene	12/01/15	11/30/22	20290	2	.	0	.	ID	NA	N	NA		
		1,1,2,2-Tetrachloroethane	12/01/15	11/30/22	3800	2	.	0	.	ID	NA	N	NA		
		Arachlor 1248	12/01/15	11/30/22	1500	6	.	0	.	LD	NC	N	NC		
		1,2-Dichloroethane	12/01/15	11/30/22	28680	2	.	0	.	ID	NA	N	NA		
Styrene	12/01/15	11/30/22	61420	2	.	0	.	ID	NA	N	NA				
1,1-Dichloroethane	12/01/15	11/30/22	13890	2	.	0	.	ID	NA	N	NA				
Bromoform	12/01/15	11/30/22	1310	2	.	0	.	ID	NA	N	NA				
Chlorobenzene	12/01/15	11/30/22	3000	2	.	0	.	ID	NA	N	NA				
Bromodichloromethane	12/01/15	11/30/22	14740	2	.	0	.	ID	NA	N	NA				
Dibromochloromethane	12/01/15	11/30/22	940	2	.	0	.	ID	NA	N	NA				
1,2-Dichloroethene (trans)	12/01/15	11/30/22	71840	2	.	0	.	ID	NA	N	NA				
Pentachlorophenol (PCP)	12/01/15	11/30/22	1200	6	.	0	.	LD	NC	N	NC				
Tetrachloroethene	12/01/15	11/30/22	8210	2	.	0	.	ID	NA	N	NA				
Lead	12/01/15	11/30/22	128	10	.	0	.	AD	NC	N	NC				
Dichlorodifluoromethane	12/01/15	11/30/22	22090	2	.	0	.	ID	NA	N	NA				
Endosulfan II (beta)	12/01/15	11/30/22	35	6	.	0	.	LD	NC	N	NC				
Bis(2-ethylhexyl)phthalate	12/01/15	11/30/22	22000	10	.	0	.	AD	NC	N	NC				
2-Hexanone	12/01/15	11/30/22	28200	2	.	0	.	ID	NA	N	NA				
Fish Consumption Use	HH Bioaccumulative Toxics in water	1,3-Dichlorobenzene	12/01/15	11/30/22	595	1	0.3	0	.	ID	NA	N	NA		
		N-Nitrosodiethylamine	12/01/15	11/30/22	2.1	1	1.05	0	.	ID	NA	N	NA		
		N-Nitroso-di-n-butylamine	12/01/15	11/30/22	4.2	1	1	0	.	ID	NA	N	NA		
		1,2-Dichlorobenzene	12/01/15	11/30/22	3299	1	0.23	0	.	ID	NA	N	NA		
		Nitrobenzene	12/01/15	11/30/22	1873	1	0.51	0	.	ID	NA	N	NA		
		Dibromochloromethane	12/01/15	11/30/22	183	1	0.61	0	.	ID	NA	N	NA		
		Dichloromethane	12/01/15	11/30/22	13333	1	2.44	0	.	ID	NA	N	NA		
2,4-Dimethylphenol	12/01/15	11/30/22	8436	1	0.3	0	.	ID	NA	N	NA				

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Seg ID: 1402H - Skull Creek

AU ID: 1402H_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Fish Consumption Use	HH Bioaccumulative Toxics in water	Nickel (dissolved)	12/01/15	11/30/22	1140	2	2.5	0	.	ID	NA	N	NA		
		Methyl ethyl ketone	12/01/15	11/30/22	992000	1	1.43	0	.	ID	NA	N	NA		
		Chlorobenzene	12/01/15	11/30/22	2737	1	0.35	0	.	ID	NA	N	NA		
		MTBE	12/01/15	11/30/22	10482	1	0.41	0	.	ID	NA	N	NA		
		3,3-dichlorobenzidine	12/01/15	11/30/22	2.24	1	0.5	0	.	ID	NA	N	NA		
		Bis(2-ethylhexyl)phthalate	12/01/15	11/30/22	7.55	1	1.23	0	.	ID	NA	N	NA		
		1,2,4,5-Tetrachlorobenzene	12/01/15	11/30/22	0.24	1	0.12	0	.	ID	NA	N	NA		
		Pentachlorobenzene	12/01/15	11/30/22	0.36	1	0.18	0	.	ID	NA	N	NA		
		1,1,2,2-Tetrachloroethane	12/01/15	11/30/22	26.35	1	0.41	0	.	ID	NA	N	NA		
		Bromoform	12/01/15	11/30/22	1060	1	0.85	0	.	ID	NA	N	NA		
		1,1,1-Trichloroethane	12/01/15	11/30/22	784354	1	0.36	0	.	ID	NA	N	NA		
		Chloroform	12/01/15	11/30/22	7697	1	0.36	0	.	ID	NA	N	NA		
		Carbon tetrachloride	12/01/15	11/30/22	46	1	0.87	0	.	ID	NA	N	NA		
		Vinyl chloride	12/01/15	11/30/22	16.5	1	0.41	0	.	ID	NA	N	NA		
		Benzene	12/01/15	11/30/22	581	1	0.32	0	.	ID	NA	N	NA		
		Tetrachloroethene	12/01/15	11/30/22	280	1	0.33	0	.	ID	NA	N	NA		
		1,1,2-Trichloroethane	12/01/15	11/30/22	166	1	0.72	0	.	ID	NA	N	NA		
		2,4,5-Trichlorophenol	12/01/15	11/30/22	1867	1	0.48	0	.	ID	NA	N	NA		
		Bis(2-chloroethyl)ether	12/01/15	11/30/22	42.83	1	0.41	0	.	ID	NA	N	NA		
		Cresols	12/01/15	11/30/22	9301	1	2	0	.	ID	NA	N	NA		
		1,1-Dichloroethylene	12/01/15	11/30/22	55114	1	0.33	0	.	ID	NA	N	NA		
		Anthracene	12/01/15	11/30/22	1317	1	0.2	0	.	ID	NA	N	NA		
		Hexachlorocyclopentadiene	12/01/15	11/30/22	11.6	1	0.78	0	.	ID	NA	N	NA		
		1,2-Dichloroethane	12/01/15	11/30/22	364	1	0.52	0	.	ID	NA	N	NA		
		Pentachlorophenol (PCP)	12/01/15	11/30/22	0.29	1	0.15	0	.	ID	NA	N	NA		
		1,2-Dibromoethane	12/01/15	11/30/22	4.24	1	0.65	0	.	ID	NA	N	NA		
		Di-n-butyl phthalate	12/01/15	11/30/22	92.4	1	0.69	0	.	ID	NA	N	NA		
		Ethylbenzene	12/01/15	11/30/22	1867	1	0.5	0	.	ID	NA	N	NA		
		1,2-Dichloropropane	12/01/15	11/30/22	259	1	0.38	0	.	ID	NA	N	NA		
		Mercury	12/01/15	11/30/22	0.01	2	0	0	.	ID	NA	N	NA		
Trichloroethene	12/01/15	11/30/22	71.9	1	0.4	0	.	ID	NA	N	NA				
Hexachloroethane	12/01/15	11/30/22	2.33	1	0.27	0	.	ID	NA	N	NA				
Bromodichloromethane	12/01/15	11/30/22	275	1	0.35	0	.	ID	NA	N	NA				
Benzydine	12/01/15	11/30/22	0.11	1	0.05	0	.	ID	NA	N	NA				
Benzo(a)anthracene	12/01/15	11/30/22	0.03	1	0.01	0	.	ID	NA	N	NA				
Chrysene	12/01/15	11/30/22	2.52	1	0.32	0	.	ID	NA	N	NA				
Hexachlorobutadiene (HCBD)	12/01/15	11/30/22	0.22	1	0.11	0	.	ID	NA	N	NA				
Benzo(a)pyrene	12/01/15	11/30/22	0	1	0	0	.	ID	NA	N	NA				
Acrylonitrile	12/01/15	11/30/22	115	1	1.23	0	.	ID	NA	N	NA				
Pyridine	12/01/15	11/30/22	947	1	0.2	0	.	ID	NA	N	NA				

General Use	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	43	.	11	21.38	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	42	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	41	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	37	.	1	1.33	AD	NC	N	NC		

Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	29	121.05	0	.	AD	FS	N	FS		
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Seg ID: 1403 - Lake Austin

AU ID: 1403_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	52	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	52	.	0	.	AD	NC	N	NC		

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**Seg ID: 1403 - Lake Austin
AU ID: 1403_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Toxic Substances in sediment	Pentachlorophenol (PCP)	12/01/15	11/30/22	1200	5	.	0	.	LD	NC	N	NC		
		alpha-BHC	12/01/15	11/30/22	100	5	.	0	.	LD	NC	N	NC		
		Pyrene	12/01/15	11/30/22	1520	5	.	0	.	LD	NC	N	NC		
		Phenanthrene	12/01/15	11/30/22	1170	5	.	0	.	LD	NC	N	NC		
		Naphthalene	12/01/15	11/30/22	561	5	.	0	.	LD	NC	N	NC		
		Fluorene	12/01/15	11/30/22	536	5	.	0	.	LD	NC	N	NC		
		Fluoranthene	12/01/15	11/30/22	2230	5	.	0	.	LD	NC	N	NC		
		Dieldrin	12/01/15	11/30/22	61.8	5	.	0	.	LD	NC	N	NC		
		Dibenz(a,h)anthracene	12/01/15	11/30/22	135	5	.	0	.	LD	NC	N	NC		
		Chrysene	12/01/15	11/30/22	1290	5	.	0	.	LD	NC	N	NC		
		PCBs	12/01/15	11/30/22	676	4	.	0	.	LD	NC	N	NC		
		Chlordane	12/01/15	11/30/22	17.6	5	.	0	.	LD	NC	N	NC		
		Benzo(a)pyrene	12/01/15	11/30/22	1450	5	.	0	.	LD	NC	N	NC		
		Endrin	12/01/15	11/30/22	207	5	.	0	.	LD	NC	N	NC		
		Anthracene	12/01/15	11/30/22	845	5	.	0	.	LD	NC	N	NC		
		Aldrin	12/01/15	11/30/22	80	5	.	0	.	LD	NC	N	NC		
		Toxaphene	12/01/15	11/30/22	32	5	.	0	.	LD	NC	N	NC		
		Acenaphthylene	12/01/15	11/30/22	128	5	.	0	.	LD	NC	N	NC		
		Zinc	12/01/15	11/30/22	459	5	.	0	.	LD	NC	N	NC		
		Mercury	12/01/15	11/30/22	1.06	5	.	0	.	LD	NC	N	NC		
		Acenaphthene	12/01/15	11/30/22	88.9	5	.	0	.	LD	NC	N	NC		
		Nickel	12/01/15	11/30/22	48.6	5	.	0	.	LD	NC	N	NC		
		Iron	12/01/15	11/30/22	40000	5	.	0	.	LD	NC	N	NC		
		Silver	12/01/15	11/30/22	1.7	5	.	0	.	LD	NC	N	NC		
Lead	12/01/15	11/30/22	128	5	.	0	.	LD	NC	N	NC				
Manganese	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Manganese in sediment			
Copper	12/01/15	11/30/22	149	5	.	0	.	LD	NC	N	NC				
Chromium	12/01/15	11/30/22	111	5	.	0	.	LD	NC	N	NC				
Cadmium	12/01/15	11/30/22	4.98	5	.	0	.	LD	NC	N	NC				
Arsenic	12/01/15	11/30/22	33	5	.	0	.	LD	NC	N	NC				
Diazinon	12/01/15	11/30/22	7.3	3	.	0	.	ID	NA	N	NA				
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	75	98	22.8	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	88	32.73	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	400	101	293.54	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	52	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	52	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	52	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	131	0.13	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	50	4.27	0	.	AD	FS	N	FS		

**Seg ID: 1403 - Lake Austin
AU ID: 1403_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	49	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	49	.	1	4.68	AD	NC	N	NC		

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**Seg ID: 1403 - Lake Austin
AU ID: 1403_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	75	98	22.8	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	400	101	293.54	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	88	32.73	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	49	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	49	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	49	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	131	0.13	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	48	6.49	0	.	AD	FS	N	FS		

**Seg ID: 1403 - Lake Austin
AU ID: 1403_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	100	88	32.73	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	75	98	22.8	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	400	101	293.54	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	131	0.13	0	.	AD	FS	N	FS		

**Seg ID: 1403A - Bull Creek
AU ID: 1403A_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	14	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	14	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	14	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	14	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	14	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	14	66.64	0	.	LD	NC	Y	CN	Bacteria in water	

**Seg ID: 1403A - Bull Creek
AU ID: 1403A_04**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen 24hr average	Dissolved oxygen 24hr Avg	12/01/15	11/30/22	5	10	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen 24hr minimum	Dissolved oxygen 24hr Min	12/01/15	11/30/22	3	10	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	18	.	0	.	SM	FS	N	NA		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	18	.	1	4.1	SM	NC	N	NA		
General Use	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	18	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	18	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	17	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	8	.	1	14.7	LD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	07/01/14	11/30/22	126	20	29.81	0	.	AD	FS	N	FS		

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**Seg ID: 1403A - Bull Creek
AU ID: 1403A_05**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	10	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	10	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	10	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	10	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	10	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	10	25.49	0	.	LD	NC	N	NC		

**Seg ID: 1403B - West Bull Creek
AU ID: 1403B_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CN	Bacteria in water	

**Seg ID: 1403D - Barrow Preserve Tributary
AU ID: 1403D_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Nitrate in water	

**Seg ID: 1403E - Stillhouse Hollow
AU ID: 1403E_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Nitrate in water	

**Seg ID: 1403H - Bull Creek Tributary 6
AU ID: 1403H_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	10	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	10	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	10	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	10	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	10	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	10	46.08	0	.	LD	NC	N	NC		

**Seg ID: 1403I - Bull Creek Tributary 5
AU ID: 1403I_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	2	10	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	3	10	.	0	.	AD	NC	N	NC		

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Seg ID: 1403I - Bull Creek Tributary 5

AU ID: 1403I_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	10	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	10	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	10	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	10	59.28	0	.	LD	NC	N	NC		

Seg ID: 1403J - Spicewood Tributary to Shoal Creek

AU ID: 1403J_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	2	22	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	3	22	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	23	.	1	1.01	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	23	.	20	2.85	AD	CS	N	CS	Nitrate in water	
		Ammonia	12/01/15	11/30/22	0.33	23	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	23	252.58	1	.	AD	NS	N	NS	Bacteria in water	4a

Seg ID: 1403K - Taylor Slough South

AU ID: 1403K_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	13	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	13	.	1	3.6	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	26	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	26	.	26	4.37	AD	CS	N	CS	Nitrate in water	
		Ammonia	12/01/15	11/30/22	0.33	26	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	12	498.74	1	.	LD	CN	Y	NS	Bacteria in water	4a

Seg ID: 1403R - Westlake-Davenport Tributary to Lake Austin

AU ID: 1403R_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CN	Bacteria in water	

Seg ID: 1404 - Lake Travis

AU ID: 1404_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	4	53	.	1	3.84	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	6	53	.	2	4.79	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	75	371	20.73	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	371	32.28	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	400	371	282.03	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	53	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	53	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	AD	FS	N	FS		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	53	.	0	.	AD	FS	N	FS			

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**Seg ID: 1404 - Lake Travis
AU ID: 1404_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	436	0.11	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	52	0.98	0	.	AD	FS	N	FS		

**Seg ID: 1404 - Lake Travis
AU ID: 1404_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	4	53	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	6	53	.	3	5.69	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	75	371	20.73	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	371	32.28	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	400	371	282.03	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	53	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	53	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	53	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	436	0.11	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	52	1.02	0	.	AD	FS	N	FS		

**Seg ID: 1404 - Lake Travis
AU ID: 1404_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	4	53	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	6	53	.	8	5.42	AD	CS	N	CS	Depressed dissolved oxygen in water	
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	400	371	282.03	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	371	32.28	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	75	371	20.73	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	53	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	53	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	53	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	436	0.11	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	52	0.85	0	.	AD	FS	N	FS		

**Seg ID: 1404 - Lake Travis
AU ID: 1404_04**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	100	371	32.28	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	75	371	20.73	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	400	371	282.03	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	AD	FS	N	FS		

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**Seg ID: 1404 - Lake Travis
AU ID: 1404_04**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	436	0.11	0	.	AD	FS	N	FS		

**Seg ID: 1404 - Lake Travis
AU ID: 1404_05**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	4	53	.	1	2.82	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	6	53	.	11	4.99	AD	CS	N	CS	Depressed dissolved oxygen in water	
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	75	371	20.73	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	371	32.28	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	400	371	282.03	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	53	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	53	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	53	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	436	0.11	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	52	0.9	0	.	AD	FS	N	FS		

**Seg ID: 1404 - Lake Travis
AU ID: 1404_06**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	4	53	.	1	3.37	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	6	53	.	6	4.98	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	75	371	20.73	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	371	32.28	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	400	371	282.03	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	53	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	53	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	53	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	436	0.11	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	52	1.12	0	.	AD	FS	N	FS		

**Seg ID: 1404 - Lake Travis
AU ID: 1404_07**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	100	371	32.28	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	75	371	20.73	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	400	371	282.03	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	436	0.11	0	.	AD	FS	N	FS		

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**Seg ID: 1404 - Lake Travis
AU ID: 1404_08**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	400	371	282.03	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	371	32.28	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	75	371	20.73	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	436	0.11	0	.	AD	FS	N	FS		

**Seg ID: 1404 - Lake Travis
AU ID: 1404_09**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	400	371	282.03	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	371	32.28	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	75	371	20.73	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	436	0.11	0	.	AD	FS	N	FS		

**Seg ID: 1404 - Lake Travis
AU ID: 1404_10**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	4	53	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	6	53	.	11	5.38	AD	CS	N	CS	Depressed dissolved oxygen in water	
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	100	371	32.28	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	400	371	282.03	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	75	371	20.73	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	53	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	53	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	53	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	436	0.11	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	52	1.27	0	.	AD	FS	N	FS		

**Seg ID: 1404 - Lake Travis
AU ID: 1404_11**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	4	53	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	6	53	.	2	5.5	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	75	371	20.73	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	371	32.28	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	400	371	282.03	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	53	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	53	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	53	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	436	0.11	0	.	AD	FS	N	FS		

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**Seg ID: 1404 - Lake Travis
AU ID: 1404_11**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	52	1.07	0	.	AD	FS	N	FS		

**Seg ID: 1404A - Hamilton Creek
AU ID: 1404A_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	13	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	13	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	22	.	1	0.58	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	21	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	22	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	21	.	1	3.6	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	14	55.85	0	.	LD	NC	N	NC		

**Seg ID: 1404A - Hamilton Creek
AU ID: 1404A_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	13	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	13	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	22	.	1	0.58	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	21	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	21	.	1	3.6	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	22	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	14	55.85	0	.	LD	NC	N	NC		

**Seg ID: 1404A - Hamilton Creek
AU ID: 1404A_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	13	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	13	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	22	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	21	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	21	.	1	3.6	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	22	.	1	0.58	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	14	55.85	0	.	LD	NC	N	NC		

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**Seg ID: 1404B - Cow Creek
AU ID: 1404B_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	2	21	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	3	21	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	21	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	21	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	19	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	21	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	20	23.97	0	.	AD	FS	N	FS		

**Seg ID: 1405 - Marble Falls Lake
AU ID: 1405_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	50	.	1	2.11	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	50	.	4	3.88	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	75	49	18.14	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	125	50	35.64	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	50	284.91	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	50	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	50	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
Water Temperature	Water temperature	12/01/15	11/30/22	34.4	50	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	65	0.12	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	49	2.6	0	.	AD	FS	N	FS		

**Seg ID: 1405 - Marble Falls Lake
AU ID: 1405_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	125	50	35.64	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	75	49	18.14	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	50	284.91	0	.	AD	FS	N	FS		
Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	65	0.12	0	.	AD	FS	N	FS		

**Seg ID: 1406 - Lake Lyndon B. Johnson
AU ID: 1406_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	52	.	1	2.13	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	52	.	5	4	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	75	153	18.23	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	125	156	35.22	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	156	278.18	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	52	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	52	.	0	.	AD	FS	N	FS		
Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	AD	NS	N	NS	Excessive algal growth in water	5c	

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Seg ID: 1406 - Lake Lyndon B. Johnson

AU ID: 1406_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Water Temperature	Water temperature	12/01/15	11/30/22	34.4	52	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	188	0.08	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	51	1.65	0	.	AD	FS	N	FS		

Seg ID: 1406 - Lake Lyndon B. Johnson

AU ID: 1406_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	52	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	52	.	1	4.41	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	75	153	18.23	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	125	156	35.22	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	156	278.18	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	52	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	52	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	NS	N	NS	Excessive algal growth in water	5c
	Water Temperature	Water temperature	12/01/15	11/30/22	34.4	52	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	188	0.08	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	51	1.65	0	.	AD	FS	N	FS		

Seg ID: 1406 - Lake Lyndon B. Johnson

AU ID: 1406_03

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	52	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	52	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	75	153	18.23	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	125	156	35.22	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	156	278.18	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	52	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	52	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	NS	N	NS	Excessive algal growth in water	5c
	Water Temperature	Water temperature	12/01/15	11/30/22	34.4	52	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	188	0.08	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	51	8.32	0	.	AD	FS	N	FS		

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Seg ID: 1406 - Lake Lyndon B. Johnson

AU ID: 1406_04

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	75	153	18.23	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	125	156	35.22	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	156	278.18	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	NS	N	NS	Excessive algal growth in water	5c
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	188	0.08	0	.	AD	FS	N	FS		

Seg ID: 1406 - Lake Lyndon B. Johnson

AU ID: 1406_05

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	125	156	35.22	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	75	153	18.23	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	156	278.18	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	NS	N	NS	Excessive algal growth in water	5c
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	188	0.08	0	.	AD	FS	N	FS		

Seg ID: 1406 - Lake Lyndon B. Johnson

AU ID: 1406_06

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	75	153	18.23	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	156	278.18	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	125	156	35.22	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	NS	N	NS	Excessive algal growth in water	5c
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	188	0.08	0	.	AD	FS	N	FS		

Seg ID: 1406A - Sandy Creek

AU ID: 1406A_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	1.5	38	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	2	38	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	38	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	38	.	2	46.6	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	38	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	38	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	38	57.4	0	.	AD	FS	N	FS		

Seg ID: 1407 - Inks Lake

AU ID: 1407_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	52	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	52	.	1	4.91	AD	NC	N	NC		
	Toxic Substances in sediment	Manganese	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Manganese in sediment	

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**Seg ID: 1407 - Inks Lake
AU ID: 1407_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	51	23.56	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	150	52	43.97	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	600	52	292.16	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	52	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	52	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	26.7	52	.	5	31.58	JQ	NA	N	NA		
		Total phosphorus	12/01/15	11/30/22	0.2	52	.	2	0.56	JQ	NA	N	NA		
		Ammonia	12/01/15	11/30/22	0.11	52	.	1	0.13	JQ	NA	N	NA		
		Nitrate	12/01/15	11/30/22	0.37	52	.	6	0.42	JQ	NA	N	NA		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	52	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	59	0.1	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	51	1.29	0	.	AD	FS	N	FS		

**Seg ID: 1407 - Inks Lake
AU ID: 1407_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	150	52	43.97	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	100	51	23.56	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	600	52	292.16	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	59	0.1	0	.	AD	FS	N	FS		

**Seg ID: 1407A - Clear Creek
AU ID: 1407A_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Acute Toxic Substances in water	Aluminum (dissolved)	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	NS	Aluminum in water	5c
		Copper (dissolved)	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	NS	Copper in water	5c
	Chronic Toxic Substances in water	Cadmium (dissolved)	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CN	Cadmium in water	
		Zinc (dissolved)	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	NS	Zinc in water	5c
		Nickel (dissolved)	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	NS	Nickel in water	5c
	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	2	31	.	0	.	AD	FS	N	FS		
Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	3	31	.	0	.	AD	NC	N	NC			
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	600	31	722.23	.	.	JQ	NS	N	NS	Total dissolved solids in water	5c
		Sulfate	12/01/15	11/30/22	100	0	.	.	.	JQ	NA	Y	NS	Sulfate in water	5c
	High pH	pH	12/01/15	11/30/22	9	31	.	0	.	JQ	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	31	.	10	4.19	JQ	NS	N	NS	Low pH in water	5c

**Seg ID: 1408 - Lake Buchanan
AU ID: 1408_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	53	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	53	.	0	.	AD	NC	N	NC		

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**Seg ID: 1408 - Lake Buchanan
AU ID: 1408_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	264	23.17	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	150	264	48.48	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	600	264	310.67	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	53	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	53	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	53	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	295	0.13	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	52	0.86	0	.	AD	FS	N	FS		

**Seg ID: 1408 - Lake Buchanan
AU ID: 1408_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	53	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	53	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	264	23.17	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	150	264	48.48	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	600	264	310.67	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	53	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	53	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	53	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	295	0.13	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	52	0.73	0	.	AD	FS	N	FS		

**Seg ID: 1408 - Lake Buchanan
AU ID: 1408_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	150	264	48.48	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	100	264	23.17	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	600	264	310.67	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	295	0.13	0	.	AD	FS	N	FS		

**Seg ID: 1408 - Lake Buchanan
AU ID: 1408_04**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	53	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	53	.	0	.	AD	NC	N	NC		

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**Seg ID: 1408 - Lake Buchanan
AU ID: 1408_04**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	264	23.17	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	150	264	48.48	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	600	264	310.67	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	53	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	53	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	53	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	295	0.13	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	52	0.95	0	.	AD	FS	N	FS		

**Seg ID: 1408 - Lake Buchanan
AU ID: 1408_05**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	52	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	52	.	1	3.3	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	264	23.17	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	150	264	48.48	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	600	264	310.67	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	52	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	52	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	52	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	295	0.13	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	51	3.9	0	.	AD	FS	N	FS		

**Seg ID: 1408 - Lake Buchanan
AU ID: 1408_06**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	53	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	53	.	3	4.39	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	264	23.17	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	150	264	48.48	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	600	264	310.67	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	53	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	53	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	53	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	295	0.13	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	52	1.68	0	.	AD	FS	N	FS		

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Seg ID: 1409 - Colorado River Above Lake Buchanan

AU ID: 1409_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	200	41	44.84	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	200	41	22.57	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	900	41	380.98	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	41	0.28	0	.	AD	FS	N	FS		

Seg ID: 1409 - Colorado River Above Lake Buchanan

AU ID: 1409_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	35	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	35	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	200	41	22.57	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	200	41	44.84	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	900	41	380.98	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	35	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	35	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	41	.	12	33.79	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	41	.	1	0.79	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	40	.	1	0.44	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	41	.	0	.	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.8	35	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	41	0.28	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	41	82.05	0	.	AD	FS	N	FS		

Seg ID: 1409A - Cherokee Creek

AU ID: 1409A_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	13	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	13	.	1	4.9	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	13	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	13	.	1	3.37	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	13	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	13	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	13	165.18	1	.	LD	CN	N	CN	Bacteria in water	

Seg ID: 1410 - Colorado River Below O. H. Ivie Reservoir

AU ID: 1410_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	455	59	177.91	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	500	58	231.7	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1475	62	868.71	0	.	AD	FS	N	FS		

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**Seg ID: 1410 - Colorado River Below O. H. Ivie Reservoir
AU ID: 1410_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Public Water Supply Use	Surface Water HH criteria for PWS average	Fluoride	12/01/15	11/30/22	4	28	0.32	0	.	AD	FS	N	FS		
		Nitrate	12/01/15	11/30/22	10	59	0.11	0	.	AD	FS	N	FS		

**Seg ID: 1410 - Colorado River Below O. H. Ivie Reservoir
AU ID: 1410_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	455	59	177.91	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	500	58	231.7	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1475	62	868.71	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Fluoride	12/01/15	11/30/22	4	28	0.32	0	.	AD	FS	N	FS		
		Nitrate	12/01/15	11/30/22	10	59	0.11	0	.	AD	FS	N	FS		

**Seg ID: 1410 - Colorado River Below O. H. Ivie Reservoir
AU ID: 1410_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	30	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	30	.	2	4.6	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	455	59	177.91	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	500	58	231.7	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1475	62	868.71	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	30	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	30	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	41	.	19	25.02	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	41	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	41	.	2	0.54	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	40	.	1	2.3	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.8	30	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	59	0.11	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	28	0.32	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	32	56.6	0	.	AD	FS	N	FS		

**Seg ID: 1410 - Colorado River Below O. H. Ivie Reservoir
AU ID: 1410_04**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	29	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	29	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	455	59	177.91	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	500	58	231.7	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1475	62	868.71	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	29	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	29	.	0	.	AD	FS	N	FS		

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Seg ID: 1410 - Colorado River Below O. H. Ivie Reservoir

AU ID: 1410_04

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	25	.	7	36.24	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	28	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	26	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	28	.	0	.	AD	NC	N	NC		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.8	29	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	59	0.11	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	28	0.32	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	23	10.58	0	.	AD	FS	N	FS		

Seg ID: 1411 - E. V. Spence Reservoir

AU ID: 1411_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	28	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	28	.	1	4.59	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	450	51	764.45	1	.	AD	NS	N	NS	Sulfate in water	4a
		Chloride	12/01/15	11/30/22	950	51	1043.24	1	.	AD	NS	N	NS	Chloride in water	5b
		Total dissolved solids	12/01/15	11/30/22	1500	50	2734.03	1	.	AD	NS	N	NS	Total dissolved solids in water	4a
	Fish Kill Reports	Fish Kill Reports	12/01/15	11/30/22	.	0	.	.	.	OE	CN	N	CN	Fish kill in water	
	High pH	pH	12/01/15	11/30/22	9	26	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	26	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	26.7	28	.	4	43.2	JQ	NA	N	NA		
		Total phosphorus	12/01/15	11/30/22	0.2	28	.	2	0.3	JQ	NA	N	NA		
		Nitrate	12/01/15	11/30/22	0.37	28	.	1	0.88	JQ	NA	N	NA		
Water Temperature	Water temperature	12/01/15	11/30/22	33.9	28	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	53	0.06	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	26	0.7	0	.	AD	FS	N	FS		

Seg ID: 1411 - E. V. Spence Reservoir

AU ID: 1411_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	27	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	27	.	1	4.8	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	450	51	764.45	1	.	AD	NS	N	NS	Sulfate in water	4a
		Chloride	12/01/15	11/30/22	950	51	1043.24	1	.	AD	NS	N	NS	Chloride in water	5b
		Total dissolved solids	12/01/15	11/30/22	1500	50	2734.03	1	.	AD	NS	N	NS	Total dissolved solids in water	4a
	Fish Kill Reports	Fish Kill Reports	12/01/15	11/30/22	.	0	.	.	.	OE	CN	N	CN	Fish kill in water	
	High pH	pH	12/01/15	11/30/22	9	26	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	26	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	26.7	1	.	0	.	JQ	NA	N	NA		
		Total phosphorus	12/01/15	11/30/22	0.2	25	.	2	0.22	JQ	NA	N	NA		
		Nitrate	12/01/15	11/30/22	0.37	25	.	1	0.71	JQ	NA	N	NA		
Water Temperature	Water temperature	12/01/15	11/30/22	33.9	27	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	53	0.06	0	.	AD	FS	N	FS		

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**Seg ID: 1411 - E. V. Spence Reservoir
AU ID: 1411_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	25	168.5	1	.	AD	NS	N	NS	Bacteria in water	5c

**Seg ID: 1412 - Colorado River Below Lake J. B. Thomas
AU ID: 1412_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	21	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	21	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	2500	62	929.84	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	20000	65	4104.9	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	11000	62	1646.71	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	20	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	20	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	24	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	24	.	19	116.39	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	24	.	0	.	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	33.9	21	.	0	.	AD	FS	N	FS			

**Seg ID: 1412 - Colorado River Below Lake J. B. Thomas
AU ID: 1412_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	23	.	1	2.3	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	23	.	4	3.95	AD	CS	N	CS	Depressed dissolved oxygen in water	
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	11000	62	1646.71	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	20000	65	4104.9	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	2500	62	929.84	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	23	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	23	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	27	.	23	66.7	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	28	.	1	0.73	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	27	.	0	.	AD	NC	N	NC		
Nitrate	12/01/15	11/30/22	1.95	27	.	1	4.05	AD	NC	N	NC				
Water Temperature	Water temperature	12/01/15	11/30/22	33.9	23	.	0	.	AD	FS	N	FS			
Recreation Use	Bacteria Geomean	Enterococcus	12/01/15	11/30/22	33	23	226.89	1	.	AD	NS	N	NS	Bacteria in water	5c

**Seg ID: 1412 - Colorado River Below Lake J. B. Thomas
AU ID: 1412_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	21	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	21	.	1	4.4	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	2500	62	929.84	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	11000	62	1646.71	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	20000	65	4104.9	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	21	.	1	9.4	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	21	.	0	.	AD	FS	N	FS		

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**Seg ID: 1412 - Colorado River Below Lake J. B. Thomas
AU ID: 1412_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	25	.	20	52.02	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	26	.	2	1.18	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	25	.	2	0.45	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	25	.	5	4.42	AD	NC	N	NC		
	Water Temperature	Water temperature	12/01/15	11/30/22	33.9	21	.	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	Enterococcus	12/01/15	11/30/22	33	21	117.56	1	.	AD	NS	N	NS	Bacteria in water	5c

**Seg ID: 1412 - Colorado River Below Lake J. B. Thomas
AU ID: 1412_04**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	11000	62	1646.71	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	2500	62	929.84	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	20000	65	4104.9	0	.	AD	FS	N	FS		

**Seg ID: 1412 - Colorado River Below Lake J. B. Thomas
AU ID: 1412_05**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	11000	62	1646.71	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	20000	65	4104.9	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	2500	62	929.84	0	.	AD	FS	N	FS		

**Seg ID: 1412A - Lake Colorado City
AU ID: 1412A_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Fish Kill Reports	Fish Kill Reports	12/01/15	11/30/22	.	0	.	.	.	OE	CN	N	CN	Fish kill in water	

**Seg ID: 1412B - Beals Creek
AU ID: 1412B_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	2	23	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	3	23	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	23	.	4	3.82	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	23	.	1	3.58	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	23	.	13	50.66	AD	CS	N	CS	Chlorophyll-a in water	
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CN	Bacteria in water	

**Seg ID: 1412B - Beals Creek
AU ID: 1412B_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	2	44	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	3	44	.	0	.	AD	NC	N	NC		

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Seg ID: 1412B - Beals Creek

AU ID: 1412B_03

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	42	.	6	1.08	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	43	.	22	74.68	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	42	.	21	2.07	AD	CS	N	CS	Total Phosphorus in water	
		Nitrate	12/01/15	11/30/22	1.95	42	.	26	10.97	AD	CS	N	CS	Nitrate in water	
Recreation Use	Bacteria Geomean	Enterococcus	12/01/15	11/30/22	35	39	209.59	1	.	AD	NS	N	NS	Bacteria in water	5b

Seg ID: 1413 - Lake J. B. Thomas

AU ID: 1413_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	14	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	14	.	1	4.04	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	110	14	57.23	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	80	14	67.77	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	14	394.69	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	13	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	13	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.2	14	.	0	.	JQ	NA	N	NA		
		Chlorophyll-a	12/01/15	11/30/22	26.7	13	.	0	.	JQ	NA	N	NA		
		Nitrate	12/01/15	11/30/22	0.37	14	.	0	.	JQ	NA	N	NA		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	14	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	14	0.02	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	13	0.79	0	.	LD	NC	N	NC		

Seg ID: 1414 - Pedernales River

AU ID: 1414_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	41	.	1	0.7	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	41	.	1	0.7	AD	NC	N	NC		
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	525	206	400.35	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	75	203	29.65	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	125	201	52.83	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	41	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	41	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	42	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	42	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	41	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	42	.	0	.	AD	NC	N	NC		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.8	41	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	201	0.35	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	42	30.27	0	.	AD	FS	N	FS		

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**Seg ID: 1414 - Pedernales River
AU ID: 1414_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	36	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	36	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	525	206	400.35	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	125	201	52.83	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	75	203	29.65	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	37	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	37	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	38	.	1	19.8	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	37	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	38	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	38	.	0	.	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.8	37	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	201	0.35	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	38	18.41	0	.	AD	FS	N	FS		

**Seg ID: 1414 - Pedernales River
AU ID: 1414_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	41	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	41	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	125	201	52.83	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	525	206	400.35	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	75	203	29.65	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	41	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	41	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	42	.	3	35.9	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	42	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	42	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	41	.	0	.	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.8	41	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	201	0.35	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	42	35.42	0	.	AD	FS	N	FS		

**Seg ID: 1414 - Pedernales River
AU ID: 1414_04**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	125	201	52.83	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	75	203	29.65	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	525	206	400.35	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	201	0.35	0	.	AD	FS	N	FS		

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**Seg ID: 1414 - Pedernales River
AU ID: 1414_05**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen 24hr average	Dissolved oxygen 24hr Avg	12/01/15	11/30/22	5	1	.	0	.	SM	NA	N	NA		
	Dissolved Oxygen 24hr minimum	Dissolved oxygen 24hr Min	12/01/15	11/30/22	3	1	.	0	.	SM	NA	N	NA		
	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	79	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	79	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	75	203	29.65	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	125	201	52.83	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	525	206	400.35	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	79	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	79	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	84	.	11	30.54	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	83	.	1	7.13	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	84	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	82	.	2	2.85	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.8	79	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	201	0.35	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	82	109.35	0	.	AD	FS	N	FS		

**Seg ID: 1414 - Pedernales River
AU ID: 1414_06**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	125	201	52.83	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	75	203	29.65	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	525	206	400.35	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	201	0.35	0	.	AD	FS	N	FS		

**Seg ID: 1414B - Cypress Creek
AU ID: 1414B_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	19	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	19	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	23	.	2	14.95	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	22	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	22	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	21	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	11/01/15	11/30/22	126	20	104.8	0	.	AD	FS	N	FS		

**Seg ID: 1415 - Llano River
AU ID: 1415_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	77	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	77	.	0	.	AD	NC	N	NC		

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**Seg ID: 1415 - Llano River
AU ID: 1415_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	50	182	11.41	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	50	182	18.02	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	350	184	262.97	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	77	.	1	9.1	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	77	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	79	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	80	.	1	2.19	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	80	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	77	.	1	20.9	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.8	77	.	4	33.83	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	181	0.21	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	22	0.18	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	78	19	0	.	AD	FS	N	FS		

**Seg ID: 1415 - Llano River
AU ID: 1415_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	21	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	21	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	50	182	11.41	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	50	182	18.02	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	350	184	262.97	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	22	.	1	9.3	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	22	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	22	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	22	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	19	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	20	.	0	.	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.8	22	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	181	0.21	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	22	0.18	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	05/01/15	11/30/22	126	20	14.51	0	.	AD	FS	N	FS		

**Seg ID: 1415 - Llano River
AU ID: 1415_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	1	.	0	.	ID	NA	N	NA		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	1	.	0	.	ID	NA	N	NA		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	50	182	11.41	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	50	182	18.02	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	350	184	262.97	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	1	.	0	.	ID	NA	N	NA		
	Low pH	pH	12/01/15	11/30/22	6.5	1	.	0	.	ID	NA	N	NA		

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**Seg ID: 1415 - Llano River
AU ID: 1415_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	1	.	0	.	ID	NA	N	NA		
		Total phosphorus	12/01/15	11/30/22	0.69	1	.	0	.	ID	NA	N	NA		
		Ammonia	12/01/15	11/30/22	0.33	1	.	0	.	ID	NA	N	NA		
		Nitrate	12/01/15	11/30/22	1.95	1	.	0	.	ID	NA	N	NA		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.8	1	.	0	.	ID	NA	N	NA		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	181	0.21	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	22	0.18	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	1	75	0	.	ID	NA	N	NA		

**Seg ID: 1415 - Llano River
AU ID: 1415_04**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	28	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	28	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	50	182	11.41	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	50	182	18.02	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	350	184	262.97	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	28	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	28	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	28	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	28	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	27	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	28	.	1	2.61	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.8	28	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Fluoride	12/01/15	11/30/22	4	22	0.18	0	.	AD	FS	N	FS		
		Nitrate	12/01/15	11/30/22	10	181	0.21	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	28	36.94	0	.	AD	FS	N	FS		

**Seg ID: 1415 - Llano River
AU ID: 1415_05**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	24	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	24	.	2	4.6	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	50	182	11.41	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	50	182	18.02	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	350	184	262.97	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	24	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	24	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	28	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	28	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	28	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	28	.	0	.	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.8	24	.	0	.	AD	FS	N	FS			

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**Seg ID: 1415 - Llano River
AU ID: 1415_05**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	181	0.21	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	22	0.18	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	25	37.75	0	.	AD	FS	N	FS		

**Seg ID: 1415 - Llano River
AU ID: 1415_06**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	28	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	28	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	50	182	18.02	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	350	184	262.97	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	50	182	11.41	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	28	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	28	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	28	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	28	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	28	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	28	.	0	.	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.8	28	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Fluoride	12/01/15	11/30/22	4	22	0.18	0	.	AD	FS	N	FS		
		Nitrate	12/01/15	11/30/22	10	181	0.21	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	28	27.34	0	.	AD	FS	N	FS		

**Seg ID: 1415A - Johnson Fork Creek
AU ID: 1415A_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	28	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	28	.	1	4.4	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	28	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	28	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	28	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	28	.	1	3.7	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	28	59.29	0	.	AD	FS	N	FS		

**Seg ID: 1415C - James River
AU ID: 1415C_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	28	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	28	.	0	.	AD	NC	N	NC		

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**Seg ID: 1415C - James River
AU ID: 1415C_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	28	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	28	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	28	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	28	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	28	53.18	0	.	AD	FS	N	FS		

**Seg ID: 1416 - San Saba River
AU ID: 1416_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	37	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	37	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	50	94	15.43	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	425	97	340.91	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	50	95	26.46	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	37	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	37	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	41	.	3	38.63	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	41	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	40	.	0	.	AD	NC	N	NC		
Nitrate		12/01/15	11/30/22	1.95	41	.	0	.	AD	NC	N	NC			
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	37	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	96	0.44	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	24	0.18	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	41	262.66	1	.	AD	NS	N	NS	Bacteria in water	5c

**Seg ID: 1416 - San Saba River
AU ID: 1416_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	50	94	15.43	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	50	95	26.46	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	425	97	340.91	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Fluoride	12/01/15	11/30/22	4	24	0.18	0	.	AD	FS	N	FS		
		Nitrate	12/01/15	11/30/22	10	96	0.44	0	.	AD	FS	N	FS		

**Seg ID: 1416 - San Saba River
AU ID: 1416_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	30	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	30	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	50	94	15.43	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	50	95	26.46	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	425	97	340.91	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	30	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	30	.	0	.	AD	FS	N	FS		

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**Seg ID: 1416 - San Saba River
AU ID: 1416_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	31	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	30	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	31	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	31	.	0	.	AD	NC	N	NC		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	30	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	96	0.44	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	24	0.18	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	30	81.17	0	.	AD	FS	N	FS		

**Seg ID: 1416 - San Saba River
AU ID: 1416_04**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	50	94	15.43	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	50	95	26.46	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	425	97	340.91	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Fluoride	12/01/15	11/30/22	4	24	0.18	0	.	AD	FS	N	FS		
		Nitrate	12/01/15	11/30/22	10	96	0.44	0	.	AD	FS	N	FS		

**Seg ID: 1416 - San Saba River
AU ID: 1416_05**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	26	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	26	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	50	94	15.43	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	50	95	26.46	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	425	97	340.91	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	25	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	25	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	25	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	25	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	25	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	25	.	2	2.18	AD	NC	N	NC		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	26	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	96	0.44	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	24	0.18	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	25	42.52	0	.	AD	FS	N	FS		

**Seg ID: 1416A - Brady Creek
AU ID: 1416A_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	27	.	2	2.25	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	4	27	.	4	2.7	AD	CS	N	CS	Depressed dissolved oxygen in water	

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**Seg ID: 1416A - Brady Creek
AU ID: 1416A_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	27	.	15	8.13	AD	CS	N	CS	Nitrate in water	
		Chlorophyll-a	12/01/15	11/30/22	14.1	25	.	19	61.49	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	27	.	23	2.61	AD	CS	N	CS	Total Phosphorus in water	
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	27	58.1	0	.	AD	FS	N	FS		

**Seg ID: 1416A - Brady Creek
AU ID: 1416A_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen 24hr average	Dissolved oxygen 24hr Avg	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	NS	Depressed dissolved oxygen in water	5r
	Dissolved Oxygen 24hr minimum	Dissolved oxygen 24hr Min	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	NS	Depressed dissolved oxygen in water	5r
General Use	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Chlorophyll-a in water	

**Seg ID: 1416B - Brady Creek Reservoir
AU ID: 1416B_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	20	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	20	.	1	4.12	AD	NC	N	NC		
General Use	Nutrient Reservoir Narrative Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	07/01/13	11/30/22	126	20	4.35	0	.	AD	FS	N	FS		

**Seg ID: 1416C - Brady Creek above Brady Creek Reservoir
AU ID: 1416C_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Nitrate in water	

**Seg ID: 1417 - Lower Pecan Bayou
AU ID: 1417_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	30	.	1	2	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	30	.	2	2.7	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	120	34	59.36	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	310	32	81.67	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1025	34	441.31	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	30	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	30	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	39	.	29	63.51	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	39	.	1	0.87	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	39	.	1	0.6	AD	NC	N	NC		
Nitrate		12/01/15	11/30/22	1.95	38	.	8	8.08	AD	NC	N	NC			
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	30	.	0	.	AD	FS	N	FS			
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	34	87.9	0	.	AD	FS	N	FS		

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**Seg ID: 1418 - Lake Brownwood
AU ID: 1418_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	14	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	14	.	2	4.74	AD	NC	N	NC		
	Toxic Substances in sediment	Manganese	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Manganese in sediment	
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	42	30.25	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	150	42	43.59	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	42	287.22	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	14	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	14	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	26.7	10	.	0	.	JQ	NA	N	NA		
		Total phosphorus	12/01/15	11/30/22	0.2	13	.	0	.	JQ	NA	N	NA		
		Ammonia	12/01/15	11/30/22	0.11	12	.	0	.	JQ	NA	N	NA		
		Nitrate	12/01/15	11/30/22	0.37	13	.	0	.	JQ	NA	N	NA		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	14	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	39	0.05	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	42	0.13	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	13	2.47	0	.	LD	NC	N	NC		

**Seg ID: 1418 - Lake Brownwood
AU ID: 1418_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	14	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	14	.	1	4.88	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	42	30.25	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	150	42	43.59	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	42	287.22	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	14	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	14	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	26.7	10	.	0	.	JQ	NA	N	NA		
		Total phosphorus	12/01/15	11/30/22	0.2	14	.	0	.	JQ	NA	N	NA		
		Ammonia	12/01/15	11/30/22	0.11	12	.	0	.	JQ	NA	N	NA		
		Nitrate	12/01/15	11/30/22	0.37	13	.	0	.	JQ	NA	N	NA		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	14	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	39	0.05	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	42	0.13	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	13	2.06	0	.	LD	NC	N	NC		

**Seg ID: 1418 - Lake Brownwood
AU ID: 1418_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	14	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	14	.	0	.	AD	NC	N	NC		

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**Seg ID: 1418 - Lake Brownwood
AU ID: 1418_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	150	42	43.59	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	100	42	30.25	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	42	287.22	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	14	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	14	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	26.7	10	.	0	.	JQ	NA	N	NA		
		Total phosphorus	12/01/15	11/30/22	0.2	14	.	0	.	JQ	NA	N	NA		
		Ammonia	12/01/15	11/30/22	0.11	12	.	0	.	JQ	NA	N	NA		
		Nitrate	12/01/15	11/30/22	0.37	13	.	0	.	JQ	NA	N	NA		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	14	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	39	0.05	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	42	0.13	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	13	2.59	0	.	LD	NC	N	NC		

**Seg ID: 1418A - Hords Creek
AU ID: 1418A_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	20	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	20	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	26	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	26	.	10	34.48	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	28	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	28	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	03/01/15	11/30/22	126	21	40.3	0	.	AD	FS	N	FS		

**Seg ID: 1418A - Hords Creek
AU ID: 1418A_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	18	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	4	18	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	26	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	26	.	6	26.08	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	28	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	28	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	03/01/15	11/30/22	126	20	25.89	0	.	AD	FS	N	FS		

**Seg ID: 1418C - Hords Creek Reservoir
AU ID: 1418C_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	14	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	14	.	0	.	AD	NC	N	NC		

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Seg ID: 1418C - Hords Creek Reservoir

AU ID: 1418C_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	26.7	12	.	0	.	JQ	NA	N	NA		
		Total phosphorus	12/01/15	11/30/22	0.2	14	.	0	.	JQ	NA	N	NA		
		Ammonia	12/01/15	11/30/22	0.11	12	.	1	0.12	JQ	NA	N	NA		
		Nitrate	12/01/15	11/30/22	0.37	14	.	0	.	JQ	NA	N	NA		
Public Water Supply Use	Surface Water HH criteria for PWS average	Fluoride	12/01/15	11/30/22	4	14	0.16	0	.	AD	FS	N	FS		
		Nitrate	12/01/15	11/30/22	10	14	0.05	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	14	2.04	0	.	LD	NC	N	NC		

Seg ID: 1419 - Lake Coleman

AU ID: 1419_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	15	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	15	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	14	30.82	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	150	14	46.52	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	15	304.24	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	15	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	15	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	NS	N	NS	Excessive algal growth in water	5c
Public Water Supply Use	Surface Water HH criteria for PWS average	Fluoride	12/01/15	11/30/22	4	14	0.15	0	.	AD	FS	N	FS		
		Nitrate	12/01/15	11/30/22	10	15	0.06	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	13	1.6	0	.	LD	NC	N	NC		

Seg ID: 1420 - Pecan Bayou Above Lake Brownwood

AU ID: 1420_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	15	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	15	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	500	15	174.47	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	500	15	114.53	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1500	16	640.66	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	15	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	15	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	26	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	27	.	1	2.05	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	26	.	6	20.4	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	26	.	0	.	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	15	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	15	0.36	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	15	0.19	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	14	49.36	0	.	LD	NC	N	NC		

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Seg ID: 1420 - Pecan Bayou Above Lake Brownwood

AU ID: 1420_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	1500	16	640.66	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	500	15	174.47	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	500	15	114.53	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Fluoride	12/01/15	11/30/22	4	15	0.19	0	.	AD	FS	N	FS		
		Nitrate	12/01/15	11/30/22	10	15	0.36	0	.	AD	FS	N	FS		

Seg ID: 1421 - Concho River

AU ID: 1421_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	22	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	22	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	425	177	201.3	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	775	177	408.7	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1600	213	1220.06	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	21	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	21	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	20	.	15	51.83	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	23	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	24	.	12	8.52	AD	CS	N	CS	Nitrate in water	
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	22	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	177	3.06	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	23	25.07	0	.	AD	FS	N	FS		

Seg ID: 1421 - Concho River

AU ID: 1421_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	23	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	23	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	425	177	201.3	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	775	177	408.7	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1600	213	1220.06	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	22	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	22	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	25	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	25	.	20	8.24	AD	CS	N	CS	Nitrate in water	
		Water Temperature	Water temperature	12/01/15	11/30/22	32.2	23	.	0	.	AD	FS	N	FS	
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	177	3.06	0	.	AD	FS	N	FS		

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Seg ID: 1421 - Concho River

AU ID: 1421_03

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	24	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	24	.	3	4.47	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	425	177	201.3	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	775	177	408.7	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1600	213	1220.06	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	23	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	23	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	26	.	15	10.91	AD	CS	N	CS	Nitrate in water	
		Chlorophyll-a	12/01/15	11/30/22	14.1	26	.	12	59.62	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	26	.	0	.	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	24	.	1	34.8	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	177	3.06	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	26	58.72	0	.	AD	FS	N	FS		

Seg ID: 1421 - Concho River

AU ID: 1421_04

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	1600	213	1220.06	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	425	177	201.3	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	775	177	408.7	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Nitrate in water	
		Chlorophyll-a	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Chlorophyll-a in water	
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	177	3.06	0	.	AD	FS	N	FS		

Seg ID: 1421 - Concho River

AU ID: 1421_05

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Depressed dissolved oxygen in water	
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	775	177	408.7	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	425	177	201.3	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1600	213	1220.06	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	177	3.06	0	.	AD	FS	N	FS		

Seg ID: 1421 - Concho River

AU ID: 1421_06

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	26	.	1	2.4	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	26	.	4	4	AD	CS	N	CS	Depressed dissolved oxygen in water	
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	1600	213	1220.06	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	425	177	201.3	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	775	177	408.7	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	25	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	25	.	0	.	AD	FS	N	FS		

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**Seg ID: 1421 - Concho River
AU ID: 1421_06**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	2	.	1	25	ID	NA	N	NA		
		Total phosphorus	12/01/15	11/30/22	0.69	27	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	27	.	8	3.36	AD	CS	N	CS	Nitrate in water	
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	26	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	177	3.06	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	26	26.11	0	.	AD	FS	N	FS		

**Seg ID: 1421 - Concho River
AU ID: 1421_07**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen 24hr average	Dissolved oxygen 24hr Avg	12/01/15	11/30/22	5	13	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen 24hr minimum	Dissolved oxygen 24hr Min	12/01/15	11/30/22	3	13	.	2	2.55	AD	FS	N	FS		
	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	25	.	0	.	SM	FS	N	NA		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	25	.	1	3.4	SM	NC	N	NA		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	425	177	201.3	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	775	177	408.7	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1600	213	1220.06	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	24	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	24	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	27	.	22	31.56	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	27	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	27	.	1	2.44	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	25	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	177	3.06	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	27	47.96	0	.	AD	FS	N	FS		

**Seg ID: 1421 - Concho River
AU ID: 1421_08**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen 24hr average	Dissolved oxygen 24hr Avg	12/01/15	11/30/22	5	25	.	5	3.92	AD	NS	N	NS	Depressed dissolved oxygen in water	5c
	Dissolved Oxygen 24hr minimum	Dissolved oxygen 24hr Min	12/01/15	11/30/22	3	25	.	7	1.91	AD	NS	N	NS	Depressed dissolved oxygen in water	5c
	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	20	.	0	.	SM	FS	N	NA		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	20	.	1	4.3	SM	NC	N	NA		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	425	177	201.3	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	775	177	408.7	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1600	213	1220.06	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	20	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	20	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	27	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	1	.	0	.	ID	NA	N	NA		
		Nitrate	12/01/15	11/30/22	1.95	27	.	8	4.35	AD	CS	N	CS	Nitrate in water	
Chlorophyll-a	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Chlorophyll-a in water			
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	20	.	1	32.4	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	177	3.06	0	.	AD	FS	N	FS		

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**Seg ID: 1421 - Concho River
AU ID: 1421_08**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	24	98.65	0	.	AD	FS	N	FS		

**Seg ID: 1421 - Concho River
AU ID: 1421_09**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	26	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	26	.	1	4.3	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	425	177	201.3	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	775	177	408.7	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1600	213	1220.06	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	25	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	25	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	26	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	26	.	0	.	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	26	.	1	32.5	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	177	3.06	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	26	14.01	0	.	AD	FS	N	FS		

**Seg ID: 1421A - Dry Hollow Creek
AU ID: 1421A_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	23	.	1	2	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	23	.	1	2	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	23	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	23	.	20	14.41	AD	CS	N	CS	Nitrate in water	

**Seg ID: 1421B - Kickapoo Creek
AU ID: 1421B_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	1.5	12	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	2	12	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	12	.	7	7.22	AD	CS	N	CS	Nitrate in water	
		Total phosphorus	12/01/15	11/30/22	0.69	12	.	0	.	AD	NC	N	NC		

**Seg ID: 1421C - Lipan Creek
AU ID: 1421C_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	1.5	15	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	2	15	.	0	.	AD	NC	N	NC		

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**Seg ID: 1421C - Lipan Creek
AU ID: 1421C_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	15	.	13	34.01	AD	CS	N	CS	Nitrate in water	
		Total phosphorus	12/01/15	11/30/22	0.69	15	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Chlorophyll-a in water	

**Seg ID: 1422 - Lake Nasworthy
AU ID: 1422_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	41	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	41	.	2	4.84	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	400	61	49.33	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	450	58	166.78	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1500	65	624.32	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	39	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	39	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	33.9	43	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	62	0.04	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	20	0.3	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	39	5.52	0	.	AD	FS	N	FS		

**Seg ID: 1422 - Lake Nasworthy
AU ID: 1422_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	21	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	21	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	400	61	49.33	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	450	58	166.78	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1500	65	624.32	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	20	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	20	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	33.9	22	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	62	0.04	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	20	0.3	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	20	5.35	0	.	AD	FS	N	FS		

**Seg ID: 1423 - Twin Buttes Reservoir
AU ID: 1423_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	21	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	21	.	1	3.91	AD	NC	N	NC		

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**Seg ID: 1423 - Twin Buttes Reservoir
AU ID: 1423_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	38	32.43	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	200	38	94.63	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	700	38	434.58	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	20	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	20	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Narrative Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	NC	N	NC		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	21	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	38	0.24	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	13	0.22	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	18	1.08	0	.	LD	NC	N	NC		

**Seg ID: 1423 - Twin Buttes Reservoir
AU ID: 1423_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	17	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	17	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	38	32.43	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	200	38	94.63	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	700	38	434.58	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	16	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	16	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Narrative Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	NC	N	NC		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	17	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	38	0.24	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	13	0.22	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	16	2.07	0	.	LD	NC	N	NC		

**Seg ID: 1423A - Spring Creek
AU ID: 1423A_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	2	26	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	3	26	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	26	.	4	42.6	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	26	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	26	.	1	2.32	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	26	48.39	0	.	AD	FS	N	FS		

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Seg ID: 1423A - Spring Creek

AU ID: 1423A_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	27	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	27	.	1	4.1	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	27	.	8	2.4	AD	CS	N	CS	Nitrate in water	
		Total phosphorus	12/01/15	11/30/22	0.69	27	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	27	22.97	0	.	AD	FS	N	FS		

Seg ID: 1423B - Dove Creek

AU ID: 1423B_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	19	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	19	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	25	.	1	3.94	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	25	.	1	42.3	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	25	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	25	30.66	0	.	AD	FS	N	FS		

Seg ID: 1424 - Middle Concho/South Concho River

AU ID: 1424_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	52	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	52	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	700	59	427.64	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	150	59	37.85	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	150	59	22.58	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	50	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	50	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	26	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	53	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	52	.	22	2.27	AD	CS	N	CS	Nitrate in water	
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	52	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	58	1.63	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	26	48.23	0	.	AD	FS	N	FS		

Seg ID: 1424 - Middle Concho/South Concho River

AU ID: 1424_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	6	.	0	.	LD	NC	N	NC		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	6	.	0	.	LD	NC	N	NC		

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**Seg ID: 1424 - Middle Concho/South Concho River
AU ID: 1424_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	150	59	22.58	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	150	59	37.85	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	700	59	427.64	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	6	.	0	.	LD	NC	N	NC		
	Low pH	pH	12/01/15	11/30/22	6.5	6	.	0	.	LD	NC	N	NC		
	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	5	.	0	.	LD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	6	.	0	.	LD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	6	.	0	.	LD	NC	N	NC			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	58	1.63	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	5	51.47	0	.	ID	NA	N	NA		

**Seg ID: 1424 - Middle Concho/South Concho River
AU ID: 1424_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	150	59	37.85	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	150	59	22.58	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	700	59	427.64	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	58	1.63	0	.	AD	FS	N	FS		

**Seg ID: 1424A - West Rocky Creek
AU ID: 1424A_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	13	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	13	.	4	4.33	AD	CS	N	CS	Depressed dissolved oxygen in water	
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	16	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	16	.	0	.	AD	NC	N	NC		

**Seg ID: 1424B - Cold Creek
AU ID: 1424B_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	19	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	19	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	19	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	19	.	6	2.17	AD	CS	N	CS	Nitrate in water	

**Seg ID: 1425 - O. C. Fisher Lake
AU ID: 1425_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	18	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	18	.	0	.	AD	NC	N	NC		

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**Seg ID: 1425 - O. C. Fisher Lake
AU ID: 1425_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	150	18	28.63	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	150	18	68.53	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	700	18	371.8	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	17	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	17	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Narrative Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	NC	N	NC		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	19	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	17	0.03	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	5	0.2	0	.	LD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	11/01/13	11/30/22	126	20	4.54	0	.	AD	FS	N	FS		

**Seg ID: 1425A - North Concho River
AU ID: 1425A_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	2	44	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	3	44	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	43	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	26	.	15	29.19	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	43	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	44	22.82	0	.	AD	FS	N	FS		

**Seg ID: 1425A - North Concho River
AU ID: 1425A_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	2	17	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	3	17	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	17	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	1	.	0	.	ID	NA	N	NA		
		Total phosphorus	12/01/15	11/30/22	0.69	16	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	05/01/14	11/30/22	126	20	101.69	0	.	AD	FS	N	FS		

**Seg ID: 1425A - North Concho River
AU ID: 1425A_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	2	15	.	1	1.5	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	3	15	.	2	2	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	14	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	14	.	0	.	AD	NC	N	NC		

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**Seg ID: 1426 - Colorado River Below E. V. Spence Reservoir
AU ID: 1426_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	14	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	14	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	980	77	1126.05	1	.	AD	NS	N	NS	Sulfate in water	5b
		Chloride	12/01/15	11/30/22	610	76	541.63	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	2000	79	2344.93	1	.	AD	NS	N	NS	Total dissolved solids in water	4a
	Fish Kill Reports	Fish Kill Reports	12/01/15	11/30/22	.	0	.	.	.	OE	CN	N	CN	Fish kill in water	
	High pH	pH	12/01/15	11/30/22	9	13	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	13	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	16	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	16	.	1	2.31	AD	NC	N	NC		
Chlorophyll-a		12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Chlorophyll-a in water		
Water Temperature	Water temperature	12/01/15	11/30/22	32.8	14	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	76	0.59	0	.	AD	FS	N	FS		

**Seg ID: 1426 - Colorado River Below E. V. Spence Reservoir
AU ID: 1426_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	45	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	45	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	980	77	1126.05	1	.	AD	NS	N	NS	Sulfate in water	5b
		Chloride	12/01/15	11/30/22	610	76	541.63	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	2000	79	2344.93	1	.	AD	NS	N	NS	Total dissolved solids in water	4a
	Fish Kill Reports	Fish Kill Reports	12/01/15	11/30/22	.	0	.	.	.	OE	CN	N	CN	Fish kill in water	
	High pH	pH	12/01/15	11/30/22	9	43	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	43	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	24	.	8	28.98	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	48	.	0	.	AD	NC	N	NC		
Nitrate		12/01/15	11/30/22	1.95	47	.	1	12.9	AD	NC	N	NC			
Water Temperature	Water temperature	12/01/15	11/30/22	32.8	45	.	1	34.9	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	76	0.59	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	48	60.96	0	.	AD	FS	N	FS		

**Seg ID: 1426 - Colorado River Below E. V. Spence Reservoir
AU ID: 1426_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Chloride	12/01/15	11/30/22	610	76	541.63	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	980	77	1126.05	1	.	AD	NS	N	NS	Sulfate in water	5b
		Total dissolved solids	12/01/15	11/30/22	2000	79	2344.93	1	.	AD	NS	N	NS	Total dissolved solids in water	4a
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Chlorophyll-a in water	
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	76	0.59	0	.	AD	FS	N	FS		

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Seg ID: 1426 - Colorado River Below E. V. Spence Reservoir

AU ID: 1426_04

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	15	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	15	.	1	4.3	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	980	77	1126.05	1	.	AD	NS	N	NS	Sulfate in water	5b
		Chloride	12/01/15	11/30/22	610	76	541.63	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	2000	79	2344.93	1	.	AD	NS	N	NS	Total dissolved solids in water	4a
	High pH	pH	12/01/15	11/30/22	9	15	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	15	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	18	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	18	.	0	.	AD	NC	N	NC		
Chlorophyll-a		12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Chlorophyll-a in water		
Water Temperature	Water temperature	12/01/15	11/30/22	32.8	15	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	76	0.59	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	3	91.22	0	.	ID	NA	N	NA		

Seg ID: 1426A - Oak Creek Reservoir

AU ID: 1426A_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	21	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	21	.	0	.	AD	NC	N	NC		
General Use	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	20	0.05	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	7	0.33	0	.	LD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	21	0.89	0	.	AD	FS	N	FS		

Seg ID: 1426B - Elm Creek

AU ID: 1426B_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	06/01/15	11/30/22	3	10	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	06/01/15	11/30/22	5	10	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Chlorophyll-a	11/01/15	11/30/22	14.1	10	.	9	30.99	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	11/01/15	11/30/22	0.69	10	.	0	.	AD	NC	N	NC		
		Nitrate	11/01/15	11/30/22	1.95	10	.	2	4.17	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	7	18.13	0	.	LD	NC	N	NC		

Seg ID: 1426B - Elm Creek

AU ID: 1426B_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	2	15	.	1	1.9	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	3	15	.	1	1.9	AD	NC	N	NC		

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**Seg ID: 1426B - Elm Creek
AU ID: 1426B_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	15	.	4	4.15	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	15	.	10	41.52	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	15	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	15	3.81	0	.	LD	NC	N	NC		

**Seg ID: 1426C - Bluff Creek
AU ID: 1426C_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	24	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	24	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	24	.	19	7.15	AD	CS	N	CS	Nitrate in water	
		Total phosphorus	12/01/15	11/30/22	0.69	25	.	1	5.59	AD	NC	N	NC		

**Seg ID: 1426D - Coyote Creek
AU ID: 1426D_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	24	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	24	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	25	.	14	5.46	AD	CS	N	CS	Nitrate in water	
		Total phosphorus	12/01/15	11/30/22	0.69	25	.	0	.	AD	NC	N	NC		

**Seg ID: 1427 - Onion Creek
AU ID: 1427_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	46	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	46	.	1	4.9	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	62	50.38	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	61	28.45	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	123	360.38	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	46	.	0	.	AD	FS	N	FS		
		Low pH	pH	12/01/15	11/30/22	6.5	46	.	1	5.7	AD	FS	N	FS	
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	40	.	2	18.6	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	49	.	1	1.14	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	47	.	1	0.35	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	47	.	0	.	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	46	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Fluoride	12/01/15	11/30/22	4	24	0.15	0	.	AD	FS	N	FS		
		Nitrate	12/01/15	11/30/22	10	119	0.31	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	47	33.6	0	.	AD	FS	N	FS		

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**Seg ID: 1427 - Onion Creek
AU ID: 1427_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	38	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	38	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	62	50.38	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	61	28.45	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	123	360.38	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	40	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	40	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	53	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	52	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	53	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	21	.	2	23.45	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	40	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	119	0.31	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	24	0.15	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	40	30.37	0	.	AD	FS	N	FS		

**Seg ID: 1427 - Onion Creek
AU ID: 1427_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	27	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	27	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	50	62	50.38	1	.	AD	NS	N	NS	Sulfate in water	5c
		Chloride	12/01/15	11/30/22	50	61	28.45	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	400	123	360.38	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	28	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	28	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	13	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	29	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	29	.	1	0.81	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	28	.	0	.	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	28	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	119	0.31	0	.	AD	FS	N	FS		
		Fluoride	12/01/15	11/30/22	4	24	0.15	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	26	28.32	0	.	AD	FS	N	FS		

**Seg ID: 1427 - Onion Creek
AU ID: 1427_04**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	7	.	0	.	LD	NC	N	NC		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	7	.	0	.	LD	NC	N	NC		

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Seg ID: 1427 - Onion Creek

AU ID: 1427_04

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	50	62	50.38	1	.	AD	NS	N	NS	Sulfate in water	5c
		Chloride	12/01/15	11/30/22	50	61	28.45	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	400	123	360.38	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	7	.	0	.	LD	NC	N	NC		
	Low pH	pH	12/01/15	11/30/22	6.5	7	.	0	.	LD	NC	N	NC		
	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	10	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	10	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	10	.	0	.	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	7	.	0	.	LD	NC	N	NC			
Public Water Supply Use	Surface Water HH criteria for PWS average	Fluoride	12/01/15	11/30/22	4	24	0.15	0	.	AD	FS	N	FS		
		Nitrate	12/01/15	11/30/22	10	119	0.31	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	7	28.8	0	.	LD	NC	N	NC		

Seg ID: 1427A - Slaughter Creek

AU ID: 1427A_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen 24hr average	Dissolved oxygen 24hr Avg	12/01/15	11/30/22	5	4	.	2	2.7	TR	CN	N	NA		
	Dissolved Oxygen 24hr minimum	Dissolved oxygen 24hr Min	12/01/15	11/30/22	3	4	.	2	1.45	TR	CN	N	NA		
	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	26	.	1	2.9	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	26	.	5	4	AD	CS	N	CS	Depressed dissolved oxygen in water	
	Fish Community (Regional)	Fish community	12/01/15	11/30/22	42	4	43.14	.	.	TR	FS	N	NA		
	Habitat	Habitat	12/01/15	11/30/22	20	4	20.5	.	.	TR	NC	N	NA		
	Macrobenthic community (Qualitative)	Macrobenthic community	12/01/15	11/30/22	31	4	33.37	.	.	TR	FS	N	NA		
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	24	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	25	.	5	80.6	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	25	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	24	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	22	85.14	0	.	AD	FS	N	FS		

Seg ID: 1427C - Bear Creek

AU ID: 1427C_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	2	23	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	3	23	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	23	.	1	0.45	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	23	.	2	20.35	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	23	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	18	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	21	50.52	0	.	AD	FS	N	FS		

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Seg ID: 1427G - Granada Hills Tributary to Slaughter Creek

AU ID: 1427G_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Nitrate in water	

Seg ID: 1428 - Colorado River Below Lady Bird Lake (formerly Town Lake)

AU ID: 1428_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	38	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	38	.	0	.	AD	NC	N	NC		
	Fish Community (Regional)	Fish community	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CN	Impaired fish community in water	
	Macrobenthic community (Qualitative)	Macrobenthic community	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CN	Impaired macrobenthic community in water	
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	116	49.54	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	116	41.43	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	116	379.95	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	38	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	38	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	38	.	7	22.74	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	38	.	21	1.23	AD	CS	N	CS	Total Phosphorus in water	
		Ammonia	12/01/15	11/30/22	0.33	37	.	1	0.34	AD	NC	N	NC		
	Nitrate	12/01/15	11/30/22	1.95	37	.	34	6.32	AD	CS	N	CS	Nitrate in water		
Water Temperature	Water temperature	12/01/15	11/30/22	35	38	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	112	3.49	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	38	69.91	0	.	AD	FS	N	FS		

Seg ID: 1428 - Colorado River Below Lady Bird Lake (formerly Town Lake)

AU ID: 1428_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	39	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	39	.	2	5.65	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	116	49.54	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	116	41.43	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	116	379.95	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	39	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	39	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	39	.	4	26.98	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	39	.	18	1.16	AD	CS	N	CS	Total Phosphorus in water	
		Ammonia	12/01/15	11/30/22	0.33	39	.	10	0.4	AD	NC	N	NC		
	Nitrate	12/01/15	11/30/22	1.95	36	.	28	5.4	AD	CS	N	CS	Nitrate in water		
Water Temperature	Water temperature	12/01/15	11/30/22	35	39	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	112	3.49	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	39	73.94	0	.	AD	FS	N	FS		

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Seg ID: 1428 - Colorado River Below Lady Bird Lake (formerly Town Lake)

AU ID: 1428_03

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	39	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	39	.	2	4.65	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	116	49.54	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	116	41.43	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	116	379.95	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	39	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	39	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	39	.	4	21.08	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	38	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	39	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	39	.	0	.	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	35	39	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	112	3.49	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	39	80.36	0	.	AD	FS	N	FS		

Seg ID: 1428B - Walnut Creek

AU ID: 1428B_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	04/01/15	11/30/22	3	5	.	0	.	LD	NC	N	NC		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	04/01/15	11/30/22	5	5	.	0	.	LD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	04/01/15	11/30/22	1.95	11	.	1	2.06	AD	NC	N	NC		
		Total phosphorus	04/01/15	11/30/22	0.69	11	.	0	.	AD	NC	N	NC		
		Ammonia	04/01/15	11/30/22	0.33	11	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	9	29.59	0	.	LD	NC	N	NC		

Seg ID: 1428B - Walnut Creek

AU ID: 1428B_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CN	Bacteria in water	

Seg ID: 1428B - Walnut Creek

AU ID: 1428B_03

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	04/01/15	11/30/22	3	10	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	04/01/15	11/30/22	5	10	.	1	4.4	AD	NC	N	NC		
	Habitat	Habitat	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Impaired habitat in water	
General Use	Nutrient Screening Levels	Nitrate	04/01/15	11/30/22	1.95	11	.	1	2.48	AD	NC	N	NC		
		Total phosphorus	04/01/15	11/30/22	0.69	11	.	0	.	AD	NC	N	NC		
		Ammonia	04/01/15	11/30/22	0.33	11	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	6	81.8	0	.	ID	NA	N	NA		

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Seg ID: 1428B - Walnut Creek

AU ID: 1428B_04

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	04/01/15	11/30/22	3	10	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	04/01/15	11/30/22	5	10	.	1	4.9	AD	NC	N	NC		
	Macrobenthic community (Qualitative)	Macrobenthic community	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CN	Impaired macrobenthic community in water	
General Use	Nutrient Screening Levels	Nitrate	04/01/15	11/30/22	1.95	10	.	1	2.52	AD	NC	N	NC		
		Total phosphorus	04/01/15	11/30/22	0.69	10	.	0	.	AD	NC	N	NC		
		Ammonia	04/01/15	11/30/22	0.33	10	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	7	128.48	1	.	LD	CN	N	CN	Bacteria in water	

Seg ID: 1428B - Walnut Creek

AU ID: 1428B_05

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	2	18	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	3	18	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	19	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	19	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	19	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	09/01/15	11/30/22	126	20	74.98	0	.	AD	FS	N	FS		

Seg ID: 1428C - Gilleland Creek

AU ID: 1428C_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	42	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	42	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	41	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	40	.	34	6.8	AD	CS	N	CS	Nitrate in water	
		Total phosphorus	12/01/15	11/30/22	0.69	42	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	42	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	42	203.87	1	.	AD	NS	N	NS	Bacteria in water	4a

Seg ID: 1428C - Gilleland Creek

AU ID: 1428C_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	12	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	12	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	12	.	12	8.64	AD	CS	N	CS	Nitrate in water	
		Total phosphorus	12/01/15	11/30/22	0.69	12	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	12	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	12	79.82	0	.	LD	NC	N	NC		

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**Seg ID: 1428C - Gilleland Creek
AU ID: 1428C_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	12	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	12	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	12	.	11	8.44	AD	CS	N	CS	Nitrate in water	
		Total phosphorus	12/01/15	11/30/22	0.69	12	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	12	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	12	151.78	1	.	LD	CN	Y	NS	Bacteria in water	4a

**Seg ID: 1428C - Gilleland Creek
AU ID: 1428C_04**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	30	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	30	.	2	4	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	29	.	3	1.22	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	27	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	30	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	27	.	19	6.7	AD	CS	N	CS	Nitrate in water	
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	27	462.11	1	.	AD	NS	N	NS	Bacteria in water	4a

**Seg ID: 1428K - Walter E. Long Lake
AU ID: 1428K_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat	
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	54	.	0	.	AD	FS	N	FS			
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	54	.	0	.	AD	NC	N	NC			
	Toxic Substances in sediment		Fluorene	12/01/15	11/30/22	536	4	.	0	.	LD	NC	N	NC		
			Fluoranthene	12/01/15	11/30/22	2230	4	.	0	.	LD	NC	N	NC		
			Dieldrin	12/01/15	11/30/22	61.8	4	.	0	.	LD	NC	N	NC		
			Dibenz(a,h)anthracene	12/01/15	11/30/22	135	4	.	0	.	LD	NC	N	NC		
			Chrysene	12/01/15	11/30/22	1290	4	.	0	.	LD	NC	N	NC		
			Toxaphene	12/01/15	11/30/22	32	4	.	0	.	LD	NC	N	NC		
			alpha-BHC	12/01/15	11/30/22	100	4	.	0	.	LD	NC	N	NC		
			Pyrene	12/01/15	11/30/22	1520	4	.	0	.	LD	NC	N	NC		
			Phenanthrene	12/01/15	11/30/22	1170	4	.	0	.	LD	NC	N	NC		
			PCBs	12/01/15	11/30/22	676	4	.	0	.	LD	NC	N	NC		
			Diazinon	12/01/15	11/30/22	7.3	2	.	0	.	ID	NA	N	NA		
			Naphthalene	12/01/15	11/30/22	561	4	.	0	.	LD	NC	N	NC		
			Chlordane	12/01/15	11/30/22	17.6	4	.	0	.	LD	NC	N	NC		
			Benzo(a)pyrene	12/01/15	11/30/22	1450	4	.	0	.	LD	NC	N	NC		
			Anthracene	12/01/15	11/30/22	845	4	.	0	.	LD	NC	N	NC		
			Aldrin	12/01/15	11/30/22	80	4	.	0	.	LD	NC	N	NC		
			Acenaphthylene	12/01/15	11/30/22	128	4	.	0	.	LD	NC	N	NC		
			Endrin	12/01/15	11/30/22	207	4	.	0	.	LD	NC	N	NC		
			Acenaphthene	12/01/15	11/30/22	88.9	4	.	0	.	LD	NC	N	NC		
			Iron	12/01/15	11/30/22	40000	4	.	0	.	LD	NC	N	NC		
			Zinc	12/01/15	11/30/22	459	4	.	0	.	LD	NC	N	NC		
			Silver	12/01/15	11/30/22	1.7	4	.	0	.	LD	NC	N	NC		
			Nickel	12/01/15	11/30/22	48.6	4	.	0	.	LD	NC	N	NC		
			Mercury	12/01/15	11/30/22	1.06	4	.	0	.	LD	NC	N	NC		
			Lead	12/01/15	11/30/22	128	4	.	0	.	LD	NC	N	NC		

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Seg ID: 1428K - Walter E. Long Lake

AU ID: 1428K_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Toxic Substances in sediment	Copper	12/01/15	11/30/22	149	4	.	0	.	LD	NC	N	NC		
		Chromium	12/01/15	11/30/22	111	4	.	0	.	LD	NC	N	NC		
		Cadmium	12/01/15	11/30/22	4.98	4	.	0	.	LD	NC	N	NC		
		Arsenic	12/01/15	11/30/22	33	4	.	0	.	LD	NC	N	NC		
		Pentachlorophenol (PCP)	12/01/15	11/30/22	1200	4	.	0	.	LD	NC	N	NC		
General Use	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	26.7	51	.	19	37.51	JQ	NA	N	NA		
		Total phosphorus	12/01/15	11/30/22	0.2	50	.	0	.	JQ	NA	N	NA		
		Ammonia	12/01/15	11/30/22	0.11	51	.	4	0.21	JQ	NA	N	NA		
		Nitrate	12/01/15	11/30/22	0.37	51	.	0	.	JQ	NA	N	NA		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	51	4.12	0	.	AD	FS	N	FS		

Seg ID: 1429 - Lady Bird Lake (formerly Town Lake)

AU ID: 1429_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat	
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	82	.	0	.	AD	FS	N	FS			
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	82	.	0	.	AD	NC	N	NC			
	Toxic Substances in sediment	Pentachlorophenol (PCP)	Pentachlorophenol (PCP)	12/01/15	11/30/22	1200	5	.	0	.	LD	NC	N	NC		
		Toxaphene	Toxaphene	12/01/15	11/30/22	32	5	.	0	.	LD	NC	N	NC		
		alpha-BHC	alpha-BHC	12/01/15	11/30/22	100	5	.	0	.	LD	NC	N	NC		
		Pyrene	Pyrene	12/01/15	11/30/22	1520	5	.	0	.	LD	NC	N	NC		
		Phenanthrene	Phenanthrene	12/01/15	11/30/22	1170	5	.	0	.	LD	NC	N	NC		
		PCBs	PCBs	12/01/15	11/30/22	676	4	.	0	.	LD	NC	N	NC		
		Naphthalene	Naphthalene	12/01/15	11/30/22	561	5	.	0	.	LD	NC	N	NC		
		Fluoranthene	Fluoranthene	12/01/15	11/30/22	2230	5	.	0	.	LD	NC	N	NC		
		Fluorene	Fluorene	12/01/15	11/30/22	536	5	.	0	.	LD	NC	N	NC		
		Endrin	Endrin	12/01/15	11/30/22	207	5	.	0	.	LD	NC	N	NC		
		Dieldrin	Dieldrin	12/01/15	11/30/22	61.8	5	.	0	.	LD	NC	N	NC		
		Dibenz(a,h)anthracene	Dibenz(a,h)anthracene	12/01/15	11/30/22	135	5	.	0	.	LD	NC	N	NC		
		Chrysene	Chrysene	12/01/15	11/30/22	1290	5	.	0	.	LD	NC	N	NC		
		Chlordane	Chlordane	12/01/15	11/30/22	17.6	5	.	0	.	LD	NC	N	NC		
		Benzo(a)pyrene	Benzo(a)pyrene	12/01/15	11/30/22	1450	5	.	0	.	LD	NC	N	NC		
		Anthracene	Anthracene	12/01/15	11/30/22	845	5	.	0	.	LD	NC	N	NC		
		Aldrin	Aldrin	12/01/15	11/30/22	80	5	.	0	.	LD	NC	N	NC		
		Acenaphthylene	Acenaphthylene	12/01/15	11/30/22	128	5	.	0	.	LD	NC	N	NC		
		Acenaphthene	Acenaphthene	12/01/15	11/30/22	88.9	5	.	0	.	LD	NC	N	NC		
		Iron	Iron	12/01/15	11/30/22	40000	5	.	0	.	LD	NC	N	NC		
		Zinc	Zinc	12/01/15	11/30/22	459	5	.	0	.	LD	NC	N	NC		
		Silver	Silver	12/01/15	11/30/22	1.7	5	.	0	.	LD	NC	N	NC		
		Nickel	Nickel	12/01/15	11/30/22	48.6	5	.	0	.	LD	NC	N	NC		
		Mercury	Mercury	12/01/15	11/30/22	1.06	5	.	0	.	LD	NC	N	NC		
		Lead	Lead	12/01/15	11/30/22	128	5	.	0	.	LD	NC	N	NC		
		Copper	Copper	12/01/15	11/30/22	149	5	.	0	.	LD	NC	N	NC		
		Chromium	Chromium	12/01/15	11/30/22	111	5	.	0	.	LD	NC	N	NC		
	Cadmium	Cadmium	12/01/15	11/30/22	4.98	5	.	0	.	LD	NC	N	NC			
Arsenic	Arsenic	12/01/15	11/30/22	33	5	.	0	.	LD	NC	N	NC				
Diazinon	Diazinon	12/01/15	11/30/22	7.3	3	.	0	.	ID	NA	N	NA				
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	400	115	316.4	0	.	AD	FS	N	FS			
		Sulfate	12/01/15	11/30/22	75	106	26.76	0	.	AD	FS	N	FS			
	High pH	pH	12/01/15	11/30/22	9	82	.	0	.	AD	FS	N	FS			
	Low pH	pH	12/01/15	11/30/22	6.5	82	.	0	.	AD	FS	N	FS			
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	AD	FS	N	FS			

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**Seg ID: 1429 - Lady Bird Lake (formerly Town Lake)
AU ID: 1429_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	82	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	144	0.29	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	75	19.63	0	.	AD	FS	N	FS		

**Seg ID: 1429 - Lady Bird Lake (formerly Town Lake)
AU ID: 1429_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	33	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	33	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	75	106	26.76	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	400	115	316.4	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	33	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	33	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	33	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	144	0.29	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	30	7.36	0	.	AD	FS	N	FS		

**Seg ID: 1429C - Waller Creek
AU ID: 1429C_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	27	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	27	.	0	.	AD	NC	N	NC		
	Macrobenthic community (Qualitative)	Macrobenthic community	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	NS	Impaired macrobenthic community in water	5c
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	26	.	2	2.29	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	26	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	26	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	26	728.03	1	.	AD	NS	N	NS	Bacteria in water	5c

**Seg ID: 1429C - Waller Creek
AU ID: 1429C_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat	
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	2	27	.	0	.	AD	FS	N	FS			
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	3	27	.	0	.	AD	NC	N	NC			
	Toxic Substances in sediment	Benzo(a)pyrene	Benzo(a)pyrene	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Benzo(a)pyrene in sediment	
		Pyrene	Pyrene	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Pyrene in sediment	
		Phenanthrene	Phenanthrene	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Phenanthrene in sediment	
		Lead	Lead	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Lead in sediment	
		Fluoranthene	Fluoranthene	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Fluoranthene in sediment	
		Dibenz(a,h)anthracene	Dibenz(a,h)anthracene	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Dibenz(a,h)anthracene in sediment	
		Chrysene	Chrysene	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Chrysene in sediment	
Benzo(a)anthracene	Benzo(a)anthracene	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Benzo(a)anthracene in sediment			

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Seg ID: 1429C - Waller Creek

AU ID: 1429C_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Fish Kill Reports	Fish Kill Reports	12/01/15	11/30/22	.	0	.	.	.	OE	CN	N	CN	Fish kill in water	
	Nutrient Screening Levels	Total phosphorus	12/01/15	11/30/22	0.69	26	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	26	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	26	.	6	2.89	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	26	687.42	1	.	AD	NS	N	NS	Bacteria in water	4a

Seg ID: 1429C - Waller Creek

AU ID: 1429C_03

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	1.5	22	.	1	0.4	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	2	22	.	1	0.4	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	23	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	23	.	1	2.04	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	23	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	23	529.97	1	.	AD	NS	N	NS	Bacteria in water	4a

Seg ID: 1429D - East Bouldin Creek

AU ID: 1429D_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Toxic Substances in sediment	Dibenz(a,h)anthracene	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Dibenz(a,h)anthracene in sediment	
		Phenanthrene	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Phenanthrene in sediment	
		Lead	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Lead in sediment	
		Fluoranthene	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Fluoranthene in sediment	
		Pyrene	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Pyrene in sediment	
		Chrysene	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Chrysene in sediment	
		Cadmium	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Cadmium in sediment	
		Benzo(a)anthracene	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Benzo(a)anthracene in sediment	

Seg ID: 1430 - Barton Creek

AU ID: 1430_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	500	49	405.19	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	44	0.39	0	.	AD	FS	N	FS		

Seg ID: 1430 - Barton Creek

AU ID: 1430_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	09/01/15	11/30/22	3	10	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	09/01/15	11/30/22	5	10	.	0	.	AD	NC	N	NC		
	LOE Toxic Sediment condition	Sediment toxicity (LOE)	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CN	Toxicity in sediment	

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**Seg ID: 1430 - Barton Creek
AU ID: 1430_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat	
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	500	49	405.19	0	.	AD	FS	N	FS			
	High pH	pH	09/01/15	11/30/22	9	10	.	0	.	AD	FS	N	FS			
	Low pH	pH	09/01/15	11/30/22	6.5	10	.	0	.	AD	FS	N	FS			
	Nutrient Screening Levels	Total phosphorus		07/01/15	11/30/22	0.69	10	.	0	.	AD	NC	N	NC		
		Ammonia		07/01/15	11/30/22	0.33	10	.	0	.	AD	NC	N	NC		
		Nitrate		07/01/15	11/30/22	1.95	10	.	0	.	AD	NC	N	NC		
	Water Temperature	Water temperature	09/01/15	11/30/22	32.2	10	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	44	0.39	0	.	AD	FS	N	FS			
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	8	50.72	0	.	LD	NC	N	NC			

**Seg ID: 1430 - Barton Creek
AU ID: 1430_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat	
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	29	.	0	.	AD	FS	N	FS			
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	29	.	0	.	AD	NC	N	NC			
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	500	49	405.19	0	.	AD	FS	N	FS			
	High pH	pH	12/01/15	11/30/22	9	30	.	0	.	AD	FS	N	FS			
	Low pH	pH	12/01/15	11/30/22	6.5	30	.	0	.	AD	FS	N	FS			
	Nutrient Screening Levels	Nitrate		12/01/15	11/30/22	1.95	28	.	0	.	AD	NC	N	NC		
		Total phosphorus		12/01/15	11/30/22	0.69	28	.	0	.	AD	NC	N	NC		
		Ammonia		12/01/15	11/30/22	0.33	28	.	0	.	AD	NC	N	NC		
	Water Temperature	Water temperature	12/01/15	11/30/22	32.2	30	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	44	0.39	0	.	AD	FS	N	FS			
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	28	15.93	0	.	AD	FS	N	FS			

**Seg ID: 1430 - Barton Creek
AU ID: 1430_04**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat	
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	09/01/15	11/30/22	3	10	.	0	.	AD	FS	N	FS			
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	09/01/15	11/30/22	5	10	.	1	4.3	AD	NC	N	NC			
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	500	49	405.19	0	.	AD	FS	N	FS			
	High pH	pH	09/01/15	11/30/22	9	10	.	0	.	AD	FS	N	FS			
	Low pH	pH	09/01/15	11/30/22	6.5	10	.	0	.	AD	FS	N	FS			
	Nutrient Screening Levels	Ammonia		07/01/15	11/30/22	0.33	10	.	0	.	AD	NC	N	NC		
		Total phosphorus		07/01/15	11/30/22	0.69	10	.	0	.	AD	NC	N	NC		
		Nitrate		07/01/15	11/30/22	1.95	10	.	0	.	AD	NC	N	NC		
	Water Temperature	Water temperature	09/01/15	11/30/22	32.2	10	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	44	0.39	0	.	AD	FS	N	FS			
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	8	19.25	0	.	LD	NC	N	NC			

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**Seg ID: 1430 - Barton Creek
AU ID: 1430_05**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	500	49	405.19	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	44	0.39	0	.	AD	FS	N	FS		

**Seg ID: 1430A - Barton Springs
AU ID: 1430A_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat	
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	68	.	0	.	AD	FS	N	FS			
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	68	.	0	.	AD	NC	N	NC			
	LOE Toxic Sediment condition	Sediment toxicity (LOE)	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CN	Toxicity in sediment		
	Toxic Substances in sediment	Cadmium		10/01/14	11/30/22	4.98	10	.	0	.	AD	NC	N	NC		
		Diazinon		10/01/14	11/30/22	7.3	3	.	0	.	ID	NA	N	NA		
		Pentachlorophenol (PCP)		10/01/14	11/30/22	1200	5	.	0	.	LD	NC	N	NC		
		Toxaphene		10/01/14	11/30/22	32	10	.	0	.	AD	NC	N	NC		
		alpha-BHC		10/01/14	11/30/22	100	10	.	0	.	AD	NC	N	NC		
		Pyrene		10/01/14	11/30/22	1520	10	.	1	1640	AD	NC	N	NC		
		PCBs		10/01/14	11/30/22	676	5	.	0	.	LD	NC	N	NC		
		Naphthalene		10/01/14	11/30/22	561	10	.	0	.	AD	NC	N	NC		
		Fluorene		10/01/14	11/30/22	536	10	.	0	.	AD	NC	N	NC		
		Phenanthrene		10/01/14	11/30/22	1170	10	.	0	.	AD	NC	N	NC		
		Fluoranthene		10/01/14	11/30/22	2230	10	.	0	.	AD	NC	N	NC		
		Endrin		10/01/14	11/30/22	207	10	.	0	.	AD	NC	N	NC		
		Dieldrin		10/01/14	11/30/22	61.8	10	.	0	.	AD	NC	N	NC		
		Dibenz(a,h)anthracene		10/01/14	11/30/22	135	10	.	1	204	AD	NC	N	NC		
		Chrysene		10/01/14	11/30/22	1290	10	.	0	.	AD	NC	N	NC		
		Chlordane		10/01/14	11/30/22	17.6	10	.	0	.	AD	NC	N	NC		
		Benzo(a)pyrene		10/01/14	11/30/22	1450	10	.	0	.	AD	NC	N	NC		
		Anthracene		10/01/14	11/30/22	845	10	.	0	.	AD	NC	N	NC		
		Aldrin		10/01/14	11/30/22	80	10	.	0	.	AD	NC	N	NC		
		Acenaphthylene		10/01/14	11/30/22	128	10	.	0	.	AD	NC	N	NC		
		Acenaphthene		10/01/14	11/30/22	88.9	10	.	0	.	AD	NC	N	NC		
		Iron		10/01/14	11/30/22	40000	10	.	0	.	AD	NC	N	NC		
		Zinc		10/01/14	11/30/22	459	10	.	0	.	AD	NC	N	NC		
		Silver		10/01/14	11/30/22	1.7	10	.	0	.	AD	NC	N	NC		
		Nickel		10/01/14	11/30/22	48.6	10	.	0	.	AD	NC	N	NC		
Mercury		10/01/14	11/30/22	1.06	10	.	0	.	AD	NC	N	NC				
Lead		10/01/14	11/30/22	128	10	.	0	.	AD	NC	N	NC				
Copper		10/01/14	11/30/22	149	10	.	0	.	AD	NC	N	NC				
Chromium		10/01/14	11/30/22	111	10	.	0	.	AD	NC	N	NC				
Arsenic		10/01/14	11/30/22	33	10	.	0	.	AD	NC	N	NC				
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	68	.	0	.	AD	NC	N	NC			
		Nitrate	12/01/15	11/30/22	1.95	68	.	0	.	AD	NC	N	NC			
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	68	10.37	0	.	AD	FS	N	FS			

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Seg ID: 1430B - Tributaries to Barton Creek (unclassified water bodies)

AU ID: 1430B_05

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	07/01/15	11/30/22	2	11	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	07/01/15	11/30/22	3	11	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	07/01/15	11/30/22	1.95	10	.	0	.	AD	NC	N	NC		
		Total phosphorus	07/01/15	11/30/22	0.69	10	.	0	.	AD	NC	N	NC		
		Ammonia	07/01/15	11/30/22	0.33	10	.	0	.	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	07/01/15	11/30/22	126	10	72.88	0	.	LD	NC	N	NC		

Seg ID: 1431 - Mid Pecan Bayou

AU ID: 1431_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	1.5	53	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	2	53	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	120	53	73.09	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	410	54	102.31	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	1100	54	531.94	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	53	.	3	9.2	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	53	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	54	.	31	75.45	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	54	.	34	2.33	AD	CS	N	CS	Total Phosphorus in water	
		Ammonia	12/01/15	11/30/22	0.33	53	.	1	0.38	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	56	.	40	16.76	AD	CS	N	CS	Nitrate in water	
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	53	.	0	.	AD	FS	N	FS			
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	47	93.44	0	.	AD	FS	N	FS		

Seg ID: 1432 - Upper Pecan Bayou

AU ID: 1432_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	26	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	26	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	150	25	47.02	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	200	25	57.43	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	800	26	385.43	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	26	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	26	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	26	.	8	24.95	AD	CS	N	CS	Chlorophyll-a in water	
		Total phosphorus	12/01/15	11/30/22	0.69	26	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	26	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	27	.	0	.	AD	NC	N	NC		
Water Temperature	Water temperature	12/01/15	11/30/22	32.2	26	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Fluoride	12/01/15	11/30/22	4	25	0.14	0	.	AD	FS	N	FS		
		Nitrate	12/01/15	11/30/22	10	25	0.16	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	23	20.27	0	.	AD	FS	N	FS		

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**Seg ID: 1433 - O. H. Ivie Reservoir
AU ID: 1433_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	13	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	13	.	0	.	AD	NC	N	NC		
General Use	High pH	pH	12/01/15	11/30/22	9	12	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	12	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	33.9	13	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	39	0.36	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	11	0.57	0	.	LD	NC	N	NC		

**Seg ID: 1433 - O. H. Ivie Reservoir
AU ID: 1433_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	13	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	13	.	4	4.74	AD	CS	N	CS	Depressed dissolved oxygen in water	
General Use	High pH	pH	12/01/15	11/30/22	9	12	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	12	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	33.9	13	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	39	0.36	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	11	1.71	0	.	LD	NC	N	NC		

**Seg ID: 1433 - O. H. Ivie Reservoir
AU ID: 1433_03**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	13	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	13	.	3	4.56	AD	CS	N	CS	Depressed dissolved oxygen in water	
General Use	High pH	pH	12/01/15	11/30/22	9	12	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	12	.	0	.	AD	FS	N	FS		
	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
	Water Temperature	Water temperature	12/01/15	11/30/22	33.9	13	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	39	0.36	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	11	1.22	0	.	LD	NC	N	NC		

**Seg ID: 1433 - O. H. Ivie Reservoir
AU ID: 1433_04**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Reservoir Criteria	Nutrients	12/01/15	11/30/22	.	.	.	.	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	39	0.36	0	.	AD	FS	N	FS		

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Seg ID: 1434 - Colorado River above La Grange

AU ID: 1434_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	4	39	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	6	39	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	116	59.82	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	115	47.14	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	116	400.99	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	39	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	39	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	39	.	9	69.61	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	39	.	13	0.94	AD	CS	N	CS	Total Phosphorus in water	
		Ammonia	12/01/15	11/30/22	0.33	38	.	0	.	AD	NC	N	NC		
Nitrate	12/01/15	11/30/22	1.95	37	.	31	4.2	AD	CS	N	CS	Nitrate in water			
Water Temperature	Water temperature	12/01/15	11/30/22	35	39	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	109	4.43	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	39	66.07	0	.	AD	FS	N	FS		

Seg ID: 1434 - Colorado River above La Grange

AU ID: 1434_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	4	39	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	6	39	.	1	5.8	AD	NC	N	NC		
General Use	Dissolved Solids	Total dissolved solids	12/01/15	11/30/22	500	116	400.99	0	.	AD	FS	N	FS		
		Sulfate	12/01/15	11/30/22	100	116	59.82	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	115	47.14	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	39	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	39	.	0	.	AD	FS	N	FS		
	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	38	.	0	.	AD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	37	.	32	5.07	AD	CS	N	CS	Nitrate in water	
		Total phosphorus	12/01/15	11/30/22	0.69	39	.	16	1.04	AD	CS	N	CS	Total Phosphorus in water	
Chlorophyll-a	12/01/15	11/30/22	14.1	39	.	3	40.37	AD	NC	N	NC				
Water Temperature	Water temperature	12/01/15	11/30/22	35	39	.	0	.	AD	FS	N	FS			
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	109	4.43	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	39	76.33	0	.	AD	FS	N	FS		

Seg ID: 1434 - Colorado River above La Grange

AU ID: 1434_03

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	4	38	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	6	38	.	0	.	AD	NC	N	NC		
General Use	Dissolved Solids	Sulfate	12/01/15	11/30/22	100	116	59.82	0	.	AD	FS	N	FS		
		Chloride	12/01/15	11/30/22	100	115	47.14	0	.	AD	FS	N	FS		
		Total dissolved solids	12/01/15	11/30/22	500	116	400.99	0	.	AD	FS	N	FS		
	High pH	pH	12/01/15	11/30/22	9	38	.	0	.	AD	FS	N	FS		
	Low pH	pH	12/01/15	11/30/22	6.5	38	.	0	.	AD	FS	N	FS		

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Seg ID: 1434 - Colorado River above La Grange

AU ID: 1434_03

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	38	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	38	.	1	19.3	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	38	.	16	1.17	AD	CS	N	CS	Total Phosphorus in water	
		Nitrate	12/01/15	11/30/22	1.95	35	.	31	5.46	AD	CS	N	CS	Nitrate in water	
	Water Temperature	Water temperature	12/01/15	11/30/22	35	38	.	0	.	AD	FS	N	FS		
Public Water Supply Use	Surface Water HH criteria for PWS average	Nitrate	12/01/15	11/30/22	10	109	4.43	0	.	AD	FS	N	FS		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	38	74.44	0	.	AD	FS	N	FS		

Seg ID: 1434B - Cedar Creek

AU ID: 1434B_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Depressed dissolved oxygen in water	
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CN	Bacteria in water	

Seg ID: 1434C - Lake Bastrop

AU ID: 1434C_02

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	42	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	42	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.11	41	.	2	0.45	JQ	NA	N	NA		
		Chlorophyll-a	12/01/15	11/30/22	26.7	42	.	5	41.38	JQ	NA	N	NA		
		Total phosphorus	12/01/15	11/30/22	0.2	42	.	3	0.85	JQ	NA	N	NA		
		Nitrate	12/01/15	11/30/22	0.37	40	.	0	.	JQ	NA	N	NA		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	42	2.77	0	.	AD	FS	N	FS		

Seg ID: 1434D - Wilbarger Creek

AU ID: 1434D_01

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	6	.	0	.	LD	NC	N	NC		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	6	.	1	4.7	LD	NC	N	NC		
General Use	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	14.1	6	.	0	.	LD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	6	.	0	.	LD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	6	.	0	.	LD	NC	N	NC		
		Nitrate	12/01/15	11/30/22	1.95	6	.	1	4.1	LD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	3	312.7	1	.	ID	NA	Y	CN	Bacteria in water	

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**Seg ID: 1434D - Wilbarger Creek
AU ID: 1434D_02**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	3	.	0	.	ID	NA	N	NA		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	3	.	0	.	ID	NA	N	NA		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	3	.	1	2.28	ID	NA	N	NA		
		Ammonia	12/01/15	11/30/22	0.33	3	.	1	0.39	ID	NA	N	NA		
		Total phosphorus	12/01/15	11/30/22	0.69	3	.	0	.	ID	NA	N	NA		
		Chlorophyll-a	12/01/15	11/30/22	14.1	3	.	1	21.4	ID	NA	N	NA		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	3	200.76	1	.	ID	NA	Y	CN	Bacteria in water	

**Seg ID: 1434E - Big Sandy Creek
AU ID: 1434E_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
General Use	Nutrient Screening Levels	Chlorophyll-a	12/01/15	11/30/22	.	0	.	.	.	ID	NA	Y	CS	Chlorophyll-a in water	

**Seg ID: 1434G - Alum Creek
AU ID: 1434G_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	2	18	.	1	1.7	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	3	18	.	1	1.7	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Nitrate	12/01/15	11/30/22	1.95	17	.	0	.	AD	NC	N	NC		
		Total phosphorus	12/01/15	11/30/22	0.69	16	.	0	.	AD	NC	N	NC		
		Ammonia	12/01/15	11/30/22	0.33	16	.	0	.	AD	NC	N	NC		
		Chlorophyll-a	12/01/15	11/30/22	14.1	15	.	2	19.25	AD	NC	N	NC		
Recreation Use	Bacteria Geomean	E. coli	01/01/15	11/30/22	126	20	79.56	0	.	AD	FS	N	FS		

**Seg ID: 1434I - Buescher State Park Lake
AU ID: 1434I_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	10	.	0	.	AD	FS	N	FS		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	10	.	0	.	AD	NC	N	NC		
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.11	10	.	1	0.13	JQ	NA	N	NA		
		Chlorophyll-a	12/01/15	11/30/22	26.7	7	.	0	.	JQ	NA	N	NA		
		Total phosphorus	12/01/15	11/30/22	0.2	8	.	0	.	JQ	NA	N	NA		
		Nitrate	12/01/15	11/30/22	0.37	9	.	0	.	JQ	NA	N	NA		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	9	4.43	0	.	LD	NC	N	NC		

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**Seg ID: 1434J - Piney Creek
AU ID: 1434J_01**

Use	Method	Parameter	Start Date	End Date	Criteria	#Data Assessed	Mean Data Assessed	#Exceedances	Mean Exceedances	DS Qualifier	LOS	CF	Int LOS	TCEQ Cause	Cat
Aquatic Life Use	Dissolved Oxygen 24hr average	Dissolved oxygen 24hr Avg	12/01/15	11/30/22	5	2	.	0	.	ID	NA	N	NA		
	Dissolved Oxygen 24hr minimum	Dissolved oxygen 24hr Min	12/01/15	11/30/22	3	2	.	0	.	ID	NA	N	NA		
	Dissolved Oxygen grab minimum	Dissolved oxygen Grab	12/01/15	11/30/22	3	2	.	0	.	ID	NA	N	NA		
	Dissolved Oxygen grab screening level	Dissolved oxygen Grab	12/01/15	11/30/22	5	2	.	1	4.8	ID	NA	N	NA		
	Fish Community (Regional)	Fish community	12/01/15	11/30/22	42	2	42.06	.	.	AD	FS	N	FS		
	Habitat	Habitat	12/01/15	11/30/22	20	2	21	.	.	AD	NC	N	NC		
	Macrobenthic community (Qualitative)	Macrobenthic community	12/01/15	11/30/22	30	2	28.77	.	.	AD	NS	N	CN	Impaired macrobenthic community in water	
General Use	Nutrient Screening Levels	Ammonia	12/01/15	11/30/22	0.33	2	.	0	.	ID	NA	N	NA		
		Chlorophyll-a	12/01/15	11/30/22	14.1	2	.	0	.	ID	NA	N	NA		
		Total phosphorus	12/01/15	11/30/22	0.69	2	.	1	1.02	ID	NA	N	NA		
		Nitrate	12/01/15	11/30/22	1.95	2	.	0	.	ID	NA	N	NA		
Recreation Use	Bacteria Geomean	E. coli	12/01/15	11/30/22	126	2	31.4	0	.	ID	NA	N	NA		

SOAH DOCKET NO. 582-24-22552
TCEQ DOCKET NO. 2023-1591-MWD

APPLICATION OF CORIX
UTILITIES (TEXAS) INC.
FOR TPDES PERMIT NO.
WQ0013977001

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BEFORE THE STATE OFFICE

OF

ADMINISTRATIVE HEARINGS

EXHIBIT ES-305

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SOAH DOCKET NO. 582-24-22552
TCEQ DOCKET NO. 2023-1591-MWD

APPLICATION OF CORIX
UTILITIES (TEXAS) INC.
FOR TPDES PERMIT NO.
WQ0013977001

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BEFORE THE STATE OFFICE

OF

ADMINISTRATIVE HEARINGS

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