

EPA REVIEW OF 2000 STANDARDS TIMELINE

(updated November 17, 2009)

The Environmental Protection Agency has reviewed the following portions of 30 TAC Chapter 307, Texas Surface Water Quality Standards (standards), which was approved by the Texas Commission on Environmental Quality on August 17, 2000.

- 06/21/01 Segment 0615, Upper Sam Rayburn Reservoir/Angelina River. Site-specific aquatic life use and associated dissolved oxygen criterion in Appendix A disapproved. Dissolved mineral and pH criteria are still under review.
- 12/03/01 Appendix D - all
- 02/27/02 Segment 0230, Pease River, Appendix A - new
Segments 0230 and 0220 - Upper Pease/North Fork Pease River,
Appendix C - segment description changes for Segments 0230 and 0220
Appendix E - facility specific copper WERs approved
 0501 - Sabine River Tidal,
 0505 - Sabine River Above Toledo Bend Reservoir,
 1006 - Houston Ship Channel (HSC) (Tucker Bayou portion and Greens Bayou portion),
 1201 - Brazos River Tidal and
 1242 - Brazos River Above Navasota River (Lake Creek Reservoir)
Appendix E - segment wide copper WERs
 1001 - San Jacinto River Tidal,
 1005 - Houston Ship Channel (HSC)/San Jacinto River Tidal,
 1006 - HSC Tidal,
 1007 - HSC/Buffalo Bayou Tidal,
 1013 - Buffalo Bayou Tidal and
 2427 - San Jacinto Bay
- 10/11/02 Appendix A - site-specific revisions for dissolved mineral criteria for:
 0105 - Rita Blanca Lake,
 0401 - Caddo Lake,
 0512 - Lake Fork Reservoir,
 0606 - Neches River Above Lake Palestine,
 0819 - East Fork Trinity River,
 0838 - Joe Pool Lake,
 0902 - Cedar Bayou Above Tidal,
 1009 - Cypress Creek,
 1221 - Leon River Below Proctor Lake, and
 2004 - Aransas River Above Tidal

- 12/18/03 Appendix A - site-specific revisions for dissolved mineral criteria for:
0228 - Mackenzie Reservoir,
0507 - Lake Tawakoni,
0605 - Lake Palestine,
1002 - Lake Houston,
1004 - West Fork San Jacinto River,
1008 - Spring Creek,
1016 - Greens Bayou Above Tidal,
1108 - Chocolate Bayou Above Tidal,
1229 - Paluxy River/North Paluxy River,
1233 - Hubbard Creek Reservoir,
1240 - White River Lake,
1255 - Upper North Bosque,
1432 - Upper Pecan Bayou,
1502 - Tres Palacios Creek Above Tidal,
1602 - Lavaca River Above Tidal,
1803 - Guadalupe River Below San Marcos,
2303 - International Falcon Reservoir, and
2313 - San Felipe Creek
- 12/18/03 Appendix A - site-specific revision for pH
0507 - Lake Tawakoni
- 12/23/03 U.S. Fish and Wildlife Department did not concur with Nueces River aquatic life use change.
- 6/30/04 307.3(a)
The EPA took no action on the definition of “surface waters in the state,” which included an area out 10.36 miles into the Gulf of Mexico. Under the CWA, Texas according to EPA, does not have jurisdiction to regulate water quality standards more than three miles from the coast. EPA retains CWA authority out past three miles. EPA recognizes the state’s authority to regulate human health criteria out three miles and retains authority beyond three miles.
- 307.6(d) Editorial changes
- 307.6(d)(1) Table 3 - Human health criteria for water and fish, freshwater fish, and saltwater fish for:
- | | |
|----------------------------|-------------------------------------|
| • acrylonitrile | • 4,4' – DDD |
| • aldrin | • 4,4' – DDE |
| • benzene | • 4,4' – DDT |
| • benzo(a)anthracene | • dibromochloromethane |
| • benzo(a)pyrene | • 1,2 – dibromoethane |
| • bis (chloromethyl) ether | • 1,3 – dichloropropene |
| • carbon tetrachloride | • dieldrin |
| • chlorobenzene | • 1,2 – dichloroethane |
| • chloroform | • 1,1 – dichloroethylene |
| • chromium | • dioxins/furans (TCDD equivalents) |
| • chrysene | • endrin |
| • cresols | • heptachlor |

- heptachlor epoxide
- hexachlorobenzene
- hexachlorobutadiene
- hexachlorocyclohexane (alpha)
- hexachlorocyclohexane (beta)
- hexachlorocyclohexane (gamma) (Lindane)
- hexochloroethane
- hexachlorophene
- lead
- methoxychlor
- methyl ethyl ketone
- nitrobenzene
- PCBs (polychlorinated biphenyls)
- pentachlorobenzene
- pentachlorophenol
- 1,2,4,5, tetrachlorobenzene
- tetrachloroethylene
- toxaphene
- 2,4,5 - TP (silvex)
- 2,4,5 - trichlorophenol
- trichlorethylene
- 1,1,1 - trichlorethane
- vinyl chloride

307.6(d)(1)

Removal of human health criteria for mirex

307.6(d)(3)(A)

Additions and deletions to references and change to the bioconcentration factors

307.6(d)(3)(E)

- The altered scaling factor of 3/4 power for the conversion of body weight of laboratory animals to humans
- The change to using reported weights of rats and mice instead of default weights

307.6(d)(8)(A) and (B)

- Implementation of human health criteria for substances not listed in Table 3
- Reference changes in National Toxics Rule
- A use of a Maximum Contaminant Level (MCL) or a TCEQ guideline for waters with a public drinking water supply use if either of these values are more stringent

307.6(d)(8)(C)

- Removal of the references to EPA's IRIS and QSAR databases
- Use of technically valid information for the calculation of numeric criteria

307.6(d)(10)

Measurement of selenium as total recoverable

307.7(b)(1)

- Use of the term “Indicator bacteria” instead of “fecal coliform bacteria”
- Explanation for the units of measurement for bacteria criteria
- Additional reference for assessing water quality data
- *E. coli* criterion for freshwater contact recreation
- Enterococci criteria for saltwater contact recreation
- *E. coli* and enterococci noncontact recreation criteria
- Retention of fecal coliform bacteria criteria for contact and noncontact recreation with transition to sampling for *E. coli* and enterococci
- The removal of sampling requirements to meet standards
- Language specifying the continued use of fecal coliform bacteria criteria in oyster waters for assessing recreation uses
- Additional references to swimming advisory programs stating the use of other indicators of recreational suitability

307.7(b)(1)(C)

EPA takes no action on the provision that allows continued use of fecal coliform bacteria for effluent limits in wastewater discharge permits.

307.7(b)(2)(A)(I)

Additional language to include segments that have characteristics which would allow use as a supply for a public water system to be protected by the public water supply use

307.7(b)(3)(B)

- Removal of the fecal coliform numeric criteria for oyster water use
- Addition of a reference to the new indicator bacteria

307.8(a)(1)(F), 307.8(b)(1)(G), 307.9(e)(3)

See 307.7(b)(1) above

Appendix A

- Adoption of *E. coli* and enterococci under the contact recreation use for all segments. Enterococci criteria apply to all saltwaters, including those designated as having oyster water use.
- Adoption of the geometric mean criterion of 605/100ml for *E. coli*
- EPA takes no action on the revised bacteria criteria for the segments of the Red River and Lake Texoma which are located within the state of Oklahoma. This area roughly includes segments 0201, 0202 (except 1/2 mile below Denison Dam), 0204, 0205, and 0206 of the Red River Basin

9/10/04

EPA is taking no action on:

- 307.3 - the revised definition of “surface water in the state” in the TX WQS
- Appendix A - the public water supply use for Segment 2308 - Rio Grande Below International Dam
- Appendix B - recalculated 7Q2 and harmonic mean critical condition flows

EPA is not approving the TX WQS for those waters or portions of waters located in Indian Country.

307.2

- 307.2(d)(5) Temporary variances
- 307.2(f) Permit schedules to meet standards
- 307.2(g) Temporary standards
- 307.2(h) Effective date of standards
- 307.2(i) Effect of conflict or validity of rule

307.3 New and modified definitions, new abbreviations, and editorial changes

- | | |
|---|---------------------------------------|
| • Attainable use | • Presumed use |
| • Best management practices | • Public drinking water supply |
| • Bioconcentration factor | • Saltwater |
| • Biological integrity | • Seagrass propagation |
| • Classified | • Segment |
| • Designated use | • Seven-day two-year low-flow |
| • Discharge permit | • Significant aquatic life use |
| • <i>E. coli</i> | • Standards implementation procedures |
| • Enterococci | • Storm water |
| • Existing use | • Storm water discharge |
| • Fecal coliform | • Tidal |
| • Incidental fishery | • To discharge |
| • Intermittent streams with perennial pools | • Total maximum daily load |
| • Minimum analytical level | • Toxicity biomonitoring |
| • Mixing zone | • Water-effects ratio |
| • Point source | • Wetland water quality functions |
| • Pollution | |

307.6(c)(9)

Water-effects ratios (WER) can be implemented through TPDES permits when approved by EPA. The site-specific criteria will be included in the next triennial revision.

Approved WERs can be found on the EPA WQS repository at:

<http://www.epa.gov/ost/standards/wqslibrary/tx/tx.html>.

Appendix A

Mineral Criteria for Classified Segments

0229 - Upper Prairie Dog Town Fork Red River; chloride, sulfate, TDS

0408 - Lake Bob Sandlin; chloride

0409 - Little Cypress Bayou (Creek); sulfate

0502 - Sabine River Above Tidal; chloride sulfate, TDS

0503 - Sabine River Above Caney Creek; chloride, sulfate, TDS

0504 - Toledo Bend Reservoir; sulfate

0505 - Sabine River Above Toledo Bend Reservoir; sulfate

0602 - Neches River Below B.A. Steinhagen Lake; sulfate, TDS
0603 - B.A. Steinhagen Lake; sulfate, TDS
0604 - Neches River Below Lake Palestine; sulfate, TDS
0609 - Angelina River Below Sam Rayburn Reservoir; sulfate
0610 - Sam Rayburn Reservoir; chloride, sulfate, TDS
0611 - Angelina River Above Sam Rayburn Reservoir; sulfate
0612 - Attoyac Bayou; TDS
0613 - Lake Tyler/Lake Tyler East; chloride, sulfate, TDS
0615 - Angelina River/Sam Rayburn Reservoir; chloride, sulfate, TDS, pH
0818 - Cedar Creek Reservoir; sulfate
0820 - Lake Ray Hubbard; chloride, sulfate, TDS
1003 - East Fork San Jacinto River; sulfate
1010 - Caney Creek; sulfate
1011 - Peach Creek; sulfate, TDS
1012 - Lake Conroe; sulfate, TDS
1015 - Lake Creek; sulfate
1212 - Somerville Lake; chloride, TDS
1217 - Lampasas River Above Stillhouse Hollow Lake; chloride, sulfate, TDS
1226 - North Bosque River; chloride, sulfate
1242 - Brazos River Above Navasota River; chloride, sulfate, TDS
1246 - Middle Bosque/South Bosque River; chloride
1247 - Granger Lake; chloride, sulfate, TDS
1252 - Lake Limestone; chloride, sulfate, TDS
1256 - Brazos River/Lake Brazos; chloride, sulfate, TDS
1257 - Brazos River Below Whitney Lake; TDS
1302 - San Bernard River Above Tidal; chloride, sulfate
1402 - Colorado River Below La Grange; chloride, sulfate, TDS
1403 - Lake Austin; chloride, sulfate, TDS
1404 - Lake Travis; chloride, sulfate, TDS
1405 - Marble Falls Lake; chloride, sulfate, TDS
1406 - Lake Lyndon Baines Johnson; chloride, sulfate, TDS
1407 - Inks Lake; chloride, sulfate, TDS
1408 - Lake Buchanan; chloride, sulfate, TDS
1409 - Colorado River Above Lake Buchanan; sulfate, TDS
1414 - Pedernales River; chloride, sulfate
1415 - Llano River; chloride, sulfate, TDS
1416 - San Saba River; chloride, sulfate
1428 - Colorado River Below Town Lake; chloride, sulfate, TDS
1429 - Town Lake; sulfate, TDS
1434 - Colorado River Above La Grange; chloride, sulfate, TDS
1604 - Lake Texana; chloride, sulfate, TDS
1605 - Navidad River Above Lake Texana; sulfate
1802 - Guadalupe River Below San Antonio River; chloride, sulfate, TDS
1911 - Upper San Antonio River; chloride, sulfate, TDS
1912 - Medio Creek; chloride, sulfate, TDS
1913 - Mid Cibolo Creek; chloride, sulfate, TDS
2110 - Lower Sabinal River; sulfate
2309 - Devils River; chloride, sulfate

Appendix C

New segments

- 0230 - Pease River
- 0502 - Sabine River Above Tidal
- 0615 - Angelina River/Sam Rayburn Reservoir
- 1256 - Brazos River/Lake Brazos
- 1257 - Brazos River Below Whitney Lake
- 1802 - Guadalupe River Below San Antonio River

Segment Boundary Revisions

- 0220 - Upper Pease/North Fork Pease River
- 0501 - Sabine River Tidal
- 0503 - Sabine River Above Caney Creek
- 0608 - Village Creek
- 0610 - Sam Rayburn Reservoir
- 0832 - Lewisville Lake
- 0839 - Elm Fork Trinity River Below Ray Roberts Lake
- 1013 - Buffalo Bayou Tidal
- 1107 - Chocolate Bayou Tidal
- 1108 - Chocolate Bayou Above Tidal
- 1242 - Brazos River Above Navasota River
- 1245 - Upper Oyster Creek
- 1803 - Guadalupe River Below San Marcos
- 2003 - Aransas River Tidal
- 2004 - Aransas River Above Tidal

Boundary Description Revisions due to Clarification or Clerical Errors

- 0832 - Lake Weatherford
- 0836 - Richland-Chambers Reservoir
- 1202 - Brazos River Below Navasota River
- 1501 - Tres Palacios Creek Tidal
- 1502 - Tres Palacios Creek Above Tidal
- 1804 - Guadalupe River Below Comal River
- 1814 - Upper San Marcos River
- 2202 - Arroyo Colorado Above Tidal

Appendix E

- 0404 - Welsh Reservoir
aluminum WER of 10 9,900 ug/L (acute criteria)
- 1236 - Ft. Phantom Hill Reservoir
Aluminum WER of 2.9 2,904 ug/L (acute criteria)

3/25/05 307.5 Antidegradation - all

5/6/05 Appendix A

- Aquifer Protection for 14 segments
- Mineral Criteria for Classified Segments
 - 1243 – Salado Creek; TDS
 - 1244 – Brushy Creek; chloride, TDS

1248 – San Gabriel/North Fork San Gabriel River; chloride, sulfate
 1249 – Lake Georgetown; chloride, sulfate, TDS
 1250 – South Fork San Gabriel River; chloride, sulfate, TDS
 1251 – North Fork San Gabriel River; chloride, sulfate, TDS
 1427 – Onion Creek; chloride, sulfate, TDS for aquifer and nonaquifer
 protected portions of the creek
 1430 – Barton Creek; chloride, sulfate
 1804 – Guadalupe River Below Comal River; chloride
 1805 – Canyon Lake; chloride, sulfate
 1806 – Guadalupe River Above Canyon Lake; chloride, sulfate, TDS
 1809 – Lower Blanco River; chloride
 1811 – Comal River; chloride, sulfate
 1812 – Guadalupe River Below Canyon Lake; chloride, sulfate
 1813 - Upper Blanco River; chloride, sulfate
 1814 - Upper San Marcos River; chloride, sulfate, TDS
 1815 – Cypress Creek; chloride, sulfate, TDS
 1816 – Johnson Creek; chloride, sulfate, TDS
 1817 – North Fork Guadalupe River; chloride, sulfate, TDS
 1818 – South Fork Guadalupe River; chloride, sulfate, TDS
 1905 - Medina River above Medina Lake; sulfate
 1908 – Upper Cibolo Creek; sulfate, TDS
 2111 – Upper Sabinal River; chloride
 2112 – Upper Nueces River; chloride, sulfate, TDS
 2113 – Upper Frio River; chloride, sulfate, TDS
 2114 – Hondo Creek; chloride, sulfate, TDS
 2115 – Seco Creek; chloride, TDS
 2310 - Lower Pecos River; chloride, sulfate, TDS
 2312 – Red Bluff Reservoir; chloride, sulfate, TDS

10/14/05	Appendix E 0101 - Canadian River Below Lake Meredith Site specific criteria for selenium for Dixon Creek were disapproved.
6/12/06	Appendix A 2101 - Nueces River Tidal Change from exceptional to high aquatic life use and from 5.0 mg/L dissolved oxygen to 4.0 mg/L was approved, but subject to results of consultation under section 7(a)(2) of the Endangered Species Act (ESA). USFWS nonconcurrence (12-23-2003) of the change will be addressed during consultation.
8/31/06	Appendix E 1701 - Victoria Barge Canal Tidal Site specific criteria for copper approved, but subject to results of consultation under section 7(a)(2) of the ESA
9/19/06	Appendix E 2481 - Corpus Christi Bay Site specific criteria for copper approved. Zinc criteria disapproved, but alternate WER value of 1.14 approved

1304 - Caney Creek Tidal - Linville Bayou (unclassified water body)
Selenium site specific criteria was disapproved

12/14/06 307.6

- Table 1 - all saltwater acute and chronic aquatic life criteria
- Criteria for cadmium, chromium (hexavalent), copper, lead, nickel, silver and zinc are approved subject to completion of consultation under the Endangered Species Act (ESA) with USFWS. Any wastewater permits with effluent limitations based on the criteria listed in Table 1 should contain a reopener clause to ensure the activities can be adjusted if changes are made to the criteria based on the results of the ESA consultation.

04/09/2008 307.4

- Clarify in (d)(3) that Clean Water Act §404 activities are not prohibited by the narrative criterion for settleable solids.
- Added language to the narrative toxics criterion to clarify the level of protection established in other sections of the standards
- Clarify in (g)(1) that existing and designated uses will be maintained. Added a reference to the numeric criterion for minerals found in Appendix A. Revised (g)(3) to state that salinity gradients in estuaries would be maintained to support attainable aquatic life uses.
- Clarify in (h)(1) that DO levels would be sufficient to support aquatic life uses
- In (h)(2) add a reference to DO criteria and aquatic life uses in Appendices A and D
- Clarify in (h)(4) that DO criteria apply to intermittent streams when water is present
- Additional editorial changes

307.7

- Addition of aquifer protection language in (b)(2)(A)(ii)
- Modification of (ii) in (b)(3)(A) concerning the use of Table 5 for classified waters, which is to include streams with bedslope values above or below those found in Table 5. In (iv), added language to use site-specific data to adjust critical low flow values in Table 5 based on other factors.
- Addition of seagrass propagation and wetland water quality functions

307.9

- (a) Addition of information sources on sampling and assessment procedures
- (b) Modification of the establishment of sampling stations
- (c) Updated references for monitoring, assessment, and analytical procedures, changed dissolved oxygen sampling from a depth-integrated to a surface sample, combined assessment information on bays and tidal streams, and removed the vertical complete depth monitoring requirement
- (d) Changed a reference, added a requirement to use EPA approved methods for radioactivity analyses, and removed the multiple tube fermentation or membrane filter techniques for bacterial analyses
- (e) Revised attainment for mineral criteria; added references to Guidance for Screening and Assessing Texas Surface and Finished Drinking Water for toxics, temperature, and pH; and changed dissolved oxygen sampling for minimum concentrations

- (f) Added a narrative provision for biological integrity and use of indices for aquatic community assessment
- (g) Added a reference to the Guidance for Screening and Assessing Texas Surface and Finished Drinking Water for assessment of narrative criteria
- Additional editorial changes

8/06/2008 307.6
new and revised provisions in §307.6 (b), (c), and (e)

307.8
all new and revised provisions

3/25/2009 Appendix E

1412- Colorado River Below Lake J.B. Thomas - Red Draw Reservoir (unclassified water body). Site specific acute and chronic criteria for selenium approved.

2484 – Corpus Christi Inner Harbor – Heldenfels ditch (unclassified water body). Site specific acute criterion for selenium was disapproved.

10/7/2009 307.6
Table 1 - aquatic life criteria for freshwater metals is conditionally approved. The revised criteria are now in effect and will remain in effect unless EPA's conditional approval is withdrawn (after completing USFWS consultation).

11/10/2009 Appendix A

1811 – Comal River. Revised maximum temperature criterion of 80°F was disapproved.