

Figure: 30 TAC §307.10(5)

Appendix E - Site-specific Toxic Criteria

The water bodies found in this appendix have a site-specific standard for the chemical parameter listed. The procedures for obtaining a site-specific standard are specified in §307.2(d) of this title (relating to Description of Standards) and result in site-specific criteria or a site-specific adjustment factor (such as a water-effect ratio (WER), multiplier, etc.). For most of the chemical parameters listed, this factor is used along with hardness in the formulas listed in Table 1 of §307.6(c)(1) of this title (relating to Toxic Materials) to calculate the dissolved portion of the parameter. The newly calculated criteria from Table 1 of §307.6(c)(1) of this title are then used to calculate discharge limits for permitted facilities. To calculate discharge limits, use site-specific criteria or the site-specific adjustment factors listed in this appendix in accordance with the *Procedures to Implement the Texas Surface Water Quality Standards* (RG-194) as amended. If a smaller portion of a water body has a separate and different site-specific adjustment factor, this factor supersedes any other factor specified for the larger water body that includes the smaller water body. In establishing Texas Pollutant Discharge Elimination System (TPDES) permit conditions, the site-specific criteria only apply to the referenced facility except where otherwise noted in footnote 3 of this appendix.

Segment	Site Description	TPDES	Permittee	Parameter	Site-Specific Adjustment Factor	Additional Site-Specific Considerations
0202	Unnamed tributary from the edge of the mixing zone with Smith Creek upstream to Outfall 001 in Lamar County	03021-000	Paris Generation, LP	Copper ^{4, 5}	Acute Criterion = 37.28 µg/L	
0301	Remnant channel of Baker Slough from the edge of the mixing zone in Segment 0301 upstream to the outfall in Cass County	01339-000	International Paper Co.	Aluminum ^{1, 4}	6.39	

Segment	Site Description	TPDES	Permittee	Parameter	Site-Specific Adjustment Factor	Additional Site-Specific Considerations
0303	River Crest Reservoir in Red River County	00945-000	Luminant Generation Co.	Copper ^{1,3}	3.4	
0305	Unnamed tributary of Cottonwood Branch from the edge of the mixing zone with an unnamed NRCS reservoir upstream to Outfall 001 in Lamar County	04127-000	La Frontera Holdings, LLC	Copper ^{1,4}	3.98	
0403	Johnson Creek Reservoir in Marion County	01331-000	SWEPCO	Copper ^{1,3}	5.15	Hardness = 20 mg/L TSS = 4 mg/L
0404	Big Cypress Creek in Camp, Titus, and Morris Counties	00348-000	U.S. Steel Tubular Products, Inc.	Lead ^{2,3}	Acute Criterion = 38.3 µg/L Chronic Criterion = 5.3 µg/L	Hardness = 40.1 mg/L Criteria listed in the "Site-Specific Adjustment Factor" column include a correction factor of 0.924152
0404	Welsh Reservoir in Titus County	01811-000	SWEPCO	Aluminum ^{1,3}	10	
0404	Unnamed tributary of Hart Creek from the edge of the mixing zone in Hart Creek upstream to the outfall in Titus County	10575-004	City of Mount Pleasant	Copper ^{1,4}	7.16	

Segment	Site Description	TPDES	Permittee	Parameter	Site-Specific Adjustment Factor	Additional Site-Specific Considerations
0409	Sugar Creek from the edge of the mixing zone in Segment 0409 upstream to the outfall in Upshur County	10457-001	City of Gilmer	Copper ^{1,4}	6.83	
0501	Sabine River Tidal in Orange County	00475-000	E.I. DuPont de Nemours	Copper ^{1,4}	1.9	
0505	Sabine River from the confluence with Brandy Branch approximately 1 mi (1.6 km) upstream from Highway 43 in Harrison County upstream to SH 149 in Gregg County	00471-000	Eastman Chemical Co.	Copper ^{1,4}	6.7	Hardness = 40 mg/L
0506	Mill Creek from CR 1106 upstream to the outfall in Van Zandt County	10399-002	City of Canton	Copper ^{1,4}	7.71	
0510	Mill Creek from the edge of the mixing zone in Segment 0510 upstream to the confluence with Adaway Creek in Rusk County	10187-002	City of Henderson	Copper ^{1,4}	4.95	
0511	Unnamed tidal drainage ditch from the edge of the mixing zone in Segment 0511 upstream to the outfall in Orange County	00454-000	Firestone Polymers, Inc.	Copper ^{1,4}	2.54	

Segment	Site Description	TPDES	Permittee	Parameter	Site-Specific Adjustment Factor	Additional Site-Specific Considerations
0511	Unnamed tidal drainage ditch from the edge of the mixing zone in Segment 0511 upstream to the outfall in Orange County	00670-000	Honeywell, Inc.	Copper ^{1,4}	2.39	
0601	From the edge of the mixing zone in the tidal marshes and Entergy Canal tidal upstream to Outfall 001 in Orange County	00336-000	Entergy Texas, Inc.	Copper ^{1,4}	2.3	Based on total copper - a partitioning coefficient will not be used to calculate permit limits (assume 100% is in dissolved form)
0601	The entirety of the mixing zone for Outfall 001 within the Neches River Tidal in Jefferson County	00462-000	ExxonMobil	Zinc ^{1,4}	2.89	
0601	All non-tidally influenced ditches upstream of Star Lake Canal upstream to Outfall 001 in Jefferson County	04731-000	INEOS Calabrian Corp.	Copper ^{1,4}	3.26	
0603	Sandy Creek from the edge of the mixing zone in Segment 0603 upstream to the outfall in Jasper County	10197-001	City of Jasper	Copper ^{1,4}	4.67	
0604	Buck Creek from the confluence with Clayton Creek upstream to the confluence with the unnamed tributary receiving the discharge from the outfall in Angelina County	01268-000	Lufkin Industries, LLC	Copper ^{1,4}	7.94	

Segment	Site Description	TPDES	Permittee	Parameter	Site-Specific Adjustment Factor	Additional Site-Specific Considerations
0604	Unnamed tributary of Bear Creek from the edge of the zone of initial dilution in Bear Creek upstream to the outfall in Polk County	01902-000	International Paper - Corrigan	Aluminum ^{1,4}	5.58	
0604	Hurricane Creek from the edge of the mixing zone with Cedar Creek upstream to Outfall 001 in Angelina County	10214-001	City of Lufkin	Copper ^{1,4}	4.43	
0604	One-eye Creek from the edge of the mixing zone in Box Creek upstream to the outfall in Cherokee County	10447-001	City of Rusk	Copper ^{1,4}	4.3	Hardness = 40 mg/L
0611	Lake Striker in Cherokee County	00946-000	Luminant	Aluminum ^{1,3}	3.7	
0611	Ragsdale Creek from the edge of the mixing zone in Keys Creek upstream to the outfall in Cherokee County	10693-001	City of Jacksonville	Copper ^{1,4}	4.6	Hardness = 48 mg/L
0615	Papermill Creek from the edge of the zone of initial dilution in Segment 0615 upstream to the outfall in Angelina County	00368-000	Abitibi Consolidated	Aluminum ^{1,4}	8.39	
0702	Taylor Bayou Tidal within the zone of initial dilution and the mixing zone of Outfall 001 in Segment 0702 in Jefferson County	00309-000	The Premcor Refining Group, Inc.	Copper ^{1,4}	2.95	

Segment	Site Description	TPDES	Permittee	Parameter	Site-Specific Adjustment Factor	Additional Site-Specific Considerations
0805	Forney Branch from the edge of the mixing zone in White Rock Creek upstream to the outfall in Dallas County	01251-000	Luminant Generation Co.	Copper ^{1,4}	3.9	
0806	West Fork Trinity River in Tarrant County	00555-000	Luminant Generation Co.	Copper ^{1,4}	2.5	
0820	Muddy Creek from the edge of the mixing zone with Segment 0820 upstream to Outfall 001 in Dallas County	14216-001	North Texas Municipal Water Dist.	Copper ^{1,4}	4.98	
0823	Cantrell Slough from the edge of the mixing zone in Segment 0823 upstream to Outfall 001 in Denton County	14323-001	UTRWD	Copper ^{1,4}	6.43	
0827	Floyd Branch from the edge of the mixing zone with Cottonwood Creek upstream to Outfall 001 in Dallas County	10257-001	North Texas Municipal Water Dist.	Copper ^{4,5}	Acute Criterion = 32.13 µg/L Chronic Criterion = 19.95 µg/L	
0901	Unnamed tributary from the edge of the mixing zone with Segment 0901 upstream to Outfall 001 in Chambers County	02940-000	Enterprise Products Operating, LLC - Mont Belvieu	Copper ^{1,4}	6.314	

Segment	Site Description	TPDES	Permittee	Parameter	Site-Specific Adjustment Factor	Additional Site-Specific Considerations
0901	Unnamed tributary from the edge of the mixing zone with Segment 0901 upstream through an unnamed ditch to Outfall 002 in Chambers County	02940-000	Enterprise Products Operating, LLC - Mont Belvieu	Copper ^{1,4}	3.247	
1001	San Jacinto River Tidal in Harris County	NA	NA	Copper ^{1,3}	1.8	
1005	Houston Ship Channel/San Jacinto River Tidal in Harris County	NA	NA	Copper ^{1,3}	1.8	
1005	Phillips Ditch and Santa Anna Bayou: Phillips Ditch from the edge of the mixing zone in Santa Anna Bayou upstream to Outfall 001 in Harris County	01539-000	Oxy Vinyls	Nickel ^{1,4}	1.13	
1005	The Houston Ship Channel/San Jacinto River tidal from the edge of the mixing zone in Segment 2421 upstream to the confluence with Santa Anna Bayou in Harris County	02097-000	Oxy Vinyls	Copper ^{1,4}	1.8	
1005	Santa Anna Bayou from the edge of the mixing zone in Segment 1005 upstream to Outfall 001 in Harris County	04119-000	Akzo Nobel Chemicals LLC and Akzo Nobel Functional Chemicals LLC	Zinc ^{1,4}	1.82	Based on total zinc - a partitioning coefficient will not be used to calculate permit limits (assume 100% is in dissolved form)

Segment	Site Description	TPDES	Permittee	Parameter	Site-Specific Adjustment Factor	Additional Site-Specific Considerations
1005	Phillips Ditch from the edge of the MZ in Santa Anna Bayou upstream to Outfall 001 in Harris County	04119-000	Akzo Nobel Chemicals LLC and Akzo Nobel Functional Chemicals LLC	Aluminum ^{1,4}	3.93	
1006	Houston Ship Channel Tidal in Harris County	NA	NA	Copper ^{1,3}	1.8	
1006	Greens Bayou Tidal from the edge of the mixing zone in the Houston Ship Channel upstream to the confluence with Spring Gully in Harris County	01031-000	NRG Texas Power LLC	Copper ^{1,4}	2.4	TSS = 14.75 mg/L Dissolved Fraction Available = 87%
1006	Tucker Bayou from the edge of the mixing zone in Segment 1006 upstream to the outfall in Harris County	01429-000	Safety-Kleen	Copper ^{1,4}	2.3	
1007	Houston Ship Channel/Buffalo Bayou Tidal in Harris County	NA	NA	Copper ^{1,3}	1.8	
1008	Montgomery County Drainage District No. 6 Channel IIDF from the confluence with Spring Creek, Segment 1008, upstream to the outfall in Montgomery County	12030-001	Rayford Road MUD	Copper ^{1,4}	6.82	

Segment	Site Description	TPDES	Permittee	Parameter	Site-Specific Adjustment Factor	Additional Site-Specific Considerations
1008	Panther Branch from the edge of the mixing zone in Lake Woodlands upstream to the outfall in Montgomery County	12597-001	San Jacinto River Authority	Copper ^{1,4}	6.45	
1009	Faulkey Gully from the mixing zone with Segment 1009 upstream to Outfall 001 in Harris County	11832-001	Faulkey Gully MUD	Copper ^{1,4}	3.997	
1009	Seals Gully from the confluence with HCFC D K142-02-00 upstream to Outfall 001 in Harris County	11835-001	Bridgestone MUD	Copper ^{1,4}	3.19	
1009	Cypress Creek and Harris County Flood Control District Ditch K159-00-00 from the edge of the mixing zone in Cypress Creek upstream to the outfall in Harris County	13296-002	Harris County MUD No. 358	Copper ^{1,4}	8.47	
1013	Buffalo Bayou Tidal in Harris County	NA	NA	Copper ^{1,3}	1.8	
1014	Willow Fork Bayou from the edge of the mixing zone with Segment 1014 in Fort Bend County upstream to Outfall 001 in Waller County	02229-000	Igloo Products Corp.	Aluminum ^{1,4}	5.43	

Segment	Site Description	TPDES	Permittee	Parameter	Site-Specific Adjustment Factor	Additional Site-Specific Considerations
1014	Unnamed ditch and Harris County Flood Control ditch W167-01-00 from the edge of the mixing zone in Turkey Creek upstream to the outfall in Harris County	03994-000	National Oilwell Varco, L.P.	Zinc ^{1,4}	5.24	
1014	Turkey Creek from the edge of the mixing zone with Segment 1014 upstream through Harris County Flood Control District W167-04-00 and a series of unnamed ditches to Outfall 001 in Harris County	04760-000	Weatherford U.S. L.P.	Copper ^{1,4}	4.55	
1014	Horsepen Creek in Harris County	12726-001	Harris Co. MUD No. 155	Copper ^{1,4}	4.65	
1014	Willow Fork Drainage Dist. Lateral Ditch VA1 from the edge of the mixing zone in Segment 1014 upstream to the outfall in Fort Bend County	13558-001	Cinco MUD No. 1	Copper ^{1,4}	7.26	
1113	Horsepen Bayou in Harris County	10539-001	City of Clear Lake Water Authority	Copper ^{1,4}	2.74	
1201	Segment 1201 in Brazoria County	00007-000	Dow Chemical	Copper ^{1,4}	1.6	

Segment	Site Description	TPDES	Permittee	Parameter	Site-Specific Adjustment Factor	Additional Site-Specific Considerations
1209	Unnamed ditch from the edge of the zone of initial dilution of the unnamed ditch in Gibbons Creek Reservoir upstream to Outfall 001 in Grimes County	02120-000	Texas Municipal Power Agency	Aluminum ^{1,4}	6.81	
1209	Unnamed tributary of Sulphur Creek from the edge of the mixing zone with Sulphur Creek upstream to the outfall in Grimes County	03996-000	Tenaska Frontier Partners, LTD.	Copper ^{1,4}	2.64	
1236	Ft. Phantom Hill Reservoir in Jones County	01422-000	AEP North Texas	Aluminum ^{1,3}	2.9	
1242	Lake Creek Reservoir in McClennan County	00954-000	Luminant Generation Co.	Copper ^{1,3}	2.4	
1412	Red Draw Reservoir in Howard County	01768-000	ALON USA	Selenium	Acute Criterion = 219 µg/L Chronic Criterion = 7.5 µg/L	
1701	Victoria Barge Canal in Calhoun County	00447-000	Dow Chemical	Copper ^{1,4}	1.81	
1701	Victoria Barge Canal in Victoria County	03943-000	Air Liquide	Copper ^{1,4}	2.55	
2427	San Jacinto Bay in Harris County	NA	NA	Copper ^{1,3}	1.8	

Segment	Site Description	TPDES	Permittee	Parameter	Site-Specific Adjustment Factor	Additional Site-Specific Considerations
2429	Scott Bay in Harris County	NA	NA	Copper ^{1,3}	1.8	
2431	Moses Bayou from the edge of the mixing zone in Segment 2431 upstream to the drainage ditches receiving the discharge from the outfall in Galveston County	01263-000	ISP Technologies	Copper ^{1,4}	1.88	
2432	From the edge of the mixing zone in Mustang Bayou upstream to Outfall 001 in Fort Bend County	04306-000	Nalco Production LLC	Copper ^{1,4}	3.11	
2432	From the edge of the mixing zone in Mustang Bayou upstream to Outfall 002 in Fort Bend County	04306-000	Nalco Production LLC	Copper ^{1,4}	4.00	
2441	From the edge of the mixing zone of the tidal portion of Little Boggy Creek upstream to Outfall 002 in Matagorda County	02481-000	Equistar Chemicals, LP	Copper ^{1,4}	2.43	Based on total copper - a partitioning coefficient will not be used to calculate permit limits (assume 100% is in dissolved form)
2453	Saltwater portion of Lynn Bayou below the facility's outfall in Calhoun County	10251-001	City of Port Lavaca	Copper ^{1,4}	1.57	
2481	Kinney Bayou tidal/Jewel Fulton Canal from the edge of the mixing zone in Ingleside Cove upstream to the outfall in San Patricio County	10422-001	City of Ingleside	Copper ^{1,4}	2.0	

Segment	Site Description	TPDES	Permittee	Parameter	Site-Specific Adjustment Factor	Additional Site-Specific Considerations
2481	Kinney Bayou tidal/Jewel Fulton Canal from the edge of the mixing zone in Ingleside Cove upstream to the outfall in San Patricio County	10422-001	City of Ingleside	Zinc ^{1,4}	1.14	
2484	Tidal portion of concrete lined ditches receiving effluent from the outfall from the edge of the mixing zone with the Tule Lake portion of Segment 2484 upstream to the end of tidal influence in Nueces County	03137-000	MarkWest Javelina Company, L.L.C.	Copper ^{1,4}	4.13	Based on total copper - a partitioning coefficient will not be used to calculate permit limits (assume 100% is in dissolved form)
2485	La Volla Creek from the edge of the mixing zone in Oso Creek upstream to the outfall in Nueces County	10401-003	City of Corpus Christi	Copper ^{1,4}	2.07	
2494	Vadia Ancha from the edge of the mixing zone in Segment 2494 upstream to the tidal mud flats receiving the discharge from the outfall in Cameron County	10350-001	Laguna Madre Water District	Copper ^{1,4}	2.52	

- 1 Results based on a water-effect ratio study.
- 2 The equation used for acute criterion calculation is $e^{(1.273(\ln \text{hardness})-0.9744)}$, and the equation used for chronic criterion calculation is $e^{(1.273(\ln \text{hardness})-2.958)}$.
- 3 Site-specific criteria apply to the entire water body listed under the "Site Description" column. If the site described is a designated segment, the boundaries of the segment are given in Appendix C of §307.10 of this title.
- 4 Site-specific criteria may only be used in the evaluation of permit limits for the facility listed under the "TPDES" and "Facility" columns.

5 Results based on a biotic ligand model.