

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6 1445 ROSS AVENUE, SUITE 1200 DALLAS TX 75202-2733

November 2, 2018

Ms. L'Oreal Stepney, P.E., Deputy Director Office of Water (MC-158) Texas Commission on Environmental Quality P.O. Box 13087 Austin, TX 78711-3087

Dear Ms. Stepney:

The Environmental Protection Agency (EPA or the Agency) has completed its review of several new and revised provisions in the *Texas Surface Water Quality Standards* (TSWQS). These standards were adopted by the Texas Commission on Environmental Quality (TCEQ), on February 7, 2018, and received by EPA for review on March 29, 2018.

This is the first action concerning our review of the 2018 standards and includes new or revised provisions in §307.2, §307.3, §307.6, §307.7, §307.9, Appendix A, Appendix B, Appendix C, Appendix D, Appendix E, and Appendix G, of the TSWQS, as specified in the enclosure. EPA has also completed its review of the new temperature criterion for segment 0410 – Black Cypress Bayou (adopted in the 2010 TSWQS) and the revised intermediate aquatic life use for Town Creek (adopted in the 2014 TSWQS, corrected 2018 TSWQS). I am pleased to inform you that the EPA is approving the provisions as documented in Part I of the enclosure to this letter, pursuant to section 303(c) of the Clean Water Act (CWA) and the implementing regulation at 40 CFR part 131.

The Agency previously determined that several items revised in the 2018 TSWQS were assessment or implementation provisions, rather than water quality standards under CWA section 303(c), and, therefore, were not subject to EPA review. Part II of the enclosure summarizes revisions in the 2018 TSWQS which do not require EPA action under CWA section 303(c).

Section 7(a)(2) of the Endangered Species Act (ESA) requires that all federal agencies engage in consultation to ensure their actions are not likely to jeopardize the continued existence of any threatened or endangered species or result in adverse modification of designated critical habitat. EPA has determined that approval of the provisions identified in Part I of the enclosure, will have no effect on federally-listed threatened and endangered species or on critical habitat, or are otherwise not subject to ESA consultation (e.g., provisions to protect human health).

EPA has previously stated that it is taking no action on the definition of "Surface water in the state" in §307.3(a)(66), regarding the reference to §26.001 of the Texas Water Code for the area 10.36 miles offshore into the Gulf of Mexico. Under the CWA, Texas does not have jurisdiction to establish water quality standards more than three nautical miles from the coast. Therefore, EPA's approval action on the items in the enclosure recognizes the State's authority under the CWA to include waters extending offshore three nautical miles in the Gulf of Mexico but does not extend past that point. In addition, EPA's approval action also does not include the application of the TSWQS to the portions of the Red River and Lake Texoma that are located within the State of Oklahoma. EPA is also taking no action on the TSWQS for those waters or portions of waters located in Indian Country.

I would like to commend TCEQ for its commitment in completing the task of reviewing and revising the State's water quality standards. EPA will take subsequent action on the remaining new and revised provisions in §307.2(g), §307.6(d) – Table 1, §307.9, Appendix A, Appendix C, Appendix D, Appendix E, Appendix F and Appendix G of the 2018 TSWQS. EPA is also reviewing the remaining provisions in the 2010 TSWQS and the 2014 TSWQS. If you have any questions or concerns, please contact me at (214) 665-7101, or have your staff contact Diane Evans at (214) 665-6677.

Sincerely,

Charles W. Maguire

Director

Water Division

Enclosure

cc: Kevin McCalla, Acting Director

Water Quality Planning Division (MC-203)

EPA Review of 2018 Texas Surface Water Quality Standards (November 2018)

The Environmental Protection Agency's (EPA's) action addresses the revisions to *Texas Surface Water Quality Standards* (TSWQS) adopted by the Texas Commission on Environmental Quality (TCEQ) in February 2018 and submitted to EPA in March 2018. This enclosure provides a summary of the revisions and the action taken by EPA. The discussion below includes Part I. Revisions that are approved for purposes of Clean Water Act (CWA) section 303(c), as found on pages 1-8 of this enclosure) and Part II. Revisions that do not require action by EPA under CWA section 303(c), as found on pages 8-9.

I. REVISIONS THAT EPA IS APPROVING

EPA determined that several changes are non-substantive in nature and thus do not substantively modify TSWQS. In Appendix E – Site-specific Toxics Criteria, names of regulated facilities were updated as appropriate and rows for previously-approved criteria were reordered by TPDES permit number where there is more than one facility in the same segment. The site description was also corrected for one entry in Appendix E. Other revisions throughout the 2018 TSWQS include: replacement of the agency's name with "TCEQ" and updates for other acronyms; revised references to related provisions in the TSWQS or other state regulations; editorial changes to the document titled *Procedures to Implement the Texas Surface Water Quality Standards*; revisions to titles of both volumes of the *Texas Surface Water Quality Monitoring Procedures* in §307.9(f); and, grammatical and formatting corrections. Additional non-substantive or editorial changes were made in §307.6(e)(2)(c), §307.7(b)(3)(A)(ii) and footnotes for Table 3 and Table 4.

EPA considers such non-substantive edits to existing WQS to constitute new or revised WQS that EPA has the authority and duty to approve or disapprove under CWA section 303(c)(3). While such revisions do not substantively change the meaning or intent of the existing WQS, EPA believes that it is reasonable to treat such non-substantive changes in this manner to ensure public transparency on what provisions are effective for purposes of the CWA. EPA notes that the scope of its action in reviewing and approving or disapproving such non-substantive changes would extend only as far as the actual non-substantive changes themselves. In other words, EPA's action on non-substantive changes to previously approved WQS would not constitute an action on the underlying previously approved WQS. Any challenge to EPA's prior approval of the underlying WQS would be subject to any applicable statute of limitations and prior judicial decisions. EPA approves the listed non-substantive changes in the 2018 TSWQS, identified in the above paragraph, pursuant to section 303(c) of the CWA.

EPA concluded that approval of certain revisions identified in Part I of this enclosure is not subject to consultation under the Endangered Species Act. EPA made a finding of no effect on federally-listed species and critical habitat under the Endangered Species Act for specific revisions.

§307.3. Definitions and Abbreviations

§307.3(a). Definitions. A definition for "Coastal recreation waters" was added to the TSWQS. This definition is consistent with language in CWA section 502(21) and is approved.

§307.3(b). Abbreviations. An abbreviation for interstate highway, which is included in boundary descriptions for individual water bodies, was added and is approved.

§307.6. Toxic Materials

§307.6(c). Specific numerical aquatic life criteria. A reference to EPA's current guidance for recalculation of aquatic life criteria was adopted in paragraph (2), which replaces an older document. The narrative provisions for freshwater copper criteria in paragraph (10) and footnote m under Table 1 were revised to differentiate between site-specific criteria based on a water effect ratio study and a biotic ligand model. These revisions are approved.

EPA will take separate action on the new and revised aquatic life criteria for acrolein and carbaryl in Table 1 – Criteria for Specific Toxic Materials – Aquatic Life Protection.

§307.6(d). Specific numerical human health criteria. In Table 2 – Criteria in Water for Specific Toxic Materials, - Human Heath Protection, criteria for the following substances were revised or added in the 2018 WQS:

Acrylonitrile 4,4'-DDE Aldrin 4,4'-DDT

Anthracene m-Dichlorobenzene Benzene o-Dichlorobenzene Benzidine 3.3'-Dichlorobenzidine Benzo(a)anthracene 1,2-Dichloroethane Benzo(a)pyrene 1,1-Dichloroethylene Bis(chloromethyl)ether Dichloromethane Bis(2-chloroethyl)ether 1,2-Dichloropropane Bis(2-ethylhexyl)phthalate 1,3-Dichloropropene

Bromodichloromethane Dieldrin

Bromoform 2,4-Dimethylphenol
Carbon Tetrachloride Di-n-Butyl Phthalate
Chlordane Epichlorohydrin
Chlorobenzene Ethylbenzene
Chlorodibromomethane Ethylene Glycol
Chloroform Heptachlor

Chrysene Heptachlor Epoxide 4,4'-DDD Hexachlorobenzene

Hexachlorobutadiene

Hexachlorocyclohexane (alpha) Hexachlorocyclohexane (beta) Hexachlorocyclohexane (gamma)

(Lindane)

Hexachlorocyclopentadiene

Hexachloroethane

4,4'-Isopropylidenediphenol (bisphenol A)

Methoxychlor

Methyl tert-butyl ether (MTBE)

Nitrobenzene

Pentachlorobenzene

Pentachlorophenol

1,2,4,5-Tetrachlorobenzene 1,1,2,2-Tetrachloroethane

Tetrachloroethylene

Toxaphene

2,4,5-TP (Silvex)

1,1,1-Trichloroethane

1,1,2-Trichloroethane

Trichloroethylene

2,4,5 Trichlorophenol

Vinyl Chloride

These criteria incorporate updated toxicological information in EPA's *Integrated Risk Information System* (IRIS); bioaccumulation factors from EPA's 2015 recommended criteria published under CWA section 304(a); and the exposure factors (body weight, fish consumption, water consumption) established in the 2010 revision of the TSWQS. Criteria for carcinogenic substances are based on a risk level of 1 in 100,000 (10⁻⁵). Where a maximum criterion level (MCL) under the Safe Drinking Water Act is more stringent than the recalculated criterion for consumption of water and fish, TCEQ adopted or retained the MCL value in the Table 2 of the 2018 TSWQS. The criteria identified above are approved.

Footnotes under Table 2 were added to clarify that the previously-approved criteria for mercury in freshwater and saltwater are based on different fish consumption rates and the source of the MTBE criterion for consumption of water and fish. Reference to the input factors used in EPA's 2015 human health criteria and EPA's QSAR Toxicity Estimation Software Tool were added to item (3)(a). Non-substantive changes, which do not alter the intent or implementation of the TSWQS, were made in several provisions under §307.6(d) and are also approved.

EPA recognizes that TCEQ did not incorporate the relative source contribution (RSC) input and that the state is still evaluating the basis for use of an RSC. EPA looks forward to working with the state on this aspect of human health criteria during its next triennial review of the TSWQS to help ensure that people are not exposed to unsafe concentrations of threshold pollutants. Such an effort could include adjusting the RSCs to reflect state-specific or other relevant data.

§307.7. Site-specific Uses and Criteria

§307.7(b)(1)(B). Saltwater. The single sample criterion for enterococci under clause (i) was revised to 130 [colonies] per 100 mL, based on EPA's recommended criteria published in *Recreational Water Quality Criteria* (EPA-820-F-12-058). Under clause (iii), a reference to the new definition for coastal recreation water in §307.3 was added to replace the previous reference to the federal Beaches

Environmental Assessment and Coastal Health Act of 2000 (BEACH Act). These revisions are approved.

§307.7(b)(1)(C). A reference to EPA's criteria document noted in the above paragraph was added to this item and is approved.

§307.9. Determination of Standards Attainment

§307.9(e)(3). Bacteria. The 2018 TSWQS were revised to specify in item (A) that the geometric mean criterion and the single sample maximum criteria for enterococci are each used for determination of standards attainment in coastal recreation waters. Language under items (B) and (C) was reformatted. These revisions are approved.

Appendix A - Site-specific Uses and Criteria for Classified Segments

The removal of the public water supply use in segment 0902 – Cedar Bayou above Tidal is approved. There are no intakes for public water supplies or on-channel impoundments in segment 0902, as verified by TCEQ's Water Rights Program. EPA also reviewed TCEQ's *Drinking Water Watch* database to confirm that there are no public water supplies in segment 0902.¹

EPA approves the site-specific dissolved oxygen criterion of 4.0 mg/L (24-hour average) for the reach of segment 1008 – Spring Creek, from the confluence with Mill Creek upstream to the confluence with Kickapoo Creek, from July through September. The revision of the 24-hour DO average criterion, for this reach of Spring Creek, is consistent with the federal regulation at 40 CFR 131.10(g)(2), which states: "Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met."

EPA also approves the new temperature criterion of 90 °F for segment 0410 – Black Cypress Bayou, which was adopted in the 2010 revision of the TSWQS and is protective of the designated uses of this water body.

Several non-substantive or editorial changes were made in Appendix A of the 2018 TSWQS. Language was removed from the fourth paragraph of the Introduction, which was duplicative of the previously-approved the dissolved oxygen criteria for the minimal aquatic life use category adopted in §307.7(b)(3)(A)(i) of the 2010 TSWQS. Language was added to the footnote for segments 1006 and 1007 of the Houston Ship Channel to clarify that the human health criteria for sustainable fisheries are applicable. Both revisions are approved. Segment numbers were removed in most footnotes in

¹ TCEQ. Texas Drinking Water Watch (Release 3.31b). Available at: http://dww2.tceq.texas.gov/DWW/

Appendix A. EPA approves these revisions in footnotes which were previously approved by EPA in the 2014 TSWQS or earlier versions of the standards.

EPA will take separate action on the remaining revisions in Appendix A, which include the following items:

- revision of the recreational use for segment 0404 Big Cypress Creek below Lake Bob Sandlin;
- removal of the footnote with site-specific dissolved oxygen criteria for segment 2307 Rio Grande Below Riverside Diversion Dam
- revision of the dissolved oxygen criteria in segment 2486 Blind Oso Bay
- addition and revision of footnotes for the following segments: 0305, 0507, 0704, 1811, 1814, 1913, 2106, 2311, 2485 and 2490.

Appendix B – Sole-source Surface Drinking Water Supplies

Under Appendix B, the designation of sole-source drinking water supply was removed for 28 water bodies, which no longer fit this description (as verified by TCEQ's Water Rights Program) and is approved. EPA reviewed TCEQ's *Drinking Water Watch* database to confirm that there are no public water systems that are rely only on these surface water bodies. Non-substantive changes to Appendix B were also made in the 2018 TSWQS and are also approved.

Appendix C – Segment Boundary Descriptions

Language referencing segment maps was removed in the Introduction of Appendix C. The boundary between segment 1225- Waco Lake and segment 1226 – North Bosque River was moved approximately 0.5 miles downstream from "a point ...0.32 mi downstream of Caldwell Crossing" to "a point immediately upstream of the confluence of Long Branch," which is more easily identified. The designated uses applicable to both segments 1225 and 1226 are the same and were not revised in the 2018 TSWQS. Editorial corrections were made in the segment boundaries for segment 0513 – Big Cow Creek; segment 0701 – Taylor Bayou above Tidal; segment 1259 - Leon River Above Belton Lake; and, segment 1424 - Middle Concho/South Concho River. EPA approves each of the revisions identified above in this paragraph.

EPA will take separate action on the revised boundary descriptions in the following water bodies: segment 0501 – Sabine River Tidal; segment 0502- Sabine River above Tidal; segment 1902 - Lower Cibolo Creek; segment 1908 - Upper Cibolo Creek; segment 1913 - Mid Cibolo Creek; segment 2485 Oso Bay; and, segment 2486 - Blind Oso Bay.

Appendix D – Site-specific Uses and Criteria for Unclassified Water Bodies

EPA approves the revised intermediate aquatic life use for Town Creek (tributary to segment 0831) and the corresponding dissolved oxygen criteria (24-hour average of 4.0 mg/L; 24-hour minimum of 3.0 mg/L). The intermediate aquatic life use for this water body was adopted in the 2014 TSWQS, however a clerical error was made at that time in the adoption of the dissolved oxygen criteria. In the 2018 TSWQS, TCEQ revised the dissolved criteria for Town Creek, to the values originally intended. These revisions are consistent with the federal regulation at 40 CFR 131.10(g)(2), which states: "Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met."

Corrections in segment names or descriptions, based on previously-conducted receiving water assessments or use attainability analyses (UAAs), were made for the following water bodies (classified segment number included in parentheses): Dixon Creek (0101); Wall Branch (0505), Little Rabbit Creek (0505); Sandy Creek (0603); Town Creek (0804); West Fork White Oak Creek (1004); Turkey Creek (1014); Little Sandy Creek (1202); McCarthy Branch (1205); and, Dry Creek (1428). Information on site-specific criteria included in footnotes of Appendix D of the 2014 TSWQS was moved to the column titled "Additional Site-Specific Factors" for the following water bodies: Dixon Creek (0101); Eightmile Creek (0505); Unnamed tributary of Grand Saline Creek (0506); Black Fork Creek (0606); Prairie Creek (0606); Main Canal D, Canal A, Canal B, Canal C (0702); North Fork Rocky Creek (1217); Lavaca River (1602); Camp Meeting Creek (1806); and, Salado Creek (1910. Footnotes 3 and 4 from the 2014 TSWQS were renumbered as footnotes 1 and 2 in the 2018 TSWQS. Each of the above changes is non-substantive and are approved.

EPA will take separate action on the revised designated uses, dissolved oxygen criteria, or segment numbers and/or descriptions for the following water bodies: Bois d'Arc Creek (0202); Catfish Creek (0804); Flag Lake Drainage Canal (1111); Thompsons Creek (1242); Skull Creek (1402); Slaughter Creek (1427); Wilbarger Creek and an unnamed tributary (1434); Elm Creek (1803); Sandies Creek (1803); Hurricane Levee Canal (2437); and, Garcitas Creek (2453).

Appendix G - Site-specific Recreational Uses and Criteria for Unclassified Water Bodies

Recreational UAAs were conducted for the water bodies list below, in accordance with TCEQ's protocol titled *Recreational Use-Attainability Analyses (RUAAs): Procedures for a Comprehensive RUAA and a Basic RUAA Survey*. The RUAAs documented that the primary contact recreation use is not attainable, due to the factor specified at 40 CFR 131.10(g)(2) of the federal regulation which reads: "Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met."

The presumed use of primary contact recreation is revised to a secondary contact recreation use for unclassified water bodies in the Canadian River, Red River, Sabine River, Brazos River, Brazos Colorado Coastal and San Antonio-Nueces Coastal basins, as listed in the following table.

Segment	Water body	Use	E. coli criterion (geometric mean)	
0101	Dixon Creek	Secondary Contact Recreation 1	630 colonies/100 mL	
0214	Buffalo Creek	Secondary Contact Recreation 1	630 colonies/100 mL	
0230	Paradise Creek	Secondary Contact Recreation 1	630 colonies/100 mL	
0502	Nichols Creek	Secondary Contact Recreation 1	630 colonies/100 mL	
1202	Allens Creek	Secondary Contact Recreation 1	630 colonies/100 mL	
1209	Duck Creek	Secondary Contact Recreation 1	630 colonies/100 mL	
1209	Shepherd Creek	Secondary Contact Recreation 1	630 colonies/100 mL	
1222	Duncan Creek	Secondary Contact Recreation 1	630 colonies/100 mL	
1223	Armstrong Creek	Secondary Contact Recreation 2	1030 colonies/100 mL	
1226	Indian Creek	Secondary Contact Recreation 1	630 colonies/100 mL	
1226	Sims Creek	Secondary Contact Recreation 1	630 colonies/100 mL	
1226	Alarm Creek	Secondary Contact Recreation 1	630 colonies/100 mL	
1226	Little Green Creek	Secondary Contact Recreation 1	630 colonies/100 mL	
1242	Cottonwood Branch	Secondary Contact Recreation 1	630 colonies/100 mL	
1242	Campbells Creek	Secondary Contact Recreation 1	630 colonies/100 mL	
1247	Willis Creek	Secondary Contact Recreation 1	630 colonies/100 mL	
1255	Goose Branch	Secondary Contact Recreation 2	1030 colonies/100 mL	
1255	North Fork Upper North Bosque River	Secondary Contact Recreation 2	1030 colonies/100 mL	
1255	Scarborough Creek	Secondary Contact Recreation 2	1030 colonies/100 mL	
1255	Unnamed tributary of Goose Branch	Secondary Contact Recreation 2	1030 colonies/100 mL	
1255	Unnamed tributary of Scarborough Creek	Secondary Contact Recreation 1	630 colonies/100 mL	
1255	Woodhollow Branch	Secondary Contact Recreation 2	1030 colonies/100 mL	
1255	Dry Branch	Secondary Contact Recreation 1	630 colonies/100 mL	
1302	Gum Tree Branch	Secondary Contact Recreation 1	630 colonies/100 mL	
2004	Aransas Creek	Secondary Contact Recreation 1	630 colonies/100 mL	

EPA approves each of the revised uses and criteria identified in the above table. EPA reviewed each RUAA to confirm the appropriateness of each use change. EPA also approves editorial revisions to the descriptions for the following water bodies: Big Sandy Creek (0810); Garrett Creek (0810); Salt Creek (0810); Brickhouse Gully/Bayou (1017); unnamed tributary of Whiteoak Bayou (1017); East Yegua Creek (1212); Walnut Creek (1221); Bullhead Bayou (1245) and unnamed tributary of Bullhead Bayou (1245).

EPA will take separate action on the proposed revisions of recreational uses for other water bodies in the Red River, Cypress Creek, Sabine River, Neches River, Trinity River and Brazos River basins.

II. REVISIONS THAT DO NOT REQUIRE ACTION BY EPA UNDER CWA SECTION 303(c)

Language was added to several provisions of the 2018 TSWQS that EPA does not consider to be standards under CWA section 303(c). These revisions include updates to the titles of both volumes of the *Texas Surface Water Quality Procedures* in §307.9(a), (b), (c)(1) and (2), (d)(1), and (f). Other editorial revisions were made in §307.6(e)(2)(B) and (D), §307.9(d)(2), and §307.9(e)(3)(D). EPA is not acting on these provisions because they are not (1) legally binding provisions adopted or established pursuant to State law that (2) address designated uses, criteria, or antidegradation, and (3) describe the desired condition or level of protection of the water body.

The criteria listed in the table below were added to Appendix E of the 2018 TSWQS. EPA has previously approved each of these site-specific criteria under CWA section 303(c), following the process in §307.6(c)(9) of the TSWQS, but is identifying the criteria in this enclosure for convenience. These criteria were developed after the adoption of the 2014 TSWQS and were listed on EPA's Water Quality Standards Repository following approval under CWA section 303(c).

Segment	Site description	Facility	Parameter	Site-specific Adjustment Factor	EPA approval
0305	Unnamed tributary of Cottonwood Branch from the edge of the mixing zone with an unnamed NRCS reservoir upstream to permitted Outfall 001 in Lamar County	La Frontera Holdings	Copper	3.98	04/04/2018
0601	All non-tidally influenced ditches upstream of Star Lake Canal upstream to permitted Outfall 001 in Jefferson County	INEOS Calabrian Corporation	Copper	3.26	08/26/2014

Segment	Site description	Facility	Parameter	Site-specific Adjustment Factor	EPA approval
0820	Muddy Creek from the edge of the mixing zone with Segment 0820 upstream to permitted Outfall 001 in Dallas County	North Texas Municipal Water District	Copper	4.98	11/17/2015
1005	Santa Anna Bayou from the edge of the mixing zone in Segment 1005 upstream to permitted Outfall 001 in Harris County	Akzo Nobel Chemicals LLC and Akzo Nobel Functional Chemicals LLC	Zinc	1.82	03/18/2014
1008	Montgomery County Drainage District No. 6 Channel IIDF from the confluence with Spring Creek, Segment 1008, upstream to the permitted outfall	Rayford Road Municipal Utility District	Copper	6.82	08/01/2016
1009	Faulkey Gully from the mixing zone with Segment 1009 upstream to permitted Outfall 001	Faulkey Gully Municipal Utility District	Copper	3.997	06/05/2018
1014	Willow Fork Bayou from the edge of the mixing zone with Segment 1014 in Fort Bend County upstream to permitted Outfall 001 in Waller County	Igloo Products Corp.	Aluminum	5.43	08/12/2015
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	National Oilwell Varco, L.P.	Zinc	5.24	04/04/2017
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 permitted Outfall 001 in Harris County	Weatherford U.S. L.P.	Copper	4.55	03/06/2015
1209	Unnamed tributary of Sulphur Creek from the edge of the mixing zone with Sulphur Creek upstream to the permitted outfall	Tenaska Frontier Partners, LTD.	Copper	2.64	06/05/2017