NPDES PERMIT NO. TX0140023
STATEMENT OF BASIS

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

APPLICANT:

Keystone Pipeline Project (Gulf Coast Segment)
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ISSUING OFFICE:

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DATE PREPARED:

October 16, 2012

PERMIT ACTION

This is a modification to a current permit issued on August 04, 2011, with an effective date of September 1, 2011, and an expiration date of August 31, 2016. The permit expiration date remains August 31, 2016. An NPDES Application for a Permit to Discharge (Form 1 & 2D) dated August 20, 2012, was received on August 24, 2012.

This permit modification is prepared in response to TransCanada Keystone Pipeline, LP (Keystone) letter dated August 20, 2012, requesting modification of the current permit. Keystone Pipeline is planning to add additional Outfalls described below to the already permitted Outfalls.

40 CFR CITATIONS: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations, revised as of August 24, 2012.

RECEIVING WATER – BASIN

Various

DOCUMENT ABBREVIATIONS

For brevity, Region 6 used acronyms and abbreviated terminology in this Statement of Basis document whenever possible. The following acronyms were used frequently in this document:

BAT	Best Available Technology Economically Achievable)
BOD_5	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COD	Chemical oxygen demand
COE	United States Corp of Engineers
CWA	Clean Water Act
DMR	Discharge monitoring report
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
F&WS	United States Fish and Wildlife Service
GPD	Gallon per day
HT	Hydrostatic Testing
IP	Procedures to Implement the Texas Surface Water Quality Standards
µg/l	Micrograms per liter (one part per billion)
mg/l	Milligrams per liter (one part per million)
MGD	Million gallons per day
MSGP	Multi-Sector General Permit
NPDES	National Pollutant Discharge Elimination System
MQL	Minimum quantification level
O&G	Oil and grease
RRC	Railroad Commission of Texas
RP	Reasonable potential
SIC	Standard industrial classification
s.u.	Standard units (for parameter pH)
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TDS	Total dissolved solids
TMDL	Total maximum daily load
TOC	Total Organic Carbon
TRC	Total residual chlorine
TSS	Total suspended solids
TSWQS	Texas Surface Water Quality Standards
WET	Whole effluent toxicity
WQMP	Water Quality Management Plan
WQS	Water Quality Standards

I. PROPOSED CHANGES FROM CURRENT PERMIT

1. The latitude for Outfall 023 has been corrected from 35° 20’ 59” N to 33° 20’ 59” N.
2. Additional Outfalls 067 through 095, 097 and 098 have been established in the modified permit based on Permit modification application.
3. The Coordinates for the permitted Outfalls 030 have been changed from Latitude: 32° 33’ 28” N; Longitude: 95°8'13"W to Latitude: 32°33'48.85"N; Longitude: 95°8'9.71"W.
4. The Coordinates for the permitted Outfalls 039 have been changed from Latitude: 31° 8’6” N; Longitude: 94°49'3"W to Latitude: 31°7'38.24"N; Longitude: 94°48'43.93"W.

II. APPLICANT LOCATION and ACTIVITY

The proposed modification allows only the discharge of hydrostatic test water from the Red River Oklahoma/Texas to Nederland, Texas.

Under the SIC code 4612, Crude Petroleum Pipelines, the applicant plans to operate a crude oil pipeline and related facilities. The project will have the nominal capacity to deliver 830,000 barrels per day of crude oil from an oil supply hub in Cushing, Oklahoma through to the Red River State border and then extending down to Nederland, Texas. In total, the Gulf Coast project will consist of approximately 485 miles of 36-inch diameter Mainline Pipeline, 330 miles of which will be within Texas State borders.

III. DISCHARGE LOCATION

The additional discharge points showing Outfall number, discharge coordinates: latitude and longitude, county, average flow rate in millions gallons per day (MGD), receiving water, and the waterbody identification numbers are shown in the following table:

Outfall Reference Number	Discharge Coordinates Latitude Deg° Min’ Sec” Longitude Deg° Min’ Sec”	County	Average Flow MGD	Receiving Water	Segment #
067	33° 28’ 50.21” N 95° 36’ 32.15” W	Delta	4.32	North Sulphur River	0305
068	32° 32’ 53.65” N 95° 7’ 56.39” W	Smith	4.32	Sabine River	0506
069	31° 7′ 59.15” N 94° 48’ 42.30” W	Polk	4.32	Neches River	0601
070	33° 52’ 49.43” N 95° 55’ 27.74” W	Fanin	4.32	Unnamed Tributary to Red River	0202
071	33° 49’36.40” N 95° 51’ 55.65” W	Fanin	4.32	Unnamed Tributary to Bois D’Arc Creek	0202A
072	33° 29’ 10.69” N 95° 36’ 45.43” W	Lamar	4.32	Unnamed Tributary to North Sulphur River	0305
073	33° 20’ 58.28” N 95° 30’ 23.15” W	Delta	4.32	South Sulphur River	0303
074	33° 12’ 51.52” N 95° 23’ 51.68” W	Hopkins	4.32	Unnamed Tributary to White Oak Creek	303B
075	33° 1’ 56.82” N 95° 15’ 57.54” W	Franklin	4.32	Unnamed Tributary to Big Cypress Creek	405A
076	32° 40’ 13.54” N 95° 9’ 32.96” W	Wood	4.32	Unnamed Tributary to Big Sandy Creek	0514
077	32° 38’ 25.88” N	Upshur	4.32	Unnamed Tributary to Big	0514

Outfall Reference Number	Discharge Coordinates Latitude Deg° Min' Sec" Longitude Deg° Min' Sec"	County	Average Flow MGD	Receiving Water	Segment #
	95° 9' 7.97" W			Sandy Creek	
078	32° 33' 48.85" N 95° 8' 9.71"W	Upshur	4.32	Unnamed Tributary to Sabine River	0506
079	32° 33' 5.27" N 95° 8' 3.07" W	Upshur	4.32	Unnamed Tributary to Sabine River	0506
080	31° 51' 44.40" N 94°55' 19.44" W	Rusk	4.32	Unnamed Tributary to East Fork Angelina River	0611A
081	31° 35' 48.46" N 94° 53' 28.78" W	Nacogdoches	4.32	Unnamed Tributary to Angelina River	0611
082	31° 34' 33.64" N 94° 53' 38.85" W	Cherokee	4.32	Unnamed Tributary to Angelina River	0611
083	31° 7' 38.24" N 94° 48' 43.93" W	Polk	4.32	Unnamed Tributary to Neches River	0604
084	30° 29' 11.85" N 94° 46' 58.52" W	Liberty	4.32	Unnamed Tributary to Menard Creek	0802D
085	30° 7' 48.92" N 94° 29'53.51" W	Hardin	4.32	Unnamed Tributary to Pine Island Bayou	0607
086	30° 6' 32.91" N 94° 26' 41.52" W	Border of Liberty and Jefferson	4.32	Unnamed Tributary to Pine Island Bayou	0607
087	30° 4'58.38" N 94° 17' 25.03" W	Jefferson	4.32	Unnamed Tributary to Mayhaw Bayou	0701B
088	30°4'34.42" N 94° 17' 2.01" W	Jefferson	4.32	Unnamed Tributary to Green Pond Gully	0701A
089	30° 3' 37.83" N 94° 15' 42.35" W	Jefferson	4.32	Unnamed Tributary to Green Pond Gully	0701A
090	30° 1' 12.11" N 94° 11' 14.29" W	Jefferson	4.32	Unnamed Tributary to Willow Marsh Bayou	0704A
091	30° 0' 51.83" N 94°10' 10.14" W	Jefferson	4.32	Unnamed Tributary to Willow Marsh Bayou	0704 A
092	30° 0' 3.99" N 94° 7' 41.47" W	Jefferson	4.32	Unnamed Tributary to Hillebrandt Bayou	704
093	29° 59' 21.81" N 94° 4' 17.72" W	Jefferson	4.32	Unnamed Tributary to John's Gully (Trib. to Hillebrandt Bayou)	704
094	30° 0' 12.16" N 94° 1' 15.66" W	Jefferson	4.32	Unnamed Tributary to Neches River Tidal	601
095	29° 59'55.37'' N 94° 0' 50.78''W	Jefferson	4.32	Unnamed Tributary to Neches River Tidal	601
097	30° 59' 13.46" N 94° 46' 55.74" W	Polk	4.32	Unnamed Tributary to Creeds Creek (Tributary to Bear Creek) in Neches River Basin	0604L (Bear Creek)
098	30° 23' 17.89" N 94° 44' 4.48" W	Liberty	4.32	Unnamed Tributary to Arizona Creek(Tributary to Pine Island Bayou	0607 (Pine Island Bayou)

The permited Outfalls showing Outfall number, discharge coordinates: latitude and longitude, county, average flow rate in millions gallons per day (MGD), receiving water, and the waterbody identification numbers are shown in the following table:

Outfall Reference Number	Discharge Coordinates Latitude Deg° Min' Sec" Longitude Deg° Min' Sec"	County	Average Flow MGD	Receiving Water	Segment #
019	33° 52' 49" N 95° 55' 28" W	Fanin	4.32	Red River	0202
20	33° 49' 37.58" N 95° 51' 56.22" W	Fanin	4.32	Unnamed tributary to Bois D'Arc Creek	0202A
20a	33° 49′ 55.57" W 95° 52' 27.80" W	Fanin	4.32	Unnamed tributary to Bois D'Arc Creek	0202A
021	33° 29' 10" N 95° 36' 46" W	Lamar	4.32	North Sulphur River	0305
022	33° 26' 12" N 95° 34' 23" W	Delta	4.32	Lake Creek (Trib to South Sulphur River)	0303
023	33° 20' 59" N 95° 30' 25" W	Delta	4.32	Sulphur/South Sulphur River	0303
024	33° 12' 52" N 95° 23' 54" W	Hopkins	4.32	White Oak Creek	0303B
025	33° 2' 0" N 95° 15' 57" W	Franklin	4.32	Unnamed Trib. to Lake Cypress Springs	0405
026	32° 53' 26" N 95° 13' 2" W	Wood	4.32	Unnamed Trib. to Big Sandy Creek	0514
027	32° 51' 30" N 95° 12' 14" W	Wood	4.32	Unnamed Trib. to Little Cypress Bayou	0409
028	32° 40' 4" N 95° 9' 32" W	Wood	4.32	Unnamed Trib. to Big Sandy Creek	0514
029	32° 38' 25" N 95° 9' 7"W	Upshur	4.32	Big Sandy Creek	0514
030	32° 33' 48.85" N 95° 8' 9.71"W	Upshur	4.32	Sabine River	0506
031	32° 33' 8" N 95° 8' 3" W	Upshur	4.32	Sabine River	0506
032	32° 15' 57" N 95° 3' 36" W	Smith	4.32	Caney Creek (Trib. to Lake Tyler)	0613
033	31° 52' 1" N 94° 55' 27" W	Rusk	4.32	East Fork Angelina River	0611A
034	31° 51' 30" N 94° 55' 15" W	Rusk	4.32	East Fork Angelina River	0611A
035	31° 35' 48" N 94° 53' 38" W	Nacogdoches	4.32	Unnamed Trib. to Angelina River Above Sam Rayburn Reservoir	0611
036	31° 34' 32" N 94° 53'38" W	Cherokee	4.32	Angelina River Above Sam Rayburn Reservoir	0611
037	31° 31' 40" N 94° 55' 14" W	Cherokee	4.32	Stokes Creek (Trib.to Angelina River Above Sam Rayburn Reservoir	0611
038	31° 31' 3" N 94° 55' 3" W	Cherokee	4.32	Stokes Creek (Trib.to Angelina River Above Sam Rayburn Reservoir	0611
039	31° 7' 38.24" N 94° 48' 43.93" W	Angelina	4.32	Neches River Below Lake Palestine	0604
040	31° 7' 53" N 94° 49' 11" W	Polk	4.32	Neches River Below Lake Palestine	0604
041	30° 59' 13" N 94° 47' 5" W	Polk	4.32	Creeds Creek (Trib. to Piney Creek)	0604D

Outfall Reference Number	Discharge Coordinates Latitude Deg° Min' Sec" Longitude Deg° Min' Sec"	County	Average Flow MGD	Receiving Water	Segment #
042	30° 58' 24" N 94° 47' 12" W	Polk	4.32	Jones Creek (Trib. to Piney Creek)	0604D
043	30° 29' 48" N 94° 47' 16" W	Polk	4.32	Bear Foot Lake (Trib. to Pine Island Bayou)	0607
044	30° 14' 0" N 94° 40' 56" W	Liberty	4.32	Batiste Creek (Trib. to Willow Creek)	0607C
045	30° 7' 55" N 94° 30' 14" W	Hardin	4.32	Pine Island Bayou	0607
45a	30° 8'2'' N 94° 30' 31''W	Hardin	4.32	Pine Island Bayou	0607
046	30° 4' 55" N 94° 17' 8" W	Jefferson	4.32	Lower Neches Valley Authority Canal (Trib. to Pine Island Bayou)	0607
047	30° 4' 33" N 94° 17' 0" W	Jefferson	4.32	Bi Canal (Trib. to Pine Island Bayou	0607
048	30° 3' 54" N 94° 16' 8" W	Jefferson	4.32	Unnamed Trib. to Bi Canal (Trib. to Pine Island Bayou)	0607
049	30° 1' 14" N 94° 11' 2" W	Jefferson	4.32	Marsh Bayou (Trib. to Hillebrandt Bayou	0704
050	30° 0' 34" N 94° 9' 37" W	Jefferson	4.32	Marsh Bayou (Trib. to Hillebrandt Bayou	0704
50a	30° 0' 32" N 94 °9' 32''N	Jefferson	4.32	Hillebrandt Bayou	0704
051	30° 0' 2" N 94° 7' 42" W	Jefferson	4.32	Hillebrandt Bayou	0704
052	29° 59' 20" N 94° 5' 10" W	Jefferson	4.32	Johns Gully (Trib. to Hillebrandt Bayou	0704
053	30° 0' 5" N 94° 1' 1" W	Jefferson	4.32	Neches River	0601
054	29° 59' 59" N 94° 0' 54" W	Jefferson	4.32	Neches River	0601

IV. DISCHARGE DESCRIPTION

This will be a new facility and no discharge has occurred. Therefore, no effluent data are available. However, the proposed discharges from each outfall are described as follows:

Discharges from Outfall 067 (GC-ML-6) are to receiving water named North Sulphur River, Segment No. 0305, in Sulphur River Basin. The designated uses for Segment No. 0305 are contact recreation and high aquatic life.

Discharges from Outfall 068 (GC-ML-7) are to Sabine River below Lake Tawakoni in Segment No. 0506. The designated uses for Segment No. 0506 are contact recreation, high aquatic life and public water supply.

Discharges from Outfall 069 (GC-ML-8) are to receiving water named Neches River, Segment No. 0601 in Neches River Basin. The designated uses of Neches River Tidal, Segment No. 0601 are contact recreation and Intermediate aquatic life.

Discharges from Outfall 070 (GC-HD-9) are to unnamed tributary thence to Red River, Segment No. 0202 in Red River Basin. The designated uses of Segment No. 0202 are contact recreation, high aquatic life and public water supply.

Discharges from Outfall 071 (GC-HD-10) are to unnamed tributary thence to Bois D'Arc Creek, Segment No. 0202A in Red River Basin. The designated uses of Segment 0202 are contact Recreation, high aquatic life and public water supply.

Discharges from Outfall 072 (GC-HD-11) are to unnamed tributary, then to North Sulphur River, Segment No. 0305, in Sulphur River Basin. The designated uses of Segment No. 0305 are contact recreation and high aquatic life.

Discharges from Outfall 073 (GC-HD-12) are to South Sulphur River, Segment No. 0303 in Sulphur River Basin. The designated uses of Segment No. 0303 are contact recreation and high aquatic life.

Discharges from Outfall 074 (GC-HD-13) are to unnamed tributary, then to White Oak Creek, in Segment No. 0303B in Sulphur River Basin. The designated uses of Segment No. 0303 are contact recreation and high aquatic life.

Discharges from Outfall 075 (GC-HD-14) are to unnamed tributary, then to Big Cypress Creek in Segment No. 405A in Cypress Creek Basin. The designated uses of Segment No. 0405 are contact recreation, high aquatic life and public water supply.

Discharges from Outfalls 076 (GC-HD-15) and 077 (GC-HD-16) are to unnamed tributary, then to Big Sandy Creek, in Segment No. 0514 in Sabine River Basin. The designated uses of Big Sandy Creek are contact recreation, high aquatic life and public water supply.

Discharges from Outfalls 078 (GC-HD-17) and 079 (GC-HD-18) are to unnamed tributary, then to Sabine River, in Segment No. 0506 in Sabine River Basin. The designated uses of Sabine River below Lake Tawakoni are contact recreation, high aquatic life and public water supply.

Discharges from Outfall 080 (GC-HD-19) are to unnamed tributary to East Fork Angelina River, Segment No. 0611A, while discharges from Outfalls 081 (GC-HD-20) and 082 (GC-HD-21) are to unnamed tributary to Angelina River, Segment No. 0611. All the three Outfalls are in Neches River Basin. The designated uses of Angelina River above Sam Rayburn Reservoir are contact recreation, high aquatic life and public water supply.

Discharges from Outfall 083 (GC-HD-22) are to unnamed tributary to Neches River below Lake Palestine, Segment No. 0604 in Neches River Basin. The designated uses of Neches River below Lake Palestine are contact recreation, high aquatic life and public water supply.

Discharges from Outfall 084 (GC-HD-23) are to unnamed tributary to Menard Creek, Segment 802D in Trinity River Basin. The designated uses of Segment 802, Trinity River below Lake Livingston are contact recreation, high aquatic life and public water supply.

Discharges from Outfalls 085 (GC-HD-24) and 086 (GC-HD-25) are to unnamed tributary to Pine Island Bayou, Segment No. 0607 in Neches River Basin. The designated uses of Pine Island Bayou, Segment No. 0607 are contact recreation, high aquatic life and public water supply.

Discharges from Outfall 087 (GC-HD-26) are to unnamed tributary to Mayhaw Bayou, Segment 0701B in Neches-Trinity Coastal Basin. The designated uses of Segment 0701, Taylor Bayou above Tidal are contact recreation and intermediate aquatic life.

Discharges from Outfalls 088 (GC-HD-27) and 089 (GC-HD-28) are to unnamed tributary to GreenPond Gully, Segment 0701A of Neches-Trinity Coastal Basin. The designated uses of Segment 0701, Taylor Bayou above Tidal are contact recreation and intermediate aquatic life. Discharges from Outfalls 090 (GC-HD-29) and 091 (GC-HD-30) are to unnamed tributary to Willow Marsh Bayou, Segment 0704A of Neches-Trinity Coastal Basin. Also discharges from Outfalls 092 (GC-HD-31) and 093 (GC-HD-32) are to unnamed tributary to Hillebrandt Bayou and to unnamed tributary to Johns Gully (tributary to Hillebrandt Bayou) respectively. The designated uses of Segment 0704, Taylor Bayou above Tidal are contact recreation and intermediate aquatic life.

Discharges from Outfalls 094 (GC-HD-33) and 095 (GC-HD-34) are both to unnamed tributary to Neches River Tidal, Segment 0601 of Neches River Basin. The designated uses of Segment 0601, Neches River Tidal are contact recreation and intermediate aquatic life.

Discharges from Outfall 097 (GC-ML-9) are to unnamed Tributary to Creeds Creek (Tributary to Bear Creek), Neches River below Lake Palestine, Segment No. 0604 in Neches River Basin. The designated uses of Neches River below Lake Palestine are contact recreation, high aquatic life and public water supply.

Discharges from Outfall 098 (GC-ML-10) are to unnamed Tributary to Arizona Creek (Tributary to Pine Island Bayou), in Neches River Basin. The designated uses of Pine Island Bayou, Segment No. 0607 are contact recreation, high aquatic life and public water supply.

V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

A. OVERVIEW of TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITION FOR PERMIT ISSUANCE

Regulations contained in 40 CFR §122.44 NPDES permit limits are developed that meet the more stringent of either technology-based effluent limitation guidelines, numerical and/or narrative water quality standard-based effluent limits, on best professional judgment (BPJ) in the absence of guidelines, and/or requirements pursuant to 40 CFR 122.44(d), whichever are more stringent.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated at 40 CFR §122.44 (a) require technology-based effluent limitations to be placed in NPDES permits based on ELGs where applicable, on BPJ in the absence of guidelines, or on a combination of the two. In the absence of promulgated guidelines for the discharge, permit conditions may be established using BPJ procedures.

There are no published ELG's for this type of activity. Permit limits are proposed based on BPJ. Since hydrostatic test water discharges are batch discharges of short term duration, limits in this Permit will be expressed in terms of daily maximum concentrations rather than in terms of mass limitations, as allowed by 40 CFR 122.45(e) and (f). Limitations for Oil & Grease, TSS, and pH

are proposed in the permit. The proposed limitations for TSS are 30 mg/l average, 45 mg/l maximum; and Oil & Grease is 15 mg/l maximum. Narrative standards for oil, grease, or related residue have been placed in the proposed permit. A technology-based limit of 15 mg/l for Oil and Grease should assure that the narrative criterion is maintained. Concentration limits will be protective of the stream uses.

C. WATER QUALITY BASED LIMITATIONS

1. General Comments

Water quality based requirements are necessary where effluent limits more stringent than technology-based limits are necessary to maintain or achieve federal or state water quality limits. Under Section 301(b)(1)(C) of the CWA, discharges are subject to effluent limitations based on federal or state WQS. Effluent limitations and/or conditions established in the draft permit are in compliance with applicable State WQS and applicable State water quality management plans to assure that surface WQS of the receiving waters are protected and maintained, or attained.

The general criteria and numerical criteria which make up the stream standards are provided in the 2000 EPA-approved Texas Water Quality Standards, Texas Administrative Code (TAC), 30 TAC Sections 307.1 - 307.9, effective August 17, 2000.

2. Reasonable Potential- Procedures

EPA develops draft permits to comply with State WQS, and for consistency, attempts to follow the IP where appropriate. However, EPA is bound by the State's WQS, not State guidance, including the IP, in determining permit decisions. EPA performs its own technical and legal review for permit issuance, to assure compliance with all applicable State and Federal requirements, including State WQS, and makes its determination based on that review. Waste load allocations (WLA's) are calculated using estimated effluent dilutions, criteria outlined in the TWQS, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentrations that can be discharged and still meet instream criteria after mixing with the receiving stream. From the WLA, a long term average (LTA) is calculated, for both chronic and acute toxicity, using a log normal probability distribution, a given coefficient of variation (0.6), and either a 90th or a 99th percentile confidence level. The 90th percentile confidence level is for discharges to rivers, freshwater streams and narrow tidal rivers with upstream flow data, and the 99th percentile confidence level is for the remainder of cases. For facilities that discharge into receiving streams that have human health standards, a separate LTA will be calculated. The implementation procedures for determining the human health LTA use a 99th percentile confidence level, along with a given coefficient of variation (0.6). The lowest of the calculated LTA; acute, chronic and/or human health, is used to calculate the daily average and daily maximum permit limits.

Procedures found in the IP for determining significant potential are to compare the reported analytical data either from the DMR history and/or the application information, against percentages of the calculated daily average water quality-based effluent limitation. If the average of the effluent data equals or exceeds 70% but is less than 85% of the calculated daily average limit, monitoring for the toxic pollutant will usually be included as a condition in the permit. If the average of the effluent data is equal to or greater than 85% of the calculated daily average limit, the permit will generally contain effluent limits for the toxic pollutant. The permit may specify a compliance period to achieve this limit if necessary.

Procedures found in the IP require review of the immediate receiving stream and effected downstream receiving waters. Further, if the discharge reaches a perennial stream or an intermittent stream with perennial pools within three-miles, chronic toxicity criteria apply at that confluence.

For Outfalls 075, 077, 081, 084, 085, 086, 089, 090, 091, 093, 094, and 095, the hydrostatic test water will be drawn from municipal water supply and discharged into various Creek. Total Residual Chlorine is proposed for Outfalls 075, 077, 081, 084, 085, 086, 089, 090, 091, 093, 094, and 095, since the source water is from municipal water supply. For Outfalls 067 through 074; 076, 078 through 080; 082, 083, and 092, the hydrostatic test water is to be discharged back into the same water body from which it was taken. As a result, intake credits are authorized for Outfalls 067 through 074; 076, 078 through 080; 082, 083, and 092, to account for in-situ waterbody conditions for only TSS. Outfalls 087, 088, 097, and 098, will be drawn from the Pond/Private Lake/River and be discharged into another waterbody. Intake credits are not allowed for Outfalls 087, 088, 097, and 098 since the discharge will be made into another waterbody.

5. Permit-Action - Water Quality-Based Limits

Regulations promulgated at 40 CFR §122.44(d) require limits in addition to, or more stringent than effluent limitation guidelines (technology based). State WQS that are more stringent than effluent limitation guidelines are as follows:

a. pH

The daily minimum and daily maximum permit limits of 6.0 standard units to 9.0 standard units on hydrostatic test general permits developed by other EPA Regions and States. TAC 307.10 states, "The pH criteria are listed as minimum and maximum values expressed in standard units at any site within the segment."

Wastewater discharges from the facility will flow into various receiving waterbody within various segment. pH shall be limited to the criteria listed for each Segment. For all Outfalls, pH shall be limited to 6 – 8.5, except Outfall 070, 071, 084, 087 through 093 where pH shall be limited to 6.5 – 9.

b. Total Residual Chlorine

TRC shall be limited to 0.033 mg/l in Outfalls that use municipal water. These Outfalls include: 075, 077, 081, 084, 085, 086, 089, 090, 091, 093, 094, and 095.

c. Narrative Limitations

Narrative protection for aesthetic standards will propose that surface waters shall be maintained so that oil, grease, or related residue will not produce a visible film or globules of grease on the surface or coat the banks or bottoms of the watercourse; or cause toxicity to man, aquatic life, or terrestrial life.

The following narrative limitations in the proposed permit represent protection of water quality for all Outfalls.

"The effluent shall contain no visible film of oil or globules of grease on the surface or coat the banks or bottoms of the watercourse."

d. Toxics

The CWA in Section 301 (b) requires that effluent limitations for point sources include any limitations necessary to meet water quality standards. Federal regulations found at 40 CFR §122.44 (d) state that if a discharge poses the reasonable potential to cause an in-stream excursion above a water quality criteria, the permit must contain an effluent limit for that pollutant.

The applicant proposes to draw water from various municipal water supplies, Rivers and Pond to conduct its hydrostatic testing. Hydrostatic test water will contact only new pipe, and no chemicals will be added. As a result, no contaminants are expected to be present in the hydrostatic test water discharge at amounts that would pose a reasonable potential to exceed State WQS.

Solids and Foam

The prohibition of the discharge of floating solids or visible foam in other than trace amounts is proposed in the draft permit. In addition, there shall be no discharge of visible films of oil, globules of oil, grease or solids in or on the water, or coatings on stream banks.

D. MONITORING FREQUENCY FOR LIMITED PARAMETERS

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity, 40 CFR §122.48(b), and to assure compliance with permit limitations, 40 CFR §122.44(i)(1). The monitoring frequencies are based on BPJ, taking into account the nature of the facility.

For ALL outfalls, monitoring for flow, TSS, Oil & Grease, total residual chlorine and pH shall be daily by grab sample, when discharging.

E. WHOLE EFFLUENT TOXICITY LIMITATIONS

There are no chemical specific limitations in the draft permit and the applicant has stated that no chemical additives such as corrosion inhibitors are being added to the HT water. There does not appear that the discharge will have a potential for toxicity. The draft permit does not propose any biomonitoring of the HT water.

F. FINAL EFFLUENT LIMITATIONS

See the draft permit for limitations.

VI. FACILITY OPERATIONAL PRACTICES

A. WASTE WATER POLLUTION PREVENTION REQUIREMENTS

The permittee shall institute programs directed towards pollution prevention. The permittee will institute programs to improve the operating efficiency and extend the useful life of the treatment system.

B. OPERATION AND REPORTING

The permittee must submit Discharge Monitoring Report's (DMR's) quarterly, beginning on the effective date of the permit, lasting through the expiration date of the permit or termination of the permit, to report on all limitations and monitoring requirements in the permit.

VII. IMPAIRED WATER - 303(d) LIST AND TMDL

According to the 2010 State of Texas 303(d) List for Assessed River/Stream Reaches Requiring Total Maximum Daily Loads (TMDLs), the receiving stream for Outfalls 067, 072, North Sulphur River, Segment No. 0305, in Sulphur River Basin is listed for impaired fish community and impaired macrobenthic community. This impairment is under TCEQ's category 5b, which implies that a review of the water quality standards for this water body will be conducted before a TMDL is scheduled.

Outfalls 068, 078, and 079, Sabine River, Water Body Segment No 0506 are listed as impaired for depressed dissolved oxygen, under category 5b.

Outfall 071, Bois D'Arc Creek, Water Body Segment #0202A is listed for bacteria, under TCEQ category 5b.

Outfall 074, White Oak Creek, Water Body Segment No 0303B is listed for depressed dissolved oxygen and bacteria, under TCEQ's category 5b.

Outfalls 076 and 077, Big Sandy Creek, Water Body Segment No 0514 is listed for bacteria, under TCEQ's category 5c. TCEQ Category 5c implies that additional data and information will be collected before a TMDL is scheduled.

Outfalls 080, East Fork of Angelina River, Water Body Segment No 0611A; 081 and 082, Angelina River above Sam Rayburn Reservoir are listed for bacteria, under TCEQ's category 5b. Outfall 083, Neches River below Lake Palestine, Water Body Segment No 0604 is listed for mercury in edible tissue, under TCEQ's category 5c.

Outfalls 085 and 086, Pine Island Bayou, Water Body Segment No 0607 are listed for depressed dissolved oxygen and bacteria, under TCEQ's category 5b and 5c respectively.

Outfalls 092 and 093, Hillebrandt Bayou, Water Body Segment No 0704 are listed for bacteria, under TCEQ's category 5b.

Outfall 098, Arizona Creek (Tributary to Pine Island Bayou), Water Body Segment No 0607L is listed for depressed dissolved oxygen and bacteria, under TCEQ's category 5b and 5c respectively.

Outfalls 069, 094, 095, Neches River, Water Body Segment No 0601; Outfall 070, Red River, Water Body Segment #0202; Outfall 073, South Sulphur River, Water Body Segment No 0303; Outfall 075, Big Cypress Creek, Water Body Segment No 0405A; Outfall 084, unnamed tributary to Menard Creek, Water Body Segment 0802D; Outfall 087, unnamed tributary to Mayhaw Bayou, Water Body Segment No 0701B; Outfalls 088 and 089, unnamed tributary to Green Pond Gully, Water Body Segment No 0701A; Outfalls 090 and 091, unnamed tributary to Willow Marsh Bayou, Water Body Segment No 0704A; and Outfall 097, unnamed tributary to Creeds Creek (tributary to Bear Creek) are not listed in the 2010 State of Texas 303(d) List for Assessed River/Stream Reaches Requiring Total Maximum Daily Loads (TMDLs)

The listed pollutants in all the segments above are bacteria, depressed dissolved oxygen, impaired fish community, impaired macrobenthic community and mercury in edible tissue. In light of the nature of the system, the discharger is not likely to contribute to bacteria, depressed dissolved oxygen, impaired fish community, impaired macrobenthic community and mercury in edible tissue. The discharge water will not be treated with biocides or other additives. Therefore, no additional requirements beyond the previously described technology-based or water quality-based effluent limitations and monitoring requirements, are established in the proposed permit.

VIII. ANTIDEGRADATION

The Texas Commission on Environmental Quality, Texas Surface Water Quality Standards, Antidegradation, Title 30, Part 1, Chapter 307, Rule §307.5 sets forth the requirements to protect designated uses through implementation of the State WQS. The limitations and monitoring requirements set forth in the proposed permit are developed from the State WQS and are protective of those designated uses. Furthermore, the policy sets forth the intent to protect the existing quality of those waters, whose quality exceeds their designated use. The permit requirements are protective of the assimilative capacity of the receiving waters, which is protective of the designated uses of that water.

IX. ENDANGERED SPECIES

The effects of EPA's permitting action are considered in the context of the environmental baseline. The environmental baseline is established by the past and present impacts of all Federal, State, or private actions and other human activities in an action area; the anticipated impacts of all proposed Federal projects in an action area that have already undergone formal or early ESA §7 consultation; and the impact of State or private actions that are contemporaneous with the consultation in process (50 CFR §402.02). Hydrostatic test water discharges occur after a pipeline has already been put in place following earth disturbing activities that have had to have received appropriate federal, state, and local authorizations putting the construction of pipeline itself into the environmental baseline. The scope of the evaluation of the effects of the discharge authorized by this permit was therefore limited to the effects related to the authorized discharge.

According to the most recent county listing available at US Fish and Wildlife Service (USFWS), Southwest Region 2 website, http://www.fws.gov/southwest/es/EndangeredSpecies/lists/, five species are listed as threatened or endangered in Jefferson County, two species in Delta, Lamar, Polk, and Hardin Counties and one specie in Cherokee, Fanin, Hopkins, Wood, Nacogdoches, and Liberty Counties; and zero specie in Upshur, Rusk, Franklin, and Smith Counties. EPA notes that all the species with the exception of American Burying Beetle **(*Nicrophorus***

americanus) were described in the original Statement of Basis. The description of the American Burying Bettle and its effect on the hydrostatic test discharge is described below.

AMERICAN BURYING BEETLE (*Nicrophorus americanus):*

The American burying beetle is the largest carrion beetle in North America. It has extremely distinctive coloration, being shiny black with bright orange markings; there are four orange bands on the wing cases, but unusually the pronotum and face also has orange markings.

The beetle is listed as endangered species in Lamar County. It is historically found throughout the eastern United States and into southern Canada, but it is today restricted to populations in a handful of central States.
During the winter months when temperatures are below 15 °C (60 °F) *N. americanus* adults bury themselves in the soil to overwinter. When temperatures are above 15 °C (60 °F) they emerge from the soil and begin the mating and reproduction process. Burying beetles are unusual in that both the male and female take part in raising the young. Male burying beetles often locate carcasses first and then attract a mate. Beetles often fight over the carcass, with usually the largest male and female individuals winning. The victors bury the carcass, the pair mates, and the female lays her egg in an adjacent tunnel. Within a few days, the larvae develop and both parents feed and tend their young, the larvae spend about a week feeding off of the carcass then crawl into the soil to pupate, or develop. Mature *N. americanus* beetles emerge from the soil 45 to 60 days after their parents initially bury the carcass. Adult American burying beetles live for only 12 months and adults die soon after they have ceased to provide for their young.

The decline of the American burying beetle has been attributed to habitat loss, alteration, and degradation. The discharges proposed to be authorized by the permit issuance will not affect those threats to threatened or endangered turtle species.

The Environmental Protection Agency has evaluated the potential effects of issuance of this permit modification upon listed endangered or threatened species. After review, EPA has determined that this permit modification will have "*no effect*" on listed threatened and endangered species nor will adversely modify designated critical habitat. EPA makes this determination based on the following:

1. No pollutants are identified by the permittee-submitted application at levels which might affect species habitat or prey species. Issuance of this permit is found to have no impact on the habitats of these species.

2. Based on information described above, EPA Region 6 has determined that discharges proposed to be authorized by the proposed permit will have no effect on the listed species in the listed Counties.

The standard reopener clause in the permit will allow EPA to reopen the permit and impose additional limitations if it is determined that changes in species or knowledge of the discharge would require different permit conditions.

Operators have an independent ESA obligation to ensure that any of their activities do not result in prohibited "take" of listed species. Section 9 of the ESA prohibits any person from "taking" a listed species, e.g., harassing or harming it, with limited exceptions. See ESA Sec 9; 16 U.S.C. §1538. This prohibition generally applies to "any person," including private individuals,

businesses and government entities. Operators who intend to undertake construction activities in areas that harbor endangered and threatened species may seek protection from potential "take" liability under ESA section 9 either by obtaining an ESA section 10 permit or by requesting coverage under an individual permit and participating in the section 7 consultation process with the appropriate FWS or NMFS office. Operators unsure of what is needed for such liability protection should confer with the appropriate Services.

X. CERTIFICATION

This permit is in the process of certification by the State agency following regulations promulgated at 40 CFR 124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service and to the National Marine Fisheries Service prior to the publication of that notice.

XI. FINAL DETERMINATION

The public notice describes the procedures for the formulation of final determinations.

XII. ADMINISTRATIVE RECORD

The following information was used to develop the modified permit:

A. APPLICATION

NPDES Application for Permit to Discharge, Form 1 & 2D, Permit Application Packages 2, 4, and 5 received on August 24, 2012.

B. State of Texas References

The State of Texas Water Quality Inventory, 13th Edition, Publication No. SFR-50, Texas Commission on Environmental Quality, December 1996.
"Procedures to Implement the Texas Surface Water Quality Standards via Permitting," Texas Commission on Environmental Quality, January 2003.

Texas Surface Water Quality Standards, 30 TAC Sections 307.1 - 307.9, effective August 17, 2000.

C. Endangered Species References

http://www.fws.gov/southwest/es/EndangeredSpecies/lists/

http://www.nature.org/animals/birds/animals/redcockaded.html
http://www.fws.gov/southwest/clearlakees/PDF/PINESNAKE.pdf

http://www.tpwd.state.tx.us/huntwild/wild/species/trlphlox/

http://www.arkive.org/american-burying-beetle/nicrophorus-americanus/#text=Biology

D. 40 CFR CITATIONS

Sections 122, 124, 125, 133, and 136

E. MISCELLANEOUS CORRESPONDENCE

Letter from Dorothy Brown, EPA, to MS. Sandra Barnett, Manager, Environment, TransCanada Keystone Pipeline, LP, dated September 14, 2012, informing applicant that the new NPDES permit numbers were terminated and assigned the existing NPDES permit number TX0140023.

E-mails from Jonathan Fredland, Asst Environmental Gulf Coast Project Manager, Keystone Gulf Coast Project to Maria Okpala, EPA, 8/28/12, 9/05/12, 9/06/12, 9/19/12, 9/25/12, & 9/27/12 receiving additional facility information.

E-mail from Molly Cagle, Partner, Baker Botts LLP, on behalf of Keystone Gulf Coast Project to Maria Okpala, EPA, 10/16/12, receiving additional permit application modification information.