

Longhorn Mitigation Plan
Commitment Implementation Status Report
Annual - 2021

Mitigation Item No.	Description	Timing	Status of Commitment Implementation
38	Longhorn shall submit periodic reports to DOT/OPS that will include information about the status of mitigation commitment implementation, the character of interim developments as relate to mitigation commitments, and the results of mitigation-related studies and analyses. The reports shall also summarize developments related to its Operational Reliability Assessment ("ORA"). The reports shall be made available to the public.		This report covers the 2021 annual reporting period. This report addresses mitigation commitments that either begin with, or extend beyond startup and have not had a Completion Report submitted to PHMSA/OPS. System startup occurred January 27, 2005.
10	Longhorn shall, following the use of sizing and (where appropriate) geometry tools, perform an in-line inspection of the existing pipeline (Valve J-1 to Crane) with a transverse field magnetic flux inspection (TFI) tool and remediate any problems identified. See the LPSIP at Section 3.5.2 and the ORA at Section 4.0.	At such intervals as are established by the ORA, provided that an inspection shall be performed no more than 3 years after system startup in Tier II and III areas.	No TFI runs were required or completed in 2021. No digs from previous TFI runs were completed in 2021.
11	Longhorn shall, following the use of sizing and (where appropriate) geometry tools, perform an in-line inspection of the existing pipeline (Valve J-1 to Crane) with a high resolution magnetic flux leakage tool (MFL Tool) and remediate any problems identified. See the LPSIP at Section 3.5.2 and the ORA at Section 4.0.	Within 3 months of startup and thereafter at such intervals as are established by the Operational Reliability Assessment	In 2021, a MFL tool was run from Odessa to Crane. The following lines had Digs completed in 2021: Barnhart to Cartman (24 Digs), Bastrop to Warda (13 Digs), Cartman to Kimble County (42 Digs), Cedar Valley to Bastrop (11 Digs), Crane to Texon – 2018 run (7 Digs), Eckert to Cedar Valley (13 Digs), James River to Eckert (31 Digs), Kimble County to James River (18 Digs), Satsuma to East Houston (2 Digs. 1 from a 2021 DEF run and the other from a 2019 run), Texon to Barnhart (35 Digs).
12	Longhorn shall, following the use of sizing and (where appropriate) geometry tools, perform an in-line inspection of the existing pipeline (Valve J-1 to Crane) with an ultrasonic wall measurement tool (UT Tool) and remediate any problems identified. See the LPSIP at Section 3.5.2 and the ORA at Section 4.0.	At such intervals as are established by the ORA, provided that an inspection shall be performed no more than 5 years after system startup.	No UT runs were required or completed in 2021.
12a	Longhorn shall perform an in-line inspection of the existing pipeline (Valve J-1 to Crane) with a "smart" geometry inspection tool and remediate any problems identified. See the LPSIP at Section 3.5.2 and the ORA at Section 4.0.	At such intervals as are established by the ORA, provided that no more than 3 years shall pass without an in-line inspection being performed using an inspection tool capable of detecting third party damage	In 2021 smart geometry tool inspections, High Resolution Deformation, were completed on the Odessa to Crane, Crane to Texon, and Satsuma to East Houston sections.
19	Longhorn has performed studies evaluating each of the following matters along the pipeline, and shall implement the recommendations of such studies. See Mitigation Item 19.		
19b	Scour, erosion and flood potential.	Periodically after startup. (Scheduled inspections occur at various water crossings at 6 month and 5 year intervals. Inspections also occur after certain flood events).	Waterway inspections were completed on the following waterways in 2021 (Mileposts shown) -- Boons Creek (113.56), Alum Creek (131.6), Onion Creek (164), Threadgill Creek (250), James River (263.6), Cypress Creek (47.3), Harris Creek (59.7), Cypress Creek (50.5), Rocky Branch (85.6), and Muddy Creek (69.2).
19d	Ground movement, subsidence and aseismic faulting	Periodically after startup. (The study recommended surveys to be performed every 6 months).	Monitoring was completed in June and December of 2021.

Longhorn Mitigation Plan
Commitment Implementation Status Report
Annual - 2021

Mitigation Item No.	Description	Timing	Status of Commitment Implementation
19e	Landslide potential.	Periodically after startup. (The study recommended surveys to be performed every 5 years).	A photogrammetry survey was conducted in November of 2020 and will not be completed again until 2025.
25	Longhorn shall develop enhanced public education/damage prevention programs to, inter alia (a) ensure awareness among contractors and potentially affected public, (b) promote cooperation in protecting the pipeline and (c) to provide information to potentially affected communities with regard to detection of and responses to well water contamination. See the LPSIP Section 3.5.4 See Mitigation Appendix, Item 25.	Continuously after startup.	Public awareness program was implemented as required by the LMP. Annual mail out was conducted for the affected public residential, general businesses and schools within ½ mile of the pipeline for urban areas and within 2 miles of the pipeline in rural areas, excavators and farmers within 10 miles of the pipeline and emergency officials and local public officials within the county, plus 20 miles of the pipeline. Brochures are now mailed in envelopes after an increase in returned Business Reply Cards (BRC's) occurred after the first mailing change in 2011. Magellan participated in an outreach program with scheduled emergency responder and excavator meetings in all 25 counties. Magellan continues to operate a school outreach program targeted at 4th and 5th grade students in the Austin area. Magellan participates in the Safe at Home school program in the Houston area. Magellan targeted 132 emergency responders in all 25 counties and provided maps and other information about Magellan's system in regard to public safety. Magellan continued our Kiosk program to distribute pipeline safety and damage prevention information and provided refills of promotional items for 6 legacy stores and set up 3 new stores for a total of 9 participating stores. Magellan was a sponsor with a collaborative group for National Excavator Initiative to target excavators with information and resources related to damage prevention featuring Mike Rowe from Dirty Jobs, this included several videos featuring Mike Rowe posted to the NEI website. Magellan's annual Supplemental Public Awareness program placed several 811 banners and billboards along Magellan's ROW, placed 811 newspaper ads in communities along the ROW, met with school officials to discuss their evacuation procedure, and attended TX811 chapter meetings. Magellan also had personal contact (email, phone call, or face-to-face) with stakeholders along Magellan's ROW as well as posted several messages to Magellan's Facebook page reaching over 9,348 stakeholders. Magellan is a Corporate sponsor of the Common Ground Alliance.
31	Longhorn shall perform a surge pressure analysis prior to any increase in the pumping capacity above those rates for which analyses have been performed or any other change which has the capability to change the surge pressures in the system. Longhorn will be required to submit mitigation measures acceptable to DOT/OPS prior to any such change in the system, which mitigation measures will adequately address any MASP problems on the system identified by the surge pressure analysis.	Prior to any change in the system that has the capability to cause surge pressures to occur on the system	No changes requiring a LMC 31 notification occurred in 2021.
32	Longhorn shall perform pipe-to-soil potential surveys semi-annually over sensitive and hypersensitive areas (which is twice the frequency required by DOT regulations - 49 C.F.R. 195.416) and corrective measures will be implemented, as necessary, where indicated by the surveys. See LPSIP Section 3.5.1.	No more than six months after startup and semi-annually thereafter.	Semi-annual pipe-to-soil potential surveys for 2021 have been completed.
Lower Colorado River Authority (LCRA) Settlement Agreement			
6	Describe any emergency drills and results from those drills within the Pedernales basin (City of Austin, Pedernales River watershed and Bastrop County) during this reporting period.	Once every 3 years	An emergency drill was conducted near Johnson City on June 18, 2019. A drill is scheduled for 2022.

Longhorn Mitigation Plan
Commitment Implementation Status Report
Annual - 2021

Mitigation Item No.	Description	Timing	Status of Commitment Implementation
Exhibit A 3a	Plans and specifications sealed by a professional engineer in Texas that details modifications necessary to public water systems that are regulated by TNRCC (or any successor agency) that take water from Lake Travis. Resealing should occur once every five years.	Once every 5 years	Plans and specifications were submitted to PHMSA in January 2019.
	Describe any maintenance, inspections, smart pigging, repairs, upgrades to the pipeline within the Colorado River basin (City of Austin, Pedernales River watershed and Bastrop County) during this reporting period. Colorado River Basin identified as MP 94.45 to MP 426.8 which includes ILI segments of Satsuma to Warda (last 18.5 miles), Warda to Cedar Valley, Cedar Valley to Eckert, Eckert to Ft. McKavett, and Ft. McKavett to Crane (first 102 miles)	Annually	In 2021, a MFL tool was run from Odessa to Crane. The following lines had Digs completed in 2021: Barnhart to Cartman (24 Digs), Bastrop to Warda (13 Digs), Cartman to Kimble County (42 Digs), Cedar Valley to Bastrop (11 Digs), Crane to Texon – 2018 run (5 Digs), Eckert to Cedar Valley (13 Digs), James River to Eckert (31 Digs), Kimble County to James River (18 Digs), Texon to Barnhart (35 Digs).
Operational Reliability Assessment			
	The ORA will provide Longhorn with an annual technical assessment of the actual effectiveness of the overall LPSIP. The ORA will provide feedback on the adequacy, frequency, and additional element criteria of the evaluation plan, which includes use of internal inspection devices, hydrotests, and other mechanical integrity assessment and confirming processes and technologies. The ORA results will be factored back into the LPSIP and will be integrated into the ongoing program.	Annually, or per event as defined in LMP	OPS approved Kiefner and Associates, Inc., as the independent, third-party ORA contractor. The 2021 Annual ORA report covering 2020 operations is to be submitted to PHMSA by the end of the first quarter 2022.
Longhorn Pipeline System Integrity Plan			
	The LPSIP consists of certain specific "Process Elements." The descriptions and program attributes of the Process Elements reflect action "over and above" those specified and required under various regulations and statutes, such as DOT's Title 49 C.F.R. Part 195. Implementation of the "Process Elements" will ensure that Longhorn will effectively identify, analyze, and responsibly manage the most important threats to and risk of the Longhorn Pipeline System.	Continuously - Operations Annually - Self Audit	The 2021 LPSIP Annual Self-Audit covering 2020 operations was completed, provided to PHMSA on January 4, 2022 and made available to the public on the Magellan Midstream Partners website at www.magellanlp.com under the "What We Do" tab and "Longhorn Info" link.
Relative Risk Assessment Model			
	The Relative Risk Assessment Model (Model) is designed to automatically prioritize and sort pipeline segments in accordance with their scored relative risk in relation to all other segments. Changes in the surrounding population, the environment, or mechanical attributes of the pipeline are updated in the model as new information is available and the Model is rerun.	Annually, or per event as defined in LMP	The model is updated periodically as new information becomes available. The Relative Risk Model was changed to a Probabilistic Risk Model per the approved 2012 EA. The new model was fully implemented on August 12, 2013. The model showed that risk levels met the threshold outlined in the 2012 EA. The model was rerun in 2021 based on data modifications for operations in 2020 and the risk levels continue to meet threshold.
Material Documentation - Reversal EA			
6	Conduct non-destructive or destructive strength tests for 50% of all annual pipe excavations associated with in-line inspection anomaly evaluations or remediation.	Continuously after startup	In 2021 one hundred ninety-two (192) excavations were associated with in-line inspection anomaly evaluations meeting the criteria for material testing per the material documentation requirement. Non-destructive positive material identification was completed on one hundred ten (110), of the excavated locations.
9 b (iv)	Run Hardspot Tool that can detect pipe hard spots: (1) Remediate indications that pipe is susceptible to hard spots (over 325 Brinell hardness) based upon known pipe information (i.e. manufacturing vintage, has had a past leak or failure due to a pipe hard spot in the pipeline) as soon as practicable but no later than one (1) year after Hardspot Tool run.	Within 1 year of startup and thereafter at such intervals as are established by the Operational Reliability Assessment	No Hardspot Tool runs were required or completed in 2021.

Longhorn Mitigation Plan
 Commitment Implementation Status Report
 Annual - 2021

Mitigation Item No.	Description	Timing	Status of Commitment Implementation
12	Submit procedures and perform Close Interval Surveys (CIS) on a maximum 5-year basis and remediate findings. Perform initial survey within one-year of PHMSA issuance of FONSI.	Procedures Modifications - Prior to startup CIS within 1 year of startup and thereafter at maximum interval of 5 years	Magellan submitted to PHMSA January 16, 2013 revised procedure 7.04-ADM-001. The CIS was completed in the summer of 2018. A depol CIS is scheduled for 2022, and an IRF CIS is scheduled for 2023.
13	Submit procedures and perform AC Potential Interference Surveys on a maximum 5-year basis and remediate findings. Perform initial survey within one-year of PHMSA issuance of FONSI.	Procedures Modifications - Prior to startup AC Potential Interference Survey within 1 year of startup and thereafter at maximum interval of 5 years	Magellan submitted to PHMSA January 16, 2013 revised procedure 7.04-ADM-001. AC Potential Interference Surveys are taken during annual Pipe to Soil surveys to meet this commitment.