

Southwest Gulf Railroad Mitigation Progress and Quarterly Report - 3rd Qtr 2017

Legend

Item Complete or Substantially Complete

Item In Progress or Ongoing



No.	Comment	Discipline Assignment			Completion	
		Engineering	Construction	Operations	Date Updated	Status
Voluntary Mitigation Measures						
1	As agreed to by SGR, SGR shall conduct all maintenance and refueling activities at a designated area off the Edwards Aquifer Recharge Zone (EARZ) and SGR shall ensure that the fueling and maintenance activities occurs at a facility with secondary containment to meet the requirements of an approved Texas Commission on Environmental Quality (TCEQ) Water Pollution Abatement Plan (WPAP) and a Spill Prevention, Containment, and Countermeasures Plan (SPCC).	X	X	X	12/15/2016	No Refueling and Maintenance on the Edwards Aquifer. All refueling and maintenance will be performed remotely at the UPRR interchange location (south end of project). Any future fueling activities or facilities will comply with TCEQ requirements.
2	As agreed to by SGR, SGR shall conduct appropriate hydrological modeling prior to beginning construction and shall incorporate the resulting design criteria into their design of the rail line to avoid or minimize adverse impacts to existing floodplain conditions. As part of this modeling, SGR shall:	X			12/15/2016	
a	Compile information regarding existing land use, topography, drainage features, impervious surfaces, and other information needed for the modeling effort.	X			12/15/2016	Completed by HDR Engineering
b	Conduct additional surveying, as required, to obtain data related to existing channel geometry.	X			12/15/2016	Completed by HDR Engineering
c	Coordinate with the Medina County Floodplain Administrator and the U.S. Army Corps of Engineers (Corps) to discuss the project and address reasonable mitigation requirements.	X			12/15/2016	Completed by HDR Engineering
d	Delineate the overall watershed and sub-watersheds, and related drainage patterns corresponding to relevant points of interest.	X			12/15/2016	Completed by HDR Engineering
e	Compile an existing-condition hydrologic model, based on existing watershed characteristics and regional design storm information to determine the 2, 5, 10, 25, 50 100, and 500-year design storm intensities and related stream or flood-flow rates for these recurrence intervals.	X			12/15/2016	
f	Develop existing-conditions hydraulic models of appropriate points of interest, such as stream crossings, so that the existing condition-hydraulic model can be compared to the existing floodplain data.	X			12/15/2016	Completed by HDR Engineering
g	Analyze the propose bridge and other proposed structures on the rail lone that may impact the floodplain and the watershed, producing a technical report addressing the estimated extent of the existing floodplains in the project vicinity and providing appropriate design criteria for minimum bridge openings, culvert locations and size, bridge lengths and low chord heights, bank stabilization, scour protection, and erosion control measures.	X			12/15/2016	
h	Design a WPAP and a Stormwater Pollution Prevention Plan (SWPPP), and provide a narrative description of plans to mitigate water quality impacts during and after construction of the rail line.	X	X		08/22/2017	WPAP Approved for Plant, SWPPP completed by contractor.
3	As agreed to by SGR, SGR shall use continuously welded rail for construction of the rail line other than the loading area.	X	X		12/15/2016	Rail is 136# continuously welded rail

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4	As agreed to by SGR, SGR shall maintain native grass and shrubs inside the rail line right-of-way to allow the rail line to blend with the natural surroundings.		X		08/22/2017	Topsoil and Seeding part of Design Documents. Implementation will be part of Construction.
5	As agreed to by SGR, SGR shall control weeds and vegetation along its right-of-way, consistent with rail industry standards and the need to minimize fire hazards.			X	08/22/2017	To Be Included in Operation Plan
6	As agreed to by SGR, SGR shall maintain the right-of-way consistent with the Manual for Railway Engineering issued by the American Railway Engineering and Maintenance of Way Association (AREMA)			X	08/22/2017	To Be Included in Operation Plan
7	As agreed to by SGR, SGR shall work with local utilities, and review crossing protocols that may already be in place for each such utility to ensure that its rail line does not interfere with the operation for any utility line that might be crossed.	X	X		08/22/2017	Agreements and Construction Planning with All Interference Utilities Jan 2017 - August 2017. Agreements have been reached.
8	As agreed to by SGR, SGR shall develop emergency evacuation plans following the completion of final engineering prior to beginning construction. SGR's operational plans shall require the routine monitoring of weather reports and conditions, and SGR shall temporary cease operations along the line when warranted by weather conditions, including flooding. Rail operations shall not resume until any flooding has ceased and an inspection is made of the rail line to ensure that it is safe to resume operations. SGR shall not park trains along the rail line in areas the would block emergency evacuations routes.		X	X	08/22/2017	County Meeting 08/02/2017. Plans submitted to County Officials for approval 08/22/2017. Operation Plan will address emergency issues.
9	As agreed to by SGR, SGR shall prepare and implement a SPCC in compliance with the EPA regulations at 40 FR Part 112, and provide the a map requested by EPA in its comments to the DEIS. SGR's operational plans shall incorporate appropriate measures to protect groundwater from contamination.	X		X	08/22/2017	No above-ground fuel and oil storage tanks within project. Also only applies top non-transportation related facilities which SGR has none.
10	As agreed to by SGR, SGR shall utilize above-ground fuel and oil storage tanks and locate them in concrete containments of adequate height, volume, and thickness to prevent leakage into the ground should the integrity of the tanks be breached. SGR's SPCC shall include fencing and/or other security measures for the containment area, and require tanks to have fill gauges to prevent overfilling, SGR shall also adopt procedures to clean up incidental spills.	X		X	08/22/2017	No above-ground fuel and oil storage tanks within project.
Mitigation Measures Developed by the Section of Environmental Analysis						
Transportation and Traffic Safety						
1	SGR shall conduct track safety inspections and maintenance in accordance with the Federal Railroad Administration (FRA) standards set forth at 49 CFR Part 213 to detect potential problems and minimize derailment potential.			X	08/22/2017	To Be Included in Operation Plan
2	SGR shall consult with the owner of the pipeline that would be crossed prior to beginning rail line construction and shall take appropriate modifications to the design of the rail line necessary to ensure that the rail line will not affect the integrity of the pipeline.	X			08/22/2017	ETC Pipeline relocation funded and scheduled by ETC for completion Oct 2017

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3	SGR shall consult with Texas Department of Transportation (TxDOT) prior to beginning rail line construction regarding the rail line crossing of Farm-to-Market Road (FM) 2676 and shall adhere to TxDOT's reasonable recommendations regarding the design of this crossing.	X			08/22/2017	TxDOT Approved Design June 2017. TXDOT sending Crossing Agreement for SGRR signature Sept 2017
4	SGR shall consult with Medina County prior to beginning rail line construction regarding the rail line crossing of county roads and shall adhere to Medina County's reasonable recommendations regarding the design of the crossings.	X			08/22/2017	Crossings Reviewed and Approved verbally by TXDOT District Engineer and County August 2, 2017. County Commissioner formal approval pending.
5	Prior to beginning rail construction activities, SGR shall consult with the TxDOT and Medina County regarding how to minimize vehicular traffic delay during rail line construction across roadways, and shall adhere to their reasonable requirements.		X		08/22/2107	Consultations with Medina County and TXDOT ongoing since early 2017. SGRR will notify County and TXDOT prior to each road closing and will post electronic signs notifying the public 14 days prior to crossing work
6	SGR shall develop internal emergency response plans for use during rail line construction and operation to ensure that appropriate agencies and individuals are notified in case of an emergency. SGR shall provide the emergency response plan to appropriate state and local entities prior to any rail construction activities.	X	X	X	08/22/2017	Construction ERP submitted to County August 2017. Operation Plan will contain ERP for Operations
7	SGR shall consult with local fire, police, and Emergency Medical Services (EMS) officials prior to beginning construction activities in order to develop a plan to minimize impacts to area emergency response capacities during construction and operation of the rail in.	X	X		08/22/2017	ERP Plan submitted to County August 2017
8	Prior to beginning construction activities, SGR shall consult with TxDOT and Medina County to develop a plan that specifics the responsibility of each party concerning the maintenance and repair of grade-crossing warning devices and the grade crossings along the new rail line, consistent with recognized highway safety standards, taking in account the level of the highway traffic at the crossing.	X	X		08/22/2017	SGRR will be responsible for all maintenance and repair of crossings
9	SGR shall take into account maintenance of emergency response capabilities and school bus schedules in planning and executing the necessary roadwork for construction and maintenance activities on the rail line. SGR shall station equipment so as to minimize the need for any total road closures and to allow the disturbed areas to be quickly restored for passage by emergency vehicles.		X		08/22/2017	Discussions with County and Hondo ISD scheduled early September 2017. No county roads affected yet by construction activities
10	SGR shall consult with local school officials in Medina County prior to construction, to take school bus schedules in consideration in its plans and to minimize rail operations when school buses are on area roadways.		X		08/22/2017	Discussions with County and Hondo Independent School District (ISD) completed August 2017; SGRR will take school bus schedules into account
11	SGR shall be responsible for the cost of all permits, detours, coordination with local officials and agencies, and public notifications related to temporary land restrictions or road closures necessitated by rail construction activities.	X			08/22/2017	SGRR will be responsible for the costs associated with road closings during construction of the line
12	SGR shall maintain the vegetation along and within the railroad right-of-way to provide a clear line of sight for train operators and vehicle drivers at all at-grade crossings (including public roadways, private roadways, and driveways).			X	08/22/2017	To Be Included in Operation Plan

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13	Prior to beginning any construction activities, SGR shall perform an engineering evaluation at each private roadway and driveway crossings, and shall consult and negotiate with the respective landowners to implement appropriate changes to roadway geometry and to install and maintain appropriate warning signs and/or signals.	X	X		08/22/2017	All private roads rerouted so that there are no private crossings.
14	Prior to beginning rail construction activities, SGR shall consult with UP to ensure that the design of the connection and rail interchange area with the UP line is safe. During construction, maintenance, and rail operations, SGR shall coordinate with UP regarding all activities in the vicinity of the UP line and shall comply with all applicable safety laws.	X	X	X	08/22/2017	Final Plans with UPRR for Review and Approval. Anticipated tie in with UPRR June 2017. Interchange Agreement with UPRR completed prior to Operations start. Interchange designed to Class 1 RR's Specification.
15	SGR shall notify local authorities immediately in the event that a train malfunction causes a roadway to become blocked, shall clear the blocked roadway crossing as soon as possible, and shall work with local authorities to set up warning signs and detour routes for area vehicles so that drivers are made aware of the situation and would not be cut off while a crossing is blocked.			X	08/22/2017	To Be Included in Operation Plan
Public Health and Safety						
16	SGR shall take appropriate measures to prohibit public access to the construction site during rail line construction activities.		X		08/22/2017	Included as part of Contractors Implementation Plan. Contractor will use gates and signage at public access points
17	As recommended by the EPA, SGR shall conduct construction and waste disposal activities in accordance with applicable local, state, and Federal status and regulations.		X		08/22/2017	Included as part of Contractors Implementation Plan. Contractor will comply with Federal, State and local rules
Hazardous Materials/Waste Site and Existing Energy Resources						
18	Prior to initiation rail construction activities, SGR shall survey the location of the transmission line poles and avoid them during the construction of the rail line right-of way.	X			08/22/2017	Utility Study Completed 1st QTR 2017. All Utility companies are working with SGRR to relocate their utilities as necessary.
19	SGR shall consult with utility companies serving the area prior to beginning rail construction and shall develop a plan to provide area residents with advance notice prior to any necessary disruption of utility services during construction. In the event of any unscheduled disruption of utility services during construction and operation of the rail line, SGR shall contact the appropriate utility companies as soon as it becomes aware of the situation and shall work with the utility companies to restore service to area resident as soon as possible.	X			08/22/2017	Utility Study Completed 1st QTR 2017. All Utility companies are working with SGRR to relocate their utilities as necessary.
Worker Health and Safety						
20	SGR shall comply with appropriate Occupational Safety and Health administration standards (OSHA) General Industry Standards (GIS) at 29 CFR Part 1926 and OSHA Construction Industry Standards at 29 CFR Part 1926 during rail line construction and operation activities.	X	X		08/22/2017	Included as part of Contractors Implementation Plan. Contractor will abide by OSHA standards and specifically with the standards at 29 CFR Part 1926
Groundwater						
21	SGR shall develop a SWPPP prior to initiating rail line construction activities and implement the measures in the plan during construction and maintenance activities.	X	X		08/22/2017	SWPPP was completed on 8/30/17 and will be implemented during construction and maintenance activities

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22	SGR shall use Best management Practices (BMPs) during rail line construction and maintenance activities to minimize impacts to sediment runoff.	X	X	X	08/22/2017	BMP's, as set forth in SWPPP, will be implemented to minimize sediment runoff.
23	SGR shall require construction contractors and maintenance crews to maintain their equipment in good operating condition and to operate the equipment safely.	X	X	X	08/22/2017	This will be required as per Contractor Implementation Plan and Operation Plan
24	Prior to beginning rail construction, SGR shall develop a SPCC specifically for stream crossings and for portions of the route constructed over the EARZ. The SPCC shall include planning for flood conditions.	X	X		08/22/2017	An SPCC for stream crossings and flood control has been completed and will be included in the Contractors Implementation Plan
25	SGR shall include, at a minimum, the following provisions in the SPCC: definition of what constitutes a spill; requirements and procedures for reporting spills to appropriate government agencies; methods of containing, recovering, and cleaning up spilled material; equipment available to respond to spills and where the equipment is located; and a list of government agencies and SGR's management personnel to be consulted with in the event of a spill.	X	X		08/22/2017	Each of the elements in the mitigation measure have been included in the SPCC.
26	During both rail construction and operation, SGR shall monitor the stream beds, land, and water quality in the vicinity of the rail line for indications of diesel or gasoline releases; shall take appropriate action to prevent diesel or gasoline releases; and shall remediate any soils contaminated by any diesel or gasoline release for which SGR is responsible as soon as practicable.	X	X	X	08/22/2017	The requirements of this mitigation measure will be included in both the Contractor Implementation Plan and Operation Plan
27	Prior to initiating any rail line construction activities, SGR shall develop a contingency plan to protect the health and safety of well owners, should any contamination to wells occur as a result of rail line construction and operation.	X	X		08/22/2017	No wells in SGRR ROW . Only a few wells within nearby vicinity of SGRR ROW that service homeowners and SGRR owns those wells / properties. Only other wells in the vicinity of ROW are cattle wells not used for human consumption. SGRR will monitor all wells to ensure no adverse effects.
28	SGR shall conduct a survey prior to construction to locate all wells within the rail line right-of-way. SGR shall ensure that all functioning wells within the right-of-way are protected from damage and contamination to the extend reasonably possible during construction. Where damage or contamination to a functioning well is unavoidable, SGR shall ensure that the well is properly abandoned prior to beginning rail construction activities.	X	X		08/22/2017	No Wells in SGRR ROW . Only a few wells within nearby vicinity of SGRR ROW that service homeowners and SGRR owns those wells / properties. Only other wells in the vicinity of ROW are cattle wells not used for human consumption. SGRR will monitor all wells to ensure no adverse effects.
29	SGR shall comply with the Edwards Aquifer rules as presented in Title 30 Texas Administrative Code (TAC) Chapter 213 for all construction activities for the rail line and associated fuel supply facility that occur within the EARZ.	X	X		08/22/2017	No fuel supply located on EARZ
30	SGR shall conduct a recharge zone delineation study by a qualified hydrogeologist, under the supervision and oversight of the Edward Aquifer authority (EAA), to determine the exact boundaries of the recharge zone, in order to locate the fueling and maintenance area completely off the recharge zone.	X			8/15/2017	Edwards Acquirer Authority determines the boundaries of the recharge zone. No fueling locations are located on the recharge zone. Any future SGRR fuel facilities will be located on Southern end of the line off of the EARZ

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31	SGR shall ensure compliance with NPDES storm water permit during construction, including any sampling requirements imposed under the permit.	X	X		08/22/2017	The Contractor Implementation Plan requires NPDES compliance.
32	SGR shall use Above Ground Storage Tanks (ASTs) at its fueling and maintenance facility. These ASTs are above-ground, full-storage tanks that have dual wall construction to provide maximum protection in the event of a leak. These ASTs are also equipped with sensors that will "alarm" if leakage is detected and that have instruments to show fuel level and multiple safety devices to prevent overfilling and rupture, and superior flame-arrested venting ports. These ASTs shall also be located within a third concrete-walled container that holds 1-1/2 times the volume of the AST maximum volume to provide extra protection to contain a fuel leak in the unlikely event of multiple containment failures. All ASTs shall be located off of the EARZ and on areas where fuels from an unlikely catastrophic release would flow away from the EARZ (generally areas south of the Balcones Escarpment on the outcrops of Del Rio Clay, as determined by a geologist). SGR's fueling and maintenance facility shall also have an established SPCC in place in addition to any STPPP appropriate to the location.	X			12/15/2016	The SGR Project does not contemplate use of AST's
33	SGR shall locate its fueling and maintenance facility on a site south of the EARZ over the upper confining units of the Edward Aquifer within the general location depicted in Figure 5-2 of the FEIS, and shall implement permanent BMPs to prevent and/or abate the release of potential pollutants or sediment from the site. In addition, SGR shall establish a STPPP appropriate to the site to address potential stormwater runoff concerns.	X			12/15/2016	No Refueling and Maintenance on the Edwards Aquifer. All refueling and maintenance will be performed remotely at the UPRR interchange location (south end of project). SGR will ensure that BMPs are used to prevent or abate the release of potential pollutants or sediment from the site. An STPPP will be established to address any stormwater runoff concerns and no refueling of construction equipment will occur on the EARZ without spill protection.
34	Prior to construction, SGR shall conduct a comprehensive karst feature inventory (including springs, seeps, and sink holes) and evaluation in compliance with 30 TAC Chapter 213, administered by the TCEQ for the area of the selected rail line alignment.	X			08/22/2017	No Karst features, sinkholes noted along rail line. Seep springs at Johnston property avoided by rail alignment. Loop track area near EARZ was studied under WPAP process....no Karst features noted.
Surface Water						
35	SGR shall use the BMPs during rail line construction, operation, and maintenance activities to minimize soil erosion and to reduce the potential for oil and fuel spills.	X			12/15/2016	BMPs are included in the HDR engineering design and in the Contractors Implementation Plan.
36	SGR shall use Best Engineering Practices in the design of rail line stream crossings to avoid increasing the floodplain width.	X			12/15/2016	Included in HDR's engineering plans
37	Prior to initiating any rail line construction activities, SGR shall design and implement site specific "scour and instability countermeasures" to minimize local and downstream instability from stream crossings	X			12/15/2016	Included in HDR's engineering plans

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38	Prior to initiating any rail line construction activities, SGR shall conduct a floodplain study, as described in Voluntary Mitigation Measure # F-VM2, in consultation with the Medina County Floodplain Administrator. SGR shall comply with the reasonable requirements of the Medina County Floodplain Administrator, as delegated to the Medina County Floodplain Administrator pursuant to the regulations of the Federal Emergency Management Agency at 44 CFR 60.3. These requirements will include, but not be limited to, ensuring that SGR's construction plans will not cause more than a 12-inch rise in the current 100-year floodplain elevation, consistent with the Medina County Floodplain Administrator's permitting standards, as set forth during the environmental consultation process for this project.	X			08/15/2017	Study completed March 2017. Met with Medina County FloodPlain Administrator July 2017 and he had no additional comments. SGRR has requested letter of compliance from County Floodplain Administrator.
39	SGR shall obtain all required Corps permits for stream crossings prior to initiating any rail line construction activities.	X			06/29/2017	Section 404 Clean Water Act permit issued by USACOE June 29, 2017
40	SGR Company shall use environmentally friendly solvents and/or absorbent pads to minimize ground contact by the materials used to clean the engine and to clean excess oil from lubricated parts of the train.			X	08/22/2017	To be included in Operation Plan
41	SGR shall repair and resurface its railroad tracks using manual resurfacing and switch-cleaning methods.			X	08/22/2017	To be included in Operation Plan
42	SGR shall use manual vegetation cutting methods (rather than chemicals or herbicides) for weed control and other right-of-way clearing activities.	X	X	X	08/22/2017	To be included in Contractor Implementation Plan and Operation Plan
43	SGR shall incorporate specific BMPs into the SPCC to address the possibility of sediment runoff or diesel spills flowing into privately owned stock watering ponds.	X	X	X	08/22/2017	To be included in Contractor Implementation Plan and Operation Plan
44	In response to the request of the USEPA, SGR shall:					
a	Use span bridges where possible to minimize impacts to streams, including all perennial streams.	X			12/15/2016	Included in HDR's engineering plans/Contractor Implementation Plan
b	Take precautions to avoid channel degrading from head-cutting (such as ensuring that grades at the culverts and bridges remain at their existing elevation)	X			12/15/2016	Included in HDR's engineering plans/Contractor Implementation Plan
c	If a series of box culverts is installed to carry high flows, make one culvert lower than the others to handle frequent flows (i.e. "bankfull" or less) and the other culverts at higher elevations for less frequent events	X			12/15/2016	Included in HDR's engineering plans/Contractor Implementation Plan
d	Plan the route and design of the rail line crossing to avoid the need to cut off meanders and channelize stream reaches.	X			12/15/2016	Included in HDR's engineering plans/Contractor Implementation Plan
e	Minimize impacts to the riparian corridor, especially by forested areas for example, not clearing entire right-of-way through the riparian area or floodplain, and only clearing what is needed for construction and access	X			12/15/2016	Included in HDR's engineering plans/Contractor Implementation Plan
f	Minimize impacts to the creek banks (soil and vegetation) and stabilize and replant disturbed banks with native vegetation as soon as construction in the creek bank is completed.	X			12/15/2016	Included in HDR's engineering plans/Contractor Implementation Plan

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g	Minimize erosion of banks and bare soil, and reduce siltation of streams; stabilize and vegetate bare soils as soon as possible; inspect and repair hay bales and silt fences as needed after each rainfall that creates runoff; installing multiple row of silt fences as necessary, parallel to contours on long and steep slopes	X	X		08/22/2017	In Contractor Implementation Plan
h	Avoid using wetlands or forested floodplains for staging areas or for borrow areas.	X	X		08/22/2017	In Contractor Implementation Plan
45	SGR's plans for maintaining drainage structures associated with the rail line shall provide for regular maintenance (i.e. removal of debris, rock, and sediment) of ditches and crossings.			X	08/22/2017	To be included in Operation Plan
46	SGR will consult with appropriate Medina County officials prior to beginning rail construction to identify the location of emergency evacuation routes in the project area. When flood conditions prevail in the area, SGR shall ensure that train operations do not obstruct identified emergency evacuation routes, even if this may require SGR to cease rail operations during periods of flooding.		X	X	08/22/2017	Consultation with County Complete August 2, 2017. Operations will be covered in Operation Plan
Wetlands						
47	Prior to initiating rail construction activities, SGR shall survey the location of privately owned stock ponds and irrigation systems within the project area. If avoidance is not possible, SGR shall minimize intrusion to these water bodies and to important sources to these water bodies to the extent practicable, and shall consult with the Corps to determine if a full wetland delineation study is required. In addition, SGR shall negotiate with affected landowners regarding the appropriate replacement of these stock ponds/irrigation systems.	X			12/15/2016	Completed during Engineering and ROW Acquisition Phase
48	Prior to initiating rail line construction activities, SGR shall develop a plan to prevent erosion and sediment runoff from disturbed areas shall implement the measures in it plan during the rail construction activities. Any hay used for erosion control shall be certified weed free. Slopes for graded embankments shall be established based upon standard engineering practices, environmental considerations, and consultation with Texas Parks and Wildlife Department (TPWD). Runoff control measures shall be maintained until native vegetation has been established in all disturbed areas.	X	X		08/22/2017	Included in HDR's engineering plans/Contractor Implementation Plan
49	Prior to the completion of final engineering plans, SGR shall conduct surveys of stream channels and associated wetlands along the railroad right-of-way. These surveys shall include photographs of the site, general descriptions of the dominant vegetation species and percent cover, and the elevation of the sites. SGR shall submit a written report of the surveys to TPWD and the Medina County Floodplain Administrator, as well as SEA. SGR shall then consult with TPWD and the Medina County Floodplain Administrator and shall incorporate into its final engineering plans methods of restoring each site to the pre-project elevations, contours, and hydrologic conditions or other conditions that may more appropriately take into consideration the engineering needs of the rail line and post-construction hydrology.	X			03/07/2017	Completed, Flood Plain Study and Engineering Drawings Submitted to FEMA and County Floodplain Administrator March 7, 2017. TPWD was consulted and deferred to USCOE. A copy of the relevant surveys will be sent to SEA.

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50	Prior to finalizing construction plans and before beginning rail construction activates, SGR shall review specific aspects of its construction plans, including temporary construction features, and shall instruct the preparer of the plans to fully review areas to be affected such as loss of stands of woody vegetation and other forms of natural buffers, including areas along waterways, will be held to a minimum. During rail construction, SGR shall minimize disturbance of natural buffers contiguous to floodplains in order to prevent soil erosion and to preserve wildlife cover, food source, and travel corridors.	X	X		08/22/2017	SGR has complied with the first sentence of the mitigation measure. The requirements of the second sentence are addressed in the Contractor Implementation Plan. The entire ROW is not being cleared and buffers will be left if construction limits allow
51	During rail construction, SGR shall replace mature trees at a 3:1 ratio and shall monitor these replacement trees to ensure a survival rate of 80 percent. If the removal of old trees is unavoidable, SGR shall replace old timber trees at a ratio of 10 trees for each one lost and shall monitor these replacement trees to ensure a survival rate of 80 percent.		X		08/22/2017	Tree Study Complete. Tree replacement plan being developed to optimize survival and obtain beneficial results in terms of landowner preference, screening capabilities and public need.
52	To protect migratory birds in the area, if rail construction activities take place during the March-August migratory bird nesting season, SGR shall consult with the TPWD to develop and implement measures to avoid impacts on nesting birds prior to initiating construction activates.		X		08/22/2017	This is addressed in the Contractor Implementation Plan. SGRR will consult with agencies at appropriate time if construction activities are in progress during spring.
53	During rail construction, SGR shall promptly reseed the native grasses on the portion of the right-of-way that does not consist of the roadbed (tracks and ballast) or the 10-foot access area on either side of the roadbed.	X	X		08/22/2017	This will be addressed in the Contractors Implemetation Plan
54	SGR shall consult with the U.S. Fish and Wildlife Service (USFWS) and the EAA during final engineering of the rail line and prior to beginning construction to ensure that the material used for the track, ties, and ballast does not pose hazards to the water quality of the Edward Aquifer or species dependent upon the aquifer (e.g. use of ties not preserved with creosote).	X			08/22/2017	HDR is consulting with the listed Agencies. No hazardous materials are being used in rail construction. Ties to be used are not creosote coated.
55	SGR shall use only Vulcan Material's existing Edward Aquifer water rights or any other existing Edward Aquifer water rights that may be acquired when using water from the Edward Aquifer during construction, Maintenance, and operation of the rail line.		X	X	08/01/2017	Contractor is purchasing water from local utilities. In operational phase SGRR will utilize own water rights or customers will purchase and use their own rights as applicable
56	SGR shall consult with the TPWD and affected landowners prior to beginning rail construction activities regarding appropriate measures to protect livestock and wildlife in the area during the rail construction and operation activities. Appropriate measures could include the use of specific types of fencing or barriers.		X		08/22/2017	This is addressed in the Contractor Implementation Plan. ROW is being fenced in appropriate locations to protect livestock and wildlife prior to earthwork.
57	During rail construction and operation, SGR shall maintain native grass and shrubs within the right-of-way and only mow essential use areas.		X	X	08/22/2017	This is addressed in the Contractor Implementation Plan and Operation Plan. Vegetative buffers left in ROW where rail safety and operations are not adversely affected
Air Quality						
58	SGR shall comply with all applicable Clean Air Act requirements for burning debris generated by construction of the rail line.		X		08/01/2017	Burn Permits Applied for each time through Medina County Fire Marshall. Permits comply with Clean Air Act Requirements

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Item In Progress or Ongoing

No.	Comment	Discipline Assignment			Completion	
		Engineering	Construction	Operations	Date Updated	Status
59	During rail line construction, SGR shall take appropriate measures to control fugitive dust, including the use of water trucks.	X	X		08/01/2017	This measure is addressed in the Contractor Implementation Plan. Water Trucks will be used to Control Dust
60	SGR shall implement best practices to minimize the impacts of any pollutants released during rail construction and operation.	X	X	X	08/22/2017	This measure is included in Contractor Implementation Plan and Operation Plan
61	As agreed to by SGR, SGR shall conduct appropriate visual monitoring of the moisture content of the limestone prior to or during loading of the railcars. If necessary to prevent the dispersion of limestone dust during rail transportation, SGR shall wet the surface of the limestone prior to transportation.			X	08/22/2017	To be included in Vulcan Quarry Operational Plan
Land Use						
62	Where construction of the rail line would cause unavoidable property severance, damage to a home or to an irrigation system, or property demolition and/or destruction, SGR shall negotiate with the appropriate land owner(s) to ensure access to the severed property and/or replacement of the irrigation system, if appropriate, realign the track to avoid taking houses and/or minimize the impacts.	X			12/15/2016	Rail Right Of Way (ROW) was negotiated with all landowners taking into account water, fences, access, etc. No homes were taken by the Rail ROW. Severed property issues were addressed with each landowner to their satisfaction.
63	Prior to beginning rail construction, SGR shall consult with the TPWD and with affected landowners to determine whether the rail line would separate livestock and wildlife from water supplies. If the rail line would separate livestock and wildlife from water supplies and suitable alternative sources are not available, SGR shall develop additional water sources for livestock and wildlife to replace those lost, adversely affected, or rendered inaccessible to wildlife and livestock due to the rail line construction.	X			12/15/2016	Cattle Bridge for one landowner to allow access for cattle and water flow. Multiple ponds avoided. Sleeves installed under rail line to allow water piping to be installed by owners.
Noise						
64	SGR shall equip all noise-producing project construction equipment and vehicles using internal combustion engines with mufflers, air-inlet silencers, and other shrouds, shields, or other noise-reducing features, and keep them in good operation conditions that meets or exceeds original factory specifications. SGR shall equip mobile or fixed package equipment (e.g. arc-welders, air compressors) with shroud and noise control features that are readily available for that type of equipment.	X	X		08/22/2017	In Contractor Implementation Plan
65	SGR shall comply with all applicable local, state, or Federal regulations that apply to the noise produced by mobile or fixed equipment used during rail construction activities.	X	X		08/22/2017	In Contractor Implementation Plan
66	SGR shall use electric-powered equipment instead of pneumatic or internal combustion -powered equipment during rail construction activities, where electric -powered equipment is available to perform the function.	X	X		08/22/2017	In Contractor Implementation Plan
67	SGR shall minimize noise by locating material stockpiles, mobile equipment staging areas, parking areas, and maintenance areas as far as tractable from noise sensitive receptors.	X	X		08/22/2017	In Contractor Implementation Plan
68	SGR shall establish and enforce a 10 mile per hour construction site and a 25 mile per hour private construction access road speed limit during rail construction period.	X	X		08/22/2017	In Contractor Implementation Plan

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No.	Comment	Discipline Assignment			Completion	
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69	SGR shall not engage in rail construction activities between 7:00 pm and 7:00 am Monday through Saturday or at any time on Sunday or on Federal holidays, except for emergency situations.	X	X		08/22/2017	In Contractor Implementation Plan
70	SGR shall use noise-producing signals, including horns, whistles, alarms, and bells for safety warning purposes only.	X	X		08/22/2017	In Contractor Implementation Plan
71	SGR shall ensure that no project-related fixed, mobile, or portable public address or music system is audible at any adjacent noise sensitive receptor, except for emergency situations.	X	X		08/22/2017	In Contractor Implementation Plan
72	To minimize wheel squeal, if a loop track is used, SGR shall design the loop track with a radius greater than 1000 feet or 10 times the wheelbase of the largest car used on the tracks.	X			12/15/2016	In HDR's engineering plans
73	SGR shall provide a track lubrication system for any track that is used to mitigate wheel squeal noise. However, this lubrication system shall only be used over the EARZ with prior approval from the EAA.	X			12/15/2016	In HDR's engineering plans
74	SGR shall provide a movable point crossover (a crossover designated with a spring loaded piece to eliminate the nose producing gap) to mitigate excess noise from the crossover at the neck of any loop (where the curved track reconnects with the tangent or straight track).	X			12/15/2016	In HDR's engineering plans
Vibration						
75	Prior to beginning rail construction, SGR shall conduct a survey to locate nearby wells and shall monitor the vibration levels at these wells during any pile driving activities related to rail construction to ensure that the peak particle velocity limit of 2.72 inches per second in any axis (in ether of the two lateral directions or in the vertical direction) is not exceeded during construction.	X			12/15/2016	No Pile Driving Activities - Design uses Drilled Shafts to minimize seismic vibration
Recreational and Visual Resources						
76	Prior to initiation of construction activities, SGR shall identify the location of privately owned stock ponds with the project area and attempt to avoid them. If avoidance is not possible, SGR shall minimize intrusion to these water bodies to the extent practicable and minimize disturbances to important sources of influent to these water bodies.	X			12/15/2016	All ponds will be avoided
Cultural Resources						
77	SGR shall comply with the terms of the PA, developed pursuant to 36 CFR 800.14b), which has been executed by all required parties.	X	X		08/22/2017	PA requirements have been followed and a Final Resolution Plan is pending approval. Certain areas addressed in the Resolution Plan are being fenced off until resolution / mitigation is complete.
Karst Features						

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78	SGR shall identify potential risk areas for sinkhole formation prior to initiating rail construction activities along the two-mile loading loop or one-mile parallel loading track add the first 1,500 feet of rail in south of the loading loop or loading tracks, and shall implement engineering design measures to protect the rail line from future sinkhole development. SGR shall conduct its identification efforts by one of the following two methods:	X			12/15/2016	Soil Borings and Karst Study Completed with no sinkhole areas identified. Engineering Design takes into account structural composition of soils in area. Geotechnical borings completed in 2015.
a	If SGR identifies a significant void or cave during the grading and construction of the rail line, SGR shall undertake additional investigation by using qualified personnel to determine the potential risk of construction causing a sinkhole to develop.	X	X		08/22/2017	Soil Borings and Karst Study Completed with no sinkhole areas identified. Engineering Design takes into account structural composition of soils in area. Geotechnical borings completed in 2015. Will monitor during construction.
b	SGR shall conduct geophysical and geotechnical analysis to identify areas of sinkholes risk prior to construction. SGR shall further inspect any identified suspect voids by using geotechnical borings to determine the hazard probability. For locations at which the geotechnical borings reveal voids of significant enough size and proximity to the ground surface to pose a risk of collapse to the rail line, SGR shall identify and implement additional hazard-mitigation efforts, such as moving the rail line to avoid the hazard area; intentionally collapsing or digging out and them filling in the void; grouting the void close; or developing additional engineering controls to reinforce the rail line and to distribute the weight away from the void.	X	X		08/22/2017	Soil Borings and Karst Study Completed with no sinkhole areas identified. Engineering Design takes into account structural composition of soils in area. Geotechnical borings completed in 2015. Will monitor during construction.
79	If SGR identifies a significant karst feature during the grading and construction of the two-mile loading loop or one-mile parallel loading tracks and the first 1,500 feet of rail line south of the loading loop or loading tracks, SGR shall consult with a karst feature specialist and implement appropriate mitigation measures. These include developing an inventory of caves for endangered species and complying with the reasonable requirements of the State of Texas for a construction activities in the recharge and transition zones of the Edward Aquifer.	X	X		08/22/2017	Soil Borings and Karst Study Completed with no sinkhole areas identified. Engineering Design takes into account structural composition of soils in area. Geotechnical borings completed in 2015. Will monitor during construction.
Monitoring and Enforcement						
80	SGR shall submit quarterly reports to SEA documenting the progress of its implementation of all the environmental mitigation measures during rail construction and for three years after rail operations have begun.		X	X	08/22/2017	1st Quarterly Report Being Prepared by SGRR for Submittal Sept 2017
81	SGR shall retain a community liaison to work with the community in addressing any concerns related to SGR's rail construction and operation activities, and assist on the implementation of the environmental mitigation measures.	X			12/30/2015	Cynthia Prieto has been SGRR's Community Liaison since 2015