5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS ON THE ENVIRONMENTAL ANALYSIS

The conclusions and recommendations presented in this section are those of the FERC environmental staff. Our conclusions and recommendations were developed with input from the USACE, which may adopt the EIS per 40 CFR 1506.3 if, after an independent review of the document, they conclude that their permitting requirements and/or regulatory responsibilities have been satisfied. The USACE is responsible for issuing applicable Department of Army permits pursuant to section 404 of the CWA, section 10 of the RHA, and section 14 of the RHA. The USACE will prepare a separate record of decision prior to finalizing its decision concerning the issuance or denial of the requested Department of Army permits. The USACE's decision will be based on the final EIS, information received from the public, and the evaluation of probable impacts on associated wetlands.

We determined that construction and operation of SMP Project would temporarily and permanently affect the environmental. However, if the SMP Project is constructed and operated in accordance with applicable laws and regulations, the mitigating measures discussed in this EIS, and our recommendations, the project would not result in a significant impact on the environment. This determination is based on a review of the information provided by the Applicants and further developed from data requests; field investigations; scoping; literature research; alternatives analysis; and contacts with federal, state, and local agencies as well as individual members of the public. As part of our review, we developed specific mitigation measures that we determined would appropriately and reasonably reduce the environmental impacts resulting from construction and operation of the SMP Project. We are therefore recommending that our mitigation measures be attached as conditions to any authorizations issued by the Commission. A summary of the anticipated impacts and our conclusions is provided below by resource area.

5.1.1 Geology and Paleontological Resources

The SMP Project would traverse a range of geologic conditions and resources, including karst sensitive areas in Georgia and Florida. Numerous commentors expressed concern that construction of the Sabal Trail Project and, to a substantially less degree the FSC Project, could impact cave systems and trigger sinkhole development in karst sensitive areas. Commentors were also concerned that future sinkhole activity could damage the pipeline and aboveground facilities, potentially resulting in a public safety hazard.

FSC in general and Sabal Trail in particular conducted detailed studies to characterize karst geologic conditions and developed project-specific plans and procedures that would minimize potential karst-related effects during construction and operation of the proposed facilities. These plans include procedures for managing construction-related water in a manner to minimize the potential for sinkhole activation; measures to mitigate sinkholes and other karst features if encountered during construction; and monitoring the pipeline rights-of-way for signs of subsidence during operations. Sabal Trail also developed a Best Drilling Practices Plan that details how HDD activities would be conducted, including the five HDDs that would occur in karst sensitive areas. The HDD method has been used successfully in karst regions, and Sabal Trail anticipates successful completion of the proposed HDDs. None of the HDDs proposed by FSC would cross karstic bedrock. Karst concerns at aboveground facilities would be mitigated by appropriate subgrade preparation and foundation design.

We reviewed FSC's and Sabal Trail's geologic studies and construction and operation plans in karst areas and find them acceptable. We also found no record of karst activity causing damage to existing interstate transmission pipeline facilities, some of which have operated in karst sensitive areas of

Georgia and Florida for decades. By implementing the Applicants' proposed construction and restoration plans and our recommendations, we conclude that construction of the SMP Project would not significantly impact karst features, including caves; that the risk of initiating karst activity would be minimized; and karst features would be adequately mitigated. We also conclude that operation of the proposed facilities in karst sensitive areas would not pose a significant risk to the public. Other geologic hazards would not be expected to impact the SMP Project.

Blasting would likely be necessary along portions of Transco's proposed loops and between MPs 0 and 100 of the Sabal Trail Project Mainline. Each company stated that blasting would be conducted by licensed professionals in accordance with applicable state and local regulations. Each company also provided a Blasting Plan that includes measures to ensure worker and public safety and protect nearby facilities including existing pipelines, residences, and water wells. We find these plans acceptable and conclude that by conducting blasting in accordance with the Blasting Plans and applicable state and local regulations, impacts on geologic resources and nearby residences and facilities would be avoided or adequately minimized.

The SMP Project would largely avoid active mineral resource facilities and is substantially collocated with existing infrastructure that already precludes mineral development, if resources are present. The permanent use of land for operation of the SMP Project would reduce the amount of land potentially available for mineral development; however, considering the large geographic extent over which most mineral resources occur, the SMP Project would not significantly reduce future mineral extraction. Construction of the SMP Project would require the use of mineral resources such as sand and gravel and we expect that existing mining operations in the area would be readily able to provide the necessary materials.

Transco and FSC provided Unanticipated Paleontological Resource Discovery Plans that describe the procedures for recognizing and handling important fossils discovered during construction, including notification to the appropriate state agency. The Sabal Trail Project would also cross rocks that could contain important fossils, and we received comments regarding the potential for Sabal Trail to discover fossils in sinkholes within the construction workspace. Therefore we have recommended that Sabal Trail provide an Unanticipated Paleontological Resource Discovery Plan similar to those prepared by Transco and FSC to the Commission prior to the start of construction. By implementing these contingency plans we conclude that paleontological resources would be adequately protected.

5.1.2 Soils

The SMP Project would traverse a variety of soil types and conditions. Construction activities such as clearing, grading, trenching, and backfilling, could adversely impact soil resources by causing erosion, compaction, and the introduction of excess rock or fill material to the surface, which could hinder restoration. However, the Applicants would implement mitigation measures contained in their construction and restoration plans to control erosion and enhance successful restoration. Specifically, soil impacts would be mitigated through measures such as topsoil segregation, temporary and permanent erosion controls, and post-construction restoration and revegetation of work areas. The Applicants would also implement plans to avoid and limit inadvertent spills of fuel and other hazardous substances, and to address pre-existing contaminated soil if encountered.

Permanent impacts on soils would occur at aboveground facilities where structures and various surfaces would be installed. Operation of the SMP Project would also impact about 1,374 acres of prime or state classified farmland; however, 1,219 acres (88 percent) would be within the operating right-of-way of the pipeline facilities where agricultural use would typically be allowed to continue.

Based on the overall soil conditions in the SMP Project area and the Applicants' proposed construction and operation methods, we conclude that the SMP Project would not significantly alter the soils of the region.

5.1.3 Water Resources

Groundwater

The SMP Project crosses four major aquifer systems, none of which are designated as an EPA sole source aquifer in the project area. The most extensive aquifer in the project area is the FAS, which covers more than 100,000 square miles including all of Florida and parts of three other states, and ranges from 250 to 3,000 feet thick. The FAS provides drinking water to approximately 10 million people in the southeastern United States, and produces about 3 billion gallons of water each day, making it one of the highest producing aquifers in the world. The FAS is the source of water to numerous important springs and rivers in Florida and Georgia.

The proposed pipelines would be installed for 98 percent of their length using standard overland construction methods, which would generally limit ground disturbance to a depth of about 6 to 8 feet. Because groundwater generally occurs at greater depths, construction related impacts on most groundwater resources would be avoided. In areas of shallow groundwater, pipeline construction could result in increased turbidity and altered hydrology. These impacts would be short term and localized, and would be further mitigated by implementation of the Applicants' construction and restoration plans. Each Applicant has also developed a plan to appropriately manage fuel and other hazardous materials during construction, and to cleanup any spills that would occur. We have reviewed these spill plans and find that they would be protective of groundwater resources.

Groundwater resources could also be affected by the inadvertent release of drilling mud during HDD operations. Drilling mud is composed of water and bentonite, a naturally occurring clay mineral that is used in potable well construction; thus the primary impact of a drilling mud loss on groundwater quality would be increased turbidity. Water supply wells located hydraulically downgradient from a drilling mud loss could also experience increased turbidity and reduced production due to blocking of the well screen. No HDDs are proposed for the Hillabee Expansion Project. Sabal Trail and FSC developed HDD drilling and contingency plans that include measures to reduce the likelihood of an inadvertent loss of mud from occurring and to minimize the volume of drilling mud lost during a release. The companies would also attempt to recover drilling mud that discharges to the ground surface. All of the Applicants have identified water supply wells within 150 feet of construction workspaces. The Applicants would provide pre- and post-construction testing of the nearby wells with landowner permission and would repair or replace any wells affected by the project, or otherwise compensate the affected landowner. Due to high groundwater flow rates within karst sensitive areas of Georgia and Florida, Sabal Trail has and would continue to identify water supply wells within 2,000 feet downgradient from HDD locations and would monitor specific wells within 2,000 feet downgradient of an inadvertent loss of drilling mud. We conclude that the Applicants' HDD drilling procedures, drilling mud loss contingency plans, and well monitoring and mitigation plans would reduce any impact from HDD operations to less than significant levels.

We also received many comments concerning the potential for the HDD method to impact the hydrology and groundwater quality in nearby springs in the karst sensitive areas of southwest Georgia and northern Florida. As summarized in section 5.1.1, Sabal Trail conducted detailed studies to characterize the karst geology and identify springs in proximity to the proposed HDDs in karst sensitive areas. Sabal Trail sited the HDDs to avoid close construction to major springs and would implement its Best Drilling Practices Plan which includes procedures to reduce the loss of drilling mud; plans to monitor springs

within 2,000 feet downgradient of a drilling mud loss; and a commitment to consult with applicable agencies regarding remedial cleanup techniques should a spring be affected. By implementing these plans and procedures and considering the tremendous extent and productivity of the FAS, we conclude that the inadvertent loss of drilling mud during HDD operations in karst sensitive areas would not result in significant impacts on the hydrology or groundwater quality in springs.

The City of Albany and other stakeholders in the area expressed concern that construction and operation of the Sabal Trail Project could adversely impact the municipal water supply. Unlike a spill from a pipeline that conveys a liquid such as oil or gasoline, a leak of natural gas from a pipeline would dissipate quickly to the atmosphere and not contaminate surrounding media. In addition, the storage and use of hazardous materials at the Albany Compressor Station would comply with applicable regulations designed to avoid inadvertent spills. Therefore, we conclude that the Sabal Trail Project would not pose a risk to the City of Albany's water supply.

Lastly construction of the SMP Project would utilize approximately 47 million gallons of groundwater; however, considering the large extent and productivity of groundwater aquifers in the region, and that groundwater would be obtained from multiple sources over a period of several months, the volume of groundwater proposed for use during construction would not impact the availability or productivity of groundwater resources in the area.

Surface Waters

The SMP Project pipeline facilities would cross 699 waterbodies, including 266 perennial, 301 intermittent, 101 ephemeral, and 34 open water. This also includes 46 major waterbody crossings and 6 section 10 (navigable) waterbodies.

The Applicants would use one of three general methods to install the proposed pipelines across waterbodies. These include the open-cut method, dry-ditch methods (flumed and dam and pump), and the HDD method. Sabal Trail may also use the conventional bore (bore) method at select waterbody crossings. Five waterbodies would be affected by aboveground facilities including three intermittent streams and one ephemeral stream at Transco's Compressor Station 84, and one pond at Sabal Trail's Citrus County M&R Station. In addition, access roads would cross 68 waterbodies during construction of the SMP Project including two waterbodies that would be permanently crossed by Transco's new access road for Compressor Station 84. Sabal Trail identified 10 access roads and FSC identified 1 access road which would be adjacent to or in close proximity to waterbodies, but would not be crossed. Where waterbodies are crossed by access roads, temporary and permanent culverts or equipment bridges would be installed.

The Applicants are proposing to use surface waters and municipal water for hydrostatic testing, dust control, and the HDD construction method. A total of 159 million gallons of water would be used including approximately 16.6 million gallons for the Hillabee Expansion Project, 113 million gallons for the Sabal Trail Project, and 29.7 million gallons for the FSC Project. Transco and Sabal Trail have identified the sources and volumes they would use but FSC has not finalized its water use plans so we are recommending that they do so prior to construction. Impacts associated with the withdrawal and discharge of water would be minimized by the Applicants adherence to the measures contained in their construction and restoration plans. In addition, the Applicants would obtain appropriate state water withdrawal and NPDES discharge permits, and would prevent spills during construction and operations through implementation of their respective spill plans.

Pipeline construction activities affecting surface waters would be conducted in accordance with the Applicants' construction and restoration plans, along with any conditions that are part of other federal

or state water approvals. We conclude that with these measures, along with our additional recommended mitigation measures, impacts on surface waters would be effectively minimized or mitigated, and would be largely temporary in duration.

5.1.4 Wetlands

Construction of the SMP Project would impact a total of 877.7 acres of wetlands, including 105.3 acres in Alabama, 127.6 acres in Georgia, and 641.7 acres in Florida. The majority of wetland impacts would be from temporary construction work areas and ATWS (717.2 acres) which would return to pre-construction conditions following construction. The Applicants would maintain a 30-foot-wide corridor over the pipeline with selective removal of trees within forested and scrub-shrub wetlands, impacting a total of 200.3 acres through the operational life of the SMP Project. Additionally, the Applicants would mow and maintain a 10-foot-wide corridor within scrub-shrub wetlands, impacting a total of 5.0 acres during operation. A small amount of wetlands (less than 4 acres) would be permanently affected due to construction of new aboveground facilities and associated access and fencing.

Construction and operation-related impacts on wetlands would be mitigated by the Applicants' construction and restoration plans and compliance with the USACE section 404 and state permit requirements, including providing in-kind mitigation. The Applicants would conduct annual post-construction monitoring of wetlands affected by construction to assess the condition of revegetation and the success of restoration until revegetation is successful.

The Applicants identified site-specific conditions that do not allow for a 50-foot setback of ATWS from wetlands, or where a 75-foot-wide right-of-way is insufficient to accommodate wetland construction, and requested approval to implement alternative measures. Based on our review, we conclude that those requests are justified.

Based on the Applicants' efforts to route the pipeline facilities and site aboveground facilities to avoid and minimize impacts on wetlands, and by the Applicants' implementation of proposed construction and restoration plans, we conclude that impacts on wetland resources would be effectively minimized and mitigated.

5.1.5 Vegetation

Impacts on vegetation from the SMP Project would range from short-term to permanent due to the varied amount of time required to reestablish certain community types, as well as the maintenance of grassy vegetation within the permanent rights-of-way and the conversion of aboveground facility locations to non-vegetated areas. Construction of the proposed facilities would temporarily impact about 10,769.6 acres of vegetation (5847.6 acres of open land and 4,932 acres of forested vegetation) and permanently impact about 3,980.3 acres (2068.4 acres of open land and 1861.9 acres of forested vegetation). The SMP Project would also impact vegetation communities of special concern, including longleaf pine forests and xeric shrub habitat of the Lake Wales Ridge. While 2068.4 acres of open land would remain within the permanent right-of-way, most of this acreage would return to open land vegetation during operation of the SMP Project facilities.

The greatest impact on vegetation would be on forested areas because of the time required for tree regrowth in all temporary workspace back to preconstruction condition. The Applicants would limit the amount of disturbance to forests by utilizing existing rights-of-way during construction to the extent possible. Construction in forest lands would remove the tree canopy over the width of the construction right-of-way, which would change the structure and local setting of the forest area. The regrowth of trees in the temporary workspaces would take years and possibly decades. Moreover, the forest land on the

permanent right-of-way would be affected by ongoing vegetation maintenance during operations, which would preclude the re-establishment of trees on the rights-of-way. However, the SMP Project would not contribute significantly to forest fragmentation. Much of the proposed pipeline routes are located along existing rights-of-way, are in areas that are already developed and highly fragmented, or consist of silviculture land (1,570.0 acres) which is prescriptively altered by harvesting practices. As a result, the forested areas that are present are predominantly edge habitats.

Multiple invasive species have been identified throughout the SMP Project area. The Applicants would implement Invasive Species Control Plans to address the spread of invasive plants within the pipeline rights-of-way and control invasive populations that might prevent successful revegetation. This management would include construction personnel training, inspecting and washing construction equipment, construction phase mitigation measures, post-construction monitoring, and post-construction management.

Following construction, all disturbed areas would be restored. The impact of the SMP Project on open lands would be short term, as these areas would recover within one to two growing seasons. Construction of the proposed pipeline facilities would have a long-term impact on forested wetland and upland vegetation within the construction rights-of-way. Maintenance activities would result in permanent conversion of some areas of existing upland forested vegetation to herbaceous or scrub-shrub vegetation. However, because the Applicants have routed the pipeline facilities to use existing utility rights-of-way and road corridors to the extent possible, impacts on forested vegetation would be minimized. We find that project-specific minimization and mitigation measures, and mitigation measures described in the Applicants' construction and restoration plans, would be sufficient to offset adverse impacts on vegetation in the SMP Project area. Therefore, we conclude that constructing and operating the proposed facilities would not significantly impact existing vegetation populations.

5.1.6 Wildlife and Aquatic Resources

Wildlife

The SMP Project would impact wildlife species and their habitats. Impacts from construction include the displacement of wildlife from the right-of-way or work sites into adjacent areas and the potential mortality of some individuals. The cutting, clearing, and/or removal of existing vegetation within the construction work area could also impact wildlife by reducing the amount of available habitat for nesting, cover, and foraging. Construction could also lower reproductive success by disrupting courting, nesting, or breeding of some species, which could also result in a decrease in prey available for predators of these species. These impacts would be temporary, lasting only while construction is occurring, or short-term, lasting no more than a few years until the pre-construction habitat and vegetation type would be reestablished. Other impacts would be longer term such as the re-establishment of forested habitats, which could take decades. The Applicants proposed several measures to minimize or avoid impacts on wildlife, including collocating the proposed workspace with other existing rights-of-way (approximately 66 percent of the proposed alignment), implementing speed restrictions, inspecting the construction rights-of-way and pipeline trench daily for trapped wildlife, and utilizing trench exit ramps and placing wildlife movement gaps along the construction rights-of-way.

A variety of migratory bird species, including BCCs, are associated with the habitats that would be affected by the SMP Project. Based on the proposed construction schedule, the Applicants would conduct the majority of tree-clearing activities within the breeding and nesting season, which would impact migratory birds. The Applicants developed a Migratory Bird Conservation Plan to minimize breeding and nesting impacts, which was developed in conjunction with and approved by the FWS. With the implementation of the measures outlined in the bird plan, we conclude that constructing and operating

the SMP Project would not result in population-level impacts or significant measureable negative impacts on migratory birds including BCC species.

Given the impact avoidance, minimization, and mitigation measures proposed by the Applicants, we conclude that the SMP Project would not have a significant adverse impact on wildlife.

Aquatic Resources

The SMP Project would cross 699 waterbodies, all of which are classified as warmwater fisheries. Seven waterbodies are considered sensitive due to the presence of sensitive aquatic species. None of the waterbodies that would be crossed by the SMP Project are managed by the NMFS or contain EFH. State resource agencies have confirmed that no timing restrictions are necessary for in-stream construction activities.

In-stream pipeline construction across waterbodies could impact aquatic species and their habitats, including increased sedimentation and turbidity, alteration or removal of aquatic habitat cover, stream bank erosion, impingement or entrainment of fish and other biota associated with the use of water pumps, downstream scouring, and the potential for fuel and chemical spills. In-stream blasting may occur along portions of the Hillabee Expansion Project and Sabal Trail Project. Transco and Sabal Trail have developed blasting plans that provide measures for minimizing blasting-related fishery impacts.

The Applicants would minimize the impacts of their respective projects on aquatic resources through the use of various trenchless or dry crossing methods, extra workspace restrictions, and restoration procedures. The Applicants would also implement measures outlined in their construction and restoration plans to minimize impacts on aquatic resources such as restoring stream beds and banks to pre-construction conditions and implementing measures to minimize erosion and sediment loads. Adherence to the restoration plans would maximize the potential for regrowth of riparian vegetation.

Sabal Trail and FSC propose to use the HDD method at 21 waterbody crossings, including 14 major waterbody crossings (greater than 100 feet wide). This method would avoid impacts on the streambed, stream banks, and aquatic resources. The Applicants would also use dry crossing methods (flume, dam and pump, or cofferdam) to minimize potential sedimentation and turbidity impacts. The Applicants would ensure that hydrostatic test water appropriations and discharges would not result in a significant entrainment of fish, loss of habitat, or an adverse impact on water quality. Discharge would comply with regulatory permit conditions and be controlled to prevent scour and sedimentation, flooding, or the introduction of foreign or toxic substances into the aquatic system. The Applicants would minimize the potential for spills to impact aquatic resources by implementing the measures contained in their spill plans.

Given the impact avoidance, minimization, and mitigation measures proposed by the Applicants, including their adherence to multiple resource protection plans, we conclude that the SMP Project would not result in significant adverse impacts on aquatic resources.

5.1.7 Special Status Species

To comply with section 7 of the ESA, we consulted either directly or indirectly (through the Applicants' informal consultation) with the FWS, NMFS, and state resource agencies regarding the presence of federally listed, proposed for listing, or state-listed species in the project area. Based on these consultations and assuming implementation of our recommendations for 8 species, we determined that construction and operation of SMP Project would not adversely affect 17 federally listed species and may adversely affect 11 federally listed species. No designated critical habitat would be adversely affected by

the SMP Project. In compliance with section 7, we have prepared a BA and requested formal consultation with the FWS. We are recommending that construction of the SMP Project should not commence until our consultation with the FWS is complete.

In addition to the federally listed and proposed species, several candidate, state-listed, or special concern species were identified as potentially present in the SMP Project area. Many of these species could be affected by the SMP Project, but we do not expect any adverse impacts given the proposed construction and restoration measures and our recommendations. Based on implementation of those measures, we conclude that impacts on special status species would be adequately avoided or minimized.

5.1.8 Land Use and Visual Resources

Constructing the SMP Project would affect approximately 11,392.9 acres of land, and operating the proposed facilities would affect about 4,146.8 acres of land. Of this, constructing and operating the Hillabee Expansion Project would respectively impact 999.8 acres and 296.8 acres; the Sabal Trail Project would respectively impact 8,559.4 acres and 3,104.5 acres; and the FSC Project would respectively impact 1,833.7 acres and 745.5 acres. The new pipelines would require a 50-foot-wide permanent right-of-way. To facilitate pipeline inspection, operation, and maintenance, the entire permanent right-of-way in upland areas would be maintained in an herbaceous/scrub-shrub vegetated state. This maintained right-of-way would be mowed no more than once every 3 years, but a 10-foot-wide strip centered over the pipelines may be mowed annually to facilitate operational surveys.

The Applicants' proposed construction work areas are within 50 feet of 213 residential and other structures. The Applicants prepared site-specific RCPs to address impacts for residences within 50 feet of construction workspace. We reviewed these plans and find them acceptable. However, we are encouraging the owners of each of these residences to provide us comments on the plan specific to their property. The Applicants have also developed plans that identify how stakeholders can contract project representatives with questions, concerns, and complaints prior to, during, and after construction. We reviewed these plans and processes and find them acceptable.

Ninety-four planned developments in various stages of development were identified within 0.5 mile of the Sabal Trail Project and FSC Project. Sabal Trail and FSC committed to work with individual affected landowners and developers in order to minimize impacts on the planned developments. Further, Sabal Trail and FSC would either purchase the property or negotiate an easement from the current landowner in order to construct and operate the proposed facilities. We analyzed alternatives to minimize or avoid impacts on some planned developments and are recommending adoption of a variation at one of the planned developments along Sabal Trail's Mainline in Marion County, Florida.

In general, impacts on recreational and special interest areas would be temporary and limited to the period of active construction, which typically would last only several days to several weeks in any one area, with the exception of linear trails where a detour or temporary closure may be required. Sabal Trail and FSC developed site-specific plans for these crossings, which indicate where signage and, if necessary, a detour route would be placed. We reviewed these plans and find them acceptable. However, we are recommending that prior to construction Sabal Trail provide agency correspondence that indicates the applicable trail manager(s) concurs with the final crossing plans and construction and restoration methods for the designated segments of the FNST crossings at Mainline MPs 267.3R and 384.9.

The Sabal Trail Project and FSC Project pipeline would cross several tracts of land supporting specialty crops such as fruit (e.g., citrus), pecan, and pine trees; and lands enrolled in Forest Certification Programs, Agricultural Certification Programs, the Conservation Reserve Program, the Conservation Reserve Enhancement Program, and Conservation Use Valuation Assessments. The Applicants have

committed to continuing coordination with landowners to avoid and minimize impacts on specialty crops and the landowners' participation in these programs. Where impacts on specialty crops cannot be avoided, the Applicants would compensate landowners for any project-related damages to specialty crop areas. The Applicants would implement special construction procedures in accordance with their respective construction, restoration, and mitigation plans.

Visual resources along the pipeline route are a function of geology, climate, and historical processes, and include topographic relief, vegetation, water, wildlife, land use, and human uses and development. Of the 686.0 miles of pipeline for the SMP Project, about 447.5 miles (65 percent) would be collocated with other existing rights-of-way. As a result, the visual resources along collocated portions have been previously affected by other similar activities. Impacts in other areas would be greatest where a conversion from forested land to a grassy, maintained right-of-way would occur, particularly at viewing locations such as roadways and features managed for their visual quality (e.g., Florida National Scenic Trail).

In general, the impacts on visual resources resulting from the construction and operation of the MLVs and pig launchers/receivers would be minimal as each site is small and would be operated within the pipeline operational right-of-way, and/or within an aboveground facility. Construction and operation of compressor stations and M&R stations would result in a greater impact on the visual landscape, resulting in conversion of 194.5 acres of land to a commercial/industrial facility. Most compressor stations would be visually screened from nearby residences or roadways, located within previously disturbed areas, located within areas with consistent industrial/commercial qualities, and/or located more than 1,000 feet from a residence. We anticipate that visual impacts on nearby visual receptors during operation would be permanent, but negligible.

We received comments regarding impacts on visual resources resulting from installation of the Albany Compressor Station. Sabal Trail committed to maintaining a minimum 100-foot-wide buffer of existing, mature trees around the compressor station site. Currently, this buffer contains 30-foot-tall pine trees that stand between the proposed site and the Countryside Village Mobile Home Park. The tallest proposed structure is approximately 60 feet tall. Based on the site elevation and the tree cover, a structure would need to be a minimum of 85 feet tall to be visible from the Countryside Village Mobile Home Park. Consequently, no part of the compressor station would be visible from the nearby mobile home park and roadways, or the more distant residences and public areas (fairgrounds, churches, schools).

With adherence to the Applicants' proposed impact avoidance, minimization, and mitigation plans, and our recommendations, we conclude that overall impacts on land use and visual resources would be adequately minimized.

5.1.9 Socioeconomics

Construction of the SMP Project would not have a significant adverse impact on local populations, housing, employment, or the provision of community services. There would be temporary increases in housing such as hotels, motels, and other rental units due to the influx of construction workers. Also, traffic levels would temporarily increase due to the commuting of the construction workforce to the area of the project as well as the movement of construction vehicles and delivery of equipment and materials to the construction right-of- way.

We received comments regarding the potential effect of the SMP Project on property values. We assessed available studies regarding property values and conclude that a significant loss of property value is not supported by the literature. Also, the effect that a pipeline easement may have on property value is

a damage-related issue that would be negotiated between the parties during the easement acquisition process.

We received comments specific to the Sabal Trail Project expressing concern about potentially adverse impacts on environmental justice populations in Dougherty County, Georgia, particularly in and near the City of Albany as a result of project-related dust and compressor station air emissions. Based on our research and analysis, there is no evidence that the Sabal Trail Project would result in disproportionately high and adverse health or environmental effects on environmental justice populations.

The SMP Project construction would benefit state and local economies by creating a short-term stimulus to the affected areas through payroll expenditures, local purchases of consumables and project-specific materials, and sales tax. The long-term socioeconomic effect of the SMP Project during operation is also likely to be beneficial, based on the increase in tax revenues that would accrue in the affected communities and jurisdictions; however, these benefits would not be as significant as during construction.

Based on the analysis presented, we conclude that the SMP Project would not have a significant adverse impact on the socioeconomic conditions of the project area.

5.1.10 Cultural Resources

The Applicants conducted archival research and field surveys to identify historic resources and locations for additional subsurface testing in areas with potential for prehistoric and historic archaeological sites. Transco identified 31 archaeological sites within the Hillabee Expansion Project's APE. Twenty-three sites are not eligible for listing on the NRHP; 8 sites are eligible or require further evaluation.

Sabal Trail identified 400 archaeological sites within the Sabal Trail Project's APE. Of these, 325 sites are not eligible for listing on the NRHP and 75 sites are eligible or require further evaluation. Additionally, Sabal Trail identified 193 historic aboveground resources within the APE. We have determined that 49 of these historic aboveground resources are eligible for listing in the NRHP or are not fully evaluated for eligibility, and that 144 resources are not eligible. Sabal Trail would avoid impacts on eligible or unevaluated cultural sites by project design, or would conduct additional studies to further assess NRHP eligibility.

FSC identified 43 archaeological sites and 25 historic architecture sites. We have determined that none of the 43 archaeological sites are eligible for listing on the NRHP. Of the 25 historic architecture sites, we have determined that 21 historic architectural sites are not eligible for listing in the NRHP and 4 potentially eligible sites would be avoided.

Both we and the Applicants consulted with 28 federally recognized Native American tribes to provide them an opportunity to comment on the SMP Project. Several tribes and organizations requested additional information, and we have responded to tribes that commented on the project.

The Applicants have prepared plans to be used in the event any unanticipated archaeological sites or human remains are encountered during construction. The plans provide for work stoppage and the notification of interested parties, including Indian tribes, in the event of discovery.

To ensure that our responsibilities under Section 106 of the NHPA are met, we are recommending that the Applicants not begin construction until any additional required surveys are completed; that survey reports, special studies, evaluation reports and treatment plans have been reviewed by the appropriate

parties; and we provide written notification to proceed. The studies and impact avoidance, minimization, and measures proposed by the Applicants, and our review and recommendations, would ensure that historic properties are identified, evaluated, and any adverse effects appropriately mitigated.

5.1.11 Air Quality and Noise

Air Quality

Air quality impacts associated with construction of the SMP Project would include emissions from fossil-fueled construction equipment, and fugitive dust. These impacts would generally be temporary and localized, and would not be expected to cause or contribute to a violation of applicable air quality standards, including the NAAQS.

Operation of SMP Project would generate emissions of nitrogen oxides, carbon monoxide, and particulate matter, sulfur dioxide, volatile organic compounds, GHGs, and hazardous air pollutants. Emissions from the new compressor stations would be permitted as minor sources of air pollution and, therefore, not subject to the federal permitting programs. Transco's existing Compressor Stations 95 and 105 would remain subject to Title V, which involves additional reporting and monitoring requirements, but would not result in emissions that rise to the level to require a PSD Permit where additional emission controls are necessary. The modifications at Transco's Compressor Stations 95 and 105 themselves would meet the primary and secondary NAAQS. However, we are recommending that, prior to construction, Transco provide an analysis demonstrating that all equipment (new and existing) at Compressor Stations 95 and 105 comply with the primary and secondary NAAQS. We are also recommending that Transco provide an analysis demonstrating that particulate emissions at Compressor Station 84 comply with the NAAQS. Based on the air dispersion modeling analysis presented in section 3.12.1 and our recommendation that the Applicants demonstrate compliance with the primary and secondary NAAQS, we conclude that operation of Transco Compressor Stations 84; Sabal Trail's Alexander City, Albany, Hildreth, Dunnellon, and Reunion Compressor Stations; and Sabal Trail's FGT Hunters Creek M&R Station would not have a significant impact on local and regional air quality.

Noise

Noise would be generated during construction of the proposed facilities. Construction activities in any one area would typically last from several days to several weeks on an intermittent basis. Construction equipment would be operated on an as-needed basis during this period. Construction of the SMP Project would be limited primarily to daytime hours with the exception of some discrete construction related activities (e.g., hydrostatic testing, tie-ins, purge and packing the pipeline) and select HDD work. Generally, nighttime noise is expected to increase only in localized areas near 24-hour HDD activities; however, these activities are expected to last for only a matter of 1 to 15 days. In addition, the Applicants have agreed to notify nearby residences prior to commencing 24-hour HDD activities. Transco and Sabal Trail indicate that blasting may be necessary at certain locations during construction, whereas FSC does not anticipate the need to conduct blasting. Blasting would cause noise but would be conducted in accordance with Blasting Plans that require limiting the amount of charge needed to complete the work and require notification of persons in the area.

The Applicants performed noise assessments for proposed new and modified compressor stations and M&R stations. Based on the noise assessments, these aboveground facilities would be in compliance with our noise criteria of 55 dBA L_{dn} and no perceptible vibration at the nearest NSAs. To ensure that compressor stations meet our noise criteria, we are recommending that the Applicants file noise surveys of the facilities operating at full load conditions after placing the new/modified equipment into service, and install additional noise controls if the applicable noise standards are exceeded.

Given adherence to the Applicants' proposed measures as well as our additional recommendations, we conclude that potential air and noise-related impacts associated with the SMP Project would be adequately minimized or mitigated.

5.1.12 Reliability and Safety

The pipeline and aboveground facilities associated with the SMP Project would be designed, constructed, operated, and maintained to meet the DOT Minimum Federal Safety Standards in 49 CFR 192 and other applicable federal and state regulations. These regulations include specifications for material selection and qualification; minimum design requirements; and protection of the pipeline from internal, external, and atmospheric corrosion. The DOT rules require regular inspection and maintenance, including repairs as necessary, to ensure the pipeline has adequate strength to transport the natural gas safely.

We received comments regarding the potential for fires and controlled burns to affect the proposed pipeline facilities. DOT requirements do not include standards for the use of fire-resistant materials during the installation of underground natural gas pipelines. However, the Applicants would develop emergency plans that would include establishing and maintaining adequate means of communication with appropriate fire, police, and other public officials, and developing prompt and effective response to a notice of each type of emergency, including that of a fire near or directly involving a pipeline facility.

We received comments regarding the ability to detect leaks in the pipeline system when an odorant has not been introduced into the natural gas. The Applicants would install data acquisition systems that allow monitoring of pipeline flows and pressures at various points along the system. The system would allow for remote closing of MLVs in the event of an incident along the pipeline systems and would utilize a combination of radio and/or satellite communications to transmit data from the pipeline to the Applicants' current gas control centers.

We received comments regarding the potential to damage existing, older pipelines during construction of the SMP Project, and the potential cumulative safety risk of multiple collocated natural gas pipelines. Collocation of natural gas transmission facilities is a common and encouraged industry practice. Although the Applicants would utilize existing pipeline rights-of-way as temporary workspace to some degree, the Applicants would typically not operate heavy equipment over existing pipeline facilities and would generally install the new facilities at least 25 feet from existing pipelines.

SONAT expressed concern regarding the number of times Sabal Trail's Mainline would cross SONAT's existing pipeline system. In response, Sabal Trail modified the Mainline route to eliminate more than one-third of the originally proposed crossings; has agreed to install the Mainline beneath the existing SONAT system using the bore method at all but 10 crossings; and has committed to work with SONAT on the design and construction methods for the remaining crossings, cathodic protection systems, and future maintenance activities. We conclude that the remaining Mainline crossings of SONAT's pipeline system are sufficiently justified to minimize impacts on residences, cultural resources, and other environmental resources and to address construction constraints (e.g., steep side slopes).

We received comments from Dougherty County, the City of Albany, and numerous citizens expressing concern about impacts on residences and public safety resulting from operation of the proposed Albany Compressor Station. In addition to complying with DOT Minimum Federal Safety Standards in 49 CFR 192, Sabal Trail would implement specific safety measures at its compressor stations including installation of chain link fence with barbed wire to maintain facility and worker safety; controlled access and alarm systems; ventilation of compressor buildings to prevent the accumulation of

gas; automatic emergency detection and shut-down systems; and maintenance of fire protection, first aid, and safety equipment.

The Applicants would meet with the emergency services departments of the municipalities and counties along the proposed pipeline facilities on an ongoing basis as part of their liaison programs and as required by the DOT's federal safety standards. The Applicants would provide these departments with emergency contact information and verbal, written, and mapping descriptions of the pipeline systems. This liaison program would identify the appropriate fire, police, and public officials and the responsibilities of each organization that may respond to a gas pipeline emergency, and coordinate mutual assistance in responding to emergencies.

We conclude that the Applicants' compliance with applicable design, construction and maintenance standards, and DOT safety regulations would be protective of public safety.

5.1.13 Cumulative Impacts

If constructed, the SMP Project and other projects in the area could result in varying degrees of cumulative impact on different resources depending on the type and scope of each project, their proximity to each other, the timeframe in which they are constructed, and the measures that would be implemented to avoid or reduce impacts at each project site. The majority of impacts associated with the SMP Project would be temporary or short-term, and about 65 percent of the pipeline facilities would be collocated with existing infrastructure, thereby reducing overall impacts. The environmental impacts associated with the SMP Project would be less than significant if the SMP Project is constructed and operated in accordance with the Applicants' proposed construction and restoration plans, other applicable regulations or permit requirements, and our additional recommendations. As such, we conclude that construction and operation of the SMP Project would not significantly contribute to cumulative environmental impacts in the region.

5.1.14 Alternatives

As an alternative to the proposed action, we evaluated the no-action alternative, system alternatives, route alternatives and variations, and aboveground facility site alternatives. While the no-action alternative would eliminate the environmental impacts identified in this EIS, the end-use markets would not be provided the SMP Project's 1.1 Bcf/d of natural gas transmission service. Because this alternative would not be able to meet the purpose of the SMP Project, we conclude it is not preferable to the proposed action. We also conclude alternative energy sources, energy conservation, and efficiency are not within the scope of this analysis because the purpose of the SMP Project is to transport natural gas. The generation of electricity from renewable energy sources, or the gains realized from increased energy efficiency and conservation, are not transportation alternatives.

Our analysis of system alternatives included an evaluation of whether the use of other existing or proposed natural gas transmission systems; additional compression/looping; a domestic liquefied natural gas seaborne transmission system; and trucks and/or rail could meet the Applicants' objectives while offering an environmental advantage. Other existing natural gas transmission systems in the SMP Project area lack the available capacity to meet the purpose of the project. Modifying these systems could result in impacts similar to those of the proposed project or would be economically impractical. Additional compression/looping would not offer a significant environmental advantage over the proposed actions. The use of an alternative transportation system including liquefied natural gas ship carrier, truck, or rail would be economically impractical. We conclude that the use of a system alternative is not preferable to the proposed action.

We evaluated twelve major pipeline route alternatives including routes that would follow existing rights-of-way and one that would cross the Gulf of Mexico. We also evaluated 20 route variations and reviewed the over 300 variations considered by the Applicants. Furthermore, we evaluated numerous aboveground facility (compressor station) locations including several alternatives for the proposed Albany Compressor Station. Increasing collocation with existing rights-of-way, avoiding the State of Georgia, concern about construction through karst sensitive terrain, impacts on affected landowners and communities, avoiding or minimizing impacts on wetlands, general environmental concerns, and future development were all reasons for evaluating pipeline alternatives and variations. In evaluating these alternatives and variations, we compared a number of factors including (but not limited to) total length, acres affected, wetlands and waterbodies crossed, the number of residences within 50 feet of workspace, environmental justice populations, and high consequence areas. We also considered construction constraints, degree of nearby development, traffic impacts, and economic practicality.

Based on our evaluations, we conclude that the major pipeline route alternatives do not offer a significant environmental advantage when compared to the proposed route or would not be economically practical; and therefore, are not preferable to the proposed action. We also conclude with one exception that the route variations evaluated do not offer significant environmental advantages when compared to the corresponding segments of the proposed pipeline route; and therefore, are not preferable to the proposed action. We are recommending one minor route variation to reduce impacts on forested wetlands in Dougherty County, Georgia, and another that would reduce the potential to impede a planned development in Marion County, Florida. Lastly, we conclude that the alternative aboveground facility locations evaluated do not offer significant environmental advantages when compared to the proposed locations and are not preferable to the proposed action.

5.2 FERC STAFF'S RECOMMENDED MITIGATION

If the Commission authorizes the SMP Project, we recommend that the following measures be included as specific conditions in the Commission's Order. We believe that these measures would further mitigate the environmental impact associated with constructing and operating the proposed SMP Project. In the following section, "file" means to file with the Secretary at the FERC.

1. The Applicants shall follow the construction procedures and mitigation measures described in their applications and supplements (including responses to staff data requests) and as identified in the EIS, unless modified by the Order. The Applicants must:

    a. request any modification to these procedures, measures, or conditions in a filing with the Secretary;

    b. justify each modification relative to site-specific conditions;

    c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and

    d. receive approval in writing from the Director of OEP **before using that modification**.

2. The Director of OEP has delegated authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the SMP Project. This authority shall allow:

    a. the modification of conditions of the Order; and

b. the design and implementation of any additional measures deemed necessary (including stop-work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from project construction and operation.

3. **Prior to any construction**, the Applicants shall file affirmative statements with the Secretary, certified by a senior company official, that all company personnel, EIs, and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.

4. The authorized facility locations shall be as shown in the EIS, as supplemented by filed alignment sheets. **As soon as they are available, and before the start of construction**, the Applicants shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the Order. All requests for modifications of environmental conditions of the Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

   The Applicants' exercise of eminent domain authority granted under NGA section 7(h) in any condemnation proceedings related to the Order must be consistent with these authorized facilities and locations. The Applicants' right of eminent domain granted under NGA section 7(h) does not authorize it to increase the size of its natural gas pipeline/facilities to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

5. The Applicants shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP **before construction in or near that area**.

   This requirement does not apply to extra workspace allowed by the Applicants' project-specific construction plans described in the EIS and/or minor field realignments per landowner needs and requirements which do not affect other landowners or sensitive environmental areas such as wetlands.

   Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

   a. implementation of cultural resources mitigation measures;

   b. implementation of endangered, threatened, or special concern species mitigation measures;

   c. recommendations by state regulatory authorities; and

d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.

6. **Within 60 days of the acceptance of the authorization and before construction begins**, the Applicants shall file Implementation Plans with the Secretary for review and written approval by the Director of OEP. The Applicants must file revisions to the plans as schedules change. The plans shall identify:

   a. how the Applicants will implement the construction procedures and mitigation measures described in their applications and supplements (including responses to staff data requests), identified in the EIS, and required by the Order;

   b. how the Applicants will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;

   c. the number of EIs assigned per spread, and how the companies will ensure that sufficient personnel are available to implement the environmental mitigation;

   d. company personnel, including EIs and contractors, who will receive copies of the appropriate material;

   e. the location and dates of the environmental compliance training and instructions the Applicants will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change), with the opportunity for OEP staff to participate in the training session(s);

   f. the company personnel (if known) and specific portion of the Applicants' organizations having responsibility for compliance;

   g. the procedures (including use of contract penalties) the Applicants will follow if noncompliance occurs; and

   h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:

      (1) the completion of all required surveys and reports;
      (2) the environmental compliance training of onsite personnel;
      (3) the start of construction; and
      (4) the start and completion of restoration.

7. Beginning with the filing of their Implementation Plans, the Applicants shall file updated status reports with the Secretary on a biweekly basis until all construction and restoration activities are complete. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:

   a. an update on the Applicants' efforts to obtain the necessary federal authorizations;

b. the construction status of each spread, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally-sensitive areas;

c. a listing of all problems encountered and each instance of noncompliance observed by the EI(s) during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);

d. a description of the corrective actions implemented in response to all instances of noncompliance, and their cost;

e. the effectiveness of all corrective actions implemented;

f. a description of any landowner/resident complaints which may relate to compliance with the requirements of the Order, and the measures taken to satisfy their concerns; and

g. copies of any correspondence received by the Applicants from other federal, state, or local permitting agencies concerning instances of noncompliance, and the Applicants' response.

8. **Prior to receiving written authorization from the Director of OEP to commence construction of any project facilities**, the Applicants shall file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).

9. The Applicants must receive written authorization from the Director of OEP **before placing each phase of the SMP Project into service**. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way and other areas affected by the project are proceeding satisfactorily.

10. **Within 30 days of placing the authorized facilities in service**, the Applicants shall file an affirmative statement with the Secretary, certified by a senior company official:

    a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or

    b. identifying which of the conditions in the Order the Applicants have complied with or will comply with. This statement shall also identify any areas affected by the SMP Project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.

11. **Prior to construction**, Sabal Trail shall file, for the review and written approval of the Director of OEP, an Unanticipated Paleontological Resources Discovery Plan that describes how Sabal Trail would recognize and manage significant fossils encountered during construction. This plan shall also describe the notification procedures to the State Geologists in each state crossed by the Sabal Trail Project. (Section 3.1.5.2)

12. **Prior to construction**, FSC shall file with the Secretary the locations, rates, and volumes of water that would be discharged following hydrostatic testing activities. This shall include the

watershed associated with the source water, and the respective discharge location. (Section 3.3.3.5)

13. **Prior to construction**, the Applicants shall file copies of their final wetland mitigation plans and documentation of USACE approval of the plans. (Sections 3.4.3.1, 3.4.3.2, and 3.4.3.3)

14. **Prior to construction**, the Applicants shall each provide a plan describing the feasibility of incorporating plant seeds that support pollinators into the seed mixes used for restoration of construction workspaces. These plans shall also describe the Applicants' consultations with the relevant federal and/or state regulatory agencies. (Section 3.5.8)

15. The Applicants shall not begin construction **until**:

    a. all outstanding biological surveys have been completed;

    b. the staff completes formal consultation with the FWS; and

    c. the Applicants have received written notification, respectively, from the Director of OEP that construction or use of mitigation may begin. (Section 3.8)

16. Sabal Trail and FSC shall avoid construction within occupied scrub-jay habitat **between March 1 and June 30**, unless additional surveys confirm that this habitat is unoccupied or Sabal Trail or FSC receives written confirmation from the Director of OEP that construction activities can occur within this timeframe. (Section 3.8.1)

17. **Prior to construction**, Sabal Trail shall file for the review and written approval by the Director of OEP, results of consultation with the FWS indicating the minimization/avoidance measures that will be used for the longspurred mint, including (in the order listed), opportunities for:

    a. avoidance of plant locations and associated habitat as feasible, including "necking-in" or reducing the construction footprint;

    b. "temporary" removal of plants and soil profile plugs (which include the A and B horizons) with the intent to replace to original location post construction; and

    c. transplanting and seed banking (only after all other options are considered). (Section 3.8.1)

18. **Prior to construction**, FSC shall file for the review and written approval by the Director of OEP, results of consultation with the FWS indicating the minimization/avoidance measures that would be used for the Florida bonamia, Lewton's polygala, papery whitlow-wort, scrub buckwheat, scrub mint, and Small's jointweed including (in the order listed), opportunities for:

    a. avoidance of plant locations and associated habitat as feasible, including "necking-in" or reducing the construction footprint;

    b. "temporary" removal of plants and soil profile plugs (which include the A and B horizons) with the intent to replace to original location post construction; and

    c. transplanting and seed banking (only after all other options are considered). (Section 3.8.1)

19. **Prior to construction,** Sabal Trail shall file with the Secretary detailed alignment sheets at a scale not smaller than 1:6,000 that demonstrate the removal of access roads TAR-GA-DO-010 and PAR-GA-DO-011, and a revised access road table that excludes these roads. (Section 3.9.2.1)

20. **Prior to construction**, Sabal Trail shall file correspondence from the applicable FNST trail manager(s) (e.g., U.S. Forest Service) regarding the final crossing plans and construction and restoration methods for the designated segments of the FNST crossings at Mainline MPs 267.3R and 384.9. (Section 3.9.2.5)

21. **Prior to construction,** FSC shall provide documentation from the FDEP that construction and operation of MLV 5 and new permanent access road AR 19462 would not be precluded by the conditions of the Tiger Lake Ranch Conservation Easement. (Section 3.9.3.5)

22. **Prior to construction**, Sabal Trail and FSC shall file documentation of concurrence from the FDEP that their respective projects are consistent with the CZMA. (Sections 3.9.2.6 and 3.9.3.6)

23. The Applicants shall not begin implementation of any treatment plans/measures (including archaeological data recovery); construction of facilities; or use staging storage, or temporary work areas and new or to-be-improved access roads **until**:

    a. the Applicants file with the Secretary:

        (1) all survey reports, including special studies like Ground Penetrating Radar, evaluation reports, avoidance plans, and treatment plans; and

        (2) comments on survey reports, special studies, evaluation reports, avoidance plans, and treatment plans from the Alabama, Georgia, and Florida SHPOs, as well as any comments from federally recognized Indian tribes, and the ACHP is afforded an opportunity to comment on the undertaking if historic properties would be adversely affected; and

    b. the FERC staff reviews and the Director of OEP approves all cultural resources reports and plans, and notifies the Applicants in writing that treatment plans/mitigation measures may be implemented and/or construction may proceed.

    All material filed with the Commission that contains **location, character, and ownership** information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering **"CONTAINS PRIVILEGED INFORMATION – DO NOT RELEASE."** (Section 3.11.6)

24. **Prior to construction**, Transco shall file the results of an air quality screening (AERSCREEN), or refined modeling analysis (AERMOD or EPA-approved alternative) for all of the emission generating equipment (including existing equipment) at Compressor Stations 95 and 105. The results shall demonstrate that the modeled existing emissions, plus the modeled incremental increase in emissions of criteria pollutants from the modifications either:

    a. results in local concentrations below the NAAQS where current **modeled** concentrations from the existing compressor station (existing and ambient background) are below the NAAQS; or

b. does not cause or contribute to significantly increased local area concentrations above the NAAQS where the ambient background concentrations are currently above the NAAQS. (Section 3.12.1.3)

25. **Prior to construction**, Transco shall file the results of an air quality screening (AERSCREEN), or refined modeling analysis (AERMOD or EPA-approved alternative) for $PM_{2.5}$ and PM_{10} for Compressor Station 84. The results shall demonstrate that the modeled emissions, plus the ambient background results in local concentrations below the NAAQS. (Section 3.12.1.3)

26. FSC shall file **in its construction status reports** the following information for each HDD entry site:

    a. noise measurements from HDD activities at the nearest NSA, obtained at the start of drilling operations;

    b. identification of mitigation measures FSC installed if noise impacts exceed 55 dBA or 10 dB above ambient levels; and

    c. documentation of noise complaints and measures FSC took to resolve such complaints. (Section 3.12.2.2)

27. Transco shall file noise surveys **no later than 60 days** after placing the equipment at Compressor Stations 84, 95, 100, and 105 into service. If full load condition noise surveys are not possible, Transco shall provide interim surveys at the maximum possible horsepower load and provide the full load survey **within 6 months**. If the noise attributable to the operation of all of the equipment at each station under interim or full horsepower load exceeds an L_{dn} of 55 dBA at the nearest NSA, Transco shall file a report on what changes are needed and shall install the additional noise controls to meet the level **within 1 year** of the in-service date. Transco shall confirm compliance with the above requirement by filing a second noise survey for each station **no later than 60 days** after it installs the additional noise controls. The timeframes above apply to the in-service dates for each phase of construction at each station. (Section 3.12.2.2)

28. Sabal Trail shall file noise surveys **no later than 60 days** after placing the equipment at the Alexander City, Albany, Hildreth, Dunnellon, and Reunion Compressor Stations into service. If full load condition noise surveys are not possible, Sabal Trail shall provide interim surveys at the maximum possible horsepower load and provide the full load survey **within 6 months**. If the noise attributable to the operation of all of the equipment at each station under interim or full horsepower load exceeds an L_{dn} of 55 dBA at the nearest NSA, Sabal Trail shall file a report on what changes are needed and shall install the additional noise controls to meet the level **within 1 year** of the in-service date. Sabal Trail shall confirm compliance with the above requirement by filing a second noise survey for each station **no later than 60 days** after it installs the additional noise controls. The timeframes above apply to the in-service dates for each phase of construction at each station. (Section 3.12.2.2)

29. **Prior to construction**, Sabal Trail shall file for the review and written approval by the Director of OEP, a revised alignment sheet depicting the Hall Route Variation, between approximately MPs 148.4 to 148.7, as the adopted route. The alignment sheet shall also depict revised workspace locations that minimize impacts on the karst feature and forested wetland located at approximately MP 148.7. (Section 4.3.2.2)

30. **Prior to construction**, Sabal Trail shall file for the review and written approval by the Director of OEP, a revised alignment sheet depicting the AZ Ocala Route Variation as the adopted route, extending from the Dunnellon Compressor Station at approximately MP 392.4R to 392.8RR. In addition, Sabal Trail shall provide documentation that the route variation would not affect cultural resources or sensitive species or habitats protected under Section 106 of the NHPA and Section 7 of the ESA, respectively, including agency concurrence. (Section 4.3.2.9)