Existing Conditions

The site is generally located east of GA-133 (Valdosta Highway) and Peach Road, west of Guess Road, and bisected by Lawson Mill Pond Road. The solar site will be located on agricultural and forested land with rural residential properties surrounding the project area.

The predominant source of noise in the vicinity of the proposed solar site is anticipated to be traffic noise along GA-133 (Valdosta Highway) and Lawson Mill Pond Road, as well as other rural roadways, including Peach Road and Guess Road.

Other sources of noise include ambient environmental noise, which includes wind, birds chirping, insects, household appliances, landscaping equipment, etc. Also, it is assumed that agricultural equipment contributes to the existing noise environment during the planting and growing seasons.

Sound Study

Sound levels from the proposed Morven Solar Project were evaluated using SoundPLAN. This program computes predicted sound levels at noise-sensitive areas through a series of adjustments to reference sound levels. SoundPLAN can also account for topography, groundcover type, and intervening structures. Sound levels generated from inverters and transformers are anticipated to be the main source of sound from the proposed solar photovoltaic project site.

It should be noted that noise from surrounding roadways was not included in this analysis, although GA-133 (Valdosta Highway), Lawson Mill Pond Road, and other rural roadways are anticipated to contribute to the ambient noise environment throughout the entire day.

Inverters

Photovoltaic (PV) inverter equipment generates steady, unvarying sound that can create issues when located near noise-sensitive areas. It was assumed that PV inverters would be distributed throughout the solar site. Based on typical noise emission levels for inverter equipment, a reference sound level of 79 dB(A) at 1 meter for each PV inverter was used. The sound from the simultaneous operation of the PV inverter equipment was calculated at the closest noise-sensitive receptors surrounding the project area using SoundPLAN.

Sound generated by the inverters is not anticipated to significantly contribute to the existing environmental sound levels surrounding the site. Also, sound generated by the inverters is expected to be mitigated by providing sufficient offsets between the inverters and surrounding noise-sensitive land uses as well as by the physical presence of the solar arrays, which are anticipated to shield and disperse some of the sound generated by the inverters.

Transformers

Transformers also generate steady, unvarying sound that can create issues when located near noise-sensitive areas. It was assumed that transformers would be located at the proposed substation north of Lawson Mill Pond Road and east of Guess Road. A reference sound level for a transformer of 75 dB(A) at 1 meter was used. The sound from the simultaneous operation of the transformers was