Report for noise level testing on 5/24/21 at:

Stepping Stones Farm and Event Center, LLC
19 Putnam Rd
Temple, NH 03084

Testing and measurements done by:

Ben Rogers
Audio engineer, 15 years of professional experience
Loud Sun Studio Jaffrey, NH

Additional equipment provided by and all measurements verified by:

Henry Moreau
Audio engineer and acoustics engineer
Berklee College, Keene State College
More Sound Company Jaffrey, NH

Sound measurements taken using SPLnFFT Sound Meter software and Wensen Digital Sound Level Meter

All measurements are A weighted and slow response.

Measurements were taken between 11:30am and 1pm under calm and sunny weather conditions.

Sound was generated from designated performance and music area inside event center (barn) using three way

sound system comprised of Mackie SRM450 powered speaker and SRS1500 powered subwoofer.

The same full spectrum program material was used for amplified playback in all the measurements.

Measurements taken at various distances and locations with the sound system active and inactive for ambient levels, detailed below.

Environment for all exterior readings should be described as calm and quiet, including light wind, birds, crickets and not including cars or other significant momentary noises.

Reading 1: Interior of Barn
Inside event space, medium distance from sound system (approx 40 ft)
Active = 90dbA
Ambient = N/A

Reading 2: Interior of Barn
Inside event space, far distance from sound system (approx 80 ft)
Active = 83dbA
Ambient = N/A

Reading 3: Interior of Barn
At entrance of event space
Active = 68dbA

Ambient = N/A

Reading 4: Driveway entrance
Active = 42dbA
Ambient = 40dbA

Reading 5: Timberdoodle property line
Active = 42dbA
Ambient = 40dbA

Reading 6: MacMartin and Russell property by the orchard entrance
Active = 38dbA
Ambient = 38dbA

Reading 7: Wilton line of the MacMartin property
Active = 40dbA
Ambient = 38dbA

Summary:

With music playing loudly inside the event center (barn), compared to the ambient readings at the same locations (with the sound system inactive), there was an increase of 2dbA at the Timberdoodle property line, no significant increase in sound level at the MacMartin and Russell property line by the orchard entrance, and an increase of 2dbA at the Wilton line of the MacMartin property.

In my estimation, the higher ambient measurements in readings #4 (driveway entrance) and #5 (Timberdoodle property line) can be attributed to both the locations being in rather open areas with slightly higher elevation and directly next to the road, which is a reflective surface that is likely to increase environmental loudness.

Similarly, the increase in loudness from the ambient level in reading #7 (Wilton line of the MacMartin property) can likely be attributed to the location being in the open and directly next to the road, as compared to the absence of such an increase in reading #6 (MacMartin and Russell property by the orchard entrance) which featured several natural obstructions to the sound source, including trees and a small hill. The introduction of similar natural obstructions to the sound source as well as greater distance from the road would likely act to diminish any increase in loudness from ambient levels in readings #4 (driveway entrance), #5 (Timberdoodle property line), and #7 (Wilton line of the MacMartin property).

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