

EXHIBIT 11
FOWLER CREEK GUEST RANCH
IMPACT OF NOISE ON SURROUNDING PROPERTIES

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Kittitas County CDS

The transmission of noise in a mountainous forest landscape is a complex phenomenon that is influenced by various factors such as topography, vegetation, and meteorological conditions. Understanding how noise travels through a forest landscape is essential in managing and minimizing noise pollution in sensitive areas such as the proposed Fowler Creek Guest Ranch.

Topography: *The topography of a forest landscape plays a crucial role in determining the direction and distance of noise propagation. For example, noise tends to travel further in valleys than on hilltops or flatter lands due to the natural amplification of sound waves in valleys. An elevated land mass will diminish and reduce the distance that sound will travel as it acts to absorb, direct, and block the sound waves. The presence of dense vegetation will absorb and scatter noise, reducing its propagation distance. The proposed guest ranch is located on forested vegetated flat land with elevated land masses located on the outer boundaries of the property. The guest ranch property and the surrounding areas are all within a forested environment, which will greatly reduce the distance that any noise will travel.*

Distance: *The distance of noise propagation in a mountainous forest landscape is influenced by several factors, including the source of noise, the intensity of the noise, vegetation, and terrain. The intensity of the noise, without interruption, decreases with distance, following the inverse square law, which states that the intensity of sound decreases proportionally to the square of the distance from the source. Therefore, the further the noise travels, the weaker it becomes. For example, a noise source that is 60 feet away will be four times quieter than the same source at a distance of 30 feet away. Noise is further limited when interrupted by buildings, vegetation, and raised land masses. The closest adjacent property to the proposed guest ranch is greater than 400 feet away from the center of activity of the proposed guest ranch. This means that the*

noise generated at the center of the guest ranch will be greatly reduced, if not eliminated, as it travels further away from its origin towards the surrounding properties. Loud laughter would either not be detectable from the surrounding properties or be at a level equal to leaves rustling in the wind.

Type of Noise: The transmission distance of noise in a forest landscape can vary depending on the type of noise source and the terrain. For example, a low-frequency sound, such as the rumble of a distant thunderstorm, can travel several miles through a forest landscape. On the other hand, the sound of a car engine or a lawnmower may only travel up to 300 feet.

Mitigation Measures: As the density of the guest ranch is centrally located within the property, most of the noise impact will be contained within the boundaries of the proposed guest ranch. The forested area and the local terrain will centralize most of the noise pollution within the guest ranch to an even greater degree. Within the guest ranch, any noise will be reduced by both the layout of the guest ranch within the property including buildings and rules requiring quiet time at night.

In an increased effort to minimize the impact of noise on the guest experience, surrounding properties, and ecosystem of the entire area, the proposed Fowler Creek Guest Ranch will implement several measures, such as enforcing quiet hours, planting fir trees along the southwest border, avoiding the use of outdoor amplification systems, and eliminating construction at night. In this way, the noise generated by the guest ranch will have limited, if any, impact on the surrounding properties.