



Reducing the Impact of Natural Gas Compressor Noise

In many rural areas, the sounds of nature are being drowned out by the operating noise of natural gas compression stations and impacting the quality of life for residents in Northern and Western Pennsylvania.

Although the noise level generated by a compressor station can be brief and abrupt, its startling effect can be annoying. The noise level near a compressor station can be up to 100 decibels whereas the usual nighttime noise level in many rural areas is around 35 decibels.

One method of reducing noise levels to an acceptable level is to install a natural buffer of trees and shrubs between the natural gas compression station and nearby homes. While buffers are often associated with protecting streams and wetlands, they can also be very effective in reducing noise levels.

Natural buffers will also improve the environment and visually enhance the area's natural landscape. Buffers can slow water runoff, increase water infiltration into the soil, and trap pollutants. They provide food, nesting cover, and shelter for wildlife and migratory birds.

Combining the planting of trees and shrubs with a 12-foot-high berm (see chart on back) can reduce the noise level to acceptable levels 150 feet away from the compressor station.

Buffers and the berm should be located as close as possible to the compressor station and planted along the contour for maximum benefit.

The buffer strip should be approximately 100-feet wide, including the berm. A diverse mixture of native trees and shrubs that are adapted to the site conditions is recommended for planting in the buffer and on the berm. Evergreens, such as pine trees, provide better year-round noise filtration. Shrubs that can provide a source of fruit and berries for birds and wildlife during the fall and winter months should also be included in the plantings.

While natural gas suppression stations are important to communities' economic growth, planting a natural buffer around them will help them blend better into rural areas.

Your local NRCS Field Office, county conservation district, consultant, or a technical advisor familiar with your site conditions can provide site-specific recommendations.

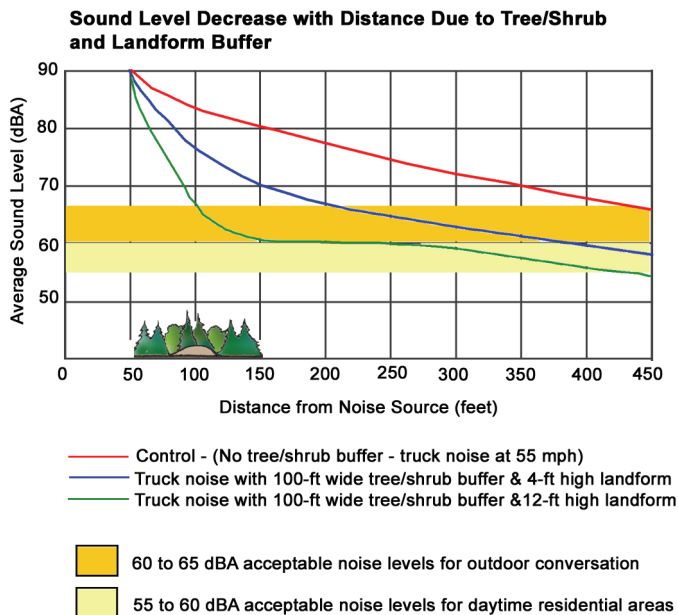
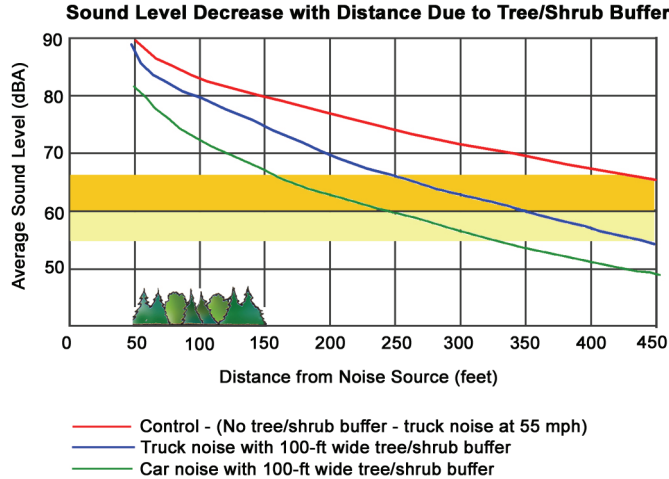
Natural buffers should be placed as close to the noise source as possible. Suggested species for an effective natural noise buffer include:

Plant	Planting Distance
Fast Growth	
Leyland Cypress*	6' x 6'
Hybrid Willow*	5' x 5'
Fountain Grass*	
Pampas Grass*	
Switchgrass*	
Slower Growth	
White Pine	20' x 20'
Norway Spruce	20' x 20'
American Beech	20' x 20'
Pin Oak	20' x 20'
American Holly	
Shrubs	
Viburnums	
Forsythia	

* Non-native species.

Estimating setback distance from noise control buffers

Example: An outdoor recreational site near a highway needs to be located to meet the desired noise levels of 60 to 65 dBA. If 100-ft wide tree/shrub buffer is used, the site needs to be 100 to 200 feet behind the buffer. The site can be located immediately behind the buffer if a 12-ft high landform is incorporated into the buffer.



Source: USDA National Agroforestry Center

For more information, or to contact your local USDA NRCS Field office, visit

National Resources Conservation Service
www.pa.nrcs.usda.gov

The USDA Natural Resources Conservation Service is a federal agency that assists farmers and landowners with the voluntary installation of conservation measures that protect and restore our nation's natural resources.

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