

Vermont Public Health Association

Policy Statement

Environmental Noise Pollution

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Description: Noise is unwanted and/or harmful sound.¹ The Vermont Public Health Association (VtPHA) recognizes the connection between environmental noise pollution and human health. Sources of noise include motor vehicles (cars, trucks, buses, motorcycles, airplanes, trains, all-terrain vehicles); lawn and farm equipment; construction machinery; quarrying and other industrial noise; and loud music, car alarms, and firearms. Although Vermont is a largely rural state, it is not immune from excess noise. Complaints about loud motorcycles are frequently shared in community forums, and the F-35 fighter jets based at Burlington International Airport continue to be the subject of controversy.

The World Health Organization's (WHO) guidelines for community noise recommend less than 30 A-weighted decibels in bedrooms at night for good quality sleep, and less than 35 dB(A) in classrooms for good learning conditions. WHO's guidelines for night noise outside of bedrooms recommend less than 40 dB(A) of annual average to prevent adverse health effects.² Noise levels from many sources exceed these levels. The APHA says more than half of Americans are exposed to harmful levels of noise.

Airplane noise could increase in the coming years as the population of Vermont grows, due both to more airplanes flying in and out of the state, and an increase in private planes and runways. One expert mentions drones as a likely noisy technology in the near future.³ Another emerging source of noise is wind turbines. Electric vehicles and machines are quieter than gas-powered versions, so increased electrification – already a priority as a way of addressing climate change – can be part of the solution. However, noise from electric vehicles increases at higher speeds, so traffic noise from highways and other busy roads will not disappear as a concern.

Exposure to high noise levels is associated with elevated blood pressure, heart disease, hearing loss, sleep deprivation, ringing of the ears, headaches and chronic fatigue. One study estimated that 104 million Americans have annual noise exposures above 70 dBA (equivalent to a continuous average exposure level of >70 dBA over 24 hours) in 2013; they were at risk of hearing loss, while “tens of millions more may be at risk of heart disease and other noise-related health effects.”⁴ Excessive noise also contributes to decreased job and academic performance. Children and low-income and minority communities are especially vulnerable to noise pollution and its impacts. Much of the adverse health effects of noise exposure are due to

feelings of powerlessness to control the noise. Because individuals cannot control noise made by others, this is an issue in which government is needed to take action.

The U.S. Environmental Protection Agency regulated noise pollution in the 1970s via several laws. In the 1980s, it largely withdrew from activity in this area. However, noise laws remain on the books and can help to address current issues. One such law requires that motorcycles meet federal noise standards and that each motorcycle include a label confirming that it meets these standards. It is illegal to modify, replace, or tamper with the motorcycle's muffler so as to cause it to exceed federal noise standards⁵ - but excessively loud motorcycles result from their owners illegally taking these actions. The vehicle inspection process provides an efficient way to address this. Thus, the State should add the requirement for an EPA label for all motorcycles in Vermont and include this as part of state motorcycle vehicle inspections.⁶

Vermont's statewide noise law is dated and covers only nighttime noise. Act 250 includes consideration of noise. But as with any public health issue, prevention is key, including addressing noise proactively rather than reactively. Recommendations of the Noise Pollution Clearinghouse (NPC) include developing and implementing clear zoning and planning policies on both the Act 250 and local levels to help avoid noise problems, as well as increased noise enforcement under Act 250.⁶

Protection of vulnerable groups can be increased through development of geographic noise maps. Measurement and mapping of noise levels "would identify priorities for additional evaluation and help inform protective measures," according to one article – and would likely require federal assistance and funding.⁴ This could be helpful in parts of Vermont where growth is taking place quickly, and to protect racial minorities, lower-income groups, children, and other sensitive groups from high noise levels.

Policy Statement: The VtPHA recognizes noise pollution as an important public health issue and supports increased education, policy development, and enforcement to reduce environmental noise pollution in Vermont.

Supported Actions:

- Support inclusion of environmental noise pollution as a federal public health priority and rebuilding of the federal noise pollution program.
- Increase awareness among Vermont public health, local government, and enforcement personnel of the health hazards of environmental noise pollution.
- Require an EPA muffler label for all motorcycles in Vermont and enforce this as part of state motorcycle vehicle inspections.
- Implement clear, noise-protective zoning and planning policies both locally and under Act 250, and increase noise enforcement under Act 250. Consider noise mapping as part of these processes.

- Consider adopting a “plainly audible” noise standard that would not require sound meters or other special equipment.⁶
- Consider adopting a ban on the use of compression brakes – which can cause a loud, sharp, machine gun-like sound – except in emergencies.⁶
- Track developments statewide and nationally regarding noise from military jets. While there is no clear solution to noise from military jets at present, the organization Quiet Communities tracks developments on this issue, such as legal developments and federal watchdog recommendations on noise metrics.⁷ These are useful to keep an eye on as this issue develops.

Potential Barriers:

- Noise is not always recognized as a health issue by the public and policymakers.
- People may get used to noise or, if it bothers them, assume there is nothing they can do about it.
- Policymakers may perceive of noise as an inevitable cost of economic development.
- Enforcement of noise limits can be difficult.
- There is a tendency to address noise problems as they arise rather than proactively.

Related Policies:

- APHA Policy Statement 202115: Noise as a Public Health Hazard

References:

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