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General Health Effects of Transportation Noise

Cynthia S.Y. Lee

U.S. Department of Transportation/ Volpe Center

Gregg G. Fleming

U.S. Department of Transportation/ Volpe Center

Abstract

The effects of transportation noise is a concern of many Government agencies, including the Federal Aviation Administration (FAA), the Federal Highway Administration (FHWA), the Federal Railroad Administration, National Parks Service, and the U.S. Postal Service. The Volpe National Transportation Systems Center has long provided support to many of these agencies in the area of transportation-related noise. More recently support has included the important area of psychological and physiological health effects of noise for both humans and wildlife.

The health effects of noise on humans are typically grouped into two broad categories: psychological and physiological. Psychological effects of noise include annoyance, speech interference, occupational and academic performance degradation, and interference with recreational activities. Physiological effects of noise include noise-induced hearing loss, hearing impairment, sleep disturbance, muscular effects, cardiovascular effects, and mental health.

There has been extensive research on the effects of transportation noise on wildlife, which include many species. These reports vary in scope from long-term research studies to government investigations to environmental agency citations. Research, primarily tied to aircraft noise, has shown that certain noise intrusions do cause an effect on wildlife.