

## **Facts about Noise Pollution in Our Community**

Woburn/Burlington Sound Barrier Community – March 14, 2007

### **Homes affected by highway noise:**

- In Woburn & Burlington there are 1,034 homes (not including condos & apartments) within 1,000 feet of Routes 128 & 93.
- There are over 2,000 residents of these 2 communities who live within 1,000 feet of the highway (in houses, apartments, & condos). These residents can hear the highway noise inside their homes.
- In Woburn, 203 homes now within 1,000 feet of the highway were built BEFORE the highway was constructed (prior to 1951).
- Within 100 feet of the highway in Woburn and Burlington there are 334 homes. Families who live there are at risk for a number of health problems.

### **Quantifying noise pollution:**

- Noise intensity is measured in decibel units. The decibel scale is logarithmic; each 10-decibel increase represents a tenfold increase in noise intensity. Human perception of loudness also conforms to a logarithmic scale; a 10-decibel increase is perceived as roughly a doubling of loudness.
- Above 45 decibels of noise, the average person cannot sleep.
- Above 66 decibels of noise, we are above the threshold deemed safe by the EPA for the workplace or home-life. Some of the health effects include irritability, heartburn, indigestion, ulcers, high blood pressure, and possibly heart disease.
- At 85 decibels we are at risk for hearing loss. (Continuous exposure at lower levels can also lead to hearing loss).
- One burst of noise, as from a passing truck, is known to alter endocrine, neurological, and cardiovascular functions in many individuals.
- Prolonged or frequent exposure to such noise contributes to noise-induced stress and potential mental illness.

## **Regulating noise:**

- Noise is recognized as a controllable pollutant.
- The Noise Control Act of 1972 empowered the Environmental Protection Agency to determine the limits of noise required to protect public health and welfare.
- Highway noise above 66 decibels requires abatement. Sound studies along 128 & 93 in Woburn & Burlington conducted by the State and by private citizens demonstrate that highway noise in these areas exceeds 75 decibels.

## **Sound barriers work:**

- Environmental Protection Agency studies show that sound barriers can cut highway noise levels in half. A reduction in 10 decibels, commonly achieved with sound barriers, has the effect of reducing 50% of unwanted noise.
- Benefits include lessened sleep disturbance, improved ability to enjoy outdoor life, reduced speech interference, stress reduction, reduced risk of hearing impairment and reduction in blood pressure (improved cardiovascular health).