Please note: This information was hand delivered to Airport Director, Commission Chair, Commission Members (Armstrong, Bollig, McCarville, Peers, Probasco, Rusk, Schauer, Thomas) at a September 11, 2019 meeting at the airport. I provide it again. The facts have not changed.

April 14, 2021 - Airport Commission Virtual Meeting, 5:30 p.m.

TO:

Joe Parisi, Dane County Executive

Kimberly Jones, Airport Director

Bill Haight, Airport Commission Chair

Dane County Airport Commission Members:

Angela C. Thomas, Perry Armstrong, Jason N. Ilstrup, Andrew Schauer Steven Peters, Maureen McCarville, Jerry Bollig

RE: Comment on the Draft United States Air Force F-35A Operational Beddown Air National Guard Environmental Impact Statement August 2019

EIS 1-3 "The EIS uses a systematic, interdisciplinary approach to consider the **potential consequences** to the quality of the human environment...that may result from implementation of this action."

This response below to the EIS, Section 3.8 Environmental Justice and the Protection of Children, raises questions and concerns about terms and vision of the future portrayed by these terms. The EIS language—"potential consequences"—leads the community to assume a possible likelihood of some consequence, based on the EIS statement. The community is better served and more fully informed by research and longitudinal studies on the actual effects of noise and other adverse environmental pollutants, especially to sensitive receptors—children and the elderly.

Former U.S. Surgeon General William H. Stewart said in 1978, "Calling noise a nuisance is like calling smog an inconvenience. Noise must be considered a hazard to the health of people everywhere."1

Goines and Hagler report, "There is growing evidence that noise pollution is not merely an annoyance; like other forms of pollution, it has wide-ranging adverse health, social, and economic effects."² To fully appreciate the trajectory of the actual consequences it is helpful to pull from the many adverse events the "fight or flight" response to loud noise, and particularly to startling noise which has far-reaching effects for children involved in their tasks of learning and playing.

The American Academy of Pediatrics Technical Report³ "The Lifelong Effects of Early Childhood Adversity and Toxic Stress" presents an ecobiodevelopmental framework that draws a line between the "ecology of childhood" and a wide range of developmental outcomes: "...longitudinal studies that document the long-term consequences of childhood adversity indicate that alterations in a child's ecology can have measurable effects on his or her developmental trajectory, with lifelong consequences for educational achievement, economic productivity, health status, and longevity." That is, measurable effects, not potential consequences.

How does the "fight or flight" response in the learning, playing child in an already burdened socioeconomic situation further impose on the child's day, future potential?

¹ Goines L, Hagler, L. Noise Pollution: A Modern Plague. Southern Medical Journal 2007; 100:287-294.

² Ibid

³ https://pediatrics.aappublications.org/content/pediatrics/129/1/e232.full.pdf

Noise, even at levels that are not harmful to hearing, is perceived subconsciously as a danger signal, even during sleep. The body reacts to noise with a "fight or flight" response, with resultant nervous, hormonal, and vascular changes that have far reaching consequences.⁴

The stress hormones, cortisol and adrenaline for example, are natural and call us to action in the face of stressful situations. When the body recognizes danger with regularity, awake or asleep, the release of the stress hormones begins to have a corrosive effect on internal organs. These effects begin to be seen with long-term daily exposure to noise levels above 65 dB or with acute exposure to noise levels above 80 to 85 dB. 85dB is roughly equivalent to the noise of heavy truck traffic on a busy road. Children who live in noisy environments have been shown to have elevated blood pressures and elevated levels of stress-induced hormones. Many of these physiological changes are not readily reversible.

Mindfulness programs in schools may be effective in assisting the learning child to cope with temporary noise exposure. Even so, speech interruption is consequential in learning and playing, affecting problem solving and memory. The EIS states that, "In this EIS, Lmax is one noise/sound metric used in the analysis of speech interference, and each installation-specific section includes a comparison of Lmax for F-16, F-15, A-10, and F-35A aircraft." Again, we are left to draw our own conclusions that "speech interference" includes teachers in a classroom teaching students.

⁴ Goines and Hagler

⁶ Ibid

⁵ Berglund B, Lindvall T. (Eds.) Community Noise. *Archives of the Center for Sensory Research*.

^{1995; 2:1-195.} available at: http://www.who.int/docstore/peh/noise/guidelines2.html

Domestic tranquility is one of the six guarantees in the United States Constitution and in some form in every state Constitution. In 1972, the Noise Control Act, passed by Congress, declared, "it is the policy of the United States to promote an environment for all Americans free from noise that jeopardizes health and welfare."

Writing to his community, Matthew admonishes the Pharisees: "They tie up heavy burdens, hard to bear, and lay them on the shoulders of others; but they themselves are unwilling to lift a finger to move them" (Matt 23:4).

It is crucial that our community recognizes the incremental burdens we allow to be placed on those vulnerable to the crushing weight, and lift not only a finger but our voices as well to move them.

Respectfully,

Anne Tigan

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