

LAKE COUNTY SAFEGUARDS

Protecting communities surrounding the T5 Hyperscale Data Center

Who is protecting us?

Illinois has standards - but no monitoring programs. Lake County does not regulate T5. Mundelein & surrounding Villages did not approve T5. Grayslake has **not** yet established data-center-specific protections or shared a comprehensive monitoring plan.

**An ordinance measures
COMPLIANCE
A baseline measures
CHANGE**

What needs to happen?

BASELINE Independently document existing conditions before they change.

MONITOR Conduct independent monitoring through construction and operation.

REPORT Make measurements, trends, and complaints publicly accessible.

ACT Put mitigation, accountability and escalation plans in place before harm is done.

Once baseline conditions are gone, we cannot recreate them.

MOUNT PLEASANT, WI: In July 2026, residents filed a proposed **class-action lawsuit** on behalf of households within 1.5 miles of the Microsoft site, alleging constant noise interfered with the use of their property. **Gaps exist between regulatory compliance & meaningful community protection, baselines matter.**

AURORA, IL: Aurora already had regulations. Resident complaints showed they were not enough. The Village Board responded with stronger data-center protections, including all future developments require baseline sound studies and ongoing monitoring. **Aurora learned the hard way after complaints, we don't have to.**

NAPERVILLE, IL: Naperville proactively requires measurement of existing background sound, reviewed projected data-center noise, and uses an independent sound engineer to evaluate the analysis. **Naperville proactively established what "before" conditions look like before the construction begun.**

YORKVILLE, IL: Yorkville required ambient sound measurements at 4 locations around a future development to establish the baseline against which future noise impacts could be evaluated. **We can't establish the "before" without the baseline.**

CHICAGO, IL: Chicago is currently developing data-center-specific noise and air-pollution protections rather than relying only on generic standards. **Those same concerns exist in Lake County - why are local Villages and Boards not recognizing them?**

STATE OF VIRGINIA: State research found traditional noise ordinances may not adequately capture the persistent low-frequency & tonal impacts. **Passing a decibel test does not necessarily tell us how much a neighborhood has changed.**

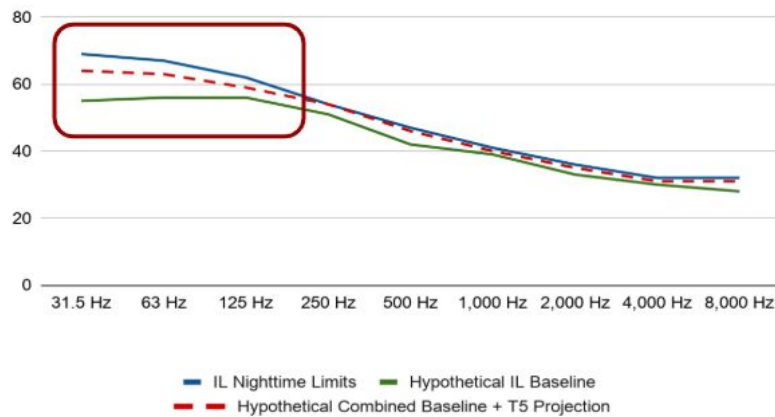
Calling on Mundelein, Libertyville, Wauconda, Fremont Township, Round Lake Park, Avon Township, Round Lake, Hainesville & Third Lake to act together in partnership with the Lake County Board to commission an independent regional baseline study - before T5 becomes operational.

Why the baseline matters

LEGAL COMPLIANCE IS NOT THE SAME THING AS NO IMPACT.

Example: Illinois establishes noise limits by frequency, but those limits do not tell us what the neighborhood sounds like today or how much a data center will change it in the future. The operating line must be based on actual measurements, and a pre-construction baseline is what allows residents and Villages to compare before construction, projected operations, actual operations, and mitigation steps.

Hypothetical - Baseline, Combined Projection and IL State Limits



Low-frequency noise is the concern—not just whether a facility exceeds the legal limit.

Cooling fans, chillers, transformers, and other mechanical equipment can create a persistent hum in the 31.5–125 Hz range that travels farther than higher-frequency sound - with some communities reporting up to 2.5 miles - penetrates building walls more easily, and may be experienced as vibration or pressure rather than simply heard. A facility can therefore remain technically compliant while still changing the nighttime sound environment for nearby residents.

The Village of Grayslake knows existing state & federal limits are not always enough

For Solar and Wind Energy, Grayslake created specific control limit ordinances to address Ambient Sound, Low-Frequency Sound and to add Testing & Modeling requirements.

Why hasn't the Village of Grayslake extended similar controls to Data Centers?

The opportunity to capture baselines is running out. We need the “BEFORE” to measure the “AFTER”

Potential Impacts	Measurements Needed
Noise	☐ dBA and dBC (unweighted) ☐ Octave bands (31.5, 63, 125 Hz) ☐ Nighttime conditions & Indoor sounds ☐ Continuous 7-14 day baselines
Air, Light & Water Pollution	☐ Existing Air Quality (PM, NOx, CO, VOCs) ☐ Planned Emission Modeling ☐ Existing generator and industrial impact ☐ Changes in cumulative impacts ☐ Nighttime illuminance (footcandles) ☐ Light trespass & glare at nearest residential property lines ☐ Groundwater levels & baseline quality ☐ Existing stormwater drainage, runoff & discharge conditions
Vibration	☐ Pre-construction ground vibration (PPV) ☐ Ground vibration at nearest homes ☐ Building interior low-frequency vibration ☐ Changes in -post-operation vibrations during normal & max equipment operation
Heat	☐ Existing temperatures & humidity ☐ Daytime and Nighttime measurements ☐ Modeled waste-heat output ☐ Changes in post-operation temperatures

BASELINE. MONITOR. REPORT. ACT.

Learn more at www.no2hdc.org