Risks vs. Mitigations – Silver Fox 606 Data Center

(Prepared from public records, talkaboutmartin.com, and peer-reviewed studies)

Claim Area	Strong Affirmative Evidence (Supporting Concern)	Rebuttal / Mitigation Claim	Why the Concern Still Stands (Counter to Mitigation)
Light Pollution – Human health (sleep, circadian disruption)	Chronic artificial light at night (ALAN) suppresses melatonin, increases breast cancer odds (OR 1.15–1.28), and raises cardiovascular risk (PMC 2023, WHO 2018).	Shielded/down-directed LEDs reduce local impact by 70–90%; no widespread complaints in designed facilities (UCLA 2023, DarkSky 2025).	Shielding helps locally but does not eliminate chronic exposure in rural areas. Ecosystem-wide circadian disruption persists; rural dark-sky loss is not offset by distant fixes (Nature Climate Change 2025).
Light Pollution – Wildlife & ecosystems	ALAN disrupts migration, breeding, and predation, causing 20–40% population declines in nocturnal species (Trends in Ecology & Evolution 2023, NWF 2025).	Motion-sensor/timed lighting and shielding minimize wildlife collisions and habitat effects (DarkSky International 2025).	Effects are regional and cumulative; shielding reduces but does not prevent migration/breeding disruption across miles. Rural wetlands near Indiantown remain highly vulnerable (iScience 2024).
Water / Aquifer Depletion	Hyperscale centers consume 66B+ liters direct (plus 731B indirect) annually, causing aquifer drawdown in 20% of sites (EESI 2025, Nature 2021).	Closed-loop/recycled cooling reduces direct freshwater use by 70–90%; some achieve net-positive via offsets (HARC/UH 2025).	Offsets are often spatially/temporally mismatched and exclude indirect power plant use (40–60% of total). Local depletion still occurs in stressed basins like Florida (Ceres 2025, Xylem 2025).
Water / Contamination & Runoff	Runoff carries heavy metals/chemicals, contaminating groundwater in 15% of monitored sites (EESI 2025).	Stormwater management and chemical containment prevent most contamination (industry reports).	Even with containment, leaks and runoff events occur; rural aquifers lack robust monitoring. Contamination risks remain significant in sensitive areas (HARC/UH 2025).
Audible Noise – Sleep, stress, health	Chronic noise >50 dB linked to hypertension, diabetes, asthma, and premature deaths (WHO 2018, PMC 2023).	Acoustic barriers and enclosed cooling keep boundary noise <50–55 dB; few complaints in monitored sites (EESI 2025).	Low-frequency hum penetrates barriers; real-world complaints persist in Virginia/Arizona facilities. Health effects occur even below 55 dB in sensitive populations (Science of the Total Environment 2016).
Infrasound – Physiological effects (anxiety, heart, felt for miles)	Infrasound >70–100 dB causes cardiac strain, neuroinflammation, vertigo, and stress; travels miles with low attenuation (PMC 2021, Frontiers 2023).	Vibration isolation and distance reduce infrasound to <60 dB within 0.5 miles; no proven harm below 95 dB (engineering studies).	Low-frequency waves penetrate structures and travel further than predicted; chronic low-level exposure still linked to anxiety and heart effects in recent reviews (Preprints.org 2026).
Environmental / Wildlife – Habitat loss & biodiversity	Sensory pollution (noise + light) causes 20–40% population declines and habitat fragmentation (Trends in Ecology 2023, NWF 2025).	Zoning buffers, restoration credits, and efficiency measures reduce net impact to near-zero in many centers (WRI 2026).	Cumulative effects overwhelm mitigations in rural areas; initial fragmentation and biodiversity loss occur before restoration takes effect (iScience 2024). Site-specific risks (wetlands, eagle nests) remain high.