

Wildlife and Data Center Development: How Modern Regulations Protect Our Environment

When people hear about new data centers being built, they often wonder: What about the wildlife? Will this harm our environment?

The good news is that in the United States, modern data center projects built under today's (2024–2025) rules are subject to some of the strongest environmental protections in the world. These protections are not optional — they are enforced by law through a network of federal, state, and local permits.

From air quality to water protection to endangered species safeguards, every stage of construction and operation must comply with rules designed to avoid, minimize, and mitigate impacts on wildlife. Here's how it works.

1. Air Quality and Backup Generators

Most data centers use diesel or natural-gas backup generators to keep systems running during power outages. Because these generators can produce air emissions, they are strictly regulated.

- **State Air Permits** — Agencies like the Ohio EPA issue permits that set hard limits on how much a data center can operate its generators and how much pollution can be released. These limits are based on detailed air modeling to make sure emissions stay below national health and environmental standards (Ohio EPA, DAPC Permitting, 2025).
- **Case in Practice** — In 2024, Washington's Department of Ecology approved an H5 Data Centers project in Quincy, WA, only after reviewing detailed technical data, confirming reduced permitted emissions, and completing a public review process.
- **Protecting Wildlife** — While these permits don't directly say "protect wildlife," limiting air pollution also protects ecosystems by reducing smog-forming pollutants and fine particles that can stress plants, fish, and other species.

2. Land Disturbance, Wetlands, and Streams

Building a data center often means clearing land, grading soil, and installing utilities — activities that can affect streams, wetlands, and wildlife habitats. That's why these activities require multiple levels of approval.

- **Federal Wetland Permits** — The U.S. Army Corps of Engineers (USACE) enforces the Clean Water Act, which requires a Section 404 permit before wetlands or streams can be filled or altered. Often, these permits require compensatory mitigation — restoring or creating wetlands to replace any that are impacted.

- State Water Quality Certification — States, like Ohio, have their own 401 Certification process to ensure water projects meet state standards (Ohio EPA, Stormwater Discharges from Small and Large Construction Activities, 2023).
- Real-World Example — In 2024, DBT-Data New Albany LLC filed a Notice of Intent under Ohio’s Construction Storm Water General Permit for a project disturbing about 82 acres. This filing triggered erosion controls, runoff management, and aquatic habitat protections during construction.
- Protecting Wildlife — These measures keep sediment and pollutants from entering waterways, protecting fish, amphibians, and riparian species. They also require wetlands to be preserved or replaced, ensuring habitats remain available.

3. Endangered Species Protections

Before any major site work begins, developers must check for endangered species that could live in the area.

- U.S. Fish & Wildlife Service (USFWS) Reviews — In 2025, USFWS updated its guidance for developers on how to identify protected species using the IPaC database and how to avoid harming them.
- Seasonal Clearing Restrictions — If endangered bats, such as the Northern Long-Eared Bat, are present, projects must follow seasonal restrictions for tree clearing to avoid disturbing roosting or breeding periods (U.S. Fish & Wildlife Service, Northern Long-Eared Bat Determination, 2025).
- In Action — State environmental dockets regularly show USFWS determination letters requiring bat protection measures for large-scale developments — and these same rules apply to data centers.
- Protecting Wildlife — These requirements mean developers cannot simply clear trees whenever they want; they must time work to protect sensitive species.

4. Putting It All Together

Today’s data center projects don’t happen in a regulatory vacuum. Every major environmental pathway — from air emissions to land disturbance to species protection — is addressed through enforceable permits and oversight:

- Air Permits — Limit how much generators can run and what they can emit.
- Water and Land Permits — Govern how land can be disturbed, how wetlands are treated, and how stormwater is managed.
- Endangered Species Rules — Impose timing and habitat protections for sensitive wildlife.

- No development is entirely impact-free, but the combination of federal, state, and local oversight ensures that modern data center construction is done responsibly and with environmental protections in place. The system is designed so that impacts are avoided where possible, minimized where necessary, and mitigated when unavoidable.

Conclusion

Modern U.S. environmental laws create a comprehensive safety net for wildlife during data center development. From rigorous air quality modeling to strict wetland protections and endangered species safeguards, every permit is a binding commitment to protect the environment.

The evidence from agencies like Ohio EPA, the U.S. Army Corps of Engineers, and U.S. Fish & Wildlife Service is clear: Data centers built under today's rules must meet high environmental standards that make them compatible with long-term ecosystem health. These protections give communities confidence that economic growth and wildlife conservation can go hand in hand.

Works Cited

Ohio Environmental Protection Agency. *DAPC Permitting*. Ohio.gov, <https://epa.ohio.gov/divisions-and-offices/air-pollution-control/permitting>. Accessed 5 Aug. 2025.

Ohio Environmental Protection Agency. Stormwater Discharges from Small and Large Construction Activities: General Permit OHC000006. Issued 11 Apr. 2023; effective 23 Apr. 2023, expires 22 Apr. 2028. Ohio EPA, epa.ohio.gov/divisions-and-offices/surface-water/permitting/storm-water-discharges-from-small-and-large-construction-activities-general-permit. Accessed 31 July 2025.

Ohio Environmental Protection Agency. Construction NOI Storm Water General Permit List. Dec. 2024–Jan. 2025, dam.assets.ohio.gov/Public/DSW/Construction.pdf. Accessed 31 July 2025.

U.S. Fish & Wildlife Service. Northern Long-Eared Bat Determination Key Guidance. U.S. Department of the Interior, 2025.

Virginia Department of Environmental Quality. Issued Air Permits for Data Centers. 30 July 2025, www.deq.virginia.gov/permits/air/issued-air-permits-for-data-centers. Accessed 31 July 2025.

Paullin, Charlie. “Virginia Environmental Regulators Make Info on Data Center Operations More Publicly Accessible.” *Virginia Mercury*, 13 Nov. 2024, virginiamercury.com/2024/11/13/virginia-environmental-regulators-make-info-on-data-center-operations. Accessed 31 July 2025.