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Sent: Monday, January 12, 2026 6:21 PM
To: CZA, Program (MailBox Resources)
Subject: Public Comment (Starwood Data Center): Project CZA-448SD
Attachments: Data Center - Public Comment Joanne G [REDACTED]

Data Center – Public Comment Jan 12 2026

Public Comment submitted by Joanne G [REDACTED] (also provided as an attachment in a Word.doc format)

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A. DOCKET NUMBER: Project CZA-448SD

B. POSITION: Prohibit Starwood Project Washington as “heavy industry” under the Coastal Zoning Act § 7003: “Uses absolutely prohibited in the coastal zone. Except as provided by § 7014 of this title, heavy industry uses of any kind not in operation on June 28, 1971, are prohibited in the coastal zone and no permits may be issued therefor.”

C. REASONING: Starwood’s Project Washington is a new type of industrial facility, the AI hyperscale data center. The operational demands and physical presence of these hyperscale data centers often exceed what zoning codes traditionally define as light industrial, necessitating heavy industrial zoning for responsible community planning.

1. Clear Intent of the Coastal Zoning Act. The intent of Delaware's Coastal Zone Act (CZA) is to protect critical coastal areas from heavy industrialization. It achieves this by restricting new heavy industry and bulk transfer activities, controlling development, and ensuring new projects don't harm the environment or quality of life in the coastal zone.

2. Common Sense Duck Test. Traditional data centers are often categorized under broad “technology” or “light industrial” designations—labels that fail to account for the unique infrastructure needs of the new hyperscale AI-driven data centers. The “Common Sense Duck Test” is an intuitive test where if something looks, acts, and sounds like a duck (e.g., a program, a regulation, an action or a thing), it probably is one, meaning authorities (federal, state, municipal) use it for quick, common-sense assessments of compliance and intent, even if technicalities might suggest otherwise, especially in areas like policy evaluation where substance over labels is key to upholding public trust.

3. AI hyperscale data centers are AI Factories. As stated by Starwood in their application, “The proposed data center is a new, specialized technology facility” (Project Washington Starwood Digital Ventures Application for a Coastal Zone Act Status Decision, 30 October 2025). Even within AI trade and industry media, AI hyperscale data centers are described as specialized “AI factories” designed for continuous, massive-scale model training and inference, fundamentally differing from traditional data centers in power density, cooling, and hardware. The term ‘AI factory’ reflects their role as industrial-scale production sites for intelligence.

4. Emerging Legal and Zoning Precedents (2025–2026) to classify AI hyperscale data centers as heavy industry. These precedents suggest a trend where the sheer scale and resource demands of AI-driven hyperscale data centers are pushing them out of “by-right” (automatic approval) light industrial zones and into more heavily regulated, discretionary review processes within heavy industrial districts.

- **Indiana (Kosciusko & Porter Counties):** Kosciusko County amended its ordinance in February 2025 to categorize data centers as an “exceptional use” in heavy industrial districts. Porter County explicitly identifies hyperscale centers as heavy industrial due to outside noise and hazardous material storage.

- **Indiana (Lafayette/Tippecanoe County):** In late 2025, commissioners amended the unified zoning ordinance to restrict any "large data center" (over 10,000 square feet) strictly to I-2 (Heavy Industrial) zones. Even within these zones, they are not permitted by right; a Special Exception from the Board of Zoning Appeals is required to ensure "maximum public scrutiny".
- **Missouri (City of Peculiar):** In late 2025, public opposition led to challenges against attempts by developers (e.g., Diode Ventures) to classify 500-acre hyperscale sites as light industrial, with advocates successfully arguing for Heavy Industrial I-2 status due to noise and visual impacts.
- **Pennsylvania (Lehigh Valley):** The Lehigh Valley Planning Commission (LVPC) released guidelines in late 2025 to categorize hyperscale digital infrastructure as a distinct industrial land use, emphasizing their role as large-scale utilities that exceed a million square feet and generate significant heat.
- **Virginia (Loudoun County):** Effective March 2025, Loudoun County eliminated by-right development for data centers across all zones. All future facilities must obtain a Special Exception (SPEX), involving stringent legislative reviews and public hearings. New Phase 2 standards (underway for 2026) are drafting further restrictions on visual impacts, onsite power generation, and battery storage.
- **Virginia (Campbell County):** As of January 2026, Campbell County officially removed data centers from "by-right" uses in heavy industrial zones. Developers must now secure a Special-Use Permit, shifting the decision-making power from administrative staff to the Board of Supervisors.
- **Georgia (DeKalb County):** Georgia's DeKalb County extended a moratorium until June 2026 to study reclassifying data centers from "minor" facilities to "campus" developments requiring special land-use permits.
- **Maryland (Frederick County):** Local governments are creating dedicated "data center zones" to contain expansion. Frederick County, Maryland, recently passed a map limiting future development to a single 2,600-acre zone to prevent urban sprawl.

5. Standards for Classification of Heavy Industry. Whilst there is no one authoritative source for classifying light vs. heavy industry, criteria that distinguish light industry vs. heavy industry are found in construction classification systems, legal/zoning definitions, and economic/industry standards (North American Industry Classification System (NAICS), Investopedia, Encyclopedia Britannica, Wikipedia, OECD / International Statistical Definitions, economic textbooks and industry guides, and state/local zoning codes). This table compiles a summary of light vs heavy industry requirements and standards (features) alongside the specifications for Starwood's Project Washington to determine if it resembles light or heavy industry (final column).

Feature	Light Industry	Heavy Industry	Starwood Specifications	Starwood Classification
Primary Target	End consumers	Other businesses & industries	The primary customers of AI hyperscale data centers are major global technology companies, often referred to as the "hyperscalers" themselves.	Heavy Industry
Barrier to Entry	Low, easier to start	High, requires massive investment	AI hyperscale data centers require massive, multi-billion dollar investments.	Heavy Industry
Environmental Impact Pollution	Low to moderate Lower volume, more localized, often related to consumer goods,	High, significant waste/emissions	Massive buildings create stormwater runoff issues; diesel generators affect ozone.	

	warehousing, or assembly	High volume, persistent, severe pollution.	Air Pollutants: The most acute concern stems from on-site backup generators, which are predominantly powered by diesel. While intended for emergencies, they are frequently tested and can be run for demand response programs, releasing significant amounts of: 1. Nitrogen Oxides (NOx): Linked to respiratory infections, asthma, and cardiovascular risks. 2. Fine Particulate Matter (PM2.5): Often called "silent killers," these microscopic particles can penetrate deep into the lungs and are associated with heart attacks, lung cancer, and premature death. 3. Sulfur Dioxide (SO2) and Carbon Dioxide (CO2): Both contribute to air quality degradation and climate change. Toxic Cooling Chemicals: Water used in cooling systems often requires the addition of bromine-containing compounds to prevent the growth of bacteria and algae.	
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			Some of these compounds can be carcinogenic, posing a water pollution risk.	
Resource Intensity	Low energy & water needs • Power: Measured in KW or low MW • Water: (1 cubic meter = 264 gallons of water) • 5–50 m³ per day per facility (small–medium plants) • 0.5–5 m³ per employee per day • <10 m³ per unit of product (often far less) Characteristics • Lower intake volumes • Higher water quality requirements (often potable or treated) • Easier recycling and reuse	High energy & water needs • Power: Exceeds 100 MW to 1 GW • Water: (1 cubic meter = 264 gallons of water) • 1,000–500,000+ m³ per day per facility, depending on sector • 10–100+ m³ per employee per day Characteristics • Very high volumes, especially for cooling • Water quality varies by use • Extensive on-site treatment systems • High potential for water	The data center would require up to 1.2 gigawatts (GW) of electricity at full buildout; that would consume the same amount of electricity from the grid as nearly 1 million homes or comparable to power a small city – far exceeding typical light industrial users. The data center is estimated to use approximately 13.5 million gallons of water per year for its closed-loop cooling system, according to Starwood. However, the total water consumption for the entire facility would be higher when including other uses, such as humidification (9.9 million gallons/yr) and potable water (2.7 million gallons/yr). This brings the developer's estimated total annual water usage to roughly 26.1 million gallons per year across all systems once both	Heavy Industry

	Wastewater usually easier to treat	recycling, but large losses via evaporation High-intensity cooling systems requiring millions of gallons of water daily are categorized alongside industrial manufacturing.	phases are completed. 26.1 million gallons of water = approx 100,000 cubic meters of water.	
Infrastructure Demands	Structural: Standard steel frames, metal cladding, simpler designs, less need for heavy-duty flooring. Utilities & Systems: Standard electrical, HVAC, and basic plumbing; less complex utility requirements.	Structural: Massive foundations, heavy-duty steel structures, reinforced concrete, custom designs to withstand extreme loads and vibrations. Utilities & Systems: Extensive, high-capacity power, water, and specialized piping (e.g., for chemicals, high-temp processes).	AI hyperscale data centers require extremely robust structural systems to support massive weight, combined with high-capacity power and advanced liquid cooling systems to manage intense heat and energy demands. Structural: Foundations: Deep and heavily reinforced concrete foundations/slabs are essential to bear the static and dynamic loads of thousands of servers, power infrastructure, and cooling equipment. Structural Framework: Multi-story facilities often	Heavy Industry

			use intricate structural steel frameworks, designed with precision to support heavy floor loadings and integrate pathways for extensive cabling, piping, and ductwork. Floor Strength: Floors, often elevated for cable routing and cooling distribution, require high live load tolerances (e.g., 1000-2500 kg/m²). Vibration Control: The structure incorporates vibration isolation techniques to protect sensitive servers from disruptions Utilities and Technical Systems Power is the largest operational component, driving the need for specialized electrical systems. Grid Interconnection: Multiple grid interconnection points and high-capacity	
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			transmission lines are necessary to access sufficient power. Distribution Systems: Robust medium-voltage distribution systems, transformers, switchgear, and power distribution units manage the flow of massive amounts of electricity. Backup Power: Uninterruptible Power Supply (UPS) systems and large backup generators provide critical redundancy to ensure continuous operations during grid outages, often matching the full IT load plus cooling requirements. On-site Generation: Some designs incorporate on-site power generation and advanced battery storage systems to improve resilience and	
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			integrate with renewable energy sources.	
Noise	No discernible noise outside building. Projects must often prove they have no discernible noise at the property line.	Constant low-frequency hum/fan noise. Hyperscale centers often fail light industry noise requirements due to constant low-frequency fan hum, resulting in a heavy industrial (I-2) designation.	Hyperscale data centers, even with closed-loop cooling, generate significant noise (50-98 dB(A)), mainly from powerful HVAC fans, pumps, and servers, impacting nearby communities and staff, with potential for low-frequency hums and disruptive generator noise during tests or outages.	Heavy Industry
Redundancy Hazardous Materials	Minimal on-site fuel	Massive diesel storage (100k+ gallons) Large-scale on-site diesel storage (often exceeding 100,000 gallons) for backup power creates "heavy industrial" risk profiles	There will be 516 individual diesel fuel belly tanks, each holding 5,020 gallons, totaling over 2.5 million gallons of fuel for emergency generators.	Heavy Industry
Site Impact	Consumer-focused, low footprint	Large physical footprint, city-scale utilities	Significant site impacts related to the high consumption of energy and water, the generation of air and noise pollution, substantial land use, and the potential to strain local public infrastructure.	Heavy Industry
Physical Scale	Smaller, more modular buildings (warehouses,	More than 20 acres. Large, complex,	The proposed development spans approximately 580	Heavy Industry

	assembly plants) with standardized designs. Less than 20 acres. CZA§ 7002. Definitions. “Heavy industry use” means a use characteristically involving more than 20 acres” .	massive facilities (refineries, steel mills) with huge machinery and infrastructure.	acres and will include 11 buildings totaling around 6 million square feet of data center space. 11 two-story buildings, each one estimated to be 500,000-700,000 sqft. A single 2-story hyperscale data center is roughly equivalent to a tall commercial building or even a modest high-rise (like 5-8 stories) due to its significantly larger floor heights (often 20-35+ feet per story for equipment and cooling), compared to typical 10-15 foot office floors, meaning it's far taller than a standard 2-story structure.	
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5. Conclusion: Starwood’s Project Washington is a duck, i.e. it meets most criteria to be classified as a heavy industry.

D. IMPACT: The proposed development is near the historic towns of New Castle and Delaware City, including Battey Park. You can see a 40-foot building far beyond the typical 3-mile horizon, potentially around 10-12 miles away from a normal ground-level vantage point on a very clear day. All of these structures will significantly alter the beloved coastal landscape. This project also threatens to create financial hardships for all residents due to increasing costs for power and water. We are a small state, we should set the example for responsible land planning with clean power-generating land uses, not polluting power-consuming land uses.

E. ALTERNATIVES: Moratorium on all hyperscale data centers until zoning classification can be updated.