



MEMORANDUM

June 12, 2026

To: Mayor Jerry L. Demings
Commissioner Nicole Wilson, District 1
Commissioner Mayra Uribe, District 3
Commissioner Maribel Gomez Cordero, District 4
Commissioner Mike Scott, District 6

From: Vice Mayor Dr. Kelly Martinez Semrad, District 5 Commissioner 

Re: Commissioner's Report Request for a Future BCC Discussion Item
Concerning a Temporary Moratorium on AI Data Center Applications

Purpose

The purpose of this report is to 1) outline the emerging land use infrastructure, environmental, utility, and growth management questions associated with hyperscale and artificial intelligence (AI) data centers and 2) request that Orange County evaluate the existing regulatory and policy frameworks to determine its efficacy in the face of these emerging questions. As demand for data center infrastructure increases across Florida and the nation, Orange County sits in a regulatory gray area in our capacity to manage and regulate its uses. While data centers are implicitly regulated under industrial uses, the county lacks specific language that would allow for direct regulation.

Rather than predetermine whether data centers are to be encouraged, prohibited, or restricted, the primary objective is to allow County Staff sufficient time to 1) proactively study the impacts these intensive utility-scale operations have on community welfare and Orange County's ability to efficiently manage its water and energy supplies, 2) determine whether hyperscale and AI data centers can be safely accommodated within Orange County's boundaries, and, if deemed feasible, 3) determine whether additional policies, development standards, utility requirements, environmental protections or other such tools must be codified to govern them.

This Commissioner's Report is my formal request for a Discussion Agenda Item to be scheduled for the next available Board meeting to consider the information presented herein.



Background & Data

The rapid growth of AI and cloud computing is driving an intensive demand for large-scale data centers, defined under Florida law as facilities anticipating monthly peak loads of at least 50 megawatts, calculated as the highest average load over 15 minute intervals at a single location.¹ As many as 10 large-scale data centers are being planned throughout Florida, such as in Palm Beach, Polk, and Citrus Counties, with more counties moving to impose pauses to assess their impacts.² These facilities are not explicitly recognized in Orange County's Land Development Code. Rather they are implicitly allowed under industrial zoning districts, despite differing fundamentally from traditional industrial uses in their character and impact.³

Core Planning & Environmental Challenges

The World Resources Institute and 1000 Friends of Florida⁴ reported there are many ways that data centers can impact communities⁵, including the following:

- **“Soaring energy demand, higher utility bills:** A single modern AI data center can use as much power as 100,000 homes; many of the larger centers are expected to consume up to 20 times that amount.
- **Air pollution and climate impacts:** With the rapid expansion of data centers, energy facilities are not coming online fast enough to make up for supply deficits, requiring fossil fuel plants to remain open.
- **Noise pollution:** Data center construction, rooftop cooling systems and backup generators can be disruptively noisy. Larger centers can approach 100 decibels, equivalent to a motorcycle or jackhammer.
- **Competition for land use:** In 2024, the average data center site covered about 224 acres or 0.35 square miles, roughly the size of 450 football fields.
- **Pressure on marginalized communities:** [Many data centers] are in census tracts with above-median environmental burdens... Many were located in areas with social vulnerability indicators, such as poverty and lower education levels.
- **Limited job opportunities:** A review of more than 1,200 U.S. data centers found that even the largest employ fewer than 150 permanent workers, and as few as 25.”

¹ [CS/CS/SB 484](#)

² <https://citrusclerk.portal.civicclerk.com/event/9024/files/attachment/28522;>
<https://www.hernandosun.com/2026/06/05/hernando-county-commissioners-approve-one-year-data-center-moratorium/>

³ <https://1000fof.org/wp-content/uploads/2026/02/FOF-1380-Data-Centers-Special-Report-v4-FINAL.pdf>

⁴ World Resources Institute is an international research non-profit that prioritizes sustainable practices for business, economics, finance and governance; 1000 Friends of Florida is a statewide advocacy group that leverages evidence-based policy recommendations and research to advocate for smart growth.

⁵ <https://www.wri.org/insights/us-data-center-growth-impacts>



Florida's Critical Water Vulnerabilities

Water resource planning is one of the county's most acute vulnerabilities relative to data centers. Per the Environment and Energy Study Institute, *"large data centers can consume up to 5 million gallons per day, equivalent to the water use of a town populated by 10,000 to 50,000 people."*⁶ Orange County Utilities (OCU) relies entirely on groundwater drawn from the **severely constrained** Florida Aquifer for its primary drinking water supply. The newly approved Central Florida Water Initiative (CFWI) Regional Water Supply Plan projects that the region will face a massive groundwater shortfall of 96 million gallons per day (mgd) by 2045, with plans to utilize alternative supply strategies, such as direct potable water reuse, as supplement to current methods. Crucially, this projection pre-dated the sudden, resource-intensive emergence of hyperscale data centers. Absent sufficient study and regulation, Orange County will face increased uncertainty in the county's resource management, putting communities at risk of water shortages and energy rate hikes, as seen in Maricopa County, AZ, Loudoun County, VA, Morgan County, GA, and Richland Parish, LA.

Analysis

Immediate intervention with a temporary review ordinance is necessary for three critical reasons:

1. **Compounding Land Use and Resource Strain:** As noted before, Orange County is one of the most infrastructure-intensive regions in Florida due to tourism and rapid population growth. In addition to the water strains noted above, data centers require significant amounts of infrastructure. Such water demands can push AI data centers to be constructed in suburban and rural greenfields, exacerbating sprawl patterns, absent comprehensive regulation.
2. **The Passage of Senate Bill 484 (2026):** Florida recently enacted SB 484 (section 163.326, Florida Statutes) to address large-load utility customers. Crucially, the bill explicitly preserves local government authority over comprehensive planning and land development regulations for these users.
3. **Active Federal and Statewide Development Pressures and Precedent:** Recent federal policies and executive orders aim to rapidly accelerate the United States' AI infrastructure, with the hopes of establishing national dominance. Florida is among the states experiencing a sudden surge in data center development pressure, despite state-level skepticism to data center development.

⁶ <https://www.eesi.org/articles/view/data-centers-and-water-consumption>



Benefits & Risks

Moving forward with this legislative item provides several benefits for Orange County and its residents, but also risks that should be mitigated. Regarding benefits, imposing a temporary moratorium on data center applications will allow Orange County government to:

- Review and eventually modernize existing policies and code language
- Study the environmental, social, economic impacts of data centers in Orange County
- Consult with subject-matter experts, community members on the social, economic impacts of data centers
- Preserve water resources and mitigate energy rate hikes for households, businesses
- Improve public transparency on rapidly evolving land use planning

Regarding risks, Orange County could be subject to legal scrutiny from private developers who would leverage SB 180 (section 252.422, Florida Statutes). However, per a staff analysis from Citrus County, a temporary moratorium would not constitute a violation of SB 180, as the law only applies to **existing** lawful uses, definitions, and entitlements.⁷⁸ Newly promulgated policies, per Citrus County's analysis, would be consistent with F.S. Chapter 163's requirements. While there is legal precedent for counties to impose moratoria to preserve the status quo and to raise concerns regarding effects of development (*WCI Communities Inc. v. City of Coral Springs*; *Corn v. City of Lauderdale Lakes*), Orange County would benefit from a more in-depth legal analysis to reinforce the legality of this moratorium.⁹ Finally, Orange County can easily fall further behind in monitoring and acting in response to data center development, which in turn limits our ability to manage their impacts. Failing to understand the effects can severely impact the county's ability to manage land and natural resources efficiently, which can in turn increase costs for the government and for residents in the long term.

Recommendations & Next Steps

Recommendations

The moratorium should be, at minimum, one year in length and should only apply to prospective data center applications located in Orange County. Staff research should focus on the impacts of data centers on, among other topics, the county's natural resources, community character, economic landscape, zoning law implications, the requisite policy energy capacity.

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⁸ LDR amendment_.pdf

⁹ [WCI COMMUNITIES INC WCI v. CITY OF CORAL SPRINGS \(2004\) | FindLaw](#); [Corn v. City of Lauderdale Lakes, 794 F. Supp. 364 \(S.D. Fla. 1992\) :: Justia](#)



Research efforts should extend to community engagement, such as town halls to gain the insights of residents. Moreover, Staff should research benchmark counties in Florida and other states that are actively considering and/or have already implemented their own moratoria.

Next Steps

I am requesting to schedule a Discussion Agenda item at the earliest available Board meeting to discuss providing staff with direction to assess AI data centers impact as well if additional policies, development standards, utility requirements, environmental protections or other tools should be developed to protect our community's interests. Additionally, it is my intention to seek consensus for directing Orange County staff to draft an ordinance that would establish a temporary moratorium on data centers so that staff can properly develop policy from their own research and outreach.

Respectfully submitted,

Dr. Kelly Martinez Semrad, Commissioner District 5

/s/

Cc: Roseann Harrington
County Administrator Byron Brooks
County Attorney Jeff Newton
Cheryl Gillespie