

Public debate over data centers has intensified, with citizens calling for a moratorium “until we can figure out what best to do.” However, a moratorium is a poor substitute for thoughtful community planning. The draft resolution below establishes specific land-use regulations for data centers. The planning staff welcomes input from administrators, commissioners, and community members as this proposal is refined.

Questions to be addressed by the Haywood County Regional Planning Commission:

1. Where does Haywood County wish Data Center to locate in the county or does it want them only located in Brownsville or Stanton? *The following assumes that locating in the county is acceptable.*
2. If located in the county, are data centers allowed by right, on appeal or in an overlay district. *The following allows for all possibilities.*
3. To protect water contamination and provide land conservation, should data centers be allowed in identified flood hazard areas?
4. To protect the agriculture economy, should data centers be allowed on prime farmland?
5. To and provide land conservation and control erosion, should data centers be allowed on lands with slopes greater than 20%?
6. Which of the following do the public need protection? If so, what conditions and limitations should be enacted?
 - a. Water Resources – Draws, Discharges, Surface Waters (rivers, streams, etc.), and Wetlands
 - b. Wellhead Projection Areas* (Pending resolution)
 - c. Electrical Consumption (State requirements)
 - d. Visual Impact
 - e. Noise
 - f. Light
 - g. PFAS (Forever Chemicals)
7. Should the developer pay for all independent studies?
 - a. If so, should independent studies be provided by consulting engineers procured by the County and assessed in the application fee?
 - b. Or should they be secured on a as needed basis.
8. Should the developer be required to submit a Community Benefit Agreement? If voluntary, the issue of “contract zoning” is not allowed in Haywood County under current state law, is legal.

A RESOLUTION RELATING TO THE LOCATION, OPERATION AND DECOMMISSIONING OF DATA CENTERS

Intent

This ordinance governs the location, development, construction, installation, and decommissioning of Data Centers in Haywood County in a predictable manner that protects community safety, health, and welfare.

Its standards are designed to minimize impacts on surrounding properties, ensure compatibility with adjacent land uses, protect environmental resources, and balance the rights of Data Center owners/lessors with those of neighboring landowners and communities—integrating Data Centers responsibly into the built and natural environment throughout their siting, construction, operation, and decommissioning.

To that end, the ordinance seeks to avoid, minimize, and mitigate adverse impacts on residential and commercial areas, community and institutional buildings, natural resources (land, air, and water), agricultural lands, forests, threatened and endangered species and their habitats, and historic or environmentally sensitive lands—safeguarding the use and enjoyment of nearby properties.

These requirements supplement, rather than replace, applicable federal, state, and local safety, health, and environmental laws and regulations.

Definitions (to be introduced)

“Buffer Yard” (See also Riparian Buffer) A required yard located at the perimeter of the lot containing landscaping, berms, walls, or fences that shield use of adjacent properties from those uses occurring on the subject property. which is a landscaped area required between different land uses or zoning districts to reduce visual, noise, and environmental impacts, which are designed to mitigate the effects of differing land uses. These yards screen unsightly areas, reduce noise, and provide environmental benefits like stormwater infiltration and soil stabilization.

“Closed Loop System” (for the purposes of Data Centers) means a system that constantly reuses and recycles an initial load of water within its operation, reducing the draw on external water sources and minimizing wastewater discharge. A closed loop system shall not use evaporative cooling, and may consist of methods including, but not limited to, air-cooled (dry) cooling, rear-door heat exchanger cooling, hybrid dry economizer cooling, direct-to-chip cooling, or immersion cooling.

"Data Center" – This definition follows TCA 7-70-101, and the definition means a physical room, building, or facility primarily used for housing and operating

computer systems and associated equipment, including servers, data storage and processing systems, and accessory infrastructure such as cooling systems, power generators, electrical substations, and network hardware. Data center includes “data center – accessory,” “data center – small,” “data center – medium,” “data center – large,” “hyperscale data center” and “data center – campus.” The square footage of a data center shall include the total square footage of each floor in the data center development, the square footage of any supporting uses, and the square footage of any additional exterior equipment, such as substations, electrical yards, mechanical yards, and all other exposed equipment, located within the property boundaries.

A “server room” shall not be considered a data center. A collection of computer workstations configured solely for use by a principal use shall not be considered a data center.

FYI – the following is an excerpt from 7-70-101. Chapter definitions

Data Center - Means a building that:

- (i) Primarily contains:*
 - (a) Electronic equipment used to process, store, or transmit digital information; and*
 - (b) Environmental control equipment necessary to maintain proper operating conditions for the electronic equipment described in subdivision (2)(A)(i)(a); and*
- (ii) Is projected to have a peak electric demand of fifty megawatts (50 MW) or more during the first three (3) years of operation.*

A Data Center does not include:

- (i) A facility owned or operated by the state of Tennessee; or*
- (ii) A facility owned or operated by a provider of telecommunications broadband, internet, cable, mobile, or wireless telecommunications services, or by broadband internet access provider, if the facility primarily supports telecommunications or wireless telecommunications network operations or broadband internet access services.)*

“Data Center – Accessory” means a data center of 5,000 square feet in size or less that has a maximum utilization capacity of 1 MW of electricity and is accessory to another a principal use. The principal use shall utilize more square footage than the data center.

“Data Center – Small” means a data center of 20,000 square feet in size or less and/or has with a maximum utilization capacity of 5MW of electricity and which does not utilize a dedicated power substation. Data center –

small uses may be in mixed use structures containing more than one nonresidential use.

“Data Center – Medium” means a data center between larger than 20,000 and but 99,000 not exceeding 100,000 square feet in size and/or has with a maximum utilization capacity between greater than 5MW and but not exceeding 20MW of electricity and which may utilize a dedicated power substation.

“Data Center – Large” means a data center between larger than 100,000 and but not exceeding 499,000 500,000 square feet in size and/or has with a maximum utilization capacity between greater than 20MW and but not exceeding 100MW of electricity and which utilizes a dedicated power substation.

“Data Center – Campus” means a geographically contiguous development of one or multiple buildings utilized as a data center and all associated supporting structures and uses, including a dedicated power substation, built across one or multiple phases totaling at least more than 500,000 square feet and/or has with a maximum utilization capacity greater than 100MW.

“Load” (for the purposes of Data Centers) means the total power consumed by servers, storage, cooling, ventilation, generators, and other networking devices that operate within a data center.

“Maximum utilization capacity” (for the purposes of Data Centers) means the greatest amount of electric demand associated with a data center development, as determined by the greater of:

- (A) the maximum electrical demand requested from or approved by the electric service provider;
- (B) the total designed IT load;
- (C) the maximum load shown on electrical, mechanical, utility, substation, generator, or building plans;
- (D) the maximum load capable of being served by installed or proposed transformers, switchgear, generators, substations, battery systems, or other electrical infrastructure; or
- (E) the maximum load represented in any application, utility request, marketing material, lease, development plan, financing document, public filing, or permit submittal.

“Megawatt (MW)” means the unit of measurement for electricity that is equivalent to one million watts.

“Riparian buffer” A vegetated buffer strip comprised of grass, trees, and groundcover along a watercourse that filters stormwater and provides wildlife habitat.

“Server room” (for the purposes of Data Centers) means a dedicated closet or room containing servers and/or other computer equipment that is less than 500 square feet in size and that is located within and supports functions of a principal use and relies on the principal use’s existing HVAC and electrical supply.

District Allowed (TO BE DETERMINED)

Section 2. Data Centers (Small, Medium, Large, and Campus) shall be allowed in Data Center Overlay Districts.

or,

Section 2. Data Centers (Small, Medium, Large, and Campus) shall be allowed in I-1 (Light Industrial) and I-2 (Restricted Industrial) Districts as a Use Permitted on Appeal. Accessory Data Centers will be allowed in support of Principal Uses.

or,

Section 2. Data Centers (Small, Medium, Large, and Campus) shall be allowed in I-1 (Light Industrial) and I-2 (Restricted Industrial) Districts. Accessory Data Centers will be allowed in support of Principal Uses.

Allowing small data centers in Commercial Districts could be allowed either as a use by right or special exception should the commission wish.

Bulk Requirements

- (A) Minimum Lot Area per Data Center except Accessory is ten (10) acres. The Data Center campus shall meet the minimum lot area requirement for each individual data center.
- (B) Location. No data center shall be permitted within one thousand five hundred (1,500) linear feet of residential use, daycare home, daycare center, religious institution, or school be it public or private.
- (C) Setbacks, Buffer yards, Screening, and Riparian Buffers
 - 1. A minimum 100-foot buffer yard shall be provided along the entire length of any public street frontage of any property upon which the Data Center is located and along any property line which abuts or is within 500 feet of an existing residential property line or zone, school, daycare center, or place of worship.

2. A minimum 50-foot buffer yard shall be provided along any property line adjacent to a vacant non-residential use, agricultural land, or forest land.
3. Where the combined footprint of the principal structure or structures is between 100,000 square feet and 250,000 square feet: A minimum 150-foot buffer yard shall be provided along the entire length of any public street frontage of any property upon which the Data Center is located and along any property line which abuts or is within 500 feet of an existing residential property line or zone, school, daycare center, or place of worship.
4. Utilities should be located outside of buffer yards to the maximum extent feasible to maintain a cohesive buffer yard, protect landscaping, and preserve open space. Utilities should be co-located when feasible to minimize the number of utility crossings through the required buffer yard, particularly when such crossings cannot be avoided.

Berms, Tree Preservation and Re-Vegetation inside the buffer yard and setback

Use of existing vegetation for landscaping and screening is strongly encouraged and may be substituted for new berms and plantings. Buffer yards along roadways shall be measured from the street right-of-way line.

Protection and preservation of the environment particularly its natural features such as ground cover, trees, soils, and watersheds are an essential element of data center design. The developer shall provide, at his expense, all erosion control, re-vegetation planting, and protection for existing vegetation.

Berms constructed at a height of xx feet and with a slope of x:1 may be used within the buffer/setback area.

Buffering shall be strictly enforced within this section of the Resolution. Buffering shall be located at the boundary of every lot line or at a perimeter required fence location and may only be omitted in areas designated as access points to the buildings or structures at gate locations. No deletion of buffering is to exceed Fifteen (15) feet wider than the access road, gate, or entry point. Buffering is necessary to reduce noise, limit undesirable visual effects of buildings and uses, and promote the health, safety, morals, and general welfare of the citizens of Hardeman County.

All Buffering shall be installed and maintained as follows:

- (1) – Natural vegetative buffering – Natural buffers may be utilized to conceal any above-ground structures and uses provided the minimum depth of buffer area is Twenty (20) feet and a minimum average height of Twenty-five (25) feet is maintained. No thinning of underbrush of natural buffer that would diminish the ability of the buffer to conceal the “use” or “buildings.” A single fence line natural buffer must meet the Twenty (20) foot minimum depth requirement. Natural buffers may be located anywhere within the required setback areas.
- (2) – Dense Planted screen and vegetative buffering – Applicant shall submit a plan for a screen buffer for approval with any application for a use permitted on appeal. The screen plan shall incorporate vegetation designed to meet maturity or an average height of fifteen’ within 5 years of installation and consider wildlife habitat. Screen plans shall be designed to maintain a minimum average height of at least twenty’ and are required of all use allowed in this section. A state licensed landscape engineer shall submit all screen plans.

Option: A “dense screen buffer” shall consist of one row of fast-growing evergreen trees and spaced no more than Eight (8) feet apart and shall be no less than Six (6) feet in height at the time of planting. Trees shall be maintained at a minimum of Twenty (20) feet in height after maturity. Species of trees are limited to the following: Thuja Arborvitae variety or Leyland cypress variety and shall not be trimmed or cut back in a manner that would allow visual exposure of the use intended to be concealed. Dense planted buffers may be located anywhere within the required setback areas.

Due to the possibility of failure of screen buffer of single tree designed caused by insects, disease or extreme weather, the applicant shall agree to remove and replace any dead trees within 30 days written notice by the County. Failure to maintain any buffer shall be deemed a violation of the Resolution.

Fencing – Fencing requirements shall be strictly enforced by this section of the Resolution and shall apply unless mandated by other governing authorities and are less restrictive.

- (1) All uses located and granted on appeal shall be completely enclosed by an eight’-0” high fence and all associated access gates shall be of the same height. Fencing may have additional security wire above the base height of the fence and shall not be used to determine height.

- (2) Wildlife friendly fencing shall be used.
- (3) Signs shall be installed on fencing to alert and protect the public of the facility and its use within the fenced areas.

Riparian Buffer Landscaping/Forest

Data Centers For purposes of this Section, a riparian buffer is an area of permanent vegetation along a waterway that is left undisturbed to allow for the natural succession of native vegetation. A riparian landscape buffer is a type of riparian buffer that consists of the existing native trees, shrubs, and providing landcover. An existing conditions survey shall be required identifying stands of trees with calipers between 10 to 12 inches measured five feet above the ground, groundcover with labels.

Where the project site contains, is along, or is within 150 feet of a perennial or intermittent river, stream, or creek, lake, wetland, floodplain, pond, or reservoir, whether natural or artificial, the use will be subject to the requirements of this Section and shall, in accordance with the requirements of this subsection, do one of the following:

Protect existing riparian landcover/forest buffer - Establish a new riparian forest buffer.

No trees of caliper ten (10) inches or larger measured five (5) feet above the surrounding ground surface shall be removed if possible, and special attention shall be given to preserving larger trees. For removal of trees greater than twelve (12) inches in diameter, the planning commission may require a plan for revegetation, to recover soil stabilization, percolation or buffering lost by removal of such tree.

Erosion Control

The applicant shall submit a plan and schedule for soil erosion and sedimentation control to the Tennessee Department of Environment and Conservation for approval. The subdivider shall provide necessary erosion control such as seeding for gentle slopes, grass sod for sharper slopes, with special grading and terracing in accordance with the plans approved by Planning Commission. All freshly excavated embankment areas not covered with satisfactory vegetation shall be fertilized, mulched, and seeded and/or sodded as required to prevent erosion. Public road ditches shall have debris guards to trap sediment and avoid damage by blockage. Provisions shall be made to accommodate increased runoff caused by changed soil and surface conditions during development. Runoff shall be intercepted and safely conveyed to natural outlets where it will not erode or flood land. Sediment basins shall be installed and maintained to collect sediment from

runoff waters. If the Zoning Compliance Officer determines that the developer/owner does not provide the necessary erosion control, the *Zoning Compliance Office* shall officially notify the property owner of the problem.

Operational Standards

- (1) Substations, electrical yards, mechanical yards, and any other exposed equipment shall not be located between the primary structure and a public road or right-of way and shall be fully screened from all adjacent parcels and rights-of-way by the primary structure unless owned or jointly owned by Local Electric System, in which case the location, if between the primary structure and a public right-of-way, shall be screened from public view and adjacent properties by buffer yard.
- (2) There shall be no light trespass from the site onto surrounding properties, including any right-of-way.
- (3) Lighting After Hours
- (4) All cooling and ventilation equipment shall operate on a closed-loop system.
- (5) Cooling, ventilation, and other external equipment shall not be located between the primary data center building and a public right-of-way, unless located on the rooftop of a data center building.
- (6) Substations associated with the operation of a data center shall only be permitted in the I-2 Restrictive Industrial zoning districts and shall be located at least fifty feet from any public right-of-way or adjacent parcel. Vehicle storage and service equipment may be collocated with the substation provided the parking areas are screened.
- (7) Future improvements. Any changes to a data center - medium that increases the square footage or adds maximum utilization capacity requires review of a new permit consistent with Chapter ??? of this County Zoning Resolution. If applicable, the classification may be adjusted to account for added square footage and/or capacity, and permit and zoning requirements of the new classification will govern.
- (8) Where there is reduced but continued onsite activity throughout the night that requires site-wide even illumination, the use of dimming circuitry to lower illumination levels by at least 50% after 11 PM or

after regular business hours, or the use of motion sensor control, shall be permitted.

Data Center - Accessory.

- (1) Location. Data center - Accessory uses shall be fully located within the same structure containing the principal use.
- (2) Operational standards.
 - a. All cooling and ventilation equipment shall operate on a closed-loop system.
 - b. Cooling, ventilation, and other external equipment shall not be located between the building containing the data center and the public right-of-way.

Parking - Data center requiring a minimum of one space per employee on the largest shift, plus one space per 25,000 square feet.

Additional Permitting Requirements for Data Centers.

The application requirements for zoning permits for any data center use shall include the following in addition to all requirements of Chapter of the County Resolution. Initial permit application shall include all related buildings, structures, future phases, equipment yards, generator yards, parking areas, and supporting improvements. No applicant or developer may divide data centers into separate buildings, phases, or parcels to avoid classification. If a permit is issued for a data center at one classification and additional permits are sought in the future that would shift the data center into a higher classification, permits may not be issued unless the standards of the higher classification can be met.

- (A) The developer shall provide written confirmation at the time of application for a zoning permit that Local Electric System has reviewed the proposed data center and agreed to provide electric service to the data center. No zoning permit shall be approved if THE LOCAL ELECTRIC SYSTEM has not agreed to provide electric service. The developer shall provide written confirmation from Local Electric System at the time of application for a zoning permit that THE LOCAL ELECTRIC SYSTEM has reviewed the proposed data center, has or will have capacity to serve, and has agreed to provide electric service to the data center once payment in full of any applicable charges and fees have been made.
- (B) The developer shall provide written confirmation at the time of application for a zoning permit that the utility providing water and

sewer service to the site has reviewed the proposed data center and has determined that there is adequate capacity to service the data center. No zoning permit shall be approved if the applicable utility has determined that there is insufficient water and/or sewer capacity to service the data center.

- (C) A water consumption and sustainability plan certified by a licensed engineer addressing conservation and scarcity, outlining the total water requirement of the data center, including cooling needs, and any strategies to reduce or mitigate excessive water usage shall be submitted prior to approval of the zoning permit. The plan shall demonstrate that water usage will not significantly strain the local and regional water supply. The water consumption and sustainability plan shall specifically demonstrate or identify:
1. The vulnerability of the project and project site to water scarcity and drought.
 2. Anticipated disturbances of public services, including but not limited to transport, communication, sanitation, fresh water, and electricity supply.
 3. Any drought monitoring and forecasting systems that exist in the project area.
 4. Proposed water scarcity/drought management measures to alleviate risk, including water storage, alternative sources, and reduced use of resources.
- D. Transmission line impact assessment: a transmission line impact assessment shall identify the need for new or upgraded transmission lines to meet the data center's electricity requirements. This assessment shall include the potential environmental impact on public land, including tree removal from county land and rights-of-way. This assessment shall also include information on any planned substation's location and shall show the required screening mechanism(s).

Future improvements. Any changes to a data center - medium that increase the square footage, or add maximum utilization capacity, or alter operational parameters, including but not limited to, cooling technology, water consumption, wastewater discharge, backup generation capacity, noise emission, or environmental mitigation measures, such that the potential environmental disturbance would increase, requires review of a new permit consistent with

Chapter III of the County Resolution. If applicable, the classification may be adjusted to account for added square footage and/or capacity, and permit and zoning requirements of the new classification will govern.

Future improvements. Any changes to a data center - accessory that increase the square footage, add maximum utilization capacity, or alter operational parameters, including but not limited to, cooling technology, water consumption, wastewater discharge, backup generation capacity, noise emission, or environmental mitigation measures, such that the environmental disturbance would increase, requires review of a new permit consistent with Chapter ??? of this County Zoning Resolution. If applicable, the classification may be adjusted to account for added square footage and/or capacity, and permit and zoning requirements of the new classification will govern.

Groundwater withdrawals. For groundwater sources, the water feasibility study shall include a hydrogeologic report prepared by a registered professional geologist licensed by the State of Tennessee analyzing the long-term sustainable yield of the water source. The hydrogeologic report shall include:

A hydrological setting analysis which includes a hydrogeologic cross section, delineation of the portion of the aquifer through which water is diverted to the well (area of diversion), delineation of the area providing groundwater recharge to the diversion area (recharge area), and identification of water resources located within the diversion and recharge areas.

The results of an aquifer test are conducted in accordance with applicable federal, state, local regulation, or other accepted methodology. Data shall include, at a minimum, precipitation data, static water levels immediately prior to yield testing, linear hydrographs of water levels and test responses of all monitoring points through background, testing, and recovery monitoring periods, residual drawdown graphs and logarithmic hydrographs of the production well and any monitoring points that had observable drawdown as a result of operating the production well. Field notes showing original observations, water levels and flow readings and the time readings were taken shall be included. The costs for securing a reviewing consultant selected by the County shall be paid by the applicant.

Analysis and interpretation of the aquifer test data, including a determination of the aquifer's hydraulic conductivity and specific capacity; aquifer transmissivity and storage coefficient; estimation of

the horizontal extent of the cone of depression; and determination of a safe yield for the well, including analysis of the effects of 180 days of pumping with no recharge; and a groundwater availability analysis providing potential availability in a one-in-ten year drought or any applicable federal, state, local regulation.

Water Discharge Permit – Prior to use approval, the applicant must present a permit from TDEC approving their discharge plan.

Decommissioning.

- A. For purposes of this section “decommissioning” shall mean the removal and restoration of the property and shall include the removal of all hazardous materials and contents, including cabling, electrical components, cooling systems, any contaminated soils, any electrical generators, and other associated facilities, as well as the regrading of any earth disturbed during removal.
- B. Any data center owner or operator shall at its expense complete decommissioning of the property within twelve months after the end of the life of the property for any use. The property will be presumed to be at the end of its useful life if it is not used for a continuous period of twelve months. The facility owner or operator shall report to the codes department within 48 hours any cessation or discontinuation of use. If the codes department becomes aware of the cessation or discontinuation of use of the data center by observation or report from a third party without receiving notification from the facility owner or operator. In that case, the codes department may notify the facility owner or operator of the report or observation in writing or by posting a notice on the premises that decommissioning must be completed within six (6) months of said notice.
- C. The cost of decommissioning shall be determined by an independent certified Professional Engineer and shall be equal to the estimate of decommissioning less the net salvage value of the equipment.
- D. The facility owner or operator shall post and maintain financial assurance naming the County as obligee for decommissioning equal to the cost of decommissioning.
- E. Acceptable forms of financial assurance may be in the form of a surety bond; a collateral bond; an irrevocable letter of credit; an approved negotiated instrument not described; or a combination of the forms of security described herein.

- F. The escrow agent shall release the financial assurance when the facility owner or operator has demonstrated and the municipality concurs that decommissioning has been satisfactorily completed, or upon written approval of the municipality to implement the decommissioning plan.
- G. In the event of sale or transfer of the data center, the acquiring agency shall adhere to the original monetary and operational decommissioning requirements set forth for the original developer.

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