



Buncombe County Planning and Development  
Long Range Planning Division  
46 Valley St.  
Asheville, NC 28801

## **CRYPTOCURRENCY, DATA CENTERS, GOVERNMENT PROTECTIVE SERVICES**

**To: Buncombe County Planning Board**  
**From: Long Range Planning Division**  
**Date: July 7, 2024**

**Re: Text Amendments Addressing Crypto Currency Mining, Data Centers, and Government Protective Services**

### **PURPOSE**

The Crypto Currency Mining, Data Centers, and Government Protective Services Memorandum provides an overview of the key issues and proposed Zoning Ordinance changes related to those topics.

#### Cryptocurrency Mining:

In May of 2023 the Buncombe County Board of Commissioners unanimously passed a moratorium on Cryptocurrency Mining to allow the County time to develop standards and mitigation methods for this use. In May of 2024 the moratorium was extended until May of 2025. County staff have used the guidance of the adopted Comprehensive Plan for environmental protection and energy savings to establish regulations for this land use.

#### Data Centers:

For the purpose of this memo and the associated text amendments, Data Centers will refer to a grouping of computer servers used for the remote storage, processing, or distribution of data. They do not include crypto currency mining activities, which is a separate use. Adding Data Centers to the Zoning Ordinance is part of a general update and modernization of the Ordinance.

#### Government Protective Services:

Examples of Government Protective Services includes fire stations, police stations, E-911 centers, and EMS stations. These uses are currently permitted in some but not all zoning districts. The ability to provide protective services throughout the county is essential for public health and safety. Currently, a local fire district has obtained land for a new station which is in a district that does not permit government protective services. The proposal is to allow protective services in all zoning districts to meet the needs of our residents. This was likely an oversight when County-wide zoning was adopted years ago.

## EQUITY ANALYSIS

### ***Cryptocurrency Mining***

Cryptocurrency mining operations have been shown to have outsized negative impacts on the environment and surrounding communities. These facilities use huge amounts of energy and resources and provide few or no local jobs, benefits, or services. “A growing body of academic studies compares Bitcoin’s carbon footprint to the emission levels of mid-sized countries.”<sup>1</sup> A crypto-currency mine in Buncombe County would be detrimental to the County’s Strategic Plan goal of reducing greenhouse gas emissions to reach 100% renewable energy sources for the community as a whole. Beyond the high use in energy, cryptocurrency mining also causes potentially harmful noise from equipment and generators at all hours of the day and night. The noise caused by these facilities has been shown to negatively impact resident wellbeing and property values<sup>2</sup>.

Cryptocurrency mining facilities have the potential to exacerbate environmental justice issues as they are often sited where energy and land costs are relatively cheap.<sup>3</sup> For Buncombe County, more affordable land is often found in rural communities, many of which have higher scores on the Equity Index of the Community Index Map, indicating higher levels of poverty and other equity factors.

### ***Data Centers***

Data centers are largely used for data storage, management, processing, and dissemination. Many government, business, and institutional operations require some type of data center for their day-to-day operations. Limiting their locations to commercial zoning districts will allow for their services to be provided with minimal impacts to the residential and rural communities. Local examples of data centers include Buncombe County, the City of Asheville and the National Climatic Data Center which provides crucial analysis of climate change, weather patterns, etc. Data centers support commerce, research and are integral to both the functionality of government services and the economy<sup>4</sup>.

### ***Government Protective Services***

The proposed amendment allows government protective services, such as fire stations, to be provided throughout the county, including in areas where vulnerable populations are located, such as in Equity Opportunity Areas.

## REGULATIONS IN OTHER JURISDICTIONS

This is a brief look at what other local governments are doing. *Examples from outside North Carolina may not be legal or otherwise desirable in North Carolina but are presented to illustrate alternative approaches.*

### ***Localities***

The following is a list of notable standards from other jurisdictions:

LOCATION	REGULATORY EXAMPLES
Madison County, NC	In May 2024, after a one-year moratorium, the Madison County Board of Commissioners unanimously approved Land Use Ordinance changes regulating cryptocurrency/data processing facilities. Facilities under 10,000 square feet are permitted in commercial districts. Larger facilities are permitted in Industrial districts. Design standards include a height limit of 35 feet, security fencing, and screening around the entire perimeter. Facilities are subject to the county’s noise ordinance.
McDowell County, NC	Adopted a total ban on crypto-currency mining in McDowell County.

Waynesville, NC	Adopted a total ban on crypto-currency mining in Waynesville.
Marion, NC	Prohibited in all zoning districts except for M-1, and requires a Special Use Permit.
Haywood County, NC	Requires facilities to be a minimum of 750 feet from neighboring property lines.
Clay County, NC	Adopted a total ban on crypto-currency mining in Clay County.
Greenville, NC	Requires a 3,400 foot setback from residences and schools, limits hours of operation to 9am to 5pm, and limits the allowable noise decibel to 30.
Prince William County, VA	Created a Data Center Overlay District where the development of Data Centers is promoted in close proximity to existing supportive infrastructure. There are design standards related to building façade, screening with vegetation, buffers, and fencing.
Chandler, AZ	Data Centers are only allowed as part of a Planned Area Development and must comply with the following: notify the neighbors within a half-mile radius, hold 2 neighborhood meetings with residents, on-site neighborhood liaison to respond to noise complaints, sound study, sound mitigation requirements, and maintain a website that will announce when a back-up generator will be used.

### **EXISTING COUNTY ORDINANCES**

Buncombe County’s Zoning Ordinance does not have specific standards related to cryptocurrency mining or data centers as unique uses. Currently these uses are regulated under the Commercial Services use type, with no special requirements. The proposed change will add a definition for each type of use and clarify in the Permitted Use Table where they are allowed. Special requirement standards will be created for data centers.

Government Protective Services are currently allowed in all zoning districts except for R-LD, R-1, and BDM. The proposed change will allow protective services in all zoning districts.

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## PROPOSED TEXT AMENDMENTS

The following table summarizes the proposed Zoning Ordinance Text Amendments related to cryptocurrency, data centers, and government protective services.

SUMMARY OF PROPOSED TEXT AMENDMENTS		COMP PLAN ALIGNMENT
1	Add the definition of Crypto-currency mining operation to the definitions section.	<p><b>Growth, Equity, Conservation</b>  <b>Action 6:</b> Support the protection of agricultural and forest lands, environmentally sensitive areas, and rural communities.</p> <p><b>Farms, Forests, Environment</b>  <b>Policy 2:</b> Preserve Buncombe County’s natural heritage.  <b>Policy 3:</b> Promote ecosystem enhancement...</p> <p><b>Health &amp; Recreation</b>  <b>Policy 5:</b> Utilize environmental protection and land conservation to... promote health.</p> <p><b>Infrastructure &amp; Energy</b>  <b>Policy 2:</b> Plan for the long-term sustainability of public services.</p> <p><b>Infrastructure &amp; Energy</b>  <b>Action 2:</b> Implement policies around new development and re-development that advance decarbonization and sustainability goals</p>
2	Add the definition of Data Center to the definitions section.	
3	Add Government Protective Services to the Permitted Uses Table to allow it as a Use-By-Right in all zoning districts	
4	Add Data Center (non-crypto currency) to the Permitted Uses Table, and permit it only in the CS, EMP, PS, and AI zoning districts with Special Requirements (SR).	
6	Add Special Requirement standards for Data Centers, to include: <ul style="list-style-type: none"> <li>• sound study</li> <li>• facility enclosure</li> <li>• certification of noise level</li> <li>• setback requirements from residential properties and structures</li> <li>• generator use hours of operation</li> <li>• screening requirements</li> </ul>	
7	Add Crypto-currency mining to the Permitted Use Table and prohibit it in all zoning districts	

## TIMELINE

- **August 19, 2024 Planning Board Meeting:** Review proposed text amendment with Planning Board.

### JURISDICTIONAL REFERENCES:

- Casey, Johnny. Madison County approves crypto mining facilities regulation as moratorium set to expire. 2024. Citizen Times. <https://www.citizen-times.com/story/news/madison/2024/05/16/madison-county-approves-crypto-mining-facilities-regulation/73692422007/>
- Holloway, Jaylen. Many relieved as Greenville City Council unanimously votes in favor of changing crypto mining ordinance standards. 2024. WITN. <https://www.witn.com/2024/05/10/many-relieved-greenville-city-council-unanimously-votes-favor-changing-crypto-mining-ordinance-standards/>
- Johnson, Becky. Waynesville bans crypto currency mining operations. 2023. The Mountaineer. [https://www.themountaineer.com/news/waynesville-bans-crypto-currency-mining-operations/article\\_d7af3cf4-8a86-11ee-b791-97a57405a302.html](https://www.themountaineer.com/news/waynesville-bans-crypto-currency-mining-operations/article_d7af3cf4-8a86-11ee-b791-97a57405a302.html)
- Long, Becky. No commercial crypto mining allowed. 2022. Clay County Progress. <https://www.claycountyprogress.com/local/no-commercial-crypto-mining-allowed#:~:text=On%20Thursday%2C%20Aug.,or%20operating%20in%20Clay%20County.>
- Prince William County, VA Zoning Ordinance, Part 509. Data Center Opportunity Zone Overlay District. 2024.
- The Code of the City of Chandler, Arizona, Part VI. Planning, Chapter 35 Land Use and Zoning, Article XXII Additional Height and area regulations, 35-2214 Data Centers. (2024)

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<sup>1</sup> Stoll et al., 2023. Climate Impacts of Bitcoin Mining in the U.S. Massachusetts Institute of Technology, Climate Portal. <https://climate.mit.edu/posts/climate-impacts-bitcoin-mining-us>

<sup>2</sup> 'It's been a disaster' Residents warn neighboring areas of crypto mine impacts. 2023. ABC News 13. ['It's been a disaster' Residents warn neighboring areas of crypto mine impacts \(wlos.com\)](#)

<sup>3</sup> Fact Sheet: Climate and Energy Implications of Crypto-Assets in the United States. 2022. The White House. <https://www.whitehouse.gov/ostp/news-updates/2022/09/08/fact-sheet-climate-and-energy-implications-of-crypto-assets-in-the-united-states/>

<sup>4</sup> Morley, David. Zoning for Data Centers and Cryptocurrency Mining. 2022. American Planning Association, Zoning Practice Issue #6