



**ATTACHMENT A**  
**MAJOR SPECIAL USE PERMIT REPORT**  
**MASON FARMS COMMUNITY WASTEWATER**  
**SYSTEM (M2200001)**

Meeting Date: November 28, 2022

**A. Application Summary**

Application Information			
Case Number	M2200001	Submittal Date	December 23, 2021
Case Name	Mason Farms Community Wastewater System Major Special Use Permit		
Proposal	A request for a Major Special Use Permit to allow the use of a community wastewater system.		
Applicant	Thomas Perdue, PE, MacConnell and Associates, PC.		
Staff Contact	Cole Renigar, Planner		
Site Information			
Location	Intersection of Preston Andrews Road and N. Roxboro Road	Legacy Cases	N/A
Site Acreage	287.723 Acres	Existing Use	Vacant Residential
Request			
Designation	Existing	Proposed	
Jurisdiction	County	No change	
Development Tier	Rural	No change	
Zoning District(s)	Residential Rural (RR)	No change	
Zoning Overlay(s)	Lake Michie/Little River District A (M/LR-A)	No change	
Recommendation and Determinations			
Staff	Staff will make a recommendation after hearing all the evidence presented.		

**B. Executive Summary**

Thomas Perdue, of MacConnell Associates, proposes the use of a community water and wastewater system for a proposed 142 lot subdivision. This subdivision is permitted by right and but the use of a community wastewater system requires a major special use permit (MSUP). The 287.723-acre site is zoned Rural Residential (RR) and is within the Rural Development Tier. The property is currently vacant but current aerials show a wastewater system on part of the site. The remaining wastewater system is no longer in operation. This project will restore and expand on the previous system. The wastewater system is located on site off the east side Preston Andrews Road. There is an associated major site plan, case D2100325, pending approval by this Board if this MSUP request is approved. Per Unified Development Ordinance (UDO) Section 12.7.1C, in the County's jurisdiction, a community system designed to serve more than one use independent of public systems may be approval through the issuance of a major special use permit provided that several requirements are met. The requirements have been met or will be met prior to the issuance of a Certificate of Occupancy.

### C. Legacy and Pending Approvals

There is a pending major site plan approval, case D2100325, in relation to this Major Special Use Permit request (Attachment F).

### D. Summary of Issues

No issues have been identified at the time of writing this report.

#### Recommended Conditions of Approval

1. The improvements shall be substantially consistent with the plans and information submitted to the Board as part of the application.

### E. UDO Section 3.9.8: Criteria for Approval

#### 1. UDO Section 3.9.8A General Findings

Applications for major or minor special use permits shall be approved only if the approving authority finds that the use as proposed, or the use as proposed with conditions, is:

1. *In harmony with the area and not substantially injurious to the value of properties in the general vicinity;*
2. *In conformance with all special requirements applicable to the use;*
3. *Will not adversely affect the health or safety of the public; and*
4. *Will adequately address the review factors identified below.*

If the Governing body fails to find conformance with the conditions listed above or makes findings which are inconsistent with those conditions listed above, then the proposed permit must be denied.

The Governing body should consider the information provided in the staff analysis and conclusions for the following review factors when making determinations on the general findings.

The applicant has provided responses to the required findings in the application, see Attachment 3.

#### 2. UDO Section 3.9.8B Review Factors

##### a. **Circulation**

*Number and location of access points to the property and the proposed structures and uses with particular reference to automotive, bicycle, mass transit and pedestrian safety and convenience, traffic flow and control, and access in case of fire or catastrophe.*

**Staff Analysis** Access to the subdivision and corresponding wastewater services can be accessed from North Roxboro Road and Johnson Mill Road The wastewater system will be serviced by a 20-foot driveway and not open for public use. Bicycle, mass transit, and pedestrian safety are not impacted by the proposed wastewater system.

##### b. **Parking and Loading**

*Location of off-street parking and loading areas.*

**Staff Analysis.** Wastewater treatment centers do have parking requirements based on floor area. For this specific plant there will be no enclosed floor area and no parking is required. However, the applicant plans to have two spaces for general maintenance. There will be no loading associated with the wastewater system.

**c. Service Entrances and Areas**

*Locations of refuse and service areas with particular reference to ingress and egress of service vehicles.*

**Staff Analysis.** Refuse for the wastewater can be collected from collection system pump tanks throughout the subdivision and each will be able to be accessed by existing farm roads that will not be open for public access.

**d. Lighting**

*Locations of exterior lighting with reference to glare, traffic safety, economic effect, and compatibility with other properties in the area.*

**Staff Analysis.** There will be one light with directional shielding, which meets all UDO lighting standards and has been reviewed through the site plan process.

**e. Signs**

*Appropriateness of signs considering location, color, height, size, and design within the context of other properties in the area.*

**Staff Analysis.** The signs associated with the wastewater treatment plant and collection system are cautionary in nature and will be reviewed under a separate sign review process.

**f. Utilities**

*Location and availability of utilities.*

**Staff Analysis.** The location and availability of utilities will be provided by the proposed on-site community wastewater and water systems that this case is directly tied to. Electricity will be provided Duke Energy.

**g. Open Spaces**

*Location of required yards and other open spaces, and preservation of existing trees and other natural features.*

**Staff Analysis.** The wastewater system meets all setback standards and is internal to the site. This is a conservation subdivision and is required to provide a larger area of open space, in the form of conservation areas, around the perimeter than in a typical subdivision. The wastewater system does not require the provision of additional open space or tree coverage.

**h. Environmental Protection**

*Preservation of tree cover, Durham Inventory Sites, floodplain, stream buffers, wetlands, steep slopes, open space and other natural features, and protection of water quality.*

**Staff Analysis.** Article 8, Environmental Protection, of the UDO provides standards for the protection of natural resources. The site has stream buffers that meet all standards, which were reviewed during the site plan review. All required open space in a conservation subdivision shall consist of at least 80% primary conservation areas and 20% secondary open space areas. The wastewater system location does not affect any of the conservation areas or stream buffers.

**i. Screening, Buffering and Landscaping**

*Installation of screening, buffering, fencing, and landscaping where necessary to protect adjacent property.*

**Staff Analysis.** The proposal includes project boundary buffer plantings between the proposed subdivision and surrounding areas. The site will be internal to the site and will not be seen from adjacent properties.

**j. Effect on Adjacent Property**

*Effects of the proposed use on nearby properties, including, but not limited to, the effects of noise, odor, lighting, and traffic.*

**Staff Analysis.** The table below notes the surrounding uses and zoning districts:

Surrounding Uses and Zoning Districts				
	Use	Zoning District	Overlay	Tier
<b>North</b>	Vacant; Single-Family Residential	Residential Rural	Lake Michie/Little River District A	Rural
<b>South</b>	Residential	Residential Rural	Lake Michie/Little River District A	Rural
<b>East</b>	Single-Family Residential	Residential Rural & Residential Suburban-20	Lake Michie/Little River District A	Rural
<b>West</b>	Single-Family Residential	Residential Rural	Lake Michie/Little River District A	Rural

**Noise.** The proposal is not expected to increase noise levels as most the equipment is underground.

**Odor.** As most of the equipment is underground there will be minimal effects from odor.

**Lighting.** Lighting will meet Ordinance standards within the project limits.

**Traffic.** The proposed use will not create any traffic concerns being that a maintenance vehicle will only visit occasionally.

**k. Compatibility**

*The level of general compatibility with nearby properties and impacted neighborhoods, including, but not limited to, the appropriateness of the scale, design, and use in relationship to other properties.*

**Staff Analysis.** The use is not consistent with the surrounding area because a wastewater system is not a residential use. However, the purpose of this wastewater system is to serve the surrounding residential uses. In this instance, it would be considered compatible with the subdivision and residential construction that will occur here.

**l. Consistency with Policy**

*Consistency with the Durham Comprehensive Plan and applicable development tier guidelines, overlay purposes, and zoning district intent statements in Article 4, Zoning Districts.*

**UDO Section 4.1.2A.1 rural Tier Intent Statement**

*The Rural Tier – That area of Durham that lies outside the Suburban Tier and largely within watershed critical areas within which development should maintain a rural focus to encourage preservation of agriculture and protect important water resources. Development within this area should feature large lots to minimize demands on infrastructure, with limited commercial areas.*

**UDO Section 4.2.1 Residential Rural Districts (RR)**

*The RR District is established to provide for agricultural activities and residential development on lots of one acre or greater and in conservation subdivisions. Commercial and industrial development is generally prohibited.*

*This district is used to implement the Comprehensive Plan within those areas shown as the Rural Tier. Lands within other Tiers that have existing RR zoning are acknowledged; however, such lands may be rezoned to more intensive zoning districts consistent with the Comprehensive Plan. The regulations of this district are designed to discourage the development of urban services and to encourage the maintenance of an open and rural character.*

**Staff Analysis.** The proposed development is located in a Rural Residential Zoning District and within the Rural Tier. The proposed wastewater system will support conservation subdivisions and decrease the demands of infrastructure since it will be provided. This system will be compatible with the uses in this area.

**m. Other Factors**

*Any other review factors which the approving authority considers to be appropriate to the property in question.*

**Staff Analysis.** Per UDO Section 12.7.1, in the County jurisdiction, community systems designed to serve more than one user independent of public systems may be approved through the issuance of a major special use permit pursuant to Section 3.9, provided that:

- a. The system will serve a development that is approved as a conservation subdivision pursuant to paragraph 6.2.4, Conservation Subdivision, or that satisfies the design requirements for such subdivisions;
- b. The facilities are licensed or permitted by the State of North Carolina, and the system operator is licensed by the State of North Carolina. The licensed operator shall inspect the plant daily with the exception of weekends and holidays to determine that the plant is operating adequately. All monthly reports that are sent to the State of North Carolina shall be copied to the Durham Environmental Health Director;
- c. The facilities shall be nondischarge, meet North Carolina reuse standards, including, but not limited to, separating liquids and solids, and have permanent standby power sufficient to ensure normal operation in the event of a power failure;
- d. The developer of the system (if a private system) provides a performance bond equal to at least 50% of the cost of the replacement of the system or \$100,000, whichever is greater, in the event that the operator of the system ceases to provide service or maintenance;
- e. The developer (or his/her successor) shall provide and maintain catastrophic property insurance to cover 100% of the replacement cost of the system; and
- f. The approving authority makes a finding that the wastewater system proposed by the developer provides improved treatment over what would be provided through the use of an on-site ground absorption or spray irrigation wastewater treatment system.
- g. To assist the approving authority in making this finding, the applicant shall provide the approving authority with certifications from the State regarding the performance of the proposed facility relative to on-site systems. If such certification is not available or cannot be provided in a timely fashion, the applicant shall pay for a third-party expert technical review of the proposed system to ensure that it will meet this standard.

All of these components have been submitted and met or a special condition of approval has been added to the major site plan requiring these items be submitted before the approval of specific permits required later in the development process.

## F. Contacts

Staff Contact		
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Applicant Contact		
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## G. Notification

Staff certifies that letters to property owners and residents, and the posting of the property have been carried out in accordance with paragraph 3.2.5 of the UDO. In addition, email notice was provided per the Durham Planning Public Notification Service.

## H. Attachments

- A. M2200001 Mason Farms Community Wastewater System MSUP Staff Report
- B. D2100325 Mason Farms Major Site Plan Report
- C. Context Map
- D. Aerial Map
- E. M2200001 Application
- F. D2100325 Major Site Plan
- G. M2200001 Draft Order