

Written comments for First Plat Review of Jordan Retreat/1092 Jordan Dam Road.

I am an adjacent property owner to the property that is proposed for development. I reside at 478 East River Rd.

The concerns that I have about this development are from the potential erosion sediment and the septic system that could affect my property and the properties in my subdivision.

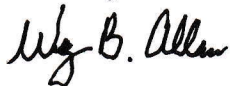
We have three ponds in our subdivision that are basically back-to-back-to-back with the last pond discharging into the Haw River. I am concerned that sediment from erosion during the construction of this subdivision could adversely affect the water quality along with impacts to the fish and other wildlife. The grade change in elevation from the proposed subdivision is quite steep and most of the drainage area feeds into the ponds and from surrounding properties.

I understand that some of the soils on this property are poor. With potentially 33 homes discharging sewage into three septic fields close to adjacent properties in our subdivision, I am concerned that this could also impact the water quality of the ponds. I am also concerned with any potential impact to my well (that is located approximately 95 feet from the shared property line) which I use for all of my domestic water.

At the last public meeting held, questions about the septic system being proposed were raised. The primary engineer was unable to answer those questions and would have to refer them to the design engineer of the septic system and promised to get back to us with answers to our questions and concerns. Those questions and concerns were not answered, which raises even more concern.

Thank you for the opportunity to express my concerns about this proposed development and the potential impact that it may have on the adjacent properties.

Sincerely,

A handwritten signature in cursive script that reads "Wesley B. Allen".

Wesley Allen

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Hi Kimberly and Dan,

I am the property owner for the property at 118 Forest Lake. This is regarding the potential development of Jordan Retreat/1092 Jordan Dam Road. Here are our concerns.

- 1) Storm water runoff and lack of SCMs(Storm Control Measures) in the plans. In effect a lack of adequate wet retention ponds prior to runoff reaching Forest Estate Lakes
- 2) Steep gradients on the parcel which do not allow water absorption.
- 3) Lack of adequate information and planning for septic system design as currently proposed. Improper flow rate data in submitted materials.
- 4) Forest Lakes become silt ponds and wet retention ponds for Jordan Retreat.
- 5) Several large parcels surround our community with the same problems with future development. Failure to enact protections now will further endanger our homes, land, and pond health.

Please consider our concerns.

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Thanks!

May Huang

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Hello Kimberly and Dan, Thank you for making sure that my comments are received by the planning board and entered into the information considered for review. Thank you, Amy Durso

Planning Board Public Hearing and Subdivision Review

10/3/23

Concerns Submitted by Amy Durso, adjacent property owner, of proposed subdivision "Jordan Retreat". Resident of the Hermitage neighborhood in Moncure for 27 years.

Underfoot Engineering has submitted several proposals for the development of parcel 11433 for community review. These include an RV Park/Campground with 147 spaces; a PRD (R-1) subdivision with 41 units and a conservation subdivision with 33 units.

Speaking as an adjacent property owner, the proposed subdivision is not consistent with the existing residential development, the open space/conservation land management of bordering State and Federal properties nor the Chatham County Comprehensive Plan of 2017 and the Small Area Plan for Moncure, that I believe has already been approved by this Planning Board.

I request that the developer and this planning board work to balance future projects with environmental protection, in this area that has historically been wooded, low density residential, while upholding the Chatham's Comprehensive Plan of 2017, as the transition is made to the Small Area Plan for Moncure.

The main impact that I request the Planning Board carefully consider and examine is Storm water runoff and lack of storm control measures in the submitted plans. Given the topology of parcel 11433 and the high levels of erosion that will ensue from the bulldozing and soil moving necessary to create a high density subdivision, the health of the adjacent ponds (that are cared for by Hermitage and Forest Lake Estates) and surrounding wetlands are at great risk of likely becoming silt retention ponds. Dirt will enter and damage the streams that feed these ponds. These ponds drain into the Haw river. The likely damage to the ponds will be inconsistent with aquatic and plant life and potentially negatively impact the Haw River, a drinking water supply.

While Chatham County's streams and wetlands have already been seriously compromised by the Vinfast site, Vinfast is unfortunately under the state's jurisdiction and no action is being taken on this company's violation of the clear water act. I am asking the Planning Board of Chatham county to please carefully study the proposed sedimentation and erosion control plans as well as soil reports and septic proposals, because our neighborhood ponds, wetlands and potentially, the Haw River will be harmfully impacted.

In addition, I wish to raise the Planning Board's awareness of concerns related to ecological impacts on wildlife and bird populations.

1. Fragmentation of habitat: this proposed conservation subdivision will divide land into smaller lots, in this case, lot sizes less than 10,000 sq ft with units of 2400-3200 sq ft, for development while setting aside certain areas for conservation. This results in the fragmentation of habitat, which negatively

impacts wildlife by disrupting the movement and migration patterns of bird species, making it more challenging for them to find resources and establish breeding territories.

Current adjacent neighborhoods, the Hermitage, consist of 16, 10 acre wooded lots and Forest Lake Estates, 15, 3-10 acre lots. These low density, forested neighborhoods have allowed bird species and other wildlife to flourish.

2. Edge effects: The creation of high density subdivisions can create an interface or edge between developed and conserved areas, known as an edge effect. Edge effects can cause changes in microclimates, increased predation, and higher vulnerability to invasive species, which can disrupt ecological processes and harm biodiversity. This edge effect is already evident on my property with the presence of Japanese Stiltgrass and Autumn Olive, both invasive plants that have migrated into my forest as a result of woodland clearing on parcel 11433.

3. Habitat Destruction: This subdivision will require clearing of natural vegetation and the removal of trees, shrubs, and grasslands. This destruction of habitat will directly impact wildlife and bird populations by removing their nesting sites, food sources, and shelter.

4. Increased Predation: High-density subdivisions can attract pests such as feral cats, dogs, and rodents which are not native to the area. These introduced predators can have a significant negative impact on local wildlife and bird populations by preying on them or competing for resources.

5. Pollution and Environmental Hazards: With increased human population density comes an associated increase in pollution, noise pollution, light pollution, water contamination, and the use of chemical pesticides and fertilizers. These pollutants can harm or kill wildlife and birds, either directly or indirectly through the contamination of their food sources.

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Chatham County Planning Department Staff,

Please see the questions and recommendations below from Haw River Assembly regarding the proposal for the Jordan Retreat First Plat plan.

1. What type of package plant design will be used in the project?
2. Where will the sludge be disposed of?

Recommendations:

1. Wastewater treatment package plants should use Best Available Technology to minimize runoff and septic fields should be irrigated through pipes rather than a spray field system.
2. Lots 1, 24, and 25 should be decreased in size to protect existing buffers and prevent flooding.
3. Because of the nutrient sensitivity, we recommend using a sequence batch reactor technology or equivalent design to maximize nutrient reduction in the waste treatment process.
4. Because of the proximity to streams and the Haw River, and the Triassic basin soils in this part of the county, we recommend using enhanced silt fencing, increased retention times, and use of polyacrylamides in sediment basins to prevent sedimentation and increased turbidity during the construction process.

Thank you,

Emily Sutton, *she/ her*

Haw Riverkeeper

[Haw River Assembly](#)

C: (573) 979-1038

Anne Stomp

Planning Board

**Response to the Proposed Jordan Retreat Subdivision
Presented at the October 3, 2023 Planning Board Meeting
By Anne Stomp, Adjacent Property Owner, 565 E River Rd., Moncure**

It is the position of the property owners of Forest Lake Estates and The Hermitage that the proposed Jordan Retreat subdivision plan has serious flaws and should be rejected by the Chatham County Planning Board. This position is the conclusion reached in discussions, community meetings and is based on a number of reasons. Those concerns are summarized below and fall into four general categories of concern: Area Planning and Zoning, Environmental, Safety and Neighborhood and Community Impacts.

Area History, Planning and Zoning

It is the responsibility of the County planning process to set overall development goals that will benefit all the County's citizens and that are in keeping with the natural environment. This has been the hallmark of Chatham County planning for decades and is what makes our County such a desirable place to live. Zoning ordinances are the mechanism that guides specific property development to achieve planning goals and thus establish the land character of a town, county and region. For decades zoning along the Jordan Dam Rd has been low density, residential single unit housing. Low density development has retained much open space that has complimented the 38,000+ acres of forested land controlled by the Army Corp of Engineers. In addition the State has acquired almost 1000 acres of forested land along the western edge of the Moncure-Pittsboro Rd to preserve the unique forest ecosystem along the Deep River. Taken together these public-private properties create open space that serves recreational interests, e.g. boating, hiking, fishing and hunting, and as wildlife corridors connecting the Deep and Haw River basins. Chatham County is undergoing rapid development (see several recent articles in the North Carolina Business Journal:

<https://www.bizjournals.com/triangle/news/2021/08/16/townsend-tract-pittsboro-details-emerge.html>,

<https://www.bizjournals.com/triad/news/2021/08/20/mcbane-park-subdivision-swain-land-timber.html>,

<https://www.bizjournals.com/triangle/news/2021/08/23/vickers-village-near-briar-chapel-chatham-county.html>,

<https://www.bizjournals.com/triangle/news/2021/08/25/silk-hope-land-buy-chatham-county.html>

In the coming years open space such as ours will be an even more precious resource for the citizens of Chatham County. The value of open space conservation has been identified as a primary consideration in both the existing Chatham County Comprehensive Plan (2017 amended 2020) and specifically in the Small Area Plan for Moncure, currently in the last stages of consideration for adoption by the County Commissioners. Both of these Plans reflect the history of development along the Jordan Dam Road and keep the area in which the Jordan Retreat parcel resides designated for agriculture, forestry and conservation.

Conservation and very low-density residential development are the hallmarks of the history of development along the Jordam Dam road. Parcels under private ownership are bordered by extensive woodlands under State and Federal management for recreational use and conservation. Up to 2014

when Oak Crest Commercial LLC purchased the property under consideration, the parcel was designated as woodland. As such, the parcel was logged on a several-decades rotation. About 40 years ago, an approximately 160-acre parcel historically used for agriculture and forestry was purchased by Burley and Champion Mitchell and the Hermitage subdivision was created. This subdivision has 16, approximately 10-acre lots. Around the same time, Forest Lake Estates subdivision was also created from forested land with riparian zones, small ponds and wetlands. The subdivision has 20 original building lots of about 5-acres each. Both subdivisions border the Haw River. Almost 40 years of low-density residential development in both subdivisions has created a highly desirable residential community. The efforts of all the residents have worked to seamlessly blend human and natural habitats being mindful of maintaining environmental quality in this sensitive Haw River watershed. We have created a unique neighborhood that is in concert with overall County planning goals as outlined in the 2017 Comprehensive Plan and the Small Area Plan for Moncure.

The Jordan Retreat Application

The history of proposed parcel development plans and community opposition

What is before us seems to be an application to permit a conservation subdivision. Is this interpretation correct? In a letter submitted with the application addressed to Ms Kimberly Tyson from Underfoot Engineering dated October 11, 2022, under General Notes/Discussion items, bullet point two it states "It was noted that ultimately all three options (i.e. an RV Park/Campground with 147 spaces; a PRD (R-!) subdivision with 41 units or a conservation subdivision with 33 units) are still potentially viable." What exactly Oak Crest Commercial LLC intends to build on the 52-acre parcel is still an open question. The first iteration was a proposed RV Park/Campground with 147 spaces which was vehemently opposed at the public meeting held in the summer of 2021. Next came the proposal for a R-1 subdivision with 41 units in September of 2021. This subdivision plan was also opposed by the community. The third iteration was the proposal for a conservation subdivision of 33 lots with the public meeting held on October 4, 2022. At that meeting the representative from Underfoot Engineering issued what amounted to a thinly veiled threat indicating that the conservation subdivision was a good as it was going to get so we better support it or the owner might decide to apply for the RV Park instead. It is also stated in the October 11, 2022 letter, under General Notes/Discussion items, bullet point 5, "Most attendees appeared to be less opposed to this conservation subdivision than the previously proposed RV park." That should not be interpreted as community support for the subdivision. It would behoove the Planning Board to obtain full transcripts of the recorded meeting discussions. It will be clear that those in attendance do not support any of the proposed development plans submitted thus far for a variety of reasons.

Specific Reason for opposition to proposed development plans:

Jordan Retreat Subdivision is not in keeping with the historical land use of the parcel, the neighborhood which it borders, and the planning goals as outlined in the Chatham County Comprehensive Plan of 2017 and the Small Area Plan for Moncure.

As shown in the map submitted by Oak Crest Commercial LLC, development would consist of 33 housing units at very high-density, each with lot sizes of less than 10,000 sq ft. and units of 2400-3200 sq ft. – very large houses crammed together on very tiny lots. This subdivision clearly is not consistent with the existing residential development, the open space/conservation land management of bordering State and Federal properties nor the Comprehensive Plan of 2017 and the Small Area Plan for Moncure. The application is an attempt by Oak Crest Commercial LLC to get something approved under the existing zoning regulations and before the updated UDO including the Small Area Plan for Moncure is adopted by the County Commissioners as any of their proposed development plans would be inconsistent with the next comprehensive plan for development of the Jordan Dam Road area. The Small Area Plan has already been approved by the Planning Board and forwarded to the Board of Commissioners for their consideration.

Objections to the Conservation Subdivision Plan

Environmental Concerns

The Proposed Plan has serious problems with wastewater and stormwater runoff

There are a number of environmental concerns associated with the proposed subdivision. These concerns were raised at the Oct 4, 2022 meeting with assurances that answers to our questions would be forthcoming. To date our concerns have not been addressed with specific answers. Therefore, they are raised here.

Water Issues. Surface stormwater runoff and wastewater disposal are the predominant water-related issues with the proposed subdivision. To understand these issues requires a brief overview of the site topology and soil characteristics. Jordan Dam Rd., the western boundary of the proposed site sits at an elevation of approximately 335 ft; the eastern boundary of the site along Forest Lake Estates Rd sits at an elevation of about 200 ft. The greater than 100 ft of elevation drop has resulted in the erosion of 3 deep ravines that follow roughly straight trajectories and dominate the parcel. Walking the site during times of significant rainfall and the winter months, characterized by higher average rainfall and low evaporation rates, reveals that the bottom third of the acreage retains standing surface water. The bottom third of the site should be classified as wetland. The elevational drop of over 100 feet causes surface water from rainfall to flow downhill rather than be absorbed. The very slow absorption of surface water is due to the soil composition. Soils in this area are comprised mainly of fine, tightly packed clays and hardpan layers interspersed with pockets of gravelly clay. Overall these soil profiles greatly inhibit or prevent percolation of soil into ground water. The bulk of surface water leaves the land either as runoff or thru evaporation. The slow percolation rate is exploited in existing ponds which are recharged primarily from surface runoff generated by rainfall events. Little seepage occurs in these ponds with water lost primarily by evaporation. Existing ponds in both the Hermitage and Forest Lake Estates have experienced significant overflow during heavy rainfall events. Flowing surface water from the subdivision site flows across adjoining properties into the ponds of Forest Lake Estates and then into the Haw River following area topography. This surface water flow results in high water turbidity in the Forest Lake Estate ponds. Any increase in surface water flow which will result if subdivision development is permitted will, in essence, turn the Forest Lake Estate ponds into retention ponds for the subdivision. Forest Lake Estate property owners will be negatively impacted because the ponds are

a major asset of the subdivision. The Haw River will also be negatively impacted because pond overflow from increasingly frequent high rain events goes directly into the Haw River.

Soils analysis, siting and type of the septic fields are problematic and do not seem to be in compliance with conservation subdivision regulations

Returning to the concept plan, the information relevant to wastewater treatment is discussed in the "Soils Report and Map". This report was generated by Piedmont Environmental Associates. In the first paragraph of the cover letter it states, "This report does not address systems receiving more than 3,000 gallons per day of flow." Using the report's figures, at 480 gals/day/4-bedroom house, 33 housing units would be expected to generate 15,840 gals of wastewater/day, vastly exceeding 3000 gals/day for which the analysis is applicable. Therefore the Soils Report and Map are inadequate.

The placement of wastewater septic fields is problematic. Three areas of wastewater septic fields are proposed. According to the Chatham County Subdivision Regulations; page 66; Section 7.7.D. Part 6 states: "Water, Septic, and Sewer Systems Shared water, septic and sewer infrastructure is allowed in Open Space, but not in Natural Space." These areas lie within the natural space area which makes their locations out of compliance with existing subdivision regulations.

At the public meeting we were also told that the septic fields would be forested but that tree roots would not compromise the fields. If water is present, tree roots will find it and grow into the septic piping. Anyone who has a septic field to maintain or understands plant physiology knows this. The proposed plan will create a septic field(s) that is destined to fail and discharge sewage thru surface and subsurface flow. As the fields are located on the steep sides of the parcel ravines, that seepage and flow would flow directly to adjacent property and the Forest Lake Estate ponds. These very questions were raised at the public meeting and excuses were given as to why individuals who could answer the questions were not present. Promises were made that answers would be forthcoming and they have not been received. In the current application the answers are "...any/all septic designs will conform to all applicable standards." Frankly, that answer/promise is not good enough.

Size of SCMs is inadequate

The size and placement of the property SCMs is also inadequate given the volume of water that runs off the parcel in high rain events. The high density of development with associated impervious surfaces of roads, driveways and buildings at the highest elevations of the parcel will result in increased stormwater runoff. That runoff will go into the existing steep ravines that direct water to adjacent landowners and into the Forest Lake Estate ponds. In excessive, but more frequent, rain events like tropical storms and hurricanes, runoff could conceivably flood Forest Lake Estates road resulting in considerable damage. The elevational drop of 30-40 ft from ridge to ravine will accelerate stormwater runoff flow rates. The force of the water flow will result in ravine erosion. The eroded soil and debris will spread across the wastewater treatment areas silting them in and will deliver large volumes of water overwhelming the capacity of these areas to contain the water. What volume of water might a significant rain event generate? The volume of stormwater runoff can be estimated by assuming a drainage area of 32 acres (roughly the upper 2/3 of 50 acres). A two-inch rainfall event would generate approximately 5 1/3 acre-

ft of water, enough to deliver one foot of water across the combined wastewater treatment areas. Our area is experiencing an increase in average rainfall. Severe rainfall events delivering several inches of rain in a short period of time are increasingly common. Tropical storms and hurricanes also occur annually and can dump many inches of rainfall in one event. Remediation/repair of that damage off the parcel would fall to the adjacent property owners.

Referring to the Soils Report, with an LTAR of 0.25 gal/sq ft, 15,840 gals/day of wastewater would require minimally 63,360 sq ft of septic field. The concept plan indicates that the soils in which wastewater treatment areas are placed have adequate percolation rates for septic systems of 33 single-family dwelling of 3-4 persons. This assertion requires skeptical review. The poor percolation of soils in the Moncure area is a fact well known by the County Health Department. Failed septic systems are prevalent in Moncure with surfacing sewage occurring especially in winter when soils reach saturation due to high seasonal rainfall. These realities are one of the underlying reasons for the original low-density residential development of The Hermitage and Forest Lake Estates. The Planning Board would be well advised to insist that percolation test be done following heavy rain events, for example in winter. (Note: My own lot was approved for a conventional septic system. Located in the area advised by the County Health Department, the first septic field failed the first winter in my house. At great expense I had to install a second septic system in a totally different location after a more rigorous analysis of percolation rates on my property.)

The problems with wastewater treatment and stormwater runoff are not limited to this subdivision application. Several large parcels surround our community and are potential candidates for development. As our community is located primarily on ancient Haw River flood plain/riparian zone any future development will be accompanied by the same issues. Failure to enact protections now by approving this application will set precedent for future development that will further endanger our homes, land and pond health.

A high-density subdivision will create significant light and noise pollution detrimental to wildlife and recreational use

Light Pollution. There is no indication on the concept plan as to the general lighting for the subdivision. If the subdivision has street lighting it will be a significant source of light pollution. The impact of this abnormal light will have negative impacts on wildlife and will be a general nuisance to adjacent property owners. In addition, the Dam is considered the best site in the Triangle for observing celestial events and is a popular destination for dozens of stargazers because of its 360 degree viewing area AND its low light levels. The light pollution from the Park will negatively impact one of the last good sites for night sky viewing and be a sad loss for the greater Triangle community.

Noise Pollution. The subdivision will be an unavoidable source of additional noise in the community in addition to that anticipated from the TIP site. The sounds of traffic on Route 1 and of the flights at the Lee County Executive Airport are increasing as the greater Triangle region expands in population. This general noise pollution disturbs wildlife and the peace and quiet of rural Chatham County, one of its

drawing cards. The structure of a high density subdivision removes noise buffering by vegetation and will significantly add to the already growing noise pollution.

Impacts on Wildlife. Thirty years of low density residential development combined with the open spaces of the federal lands associated with the Dam and the Triangle Land Conservancy land in Moncure has created a robust wildlife habitat and wildlife corridor connecting forested land with the Deep and Haw Rivers, and Jordan Lake. Inserting high-density human presence in the middle of this corridor will disrupt the movement of wildlife in the area. The noise, water, and light pollution generated by the subdivision and the activities of its residents will have negative impacts and reduce the quality of wildlife and aquatic habitats in the area. This area is a popular destination for area hunters and for fishing. Negative impacts of fish and wildlife will reduce the value of this area to sportsmen and sportswomen.

Additional Environmental Impacts. It is not stated in the concept plan but it is to be assumed that there will be some land management done to control vegetation, insects and troublesome animals. If pesticides and herbicides are used, how will the movement of these chemicals into soil and into surface water runoff be minimized or prevented? In addition if subdivision residents bring in firewood from different regions of the state they could inadvertently transport invasive destructive insect pests into our forests. There is also the potential transport and intentional planting of invasive plant species from landscaping. Already increased invasion by plants on the federal Noxious Weed List which are making significant inroads in many parts of the country including Chatham county. There is nothing that addresses these concerns in the concept plan.

There are negative safety issues related to increased traffic

Restricted Access in case of emergencies. The subdivision is proposed for a 52-acre tract of forested land located on the Jordan Dam Road. This road terminates at the Jordan Lake Dam. The road is the only egress from the dam to the intersection with the Moncure School Rd. In case of emergency the road now serves as the only evacuation path for the property owners in 3 subdivisions, Forest Lake Estates, The Hermitage and Chatham Oaks plus the employees of the Army Corp of Engineers' dam staff and recreational users of the dam facilities. One possible emergency requiring immediate evacuation would be a forest fire from a controlled-burn fire jumping the containment lines (which already occurred once). Controlled burns are regularly scheduled as part of the forest management plan for the federal property along the western side of the Jordan Dam Rd. In addition to fire emergencies a nuclear accident at the Shearon Harris Plant could trigger an immediate evacuation of the area. Adding additional residents to the only egress should be carefully considered.

Increased traffic risk to users of the Dam Rd. There are many visitors and permanent residents who regularly use the Dam Rd. for walking, jogging and cycling. There are regular incidents where speeding drivers on the Dam Rd have created near misses to pedestrians, cyclers and vehicles pulling onto the road from the subdivision side streets. Increased traffic from another subdivision will only add to these problems. In addition, navigating the intersection of the Dam Rd with the Pittsboro Moncure Rd is problematic now and is expected to worsen as Moncure develops. By increasing traffic from another

subdivision would only make the problem worse. Additional traffic would increase the potential for serious traffic accidents with life threatening injuries at this intersection.

The Subdivision in the Context of the Future Character of Moncure and Chatham County.

Allowing this development to go forward will set a bad precedent for County planning efforts. Planning is done for a reason and zoning ordinances are the tool that guides development to be aligned with planning goals. This inappropriate property development flies in the face of more than three decades of responsible development in keeping with county planning goals. It will be disruptive to neighboring properties, potentially have negative impacts on property valuations without providing any benefit to the Moncure community. A priority for residential development should be affordable housing, not another high-density subdivision with half-to-million dollar homes. The plan is fraught with many negative impacts outlined above. It is time for the County to re-commit to its planning goals and stop the unrelenting creep of inappropriate and problematic development in Moncure. Planning goals established for the benefit of all citizens cannot be disregarded in favor of individual property owner's profit without community benefit. There needs to be a compelling benefit to the affected area and its citizens to change planning goals and supporting zoning ordinances. No such compelling reason exists in this case. By denying the application for the subdivision, Chatham County will reaffirm its commitment to sound planning for the benefit of all its property owners and tax payers. Reaffirming reasonable planning goals with which dozens of property owners have complied for more than three decades is the right path for guiding desirable development for Moncure and southern Chatham County for all county citizens for decades to come.

To that end the undersigned demand that the County deny the application for the proposed Jordan Retreat subdivision.