

NAME: Mountain Valley Wastewater Treatment Plant –  
Conditional Use Permit

LOCATION: 25616 Highway 10

OWNER/APPLICANT: LRG, LLC. /White-Daters

PROPOSAL: A conditional use permit is requested to allow for  
development of a wastewater treatment plant on this  
R-2 zoned, 1.7 acre tract.

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1. SITE LOCATION:

The site is located outside of the city limits, within the City's zoning jurisdiction. The site is located north and east of the intersection of Highway 10 and Pleasant Grove Road, south of Nowlin Creek.

2. COMPATIBILITY WITH NEIGHBORHOOD:

The overall area around the site is rural in nature; comprised primarily of tracts of undeveloped land and single family residences on larger tracts of R-2 and AF zoning properties. This wooded, 1.7 acre site is located some 660+ feet north of Pleasant Grove Road, adjacent to Nowlin Creek. The applicant also owns the 36 acre tract adjacent to the west. The proposed treatment plant appears to be located approximately 650 feet from the nearest residence to the north, 550 feet from the nearest residence to the south, 1,100 feet from the nearest residence to the east and 1,300 feet from the nearest residence to the west. The treatment plan will be located in the middle of the 1.7 acre tract with a wooded buffer being retained around the perimeter.

Notice of the public hearing was sent to all owners of properties located within 200 feet of the site and the Coalition of West LR Neighborhoods and Citizens of West Pulaski County Neighborhood Associations.

3. ON SITE DRIVES AND PARKING:

No parking is required for the use other than space for service and technicians to park within the treatment plant compound. This will be provided. Access to the site will initially be via a proposed temporary all weather gravel driveway off of Pleasant Grove Road. Permanent access will be provided in conjunction with the platting of a future residential subdivision adjacent to the site.

4. SCREENING AND BUFFERS:

Site plan must comply with the City's minimal landscape and buffer ordinance requirements.

A land use buffer six (6) percent of the average width / depth of the lot will be required when an adjacent property has a dissimilar use of a more restrictive nature. The property to the south and east is zoned AF and the property to the north is zoned R2. As a component of all land use buffer requirements, opaque screening, whether a fence or other device, a minimum of six (6) feet in height shall be required upon the property line side of the buffer. A minimum of seventy (70) percent of the land use buffer shall be undisturbed. Easements cannot count toward fulfilling this requirement.

The plantings, existing and proposed, shall be provided within the landscape ordinance of the city, section 15-102.

The City Beautiful Commission recommends preserving as many existing trees as feasible on this site. Credit toward fulfilling Landscape Ordinance requirements can be given when preserving trees of six (6) inch caliper or larger.

5. PUBLIC WORKS:

Pulaski County should be contacted about any floodplain/floodway issues.

6. UTILITY, FIRE DEPT. AND CATA COMMENTS:

Little Rock Wastewater: Outside service boundary – No comment.

Entergy: Entergy does not object to this proposal. A three phase overhead electrical line already exists along the north side of Highway 10 and a single phase Overhead line already runs along the north side of Pleasant Grove Road. Neither line appears to conflict with the proposal. Caution should be used when working under or around power lines. Contact Entergy in advance to discuss future service requirements, new facilities locations and adjustments to existing facilities (if any) as this project proceeds.

Centerpoint Energy: No comments received.

AT&T: No comments received.

Central Arkansas Water: All Central Arkansas Water requirements in effect at the time of request for water service must be met.

Please submit plans for water facilities to Central Arkansas Water for review. Plan revisions may be required after additional review. Contact Central Arkansas Water regarding procedures for installation of water facilities. Approval of plans by Central Arkansas Water, the Arkansas Department of Health Engineering Division and Little Rock Fire Department is required.

This development will have minor impact on the existing water distribution system. Proposed water facilities will be sized to provide adequate pressure and fire protection.

Additional fire hydrant(s) will be required. Contact the Little Rock Fire Department to obtain information regarding the required placement of the hydrant(s) and contact Central Arkansas Water regarding procedures for installation of the hydrant(s).

A Capital Investment Charge based on the size of meter connection(s) will apply to this project in addition to normal charges.

Fire Department: **Maintain Access:**

**Fire Hydrants.**

Maintain fire apparatus access roads at fire hydrant locations as per Appendix D of the 2012 Arkansas Fire Prevention Code Vol. 1 **Section D103.1 Access road width with a hydrant.** Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet, exclusive of shoulders.

**Grade**

Maintain fire apparatus access roads as per Appendix D of the 2012 Arkansas Fire Prevention Code Vol. 1 **Section D103.2 Grade.** Fire apparatus access roads shall not exceed 10 percent in grade except as approved by the fire chief.

**Loading**

Maintain fire apparatus access road design as per Appendix D of the 2012 Arkansas Fire Prevention Code Vol. 1 **Section D102.1 Access and loading.** Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds.

**Fire Hydrants**

**Locate Fire Hydrants as per Appendix C of the 2012 Arkansas Fire Prevention Code.** Section C101 – C105, in conjunction with Central Arkansas Water (Daniel Tull 501-377-1245) and the Little Rock Fire Marshal's Office (Capt. Tony Rhodes 501-918-3757 or Capt. John Hogue

501-918-3754). Number and Distribution of Fire Hydrants as per Table C105.1.

Building Codes: Project is subject to full commercial plan review and approval prior to issuance of a building permit. For information on submittal requirements and the review process, contact a commercial plans examiner:

Curtis Richey at 501.371.4724; [crichey@littlerock.org](mailto:crichey@littlerock.org) or  
Mark Alderfer at 501.371.4875; [malderfer@littlerock.org](mailto:malderfer@littlerock.org).

County Planning:

- 4 and 6.) Show name and address of owner/developer.
- 5.) Show source of title.
- 7.) Show distance to two land corners and state plane coordinates for said corners.
- 9.) Show engineers stamp and signature.
- 12.) Show boundary line dimensions and bearings for all portions of property that are a part of the CUP application.
- 19.) Show on site plan the zoning for subject property.
- 20.) Provide development summary.
- 22.) Show source of water to site.
- 23.) Obtain Floodplain/Floodway development permit.
- 24.) Provide all approval documents from Arkansas Department of Health and the Arkansas Department of Environmental Quality.
- 35.) Applicant is requesting a Conditional Use Permit from the City of Little Rock to build a wastewater treatment facility in an R-2 zoned area.
- 45.) Pay \$33.00 Review fee.

Show basis of bearing on site plan.

Discharge point for treatment plant is within the floodway of Nowlin Creek. Obtain the necessary floodplain development permits from Pulaski County Public Works (501)-340-6800.

Provide permanent legal and physical access to this site as part of the future subdivision development.

Staff Recommendation: Approval subject to compliance with staff comments and the procurement of a CUP from the City of Little Rock.

Pulaski County Road and Bridge:

1. Obtain driveway permit for Pleasant Grove road connection. Call Patricia Mackey with PCRB (501-340-6800)

Items needed for floodplain development approval

1. Creek crossing design for any culvert, bridge, or low water crossing (if any are to be used)
2. Design for all structural components located within the floodplain/floodway such as roadbeds, levees, and building foundations. Density test are required after placement of structural material showing that material meets or exceeds design density
3. Estimate, in cubic yards, for amount fill to be brought into floodplain
4. Signed Pulaski County floodplain development application
5. Permit review fee of \$25 plus one cent per cubic yard of fill to be brought into the floodplain
6. Approved 404 permit from the Corps of Engineers for any work in the wetlands
7. Approved ADEQ permit for any construction over 1 acre or any stream crossing
8. All utilities must be located above the Base Flood Elevation or flood proof
9. Scaled 1% annual chance flood limits cannot be shown on plat

Rock Region METRO: No comments received.

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SUBDIVISION COMMITTEE COMMENT:

(JUNE 22, 2016)

The applicants were present. Staff presented the item and handed out copies of information on the proposed treatment plant operation that had been provided by the applicant. Staff also handed out a document outlining additional information that staff needed on the proposed plant.

Vice-Chair Berry asked how long this type of system was expected to last and who would maintain it. The applicants responded that these private systems were located "all over" northwest Arkansas and two developments near Little Rock (Alotian Golf Club and Waterview Estates) had such systems. They stated this proposed system would be maintained by the same person who maintains Alotian and Waterview.

The applicants stated they had Arkansas Health Department approval and would provide a statement of such to staff.

Pulaski County and Other Agency Comments were noted.

The applicants were advised to submit responses to staff questions by June 29, 2016. The Committee then forwarded the item to the full Commission.

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STAFF ANALYSIS:

The applicant is requesting approval of a conditional use permit to allow for construction of a wastewater treatment plant on this wooded, 1.7 acre tract. The treatment plant is proposed to serve a single family residential subdivision which the applicant proposes to develop on the 36± acres adjacent to the west. The 37+ acre property is currently zoned PCD. The applicant will file a request to revoke the PCD and to restore the underlying R-2 zoning.

The property was previously used as a golf driving range. In 2007, the property was rezoned to PCD to allow a 6-lot development with a mixture of office and commercial uses. In 2015, a PD-R request for a single family residential development and a CUP for a wastewater treatment plant were filed. The applicant withdrew both applications prior to Planning Commission.

This 1.7± acre site is currently wooded. It is located some 660+ feet off of Pleasant Grove Road and is adjacent to Nowlin Creek. The treatment plant is indicated as being located near the center of the site. An area within the site will be cleared and filled to accommodate the treatment plant. A wooded buffer will be retained around the perimeter of the site. The compound containing the treatment plant will be enclosed with security fencing.

The proposed wastewater treatment plant (WWTP) has been approved by the Arkansas Department of Health. The applicant has provided documentation from the Arkansas Department of Environmental Quality establishing the discharge limits for the WWTP. The applicant states that ADEQ has reviewed the WWTP and indicated that a construction and discharge permit will be issued once the City approves a conditional use permit.

The applicant has submitted the following description of the operation of the WWTP:

In operation, all flow enters the first compartment of the ISAM where influent solids are allowed to settle much like a primary clarifier. The first compartment is a constant level basin with a baffled inlet and outlet. This basin helps with solids removal. When a gallon enters the reactor a gallon overflows out an underflow baffle to the next reactor which is the surge basin. This basin provides both organic and hydraulic load equalization. Activated sludge bacteria is maintained in

the surge basin to immediately react with incoming flow to initiate and accelerate carbon and nitrogen reactions. From the surge basin, liquid is pumped to the sequencing batch reactor (SBR) basin in one complete batch in several minutes, thereby reducing the volume in the surge basin to allow additional equalization storage capacity. The liquid from the surge basin is pumped to the SBR through the jet aspirating nozzle assembly to provide the required oxygen in the SBR for BOD and ammonia removal. A 100% stand by in place SBR feed/mix pump and jet aspirating nozzle is included for redundancy. After the SBR is filled, aeration and mixing continues as required until the surge tank has filled to a level to allow another batch to be treated. Once this level is reached, the contents of the SBR settle in a quiescent condition for a predetermined time with no new flow entering the SBR. After the bacteria settle, the top approximately 25% of the SBR basin which is well above the sludge blanket level in the SBR is decanted to the chlorine contact tank through an air operated decanting device. As soon as decanting starts, chlorine is fed into the chlorine contact tank. The contents of the chlorine contact tank flow through a series of baffles to the overflow in the chlorine contact tank to the final outfall. As soon as decanting is completed, the cycle repeats.

Information submitted by the applicant indicates the basins or tanks are located underground with minimal equipment and venting located above grade.

There are no blowers associated with the process which is the loudest part of a WWTP. All oxygen comes from atmospheric air and is induced through a venturi effect where air is pulled into a pipe. Noise is minimal. dB rating at 3' from the aspirator opening is estimated at approximately 60 to 65 dB which is the typical noise of a conversation from 3 to 5 feet away. The tank is completely covered so the aspirating noise is further mitigated.

The WWTP will be managed by a licensed operator that is hired by the developer. Once the project is built out, the property owners association will take over the responsibility of hiring the operator. ADEQ will require a licensed operator and monthly reports. The plan will always be under the management of a licensed operator. This requirement will be incorporated into the Bill of Assurance. Sewer fees will be collected from each property owner on a monthly basis by either the POA or a Property Owners District.

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**STAFF RECOMMENDATION:**

Staff is continuing to review the issue. Staff's recommendation is forthcoming.

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**PLANNING COMMISSION ACTION:**

(JULY 14, 2016)

The applicants were present. There were many people present in opposition. Approximately 30 e-mails of opposition had been received by staff and forwarded

to the commissioners. Staff presented the item and read the following statement and recommendation:

Staff has given a great deal of thought to this conditional use permit to allow a private wastewater treatment plant adjacent to Nowlin Creek in the City's Extraterritorial Zoning Jurisdiction. We met as staff on several occasions, including one meeting with senior staff of the State of Arkansas Department of Environmental Quality. We have taken into consideration the thoughts and considerations expressed in the many e-mails and letters of concern and opposition which we received and forwarded to the Commissioners.

The Code states the Planning Commission is to consider the appropriateness of the proposed conditional use. The Commission is to conduct a detailed review of the conditional use's compatibility with the area and the specific treatment of screening, landscaping and other amenities provided to protect the integrity of the neighborhood.

The commission is to use its discretion when determining the appropriateness of the Conditional use development standards and review guidelines, including but not limited to:

1. The proposed use is so designed, located and proposed to be operated that the public health, safety and welfare will be protected.
2. The proposed land use is compatible with and will not adversely affect other properties in the area where it is proposed to be located.

Staff believes that the proposed private wastewater treatment facility is not compatible with the other properties in the area, staff believes the proposed use will negatively impact other properties in the area. Based on discussions with individuals at the state level who would ultimately be charged with monitoring the WWTP, staff has concerns that the long-term public health, safety and welfare may not be protected.

Additionally, staff does not support as a matter of policy, the addition of a large scale, urban residential subdivision in this area. Approving the proposed WWTP is the first step toward allowing the subdivision. Staff believes the proposed 111 lot subdivision which has been filed for the August 11 PC agenda is a classic case of urban sprawl. The proposed development is located over 2 miles from the City limits and is about 1/3 mile from the western edge of the City's extraterritorial jurisdiction; essentially "leap-frogging" over two miles of rural development and undeveloped lands to construct an urban residential development. Such a development is better suited for construction within the city limits or at the very least adjacent to the city limits where annexation is a reasonable expectation.

Staff recommends denial of the requested CUP.



Attorney Philip Kaplan addressed the commission on behalf of the applicant. He presented a map indicating the locations of other wastewater treatment plants (WWTP) in west Pulaski County. He showed a copy of the Arkansas Department of Health approval and the conditional approval from ADEQ. Mr. Kaplan showed a map indicating the nearest residences being 550-1000 feet from the proposed WWWT site. He said the WWTP site would be surrounded by trees and there would be no odor and no sound. Mr. Kaplan stated an improvement district would be formed to assure continued funding for maintenance of the WWTP. Mr. Kaplan stated ADEQ was prepared to issue their final approval and was only waiting on the city's approval of the CUP. He presented an aerial photograph showing the proximity of the similar facilities at Alotian and Waterview. Mr. Kaplan stated the discharge from the WWTP would be cleaner than the run-off currently entering Nowlin Creek. He stated the amount of discharge was 30,000 gal/day not 40,000. Mr. Kaplan stated the WWTP would be monitored by ADEQ and maintenance would be provided by the same operator who maintains the Alotian and Waterview WWTP's. Mr. Kaplan stated the "elephant in the room" was opposition to development by residents of the area who want the area to remain the same. He asked how the city could deny the CUP when there are so many WWTP's in the county and general area. Mr. Kaplan stated development has continued to move west and this area will likely be annexed into the city at some point.

Dr. Harold Hedges, of 8201 Hood road, addressed the commission. He presented a jar of water which he said had been taken from just below the Alotian WWTP discharge point into Nowlin Creek. He showed a photograph indicating an algae bloom at Alotian and described the possible ecological impact of the WWTP on Nowlin Creek. He said Nowlin Creek was not a free-flowing stream and another discharge into the creek was not needed.

Bruce Shackleford, an environmental engineer, addressed the commission. He acknowledged there will likely be growth in the area but the question was how that growth occurred. He questioned the appropriateness of discharging into a creek that is dry in the summer, Mr. Shackleford said these types of systems work, in theory, but there are disadvantages, concerns and issues.

Drew Kelso, representing the Citizens of West Pulaski County and the Nowlin Creek Neighborhood Association, addressed the commission. He said the residents of the area were not against development, they just wanted good, compatible development. He referenced a resolution passed by the Pulaski County Quorum Court asking the city and its agencies to delay acting on any proposed residential developments in the ETJ of a density such that a WWTP is necessary. He commented that many of the WWTP's referenced by Mr. Kaplan were for individual users, not similar in scope to this proposal. He listed reasons not to approve the CUP; including the discharge flowing into the Little Maumelle which flows through several parks, concerns about the cumulative effect of many WWTP's, concerns about the plant failing, not a good history of ADEQ enforcement when there are violations and inadequate mechanisms being in

place to insure continued maintenance if the state has to step in and take over. Mr. Kelso said subdivision-owned and operated WWTP's are not appropriate. Philip Kaplan responded that many of the issues raised by the opponents were best addressed by the project engineers. He stated there would be an on-site generator to assure continued power, the WWTP would be designed and operated in compliance with applicable regulations and those agencies responsible for these types of plants have approved this one. Mr. Kaplan said it was likely that at some time in the future, Little Rock sewer will be out to this point. He said he had not heard the opponents say this plant was bad, just that other plants had failed.

Engineer Joe White addressed staff's concern with "leap-frogging" development. He stated that was how Little Rock had grown in the past. Mr. White said shutting this proposal down would stymie growth.

Engineer Doug Ford responded to the opponents' statement that the creek was dry in the summer. He said ADEQ takes all that into consideration when establishing discharge limits. He said this plant would have very little discharge into Nowlin Creek.

Commissioner Laha said he felt the area residents were selfish in that they moved out here and do not want others to come. He said he had designed and built some of these same plants. Mr. Laha said the plants are monitored by licensed operators and the state. He encouraged the developers to bring their development out to SW Little Rock.

Commissioner Bubbus said there was an enforcement problem and the potential risk to rivers and streams was too great.

Commissioner May commented that his comfort level with any private WWTP was less that with a municipal plant.

After some brief comments among the commissioners regarding the cumulative effect of WWTP's, a motion was made to approve the CUP with all staff comments and conditions, except the recommendation of denial. The vote was 1 aye, 9 noes and 1 absent. The CUP was denied.