



STATE OF DELAWARE  
**DEPARTMENT OF NATURAL RESOURCES  
AND ENVIRONMENTAL CONTROL**  
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DOVER, DELAWARE 19901

Office of the  
Secretary

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**Secretary's Order No. 2008-W-0035**

**Re: Application of La Grange Communities, LLC for a Well Permit for a  
Temporary Dewatering System near Glasgow, New Castle County  
Date of Issuance: August, 18 2008  
Effective Date: August 18, 2008**

Under the authority granted the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC") under *7 Del C. §6003*, the following findings, reasons and conclusions are entered as an Order of the Secretary. This Order considers the application of La Grange Communities, LLC for a permit to construct and operate on a temporary basis a dewatering well system in order to install sewer lines to serve a proposed residential subdivision near Glasgow, New Castle County.

The application seeks to install a series of shallow wells three to five feet apart, which would be linked together to pump water in order to dig sewer line trenches. The series of wells would be moved to coincide with the sewer line construction. The application requested the right to withdraw up to 1,200 gallons per minute or 1,728,000 gallons per day. This water would be discharged into a tributary of Muddy Run Creek located on the property. On June 30, 2008, the Department held a public hearing before the Department's presiding hearing officer Robert P. Haynes, who prepared a Report of recommendations dated August 4, 2008, a copy of which is attached hereto and incorporated herein. The Report recommends approval of a permit, but recommends that

the permit include a condition that allows withdrawal based upon 400 gallons a minute, or 576,000 gallons a day. The Report recommends that this limit may be exceeded only upon written notice from the Department based upon unforeseen problems encountered during the construction. Experts within the Department's Division of Water Resources, Water Supply Section, recommended a lower pumping rate than the application requested after their independent analysis of the area's soils, and this lower rate also is consistent with some of the concerns raised by the public comments. The Department's experts also share some of the same concerns.

I adopt the Hearing Officer's Report and its review of the record and recommendations. I agree with the Report that the public comments raised important issues for the Department to consider. The Department shares many of the public's concerns. The Department considers that the concerns can be addressed through permit conditions designed to protect the environment.

In sum, as more fully described in the reasons and findings in the Report, I adopt and direct the following as a final order of the Department:

1. The Department has jurisdiction under its statutory authority to make a determination in this proceeding;
2. The Department provided adequate public notice of the proceeding and the public hearing, and held the public hearing in a manner required by the law and its regulations;
3. The Department considered all timely and relevant public comments in making its determination;
4. The record of decision supports the issuance of the permits based upon the application, and such reasonable conditions that the Department official delegated to

prepare the permits determines are necessary to protect the environment and public health;

5. The duly authorized Department official shall timely prepare and issue the permits consistent with this Order; and

6. The Department shall provide notice of this Order to the persons affected by this Order, as determined by the Department, including those who participated in the hearing process.

*s/John A. Hughes*  
John A. Hughes  
Secretary

## HEARING OFFICER'S REPORT

TO: The Honorable John A. Hughes  
Secretary, Department of Natural Resources and Environmental Control

FROM: Robert P. Haynes, Esquire  
Senior Hearing Officer, Office of the Secretary  
Department of Natural Resources and Environmental Control

RE: Application of LaGrange Communities, LLC for a Well Permit for a Temporary  
Dewatering System near Glasgow, New Castle County.

DATE: August 4, 2008

### I. BACKGROUND AND PROCEDURAL HISTORY

This Report considers the administrative record, including the public comments in the public hearing record, and makes recommendations to the Secretary of the Department of Natural Resources and Environmental Control (“DNREC” or “Department”) concerning the October 10, 2007, application submitted by the La Grange Communities, LLC (“Applicant”) to the Department’s Division of Water Resources (“DWR”), Water Supply Section (“WSS”). The application seeks a dewatering<sup>1</sup> permit to temporarily pump for up to six months water from each well at a rate of eight gallons per minute, or 1,728,000 gallons per day, pursuant to the Department’s *Delaware Regulations Governing the Allocation of Water* (“DRGAW”).

The requested permit seeks to construct a system of wells, each approximately twenty two feet deep and 1 and one half inches in diameter, which will be used to temporarily pump water in order to construct a central sewer system for Applicant’s proposed 187 acre residential subdivision. The proposed subdivision will be off of old Route 896 and north of Route 40 near Glasgow, New Castle County (New County tax parcel 11-026.00-039).

The Department published public notice of the permit application, and received a timely meritorious request for a public hearing from David R. Arday, MD, as a member of the ‘Friends

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<sup>1</sup> The Department defines “dewatering” as the “withdrawal of water on a temporary basis from wells or excavation in order to facilitate construction or extraction of earth materials.”

of Historic Glasgow, Delaware.’ The Department attempted to resolve the dispute, including investigating certain allegations raised in the request for a public hearing. The Applicant and the persons who requested the hearing were unable to reach an agreement. Consequently, the Department held a duly noticed public hearing on June 30, 2008 at the New Castle Conservation District Office, 2430 Old County Road, Newark, New Castle County. Several persons attended the public hearing and provided written and oral comments. At the request of members of the public, the public comment period was kept open until July 11, 2008. This hearing officer requested additional technical assistance from WSS, which was provided in a July 23, 2008 memorandum attached hereto as Appendix A.

This Report considers the permit application, relevant information in the Department’s files, and the public comments, and applies the applicable laws and regulations in order to make a recommendation to the Secretary on whether to issue a permit or any permit conditions.

## **II. SUMMARY OF THE PUBLIC HEARING RECORD**

The public hearing record contains a 26 page verbatim transcript of the public hearing and the documents introduced as exhibits at the public hearing. The hearing record<sup>2</sup> contains the application and related correspondence, the public notices, and the written public comments the Department received.

The public comments opposed the permit on the grounds that it would discharge 1200 gallons a minute constantly for six months and would cause erosion and impact any water supply wells in the vicinity. The public comments quote a DNREC report on preserving buffer areas in the Muddy Run Creek, which is within the Christiana River and Delaware River watersheds. The public comments question the impact from the sewer line’s construction and the removal of a

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<sup>2</sup> The Department does not have an obligation to develop the public hearing record and remains neutral on the merits of a pending permit application until after the public hearing, but the Department nevertheless develops a basic public hearing record for the public’s benefit.

forty foot swath of “old-growth forest.” The public comments raise the issue of disturbing the habitat of the federally listed bog turtle, although the comments recognize that a 2006 survey found no bog turtles on the property.

### **III. DISCUSSION AND REASONS**

This discussion will address certain issues raised by the public comments and the permit application. I have considered all the public comments even if not specifically mentioned in this Report. The issues to be addressed in greater detail are: 1) whether the overall impact of the sewer line construction warrants denying a dewatering permit? 2) whether the Department knows or should know of a protected species that would be threatened by a dewatering permit and 3) whether the permit should be subject to reasonable permit conditions to mitigate any negative impact on the environment.

The first issue concerns whether issuing a permit should consider the overall impact on the environment from installing the sewer line. While a dewatering permit is needed to construct the sewer line, I find that the issues raised by the construction of a sewer line should be addressed when and if the Department has an application before it to construct a sewer line. The Department does not have an application for a sewer line permit pending, which could have allowed the the Department to consider the dewatering permit and sewer line permit applications at the same time.

The Department does investigate overall issues when they are relevant and in this case did determine that no subaqueous permit was required for the dewatering. The investigation also reviewed whether some existing pipes should have a subaqueous permit. The investigation concluded that no subaqueous permit was needed. The public comment’s concern with the cutting down of ‘old-growth’ trees for the sewer line construction is not something the Department regulates directly and is not a consideration in a dewatering permit. Instead, the

Department regulates the wells to be used for the dewatering and the removal and use of groundwater that will be pumped from the dewatering wells. The Department will also regulate the sewer line construction if and when an application is submitted and this may allow the public comments to be presented in a hearing. The Department is aware that New Castle County is reviewing the application to connect to its central sewer system. Until such an application is submitted the Department will refrain from deciding anything other than the dewatering permit that is currently before it.

The second issue concerns the possible presence of an endangered species, namely, the bog turtle. The Department has investigated the site and found no evidence of the bog turtle, although the habitat could support a bog turtle. The Department recommended that the habitat be preserved and the developer has included open and conservation space in the proposed development. The issuance of a dewatering permit, especially at the lower pumping rate that the Department's experts recommend, should not harm the bog turtle even if they were present of the site. Consequently, I find no support to not grant a dewatering permit based upon the speculation that a bog turtle may be present.

The third issue is whether there should be any permit conditions included that would lessen the negative environmental impact of the dewatering permit. The Department's experts recommend that a permit be issued, but that it allows stricter controls over the amount of water that may be pumped. The recommendation is to limit the maximum pumping rate to 400 gallons per minute, as opposed to the 1,200 gallons per minute that the permit application requested. This will reduce the total daily withdrawal to 576,000 gallons from the 1,728,000 gallons requested and thereby reduce the impact on the stream that will receive the discharge.

I find that the recommended permit condition is reasonable and well-supported. The support is based upon the review of the Applicant's study that used higher than average values

for aquifer hydraulic conductivity and radius of influence, compared to other dewatering projects in the Columbia aquifer and Delaware in general. The Department reviewed the soil borings from the site and found that they indicated slow-to-moderate soils, which means that they have a lower than average hydraulic conductivity. Moreover, the ground-water model the Applicant used also calculated a maximum discharge rate based upon digging a trench on the first day of pumping, but the use of the 400 gallon per minute limits will allow the sewer line contractor to begin digging trenches on the second day of pumping. The environmental benefit of the lower pumping rate are consistent with the public comments that raised concerns with the erosion from the discharges into the tributary of Muddy Run and also would reduce any risk of adversely affecting any nearby wells, particularly shallow wells. The Department's experts support their recommendation based upon modeling and their knowledge of the area's soils.

I find and recommend that the Department issue a dewatering permit as an appropriate exercise of its authority over Delaware's water resources, but the permit should include reasonable permit conditions that will restrict the maximum allowable water that may be pumped and allow flexibility if needed by unforeseen circumstance and upon further Department approval. The restriction of the maximum water flow may be modified by written approval if the Applicant can demonstrate to the Department's satisfaction that the increased dewatering is needed and the discharge into the creek will not harm the environment. This provision is to allow flexibility in the permit in order that unforeseen circumstances will not require the submission of a new permit application, but retaining the Department's oversight of any changes that may be warranted by such unforeseen circumstances.

#### **IV. RECOMMENDED FINDINGS AND CONCLUSIONS**

Based on the record developed, I find and conclude that the record supports approval of issuing a permit to construct a dewatering well system, subject to such reasonable permit

conditions recommended by the Department's experts and discussed herein. I recommend the Secretary adopt the following findings and conclusions:

1. The Department has jurisdiction under its statutory authority to make a determination in this proceeding;

2. The Department provided adequate public notice of the proceeding and the public hearing in a manner required by the law and regulations;

3. The Department held a public hearing in a manner required by the law and regulations;

4. The Department considered all timely and relevant public comments in making its determination;

5. The Department shall issue Applicants a permit subject to the reasonable general and specific permit conditions recommended by WSS; and

7. The Department shall serve either by mail or email a copy of this Order on each person who participated in the public hearing,

*s/Robert P. Haynes*

Robert P. Haynes, Esquire  
Senior Hearing Officer

DIVISION OF WATER RESOURCES  
Water-Supply Section  
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# Memorandum

TO: Bob Haynes, Stewart Lovell

FROM: Bill Cocke

RE: **Response to Public Comments on La Grange Application to Dewater**

DATE: July 23, 2008

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La Grange LLC applied for a permit to dewater its Glasgow property in New Castle County for the installation of one sewer gravity main. The application was for the extraction of 1,200 gallons per minute of ground water for a period of 6 months.

The Friends of Historic Glasgow filed a petition for a public hearing. Their objection included 12 reasons, of which the following pertain to the dewatering permit:

1. High rate of withdrawal could impact nearby domestic wells
2. The discharge may disturb habitat in the receiving waters downstream wetlands environment, or cause flooding during a storm

In response to these comments, I have reduced the permitted discharge from the dewatering system to 400 gallons per minute. The permit application states that the dewatering system will withdraw 1,728,000 gallons per day (equivalent to withdrawal of 1,200 gallons per minute (gpm) non-stop for 24 hours), using 8 gpm per well point. Thus, the number of well points used at any one time would be  $1,200/8$  or 150 well points. The application also states that the system would have 200 well points installed at a time with a minimum spacing between well points of 3 feet. To dewater the entire project length of 2,200 feet at a minimum spacing of 3 feet would require a maximum of 733 well points. Thus, the contractor is proposing to install 200 well points along at least 600 feet of trench at a time, pumping 150 well points (450 feet of trench), and keeping 50 well points in reserve. As the pipeline is installed, 50 well points at a time would be turned off and "leap-frogged" ahead on the trench, while the 50 reserve well points are turned on so that the pipeline can be installed continuously.

The requested discharge rate of 1,200 gallons per minute is based on a ground-water model prepared by the owner's consultant. The consultant used higher than average values for aquifer hydraulic conductivity and radius of influence, compared to dewatering projects in the Columbia aquifer in Delaware in general. The soil boring data for the site, to the contrary, indicated "slow to moderate" soils, meaning a lower than average hydraulic conductivity. The ground-water model also calculated a maximum discharge rate – one that would be required to dig the trench on the first day of pumping. The 400 gallon-per-minute steady state rate would allow the contractor to begin work on the second day of pumping without raising concerns about the stream discharge.

By advising the contractor to pump the dewatering system at a much lower rate, I believe the work can be accomplished without any additional delays and the plaintiff's concerns about the stream habitat can be relieved.