



Revised: March 8, 2005 Revised: April 27, 2005

# Statement of Justification OWASA I-40 Water Pump Station Upgrade

Attached is a letter dated June 11, 2004 from Ed Kerwin, Executive Director of Orange Water and Sewer Authority, which sets out the important community and environmental benefits of this proposed upgrade to the OWASA Water Pump Station on Old Chapel Hill Road, adjacent to Interstate 40.

OWASA, the applicant, has operated a water pump station at this location for approximately 20 years. In April 2004, a formal 21,650 SF easement agreement was entered into between OWASA and the property owner, which memorialized the use that had already been occurring for many years.

Because of the steady growth of the OWASA water system, and new laws and regulations which govern OWASA, this water pump station must be upgraded to a small above ground building which will house two water booster pumps that will serve the OWASA water system with treated water in case of an emergency by pumping water from City of Durham water lines.

The proposed pumps are very important to OWASA so that they can provide water to their customers in times of emergency. The pumps must be in a 939 SF above-ground building. As part of this application, the old existing water pumps will be removed. The pumps are electric and there is no noise, fumes or any other objectionable aspect of this facility. The proposed pump building is brick and designed to look like the garage serving the nearby existing single-family dwelling.

The applicant believes that this water pump station upgrade project fully conforms to the following findings:

(1) That the use or development is located, designed, and proposed to be operated so as to maintain or promote the public health, safety, and general welfare:

The applicant believes this is an essential public service facility that has successfully operated at this location for over 20 years. Because of the essential nature of the facility, and the proposed design features for the new building, the applicant believes this SUP proposal will clearly promote the public health, safety and welfare of the citizens of Chapel Hill.

(2) That the use of development complies with all regulations and standards of this Chapter, including all applicable provisions of <u>Article 3</u> and <u>5</u>, the applicable specific standards contains in the Supplemental Use Regulations (<u>Article 6</u>), and with all other

PHILIP **POST ASSOCIATES** 



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The applicant believes this SUP application fully complies with LUMO in every respect, including Articles 3,5 and 6. Furthermore, the applicant does not believe any variances are needed from any provision of LUMO. The applicant notes that the site is encumbered with a number of utilities that pre-date the Chapel Hill buffer rules. These pre-existing utilities dictate to a certain extent where new plant materials can be installed, but the applicant believes that in spite of these limitations the proposed landscaping plans meet the letter and the spirit of LUMO.

(3) That the use or development is located, designed, and proposed to be operated so as to maintain or enhance the value of contiguous property, or that the use or development is a public necessity; and

This use is a public necessity. In addition, as a project that proposes to upgrade an existing water pumping station, this use has been operated and maintained and will continue to be operated and maintained so as to maintain the value of contiguous property.

(4)That the use or development conforms with the general plans for the physical development of the Town as embodied in this Chapter and in the Comprehensive Plan.

The Comprehensive Plan for the Town of Chapel Hill is based, in part, on all development being served by a public water system and public fire protection systems.

The upgrade of this existing OWASA water pumping station is one of several key links in OWASA's ability to provide water to all its customers, especially under emergency conditions. Therefore, a reliable OWASA system is a key component of the Town's Comprehensive Plan.

This OWASA water pumping station will help OWASA provide public water supply to Chapel Hill, in direct furtherance of the goals and objectives of LUMO and the Town's Comprehensive Plan.

Attachment: OWASA Letter of June 11, 2004

(919) 493-2600





# ORANGE WATER & SEWER AUTHORITY

Quality Service Since 1977.

June 11, 2004

Mr. W. Calvin Horton Town Manager Town of Chapel Hill 306 North Columbia Street Chapel Hill, NC 27516

Dear Cal:

SUBJECT:

REQUEST FOR EXPEDITED SPECIAL USE PERMIT FOR THE I-40

WATER BOOSTER PUMP STATION PROJECT

We are requesting an expedited review for the Special Use Permit needed to construct the I-40 Water Booster Pump Station Project (see attached map). I am writing to summarize the important community and environmental benefits for this project and to explain why it is necessary to begin construction of the improvements early next year.

## **BRIEF SUMMARY OF PROJECT OBJECTIVES**

#### **Background**

The Orange Water and Sewer Authority (OWASA) has two water supply interconnections with the City of Durham to provide potable water to the OWASA service area in the event of an emergency situation that would limit the capabilities of OWASA's water treatment and distribution system. Pumps are required to boost the water pressure for the emergency transfer of the potable water because the OWASA water distribution system is at a higher elevation than the City of Durham's system. OWASA has determined that it is highly desirable to increase the amount of water that the Chapel Hill and Carrboro communities could receive from the City of Durham during a water supply emergency. OWASA also maintains emergency only interconnections with the Town of Hillsborough and Chatham County.

### Improve Redundancy Capability

- ♦ The I-40 Water Booster Pump Station is an integral part of OWASA's plan to provide a redundant supply of potable water to its customers. Providing an emergency interconnection with the City of Durham is the most cost-effective way to provide redundancy to the Jones Ferry Road Water Treatment Plant.
- ♦ OWASA has a maximum transfer rate of 3.7 million gallons per day (mgd) from the City of Durham with existing facilities. This represents less than half of the average daily demand for our system. This project, along with a second pump station to be constructed in the future, will increase the transfer capacity to 9.6 mgd which is approximately equal to the current average daily demand. Should anything happen to limit the capacity of OWASA's water supply, treatment, or distribution systems, these interconnections and pump stations will provide potable water to OWASA's service area.



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#### Improve Transfer Capacity

♦ The I-40 Water Booster Pump Station site was selected as the first project because it provides the largest increase in capacity with minimal facilities. With the construction of the new pump station and associated transmission lines, the transfer capacity will almost double to a capacity of 7.1 mgd. It is located on the site of the existing I-40 Pump Station which will be demolished as part of this project.

#### **Improve Operation and Design**

- The operation of the pump station is intended for emergency use only. The facility would be operated periodically for a short duration to confirm functionality and perform routine maintenance. This operation would be during normal business hours. The pump station is designed to meet all the requirements of the Town of Chapel Hill's noise ordinance.
- ♦ The I-40 Water Booster Pump Station includes two pumps located in a small brick building. The brick building provides more security, better access for maintenance, and a safe work environment for OWASA staff. The building dimensions were kept to the minimum required for operation and maintenance of the station equipment. The building is designed to appear like a detached garage for the existing residential structure located on the property.
- Other project design goals include consolidating operations into two similar facilities, providing more reliable equipment, and providing better access to the equipment for maintenance and operation.

We look forward to working closely with the Town of Chapel Hill in obtaining an expedited approval for our booster pump station. Thank you for your support.

Sincerely.

Ed Kerwin
Executive Director

Attachment