

APPLICATION FOR HEARING BEFORE THE ZONING HEARING BOARD OF PETERS TOWNSHIP

Date Filed with Fee Paid: _____ Appeal No: _____

1. Peter Township Sanitary Authority
NAME

111 Bell Drive, McMurray, PA 15317
ADDRESS

724/941-6709
PHONE

Request that a determination be made by the Zoning Hearing Board on the following appeal:

1. An appeal from a decision of the Zoning Officer on _____ 20_____

prescribed procedures not followed -----Section: _____

provision misinterpreted -----Section: _____

provision misapplied -----Section: _____

2. Challenge to the validity of the
_____ ordinance-----Section: _____
_____ Map

3. A Special Exception
Zoning District R-1A Single Family Conventional Section _____
Proposed Use: Replacement/Expanded Municipal Wastewater Treatment Plant

4. Unified Appeal – State zoning issues above and attach information on any other appeal to this application.

The description of the property involved in this appeal is as follows:

Street Address: 402 West McMurray Road, McMurray PA 15317

Tax I. D. Number 540-011-00-00-0004-00 Zoning District: R-1A Single Family Conventional

Acreage of Lot: 3.92 Present Use: Vacant Land

Present Improvements on the property: None

Description of Proposed Improvements See Attached Description

Use of Proposed Improvement: Municipal Wastewater Treatment Plant

Describe the Special Exception requested:

Construct a replacement municipal wastewater treatment plant in a R-1A Zoning district to order to continue to provide an Essential Service to the community

Explain any other Appeal or Challenge:

NA

State why you believe the Board should grant this request: See Attached

Has any previous applicant or appeal been filed in connection with these premises?

X yes _____ no. If yes, state Appeal No. American Legion Meeting Hall

What is the applicant's interest in the premises affected? Owner

(owner, agent, lessee, etc.)

Note: This application must be filled out in duplicate. Four copies of a plan or survey of the property affected showing the location and size of the lot, the size of improvements now erected or proposed to be erected, or other change desired, together with any other information required by the Zoning Officer, must be attached to this application. If more space is required, attach a separate sheet to each copy of this application and make specific reference to the question being answered.

I hereby certify that all of the above statements and the statements contained in any papers or plans submitted herewith are true to the best of my knowledge and belief, that I have reviewed the provisions of the Peters Township Zoning Ordinance and understand that it is my obligation where a special exception or a variance is requested, to prove that my request complies with the standards and criteria set forth in the Zoning Ordinance.

Hearing Date June 21, 2011

James D. McKinley
Signature of Applicant

**ATTACHMENT TO
APPLICATION FOR HEARING
BEFORE THE ZONING HEARING BOARD OF PETERS TOWNSHIP**

Introduction

The Peters Township Sanitary Authority (hereinafter "Authority") is a Municipal Authority created by Peters Township under Pennsylvania's Municipality Authorities Act for the purpose of providing sanitary sewage collection and treatment service to the residents of Peters Township.

A Municipal Authority is a municipal corporation engaged in the administration of civil government, and resembles both a private utility and a municipal government. Although Peters Township created the Authority, the Authority not an agent or part of the Township, but is an independent governmental agency regulated by the Municipality Authorities Act, with all of the powers prescribed therein.

It should be noted that Municipal Authorities are not regulated by the Pennsylvania Public Utilities Commission (PUC).

The Authority currently serves approximately 6,000 customers, and owns and operates two wastewater treatment plants, eight pump stations, and approximately 120 miles of public sewer. Our mission is to protect the health and welfare of the Peters Township community by safely providing cost-effective wastewater service in accordance laws and regulations.

Peters Township Zoning Ordinance Considerations

The Authority's application to the Zoning Hearing Board is for a Special Exception to construct a replacement wastewater treatment plant, adjacent to the existing Donaldson's Crossroads wastewater treatment plant, on property zoned R-1A Single Family Conventional. The subject property, owned by the Authority, is located on West McMurray Road directly across from the Evergreen Development. The Authority recognizes the proposed treatment facility will not only be in full view of the Evergreen Development property owners, it will also be at the western entrance to Peters Township. As such, all Township residents should be concerned that the proposed treatment facility be concealed as much as reasonably possible, with all visible characteristics being aesthetically acceptable, and that odors be controlled to the maximum extent possible. The Authority shares these concerns and has planned for them, as evidenced by the planting of a row of evergreen trees in 2004 along West McMurray so that somewhat mature trees would be available to help conceal the facility by the time construction is completed.

Special Exception Requirements

Municipal wastewater treatment facilities are not well defined in the Peters Township Zoning Ordinance, and are best described by the Ordinance's definitions of Public Utilities and Essential Services.

Public Utilities - The definition includes corporations and governments supplying sewer service to the general public. The Authority is both a municipal corporation, incorporated under the laws of Pennsylvania, and an independent governmental agency. However, as noted above, we are not regulated by the PUC.

Essential Services -The definition of Essential Services includes governmental agencies regulated by the PUC or other governmental agencies of underground or overhead gas, electrical, water pipes, sewers, etc., and other similar equipment and accessories in connection therewith, reasonably necessary for the furnishing of services by such public utilities or governmental agencies or for the public health, safety and welfare. Obviously, sanitary sewer service is an Essential Service, and although not specifically identified within the definition, wastewater treatment works are equipment and accessories in connection therewith. Thereby, the proposed treatment facility could be considered an Essential Service as defined by the Zoning Ordinance.

Essential Services are a Permitted Use in all Zoning Districts. The Authority however voluntarily submits to the Special Exception process, and has committed to doing so in the Act 537 Sewage Facilities Plan for the project, in order to provide the Zoning Hearing Board an opportunity to establish the necessary conditions to preserve nearby residential property values, as well as to address concerns of the overall Township with regard to the construction of a wastewater treatment facility within the Township's borders.

Description of Proposed Improvements

The existing wastewater treatment plant has a design hydraulic capacity of 1.2 Million Gallons per Day (MGD) and an organic capacity of 1,958 pounds per day (lbs/day). The treatment plant is approaching these design capacities, and expanding the facility in the immediate future is necessary to prevent a prohibition of new connections to the system.

The proposed replacement treatment will have a design hydraulic capacity of 1.75 MGD, and an organic capacity of 2,900 lbs/day, providing for the capacity serve an additional 575 Equivalent Dwelling Units (EDUs). The plant will be designed to allow a future expansion to 2.0 MGD, if ever needed.

A conceptual plan of the proposed treatment facility is provided with the Application, which is Figure 27 from the Act 537 Sewage Facilities Plan.

In summary, the proposed treatment facility will use the activated sludge treatment process with aerobic digestion, and will consist of a series of in-ground, cast-in-place concrete tanks, with several buildings to house the equipment, maintenance areas, control room, and the Operator's office/laboratory.

From West McMurray Road the treatment plant's tanks would appear much like the Authority's Brush Run treatment plant in the photo at right.



Detailed Descriptions Pertaining to Areas of Concern

The primary concerns with constructing a wastewater treatment plant in a residential area are:

- Odors
- Aesthetics and Site Screening
- Noise
- Safety
- Other

Odors

Obviously this is the greatest concern, and the prevention of odors will be addressed comprehensively by the Authority. The treatment process that will be used is the activated sludge treatment process with aerobic digestion. This is the least odorous wastewater treatment process available. It involves injecting large volumes of air into the wastewater, continuously, which helps to minimize the odors by preventing septic conditions.

Admittedly, the existing treatment plant, which uses the same treatment process, experiences periods when odors are excessive and unacceptable. However, the existing plant has numerous design deficiencies that contribute to the release of odors. These design deficiencies include an outdoor headworks, and a poorly designed air distribution system in the aerobic digesters.

The primary source of odors, if any, from the proposed facility, would be from the Headworks, where the untreated wastewater enters the plant; and the aerobic digesters, where the waste biosolids are stabilized prior to disposal in a landfill. The new Headworks will be contained in a building which will be ventilated to an odor treatment facility.

The new aerobic digesters will be covered to contain any odors and the air will be ventilated to an odor treatment facility. The aerobic digester covers will be flat covers as pictured at right in order to minimize their appearance. These type of flat covers are a considerable improvement over the more traditional geodome type covers used at some treatment facilities.



The odor treatment facility will be a treatment column where the air stream with odors is treated by contact with material, such as activated carbon, or by contact with oxidizing chemicals, such as chlorine solution or potassium permanganate. Natural products can also be effective at removing odors such as cedar mulch. The actual type of odor treatment to be used will be determined during the design phase of the project.

Aesthetics and Site Screening

In order to address these concerns the Authority plans the following:

1. The buildings planned along West McMurray Road will be orientated to serve as a screen and have a residential appearance on the three sides visible from West McMurray Road. Among other residential characteristics, these buildings will be designed with slanted or gable roofs, or the appearance of such. Note on the Conceptual Plan that the Control Building is situated to screen the view of the proposed facility at the plant's driveway entrance.

2. In order to have a site screen and buffer when the new plant was ready to go on line, the Authority planted 29 Norway Spruce trees along West McMurray road in 2004 as pictured at right. These trees are now 15 feet in height and 5 to 6 feet in diameter. They were planted 15 feet on centers with the intention of planting a second row of trees, offset behind the existing row, at a later date when the space requirements of the future plant are better understood.



3. When viewed from a distance much of what is seen at a Brush Run treatment plant is aluminum handrail (see photo of Brush Run plant above). The Authority will explore during the facility design the use handrail that is darkly colored that may blend into the background better. For example, black chain link fence is hardly visible from distance because of its ability to blend into muted background colors.

4. The proposed treatment facility grounds will require security fencing for security and for the public's safety. The Authority proposes the use of black aluminum fence along West McMurray Road that emulates wrought iron fencing, similar to as shown at right. Fencing on the remaining three sides of the property would be black, vinyl coated, chain link fence.



Noise

Noise from equipment will be controlled by housing the equipment within buildings for the most part. Equipment not housed within buildings will be enclosed in noise control enclosures. At this time the only equipment anticipated to be located outdoors is the odor treatment column, which will be located out of view behind the Headworks Building, and the emergency standby generator, which will be within a sound attenuated enclosure.

Safety

The grounds will be within a security fence as described above. One of the Authority's objectives in the plant replacement project is to eliminate the use of chlorine gas for disinfection of the treated wastewater prior to discharge to the stream. The existing treatment plant uses chlorine gas for disinfection, which is delivered to the site in 150-lb cylinders. The preferred alternative is Ultraviolet Disinfection (UV), which uses ultraviolet light to accomplish disinfection. In the event subsequent design studies conclude that UV disinfection will not accomplish the required degree of disinfection or otherwise not appropriate for the conditions, the alternative form of disinfection will be chlorine solution, similar to household bleach. Chlorine gas will not be used in the future facility.

Other Concerns:

- **Flood Concerns.** The site of the proposed treatment plant, as well as the existing plant, are in Special Flood Hazard Areas subject to flooding during the 100-year flood. In order to prevent flood waters from entering the treatment tanks the top of the concrete tanks will be approximately 1.0 foot above the 100-year flood elevations of 900.00. Final grading will be such that most of the driveway and parking areas will be at or above the 900.0 elevation to allow access to the facilities during flood conditions. First floor elevations of critical buildings will be at least 1.5 feet above the 100-year flood elevations. Where possible and practical, critical equipment such as the Motor Control Center, switchgear, and emergency standby generator will be at a higher elevation. It should be noted that the rainfall from Hurricane Ivan in September 2004 caused flooding which exceeded the 500-year flood flow. During this flood the existing treatment plant was flooded to an elevation of 903.5. All treatment tanks and the majority of the equipment were submerged by flood waters. The Authority's objective is the proposed treatment plant will remain fully operational during the 100-year flood with only minor flood damage. It will be equipped with a Final effluent Pumping Station will automatically activate and lift the treated effluent to discharge above the 100-year flood elevation, and thereby prevent the floodwaters from packing up into the treatment plant and interceptors, and potentially causing sewage backups into customers' basements.

State why you believe the Board should grant this request:

1. The existing Donaldson's Crossroads wastewater treatment plant is approaching its design capacity and will require expansion in the near future. Failure to expand the treatment plant in a timely manner will result in a mandatory prohibition against new connections. A new connection ban would cause economical harm to the community, as well as reduced tax revenue to Peters Township.

2. The existing treatment plant, also located in the R-1A Zoning district, is located on property of insufficient size to expand the existing plant. Pennsylvania's Department of Environmental Protection (PaDEP) regulations require the existing plant to stay fully operational during construction to expand the plant. The available property on the existing site is insufficient to stage the construction of the required size plant, while still fully treating the existing wastewater flow. Thereby, expansion to the adjacent property is an absolute and unavoidable necessity.
3. Wastewater treatment plants have a limited number of locations where they can be constructed, and still be constructed affordably and operated cost effectively. These locations are limited to along drainage ways at the bottom most part of the sewer system. Locating the original treatment plant in 1962 at its existing location essentially determined and fixed the location of all future plant expansions. No other reasonable alternatives are available.
4. The Authority is prepared to take all reasonable steps necessary to ensure the impacts of the proposed wastewater treatment plant could have on the neighborhood are minimized to the greatest extent practical, and has proposed and is planning to incorporate reasonable control measures to accomplish such.
5. The proposed wastewater treatment plant is an essential part of providing an Essential Service as described in the Zoning Ordinance, necessary to protect the health, safety and welfare of the community.

Project Status and Schedule

Act 537 Sewage Facilities Plan

Adopted by Peters Township Council, Resolution NO. 09-06-10, September 27, 2010
 Approved by PaDEP by letter dated March 17, 2011

Major Milestones

Obtain Zoning Hearing Board Special Exception Approval	June, 2011
Initiate Facility Design and Permitting Phase	August, 2011
Complete Design and Obtain Permits	February, 2013
Close on Financing	July, 2013
Initiate Construction	July, 2013
Complete Construction	December, 2014