

BENNER TOWNSHIP PLANNING COMMISSION
MINUTES
January 24th, 2002

CALL TO ORDER

Regularly scheduled meeting of the Benner Township Planning Commission was called to order at 7:00 p.m. by Chairman Robert Fugate at the Benner Township Municipal Building.

ATTENDANCE

Members present: Jim Swartzell, Genny Robine, Rob Fugate and Tim Robinson. Member absent: Joe Shultz and Fred Gay. Also attending was: Doug Weikel of HRG, Inc., Gerald Rogers—Resident.

MINUTES

Planning Commission received the regular meeting and re-organizational minutes of January 10th, 2002 for their review and approval. Mrs. Robine moved the minutes be accepted. Mr. Swartzell seconded the motion.

Vote:	Mr. Swartzell: yes	Mr. Fugate: yes	Mrs. Robine: yes	Mr. Shultz: absent
	Mr. Breon: yes	Mr. Gay: absent	Mr. Robinson: yes	

PERSONS TO ADDRESS THE BOARD

UAJA Beneficial Reuse Project Conditional Use Application: Doug Weikel from HRG, Inc. discussed with the Commission the UAJA Beneficial Reuse Project. Mr. Weikel presented a handout outlining the project. Because of the technical terminology and nature of the project, the entire handout was incorporated within the Minutes below, as follows:

“PROJECT NARRATIVE

Starting in the mid-1990's, the Centre Region began to explore options for the successful treatment and disposal of wastewater predicted to occur from continued growth in and around State College, PA. Out of planning, the project has evolved from a classic wastewater treatment solution to an integrated and innovative Watershed Management Program. This program, known as Beneficial Reuse, allows for the collection and treatment of wastewater with the ultimate goal of returning pure water to the source aquifer. The planning and testing for Beneficial Reuse has been intensive and detailed due to the complex issues associated with the unique environmental characteristics of the Centre Region, most notably the Spring Creek watershed.

The Beneficial Reuse alternative incorporates expansion and improvements to the existing UAJA wastewater treatment plant. Additionally, advanced water treatment, transmission, distribution, and storage system components for the Beneficial Reuse water will be constructed.

As detailed in the municipally adopted and approved Act 537 Plan for the Centre Region, the Beneficial Reuse Project is composed of three phases. The phases and components are as follows:

Phase I (2003 Operation)

- Expansion and modification to the UAJA Spring Creek Water Pollution Control Facility for the projected 9.0 Million Gallons per Day (MGD) wastewater flow

- Construction of 0.75 MGD of microfiltration and 0.75 MGD of reverse osmosis or nanofiltration and 0.75 MGD of disinfection for production of reuse water.
- Construction of a reuse water transmission main to the commercial and industrial customers of the Dale Summit Industrial Park.

Phase II (2008 Operation)

- Construction of an additional 0.75 MGD (1.50 MGD total) of microfiltration and advanced disinfection.
- Construction of an additional 0.75 MGD (1.50 MGD total) of reverse osmosis or nanofiltration.
- Extend the transmission main to the intersection of Branch Road and South Atherton Street with stream augmentation site on Slab Cabin Run (Outfall 002).

Phase III (2013 Operation)

- Construction of an additional 1.50 MGD (3.00 MGD total) of microfiltration and advanced disinfection
- Construction of an additional 1.50 MGD (3.00 MGD total) of reverse osmosis or nanofiltration.
- Extend the transmission corridor to the vicinity of Branch Road and SR 45 with additional stream augmentation site on Slab Cabin Run (Outfall 003).

The Beneficial Reuse Project will consist of three phases to be implemented over 13 years. The first phase will consist of the modifications and additions to the existing wastewater treatment plant to a 9.0-MGD capacity, including a doubling of the composting facility. In addition, the building facilities will be constructed for the entire AWT treatment train, along with the first 0.75-MGD of membrane treatment and advanced disinfection. Subsequent phases of the project will increase membrane capacity and extend the recycled water distribution system. The exact improvements to be completed in each phase are shown in Tables 1, 2 and 3.

Table 1 – Phase I Improvements and Additions

Liquid Treatment

Headworks

- Installation of New Filter Screen
- Installation of Area Velocity Meter
- Installation of New Grit Collection System

Primary Clarifiers

- New Splitter Box
- Addition of Two New Clarifiers
- Sludge Pumping System Improvements
- Scum Pumping System Improvements
- New Compressor Building

Biological Treatment Tanks

- New Splitter Box
- New A20 Biological Nutrient Removal System
- New Blowers and Control System
- New Drain Station

Biosolid Treatment

Aerobic Sludge Holding

- Piping Modifications

Sludge Dewatering

- Two New Centrifuges
- New Polymer Feed System
- Conveyor Modifications

Composting

- Addition of 6 Composting Bays
- New Amendment Building
- New Mixing
- Air Handling Modifications
- New Biofilter

Advanced Water Treatment

Final Clarifiers

Addition of One Clarifier
Structural Modifications to Clarifiers
RAS Pumping System Improvements
WAS Pumping System Improvements

AWT Feed Pump Station

Two New Feed Pumps
Two New Micro screens

Chemical Addition Systems

Alum Storage and Feed System Relocation

Microfiltration

Two 0.700 MGD units
CIP System
Backwash System
Two 0.800 MGD units

Tertiary Filtration

Backwash Pumping System Improvements
Control Valve Replacement
Control Panel Replacement

Reverse Osmosis/Nanofiltration

Two 0.800 MGD Units
CIP System
Stabilization System
Ultraviolet Light Disinfection
On-Site Hypochlorite Generation
Hypochlorite Disinfection

Disinfection

New Ultraviolet Light Disinfection

Storage & Transmission

Integral 0.75 Mgal Reservoir
Two New Feed Pumps
Transmission Line (7,500 l.f.)

Table 2 – Phase II Improvements and Additions

Advanced Water Treatment

AWT Feed Pump Station

One New Feed Pump
One New Micro screen

Reverse Osmosis/Nanofiltration

One 0.800 MGD Unit

Microfiltration

Two 0.700 MGD Units

Storage & Transmission

One 3.0 Mgal Ground Reservoir
Two New Feed Pumps
Transmission Line (7,500 l.f.)

Table 3 – Phase III Improvements and Additions

Advanced Water Treatment

AWT Feed Pump Station

One New Feed Pump

Reverse Osmosis/Nanofiltration

One 0.800 MGD Unit

Microfiltration

Two 0.700 MGD Units

Storage & Transmission

Two New Feed Pumps
Transmission Line (7,500 l.f.)

PROPOSED WATER QUALITY

With the addition of Biological Nutrient Removal (BNR) at the UAJA treatment facility, Total Nitrogen is predicted to be less than 5 mg/l in the effluent to Spring Creek (Outfall 001). All other discharge parameters will remain constant, with the exception of the Total Dissolved Solids (TDS). With the incorporation of brine from the Advanced Water Treatment facilities into the raw sewage via the headworks return flow, the ambient TDS to the facility will be elevated from approximately 650 mg/l to approximately 900 mg/l. While this is still below the established limit of 1,500 mg/l, there is assumed to be some degradation of TDS within the activated sludge process that may reduce the TDS from the projected 900 mg/l. Secondly, pending the results of the Phase II Pilot Testing, Nanofilters may be installed at the AWT facilities in lieu of true Reverse Osmosis elements. If this occurs, the return TDS load to the headworks of the facility, and ultimately Spring Creek, will be further lessened.

The project water quality for the further Outfalls (002 and 003) has been determined through an extended pilot testing at UAJA. The Phase I Pilot Test was conducted for approximately three months and produced consistent data on the projected water quality for the proposed Stream Augmentation. The results were very favorable and indicated that the water quality from the AWT facilities will meet or exceed all Pennsylvania Safe Drinking Water Act Parameters.

In addition, a surrogate parameter for other chemicals was chosen in Total Organic Carbon (TOC). A limit of 1.0 mg/l TOC was established by the UAJA Project Management Team, and appears to be achievable with Reverse Osmosis. However, a second round of Pilot Testing (Phase II) is being conducted to determine whether Nanofiltration can reliably produce a TOC of less than 1.0 mg/l. In all cases though, the UAJA recycled water will meet or exceed PA SDWA Standards and a 1.0 mg/l of TOC for Outfalls 002 and 003.

CONDITIONAL USE REQUIREMENTS

In compliance with Ordinance No. 70 as modified by Ordinance No. 81, UAJA acknowledges that they have the burden of proving compliance with the following conditions:

1. *The suitability of the property for the desired use.*

The property already contains the Spring Creek Pollution Control Facility. The site was originally chosen for a wastewater treatment plant in the 1960's with the Spring Creek Pollution Control Facility was originally constructed in 1967 with enough land for future expansion. Over the years, the Facility has expanded 5 times to further treat the wastewater of the region. The proposed project will include an expansion of this facility.

2. *The proposed use will not adversely effect existing streets and highways or traffic levels.*

The access to the property is through a private road, constructed, owned and maintained by UAJA. This road, Spring Valley Road, accesses Shiloh Road, which was just upgraded by PENN DOT to accommodate future traffic from I-99. Traffic volumes to and from UAJA's property will not appreciably increase after this project and therefore, will not have an adverse impact on existing streets and highways.

3. *The proposed use will not adversely affect the availability of parking in the immediate area.*

The proposed project will contain sufficient parking on UAJA's property. Therefore, the proposed use will not adversely affect the availability of parking in the immediate area.

4. *The proposed use will not adversely affect existing or proposed public water and sewer, transportation, police and fire protection, public recreation, school facilities, and any other public organizations or systems.*
The proposed use only enhances existing or proposed public water and sewer, transportation, police and fire protection, public recreation, school facilities, and any other public organizations or systems. UAJA, as a municipal organization itself, has a history of supporting the community.
5. *The proposed use will not adversely affect the health and safety of the citizens of the Township or present a danger such as fire, explosion, electrocution, pollution, asphyxiation, or other similar dangers.*
UAJA's proposed facility is designed to comply with all applicable codes concerning fire, explosion, electrocution, pollution, asphyxiation, or other similar dangers.
6. *The proposed use will not adversely effect adjacent properties, or injure or detract from the use or enjoyment or value of the adjacent properties.*
The use of the property has not and will not change. With the construction of the Beneficial Reuse Project, the facility will be enhanced and will be among the top pollution control facilities in the United States.
7. *The proposed use will be compatible with the Township Comprehensive Plan.*
The current use of the UAJA Spring Creek Pollution Control Facility is consistent with Benner Township's 1992 Comprehensive Plan, which specifically shows UAJA's facility.
8. *The proposed use shall be in the best interest of the Township, and fore the convenience of the community and shall not adversely affect the general welfare of the community.*
UAJA's Spring Creek Pollution Control Facility was constructed in 1967 and upgraded throughout the years. A large upgrade of the facility occurred in 1989 in which Benner Township granted a conditional use. The existing and proposed use remains the same - to treat sanitary sewage prior to discharge into the watershed. The current and proposed use is consistent with the stated intent of the Stream Valley District (ref. Art. 11, Sec. 4.2.1) as UAJA's facility is perhaps the largest factor in the region that protects and retains the watershed and protects and regenerates Spring Creek for fishing.
9. *The certified notification of abutting property owners.*
Submitted with application.
10. *The certified notification of airport owners for all applications involving towers.*
Since no towers are proposed, this is not applicable.
11. *In addition to the above listed criteria, the applicant shall have the burden of proving compliance with other criteria of this Ordinance."*

The proposed use will comply with all applicable sections of Ordinance No. 70, as amended by Ord. No. 81.

After Mr. Weikel's presentation above, Mr. Weikel answered questions regarding the project.

Gerald Roger: Mr. Rogers asked questions about the old compositing facility and its "odors," and what was going to be done with the material while the building is under construction? Mr. Weikel stated that all solid waste would be removed from the site and properly disposed off in a landfill until the construction is complete—about 9 months.

Mr. Weikel explained the existing building has problems with moisture, and the building is rusting badly. The new building will be enclosed, thus reducing the odor problem.

Mr. Weikel talked about the water treatment building. Treated water will be stored underneath the building in large holding tanks—where one day's worth of water will be held and tested to see if it meets the required standards before it is released.

Mr. Rogers asked if the pipeline containing the water safely pass the College Township Water System wells on Shiloh Road? Mr. Weikel noted this water will meet Drinking Water Quality Standards, and an existing sewage pump station is located 200 ft. from their well along with Walmart's detention basin. "Which would be cleaner?" Mr. Weikel asked.

Mr. Robinson asked what would happen if something would break? Mr. Weikel noted that the system has an emergency backup plan. Everything can be by-passed.

Mr. Weikel talked about the experimental wetlands currently on-site. As part of the pilot program, UAJA has been experimenting with plant life that grows well in the recycled water.

Mr. Rogers asked questions about the septage receiver that is proposed. Mr. Weikel explained that a certain number of gallons of septage would be received from customers of UAJA within their service area. The septage will be tested from each hauler before it is accepted. Mr. Rogers expressed concerns that the material would not be treated through the "system" before it is received for "composting". Mr. Weikel explained everything is permitted through Department of Environmental Protection.

Questions were raised as to whom the potential water users could be. Mr. Weikel explained that a concrete plant near the Mall has expressed interest.

Another question was raised as to the chlorine on the site. Mr. Weikel explained the chlorine will be removed, and ultra-violet system will be installed. Additionally, the reclaimed water will need to be treated with chlorine. Whatever chlorine is needed will be manufactured on site by the use of "brine" or salt.

With no other discussion, Mr. Robinson recommended approval of the conditional use to the Supervisors. Mr. Swartzell seconded the motion.

Vote: Mr. Swartzell: yes Mr. Fugate: yes Mrs. Robine: yes Mr. Shultz: absent
 Mr. Breon: yes Mr. Gay: absent Mr. Robinson: yes

NEW BUSINESS

OLD BUSINESS

PRD Ordinance. The proposed ordinance was tabled until the next meeting.

CORRESPONDENCE

ADJOURN

With all business complete, the meeting adjourned.

Respectfully submitted by:
Renee Swancer, Zoning Officer