

**MEETING MINUTES
CENTRE COUNTY PLANNING COMMISSION
March 15, 2016**

Members Present: Freddie Persic, Chair; Bob Dannaker, Vice-Chair; Mimi Wutz, Secretary; Michele Barbin, Rich Francke, Dennis Hameister, Chris Kunes, Jack Shannon and Pamela McCloskey.

Members Absent: None

Staff Present: Robert Jacobs, Sue Hannegan, Chris Schnure, Anson Burwell, Mike Bloom, Elizabeth Lose and Jennifer Grove.

Others Present: Commissioner Mark Higgins; Garrett Mehl, Superior Appalachian Pipeline; Chuck Thompson, Nittany Engineering; Bob Cook, Bellefonte Borough; Ralph Stewart, Bellefonte Borough; Shirley Gryczuk, Benner Township Resident; John Kostas, Benner Township Resident; Warren Miller, Spring Benner Walker Joint Authority; and Dennis McDowell, Spring Benner Walker Joint Authority.

1. Call to Order – Pledge of Allegiance

Chair Freddie Persic welcomed everyone to the Planning Commission meeting and called the meeting to order at 6:00 p.m.

2. Citizen Comments

None

3. Approval of Minutes

A motion was made by Mr. Hameister and second by Mr. Dannaker to approve the minutes of January 19, 2016. Motion carried.

4. Planning Commission Member Updates

Ms. Persic stated that the Centre County Planning Commission has a full board and welcomed Pamela McCloskey.

Mr. Higgins spoke about the business incubators. The Philipsburg incubator is progressing well. A site and team have been selected and the grand opening is expected to occur sometime in May. The Bellefonte incubator is making good progress as well but is taking longer because there are a lot more stakeholders. There is a high level of support for the Bellefonte incubator and they are hoping to have the grand opening sometime in the fall. Also, a logo design contest is underway for the Philipsburg Incubator with the winner to receive a \$250 check.

5. New Business

• **Review of Subdivision and Land Development Plans**

Subdivisions:

None submitted for this planning cycle.

Land Developments:

1. Superior Appalachian Pipeline, LLC- Compressor Station Land Development
Final Plan
2-Units (Natural Gas Pipeline Compressor Station Facility)
Snow Shoe Township

A motion was made by Mr. Hameister and second by Mr. Kunes to grant conditional final plan approval for the above mentioned Land Development proposal subject to the completion of pending items and the approval signatures of the Snow Shoe Township Board of Supervisors. Motion carried.

Time Extension Requests:

- Compass-Bald Eagle CNG Truck Terminal Sub. & Land Development (CFA) File No. 52-15
Boggs Township.....2nd Request (No Fee Required)
- Mammoth Restoration & Construction Land Development (CFA) File No. 92-15
Benner Township.....2nd Request (No Fee Required)
- Restek Fitness Center Land Development (CFA) File No. 65-15
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- Triangle Trucking & Excavating, Inc. Land Development (CFA) File No. 48-15
Marion Township.....3rd Request (No Fee Required)
- SCI-Rockview Land Development- Restricted Housing Unit Additions (CFA) File No. 50-03
Benner Township.....4th Request (\$50.00 Fee Required)
- Powdr-Woodward PA, LLC Land Development, Phase VII (CFA) File No. 14-15
Haines Township.....4th Request (\$50.00 Fee Required)
- G. M. McCrossin, Inc. Land Development (CFA) File No. 85-11
Benner Township.....18th Request (\$750.00 Fee Required)

Note: CPA= Conditional Preliminary Plan Approval
CFA = Conditional Final Plan Approval

A motion was made by Mr. Francke and second by Ms. Wutz to approve the above-mentioned Time Extensions. Motion carried.

Please see *Attachment #1- Subdivision & Land Development* for more information.

Major Subdivision and Land Development Plan Sub-Committee Meeting: The Thursday, March 31, 2016 meeting is CANCELLED.

- **Bellefonte Borough Wastewater Treatment Plant Facility Renovation Study**

Mr. Thompson, Nittany Engineering, gave a presentation on the Bellefonte Borough Authority Wastewater Treatment Facility and the upgrades that are needed. The BIOMAG option or a third donut tank were considered with the BIOMAG system being their recommended system. Discussion ensued.

Mr. Miller, Executive Director, Spring Benner Walker Joint Authority, stated that the BIOMAG upgrade is not mandated by the PA Department of Environmental Protection and stated his reasoning why the BIOMAG system is not what should be done. Discussion ensued.

Please see *Attachment #2- Nittany Engineering and Associates, LLC PowerPoint, Attachment #3- BBA WWTP Hydraulic Loading, Attachment #4- BBA WWTP Organic Loading, and Attachment #5- Spring Benner Walker Joint Authority Public Comments 3.15.16* for more information.

- **Centre County MPO Update**

Transportation Alternatives Program: Two applications in Centre County were submitted in this round, which are the Centre Hall Borough Pedestrian Enhancement Project and the Valley Vista Shared Use Path. Decisions will now be made at the PennDOT Central Office with help from the MPO who will rank and provide comments related to project delivery, public discussion of the project, consistency with adjacent projects and consistency with local long range plans. A TAP Review Sub-Committee was formed to review the projects, which will provide a recommendation on project rankings and comments to the MPO.

2017-18 Unified Planning Work Program: The CCMPO adopted the 2017-2018 Unified Planning Work Program in February, which lists the work tasks to be completed by the CRPA, CATA and the Centre County Planning and Community Development Office on behalf of the CCMPO.

2016 Technical Committee & 2016 Coordinating Committee: A membership list for committees was provided.

Please see *Attachment #5- CCMPO Update* for more information.

- **County Comprehensive Plan**

Economic Development: Ms. Lose received feedback on the economic development chapter and the changes have been incorporated.

A motion was made by Mr. Francke and second by Ms. Wutz to recommend that the comprehensive plan update chapter on Economic Development be presented to the Board of Commissioners for consideration. Motion carried.

6. Director's Report and Other Matters to Come Before the Commission

None provided.

By consensus, the March 15, 2016 meeting was adjourned at 7:48 pm.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert B. Jacobs". The signature is stylized and cursive.

Robert B. Jacobs, Director

**THESE MINUTES WERE APPROVED AT THE MAY 17, 2016
CENTRE COUNTY PLANNING COMMISSION MEETING.**

SUBDIVISION & LAND DEVELOPMENT

March 17, 2016

Subdivisions:

None submitted for this planning cycle

Land Developments:

1. Superior Appalachian Pipeline, LLC -- Compressor Station Land Development
Final Plan
2-Units (Natural Gas Pipeline Compressor Station Facility)
Snow Shoe Township

Time Extension Requests:

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Superior Appalachian Pipeline, LLC -- Compressor Station Land Development

**Final Plan
2-Units (Natural Gas Pipeline Compressor Station Facility)
Snow Shoe Township**

Location: At the eastern corner of its intersection with Rusnak Road (T-406) and Black Bear Road (T-711), approximately one mile east of its intersection with the Kato-Orviston Road (T-710).

Surveyor/Engineer: PennTerra Engineering, Inc., State College

- Tract History:
- a) The 12 acre parent tract (comprising Lot 18 of the previously approved North Fork Subdivision, Replot of Lot 7 into Lot 7R and Lot18) has been purchased by Superior Appalachian Pipeline, LLC with the intent of placing a natural gas pipeline compressor station and corresponding infrastructure to service their feeder main that is presently under construction.
 - b) This proposal constitutes a Final Plan submission showing a compressor station building (9,000 sq. ft.), a utility building (320 sq. ft.) and corresponding infrastructure (i.e., main access portal, a secondary emergency access drive, security fencing, emergency shut-off valves, lighting, loading pads, parking area, stormwater management facilities, signage, etc).

Plan Requirements Pending:

ARTICLE VII -- LAND DEVELOPMENT

718. **Final Plan Requirements**

Plan Content -- successfully completed

719. **Additional Supplemental Requirements**

A. Supporting Data -- successfully completed

B. **Improvements**

B.1. & B.2. Per the satisfactory completion of the final plan requirements, the applicant will be instructed to construct all required improvements as a condition pending final plan approval; or in lieu of, post adequate surety to guarantee same. Note: In either case, the applicant shall request a final site inspection (in writing) by the County Engineer and Planning Staff, with written correspondence noting approval to be generated by the County Engineer upon satisfactory completion of all required improvements.

C. **Certificates**

- C.1. Obtain the signature and seal of the Professional Engineer responsible for the plan (i.e., Execute the Design Engineer Storm Water Certification Block and Engineer's Certification Block); and, provide the seal of certification on all applicable plan sheets.
- C.1. (cont) Obtain the signature of the Professional Land Surveyor responsible for the plan (i.e., Execute the Professional Land Surveyor Certification Block); and, provide the seal of certification on all applicable plan sheets.
- C.4. Obtain the original signature of the owner of the property (representative's name and title) being developed and execute the Certification of Ownership Block.
- C.4. (cont) Execute the Storm Water Facilities Acknowledgement Block.
- C.2. (cont) Obtain the approval signatures of the Snow Shoe Township Board of Supervisors.
- C.3. Upon completion of the above, obtain the approval signatures of the Centre County Planning Commission.

Consistent with the plan review by the *Major Subdivision and Land Development Plan Review Sub-Committee* and subject to review comments from the Snow Shoe Township Engineer and Zoning Officer, staff recommends Conditional Final Plan Approval subject to the completion of the items noted above and the approval signatures of the Snow Shoe Township Board of Supervisors.

Time Extension Requests:

March 15, 2016

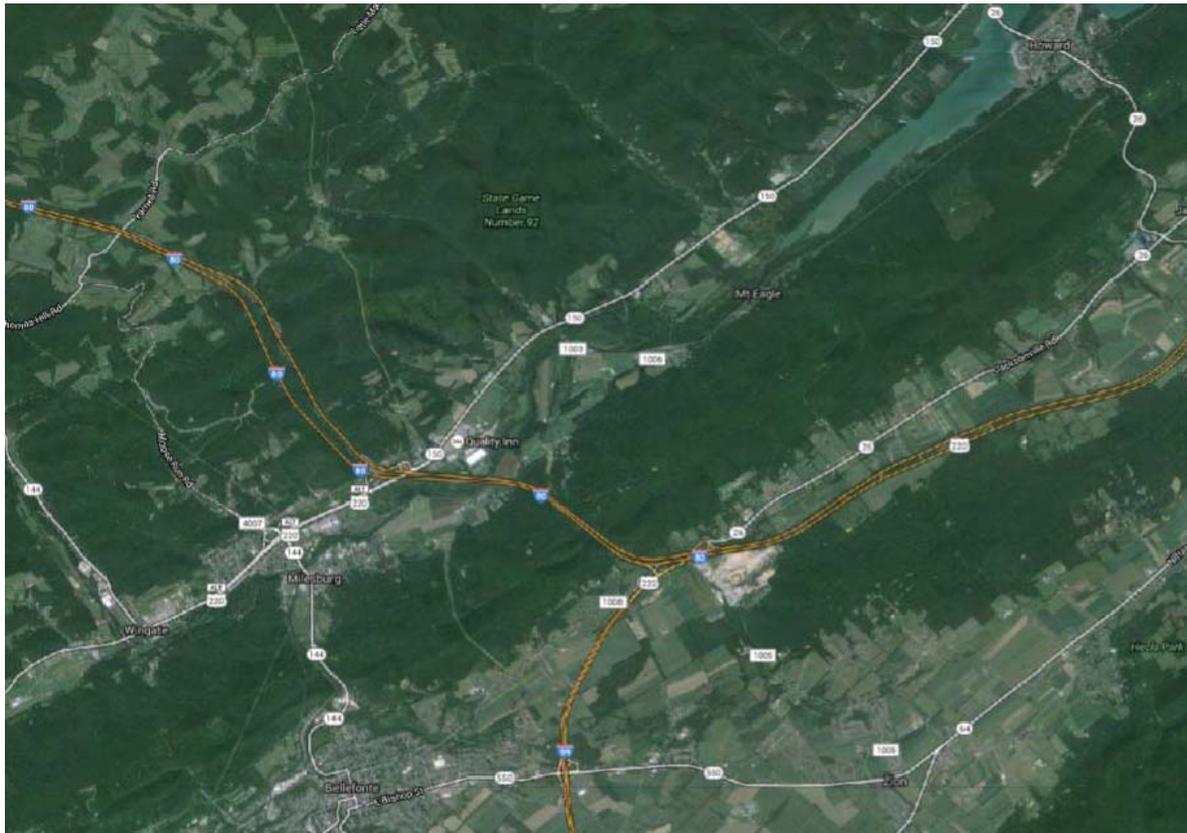
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This office acknowledges receipt of written requests from the above-referenced applicants asking the Commission to favorably consider the granting of ninety (90) day time extensions for the completion of the remaining conditions pending plan approval.

Accordingly, we recommend the granting of ninety (90) day time extensions.

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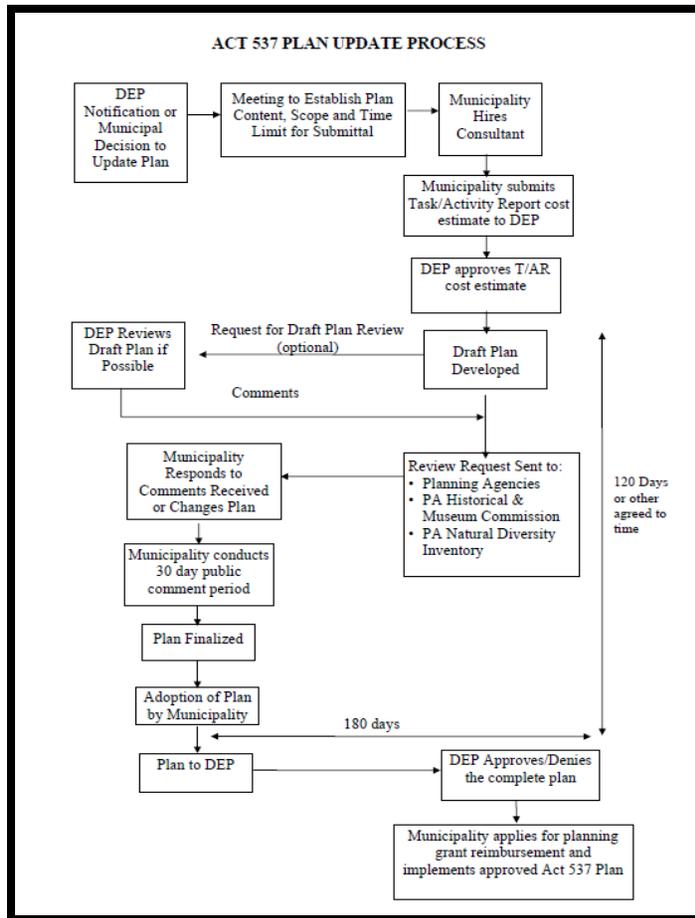
BELLEFONTE BOROUGH AUTHORITY WASTEWATER TREATMENT FACILITY WHY UPGRADE ?



Nittany Engineering and Associates, LLC.

BBA - WASTEWATER TREATMENT FACILITY

DEP - ACT 537 PLANNING - SPECIAL STUDY



Act 537 Special Study – History/Process

1. BBA WWTP has experienced problems with a key part of the treatment system at the facility for a number of years - Rotating Biological Contactors (RBCs – over 25 years old - failing)
2. The organic (solids) loading at the facility has increased at the facility to a point in the past few years where the Activated Sludge system has become loaded to it's capacity (center clarifier bulking – loss of solids out of system)
3. After significant evaluation of options (2011-2015) BBA has developed two alternatives that best resolve these concerns and provide some significant additional organic loading solids capacity for the future (growth)
4. BBA submitted a Special Study scope that included these alternatives and was reviewed and approved by the DEP
5. BBA will receive municipal comments from Planning Agencies
6. Revised study will be advertised for public comment

BBA - WASTEWATER TREATMENT FACILITY

EXISTING FACILITY OVERVIEW



Ownership, service area and customers

- Owned and operated by the Bellefonte Borough Authority
- Agreement with Spring Benner Walker Joint Authority (SBWJA) for additional collection area
- ~6,400 customers in Bellefonte Borough and ~10,000 customers in the adjoining SBWJA
- Manages flows from three major prison facilities and deicing fluid from University Park airport
- Takes other wastewater sludge from area treatment plants and hauled (portable toilet) waste

Current Influent Flow and Loading

- Avg. daily design capacity of 3.22 MGD with a peak (post Equalization) design flow of 6.0 MGD
- Typical average current daily flow of 1.9 MGD.
- Max monthly average loading of 6,595/6,363 in 2014/2015 exceeds DEP design criteria
- Peak day loading of 11,788 have exceeded daily loading and are very close

Receiving Water Body

- Spring Creek - High Quality Trout Stream that flows to Bald Eagle Creek and then to Sayers Dam

Type of Treatment System

- Typical activated sludge treatment facility with the enhancements of large flow equalization, rotating biological contactors (RBCs) for nitrification, final clarifiers, denitrification filtration and Ultraviolet disinfection

Facility Upgrade History

- The last major upgrade to the facility was required from the Chesapeake Bay Nutrient Reduction Act (2006-2008). The core of the project was the addition of a denitrification filter used to successfully remove nitrogen from the wastewater. The project included other improvements but did not renovate the current project areas (activated sludge and RBC's)

BBA - WASTEWATER TREATMENT FACILITY



How are we doing?

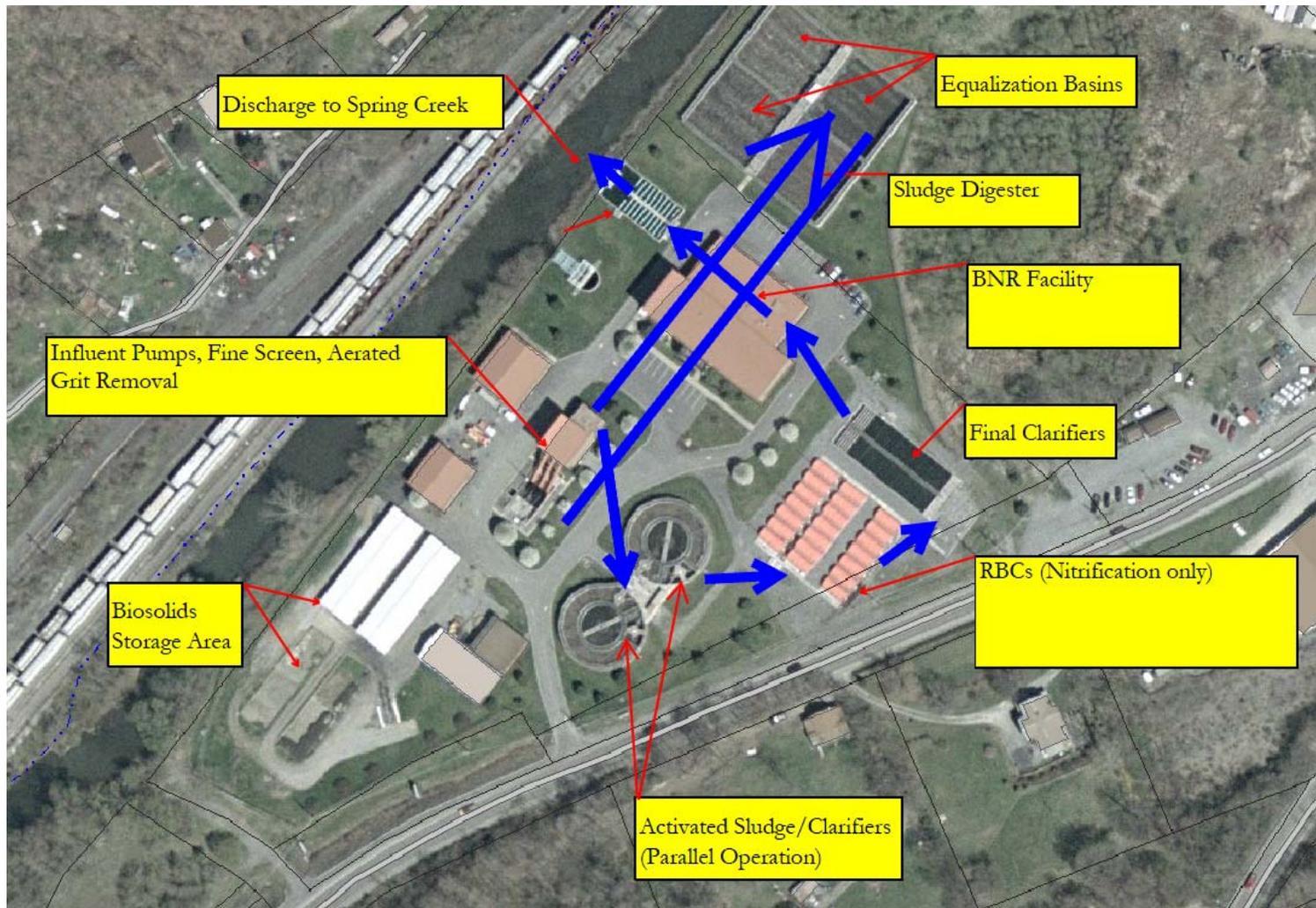
Wastewater Effluent Parameters

- Chapter 94 Annual Reports - 2015
 - BBA is consistently well below it's effluent permit limits for pollutants
 - Average removal rates for conventional pollutants are extremely good despite high loading
 - Biological Oxygen Demand (BOD) - 98% Removal
 - Total Suspended Solids (TSS) - 96% Removal
 - Effluent Ammonia-N level - <0.13 mg/l
 - Permit limit for Ammonia-N is 3.0 mg/l summer and 9.0 mg/l winter
- Chesapeake Bay Nutrient Reductions - 2015
 - Total annual limit for Total Nitrogen (based on 6 mg/l) – 58,812 lbs
 - Actual lbs discharged – 32,070 lbs (using only ~54% of effluent allocation)
 - Total annual limit for Total Phosphorus (based on 1 mg/l) – 7,842 lbs
 - Actual lbs discharged – 2,850 lbs (using only ~36% of effluent allocation)

Biosolids (Sludge) Application

- Years of Biosolids Application – Over 25 Years
 - Sludge is treated, stabilized and tested before land application
 - Total annual tons applied in – 2,768 Tons
 - Estimated savings based on reuse/application vs landfilling - \$175,000
 - Savings based on landfilling costs of approx. \$50/ton and hauling

BBA - WASTEWATER TREATMENT FACILITY



Nittany Engineering and Associates, LLC.

BELLEFONTE BOROUGH AUTHORITY WASTEWATER TREATMENT FACILITY REQUIRED UPGRADE



Facility Improvement Scope (By Location/Process)*

Pre-Treatment Area/Building Improvements

1. Site Paving Repairs
2. Sealcoat Existing Access Drive
3. Re-Paving the Pole Buildings (3 Total)
4. Install new 6" Influent Bypass Pipe

EQ Tanks

5. Mixing Option (Based on additional modeling evaluation)

Activated Sludge System Improvements

6. Concrete Sealing/Caulk of Roof Slabs
7. Splitter Box Repair
8. Return Activated Sludge (RAS) – Remove Geyser Pumping (One Side)
9. AS Aeration/Clarifier Tank Isolation Gates
10. Activated Sludge Treatment Addition/Enhancement

BIOMAG Installation (Option #1)

- a. BIOMAG – AS Sludge Piping Modifications
- b. BIOMAG – AS Tank Modifications
- c. BIOMAG – Jet Aeration Installation
 - i. AS Tank Aerators
 - ii. AS Tank Submersible Pumps
- d. BIOMAG – Magnetite Storage and Feeding
 - i. Existing Silo and Mix Tank Modifications
- e. BIOMAG – Recovery Building

Additional Activated Sludge Tank (Aeration/Clarifier) (Option #2)

- f. AS Sludge Piping Installation
- g. AS Influent Flow Piping and Weir Splitter Installation
- h. AS Tank and Equipment Installation
- i. AS RAS and WAS Redundant Pumping Systems
- j. AS Tank Process Line – Pretreatment Area to New AS Tank
- k. AS Tank Process/Sludge Lines – New AS Tank to New Anoxic Tank

Activated Sludge – Sludge Holding (Former RBC Tanks)

11. RBC #1 Tank Modifications
 - a. Tank Wall/Divider Renovations
 - b. Sludge Piping (From BIOMAG Recovery)
 - c. Tank Aeration Installation (Relocate Aerators)
 - d. Aeration Piping (From BIOMAG Recovery Building)
 - e. PH Control (Relocate Equipment and Updates as needed)
 - f. Sludge Blowers (BIOMAG - Recovery Building Location)
 - g. Sludge Blower & Motor Replacement
 - h. Odor Control (Potential option based on funding and as required)

RBC System Demolition

12. RBC Train #1 through #3 Demolition

Anoxic Tank Installation (Former RBC Tanks)

13. RBC #2 & 3 Tank Modifications
 - a. Tank Wall Renovations
 - b. Tank Mixer Installation

SCADA/Controls Upgrade

14. Upgrade SCADA Master Control Unit with BIOMAG sub system and associated work above

BBA WWTP – UPGRADE REQUIRED

EXISTING FACILITY ISSUES

ROTATING BIOLOGICAL CONTACTORS



Current Issues

- Shafts are failing based on media shifting continually due to wear

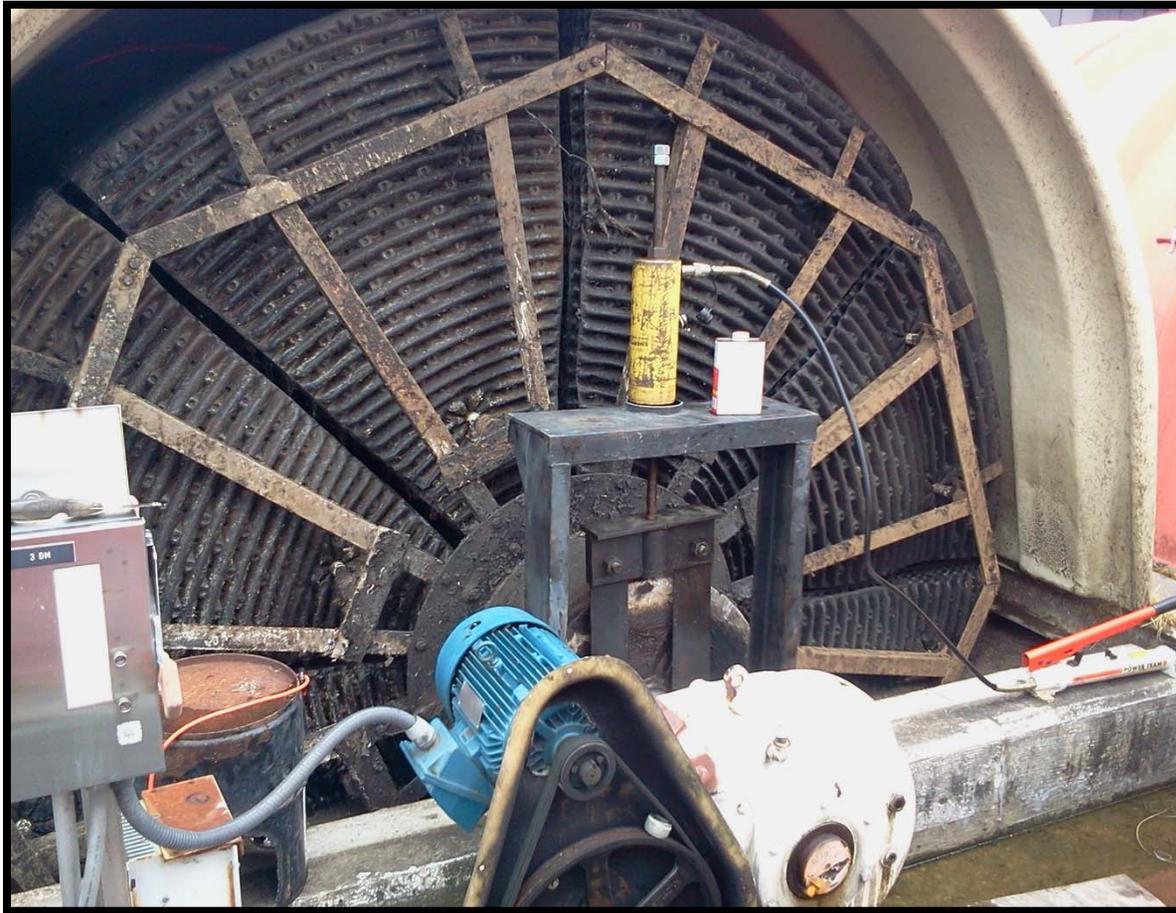


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BBA WWTP – UPGRADE REQUIRED

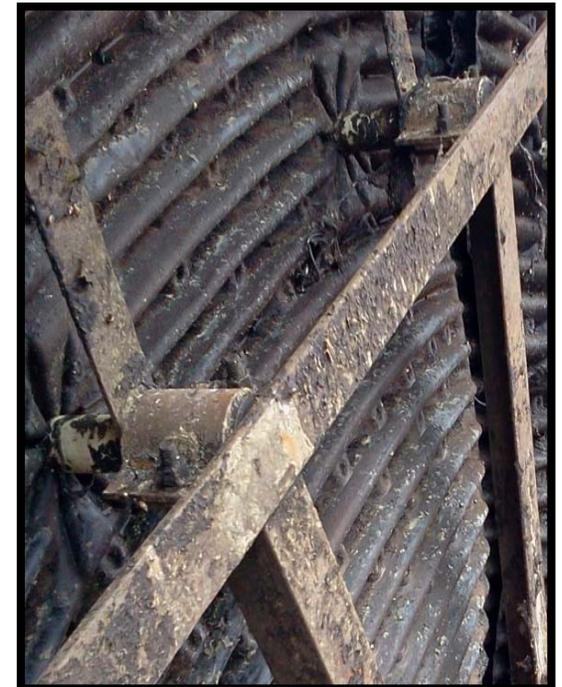
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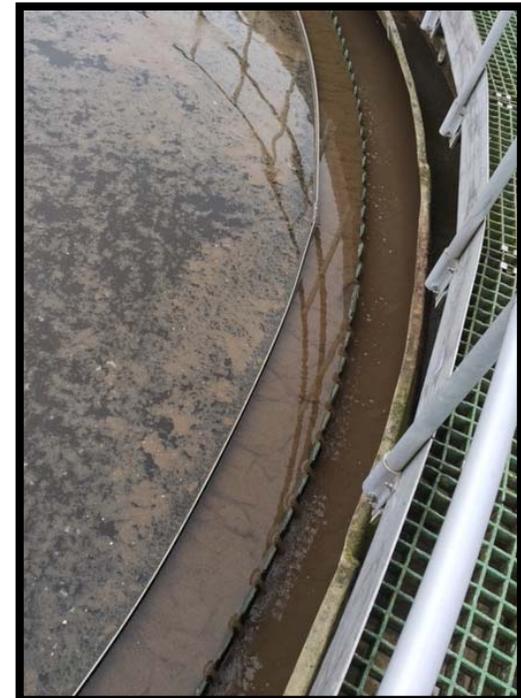
EXISTING FACILITY ISSUES

ACTIVATED SLUDGE SYSTEM



Current Issues

- Sludge overflow (bulking) due to high solids organic loading which is exceeding design criteria

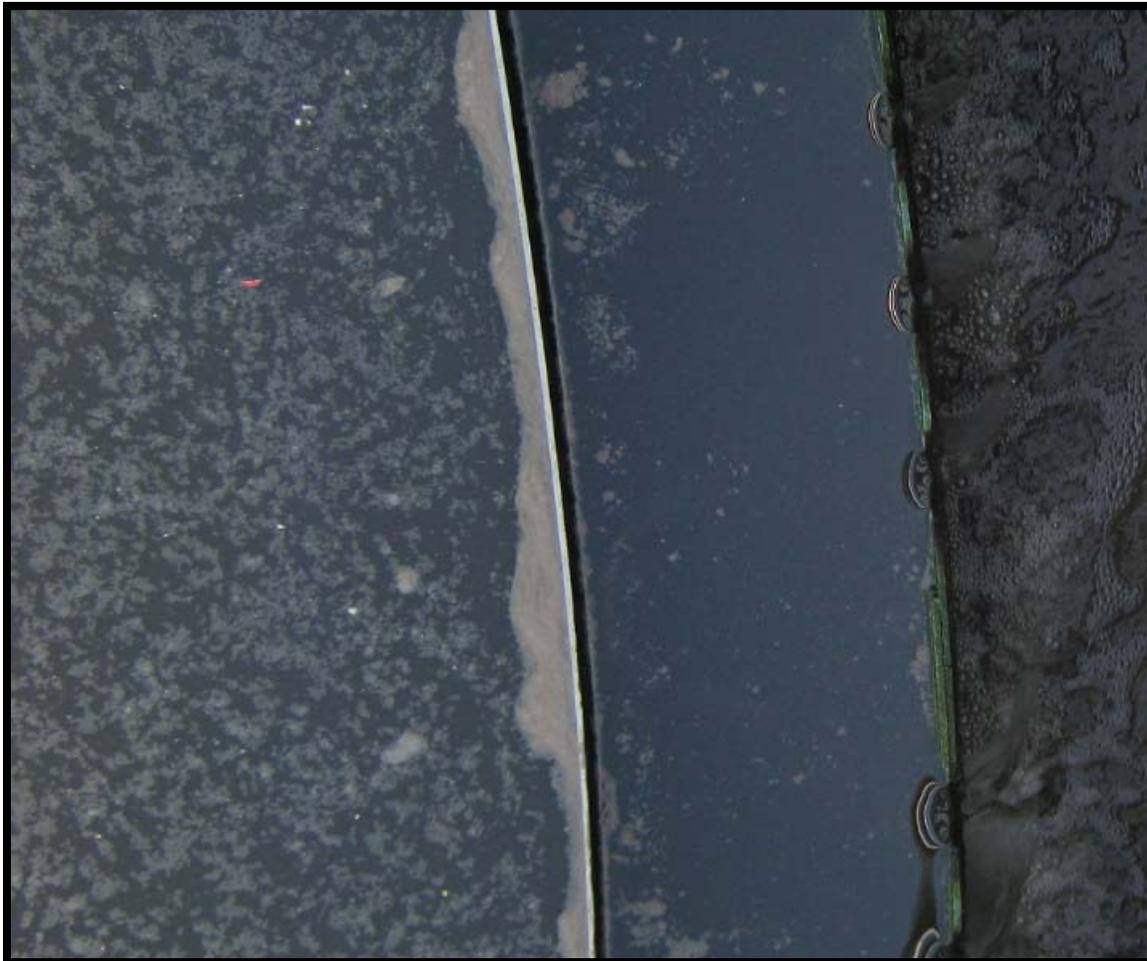


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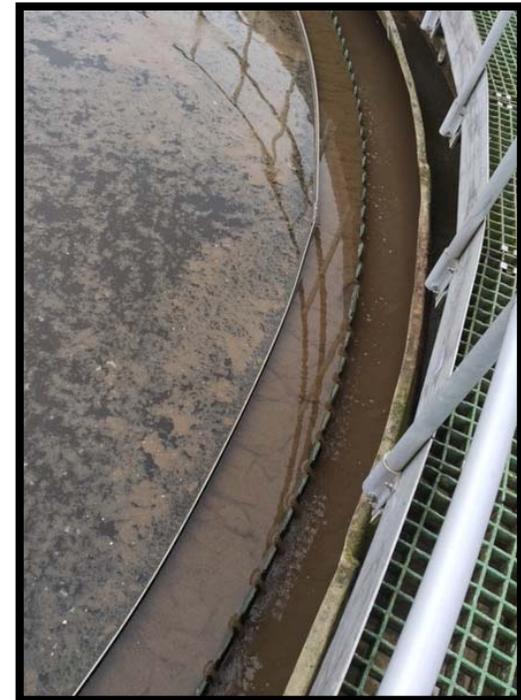
EXISTING FACILITY ISSUES

ACTIVATED SLUDGE SYSTEM



Current Issues

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Nittany Engineering and Associates, LLC.

BBA WWTP – UPGRADE REQUIRED RENOVATION OPTIONS - HISTORY



RBC Treatment Capacity Only (2012-2013)

Limited to the replacement of only the Rotating Biological Contactors and their corresponding treatment capacity

- Walker RBC Replacement Option
- Brentwood AccuFAS FBBR Option
- Kruger MBBR Option
- Entex MBBR Option

These options were only evaluated for the RBC replacement at that time!

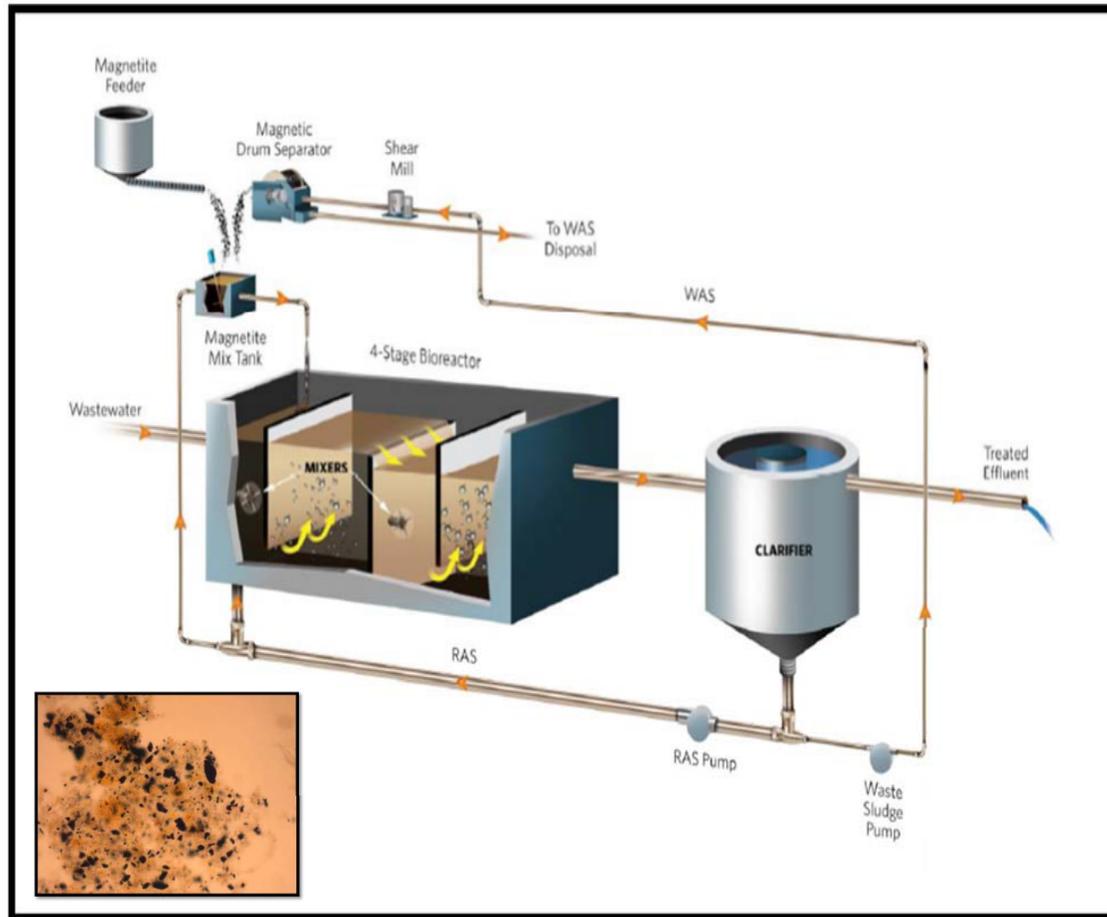
RBC and Activated Sludge Capacity (2014-2015)

Corrections to the Activated Sludge System and replacement of the Rotating Biological Contactors based on increased load (adds capacity)

- BIOMAG Option (Newer Activated Sludge Enhancement)
 - Enhances use of existing Activated Sludge Tanks
- Additional Activated Sludge Tank Option (Same System)
 - Adds a third Activated Sludge Tank - Traditional

Nittany Engineering and Associates, LLC.

BBA WWTP – UPGRADE REQUIRED BIOMAG SYSTEM OPTION



Benefits

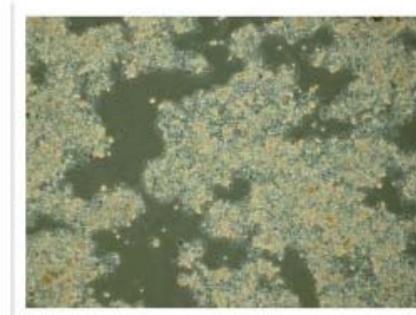
1. No major process change – only enhancement of existing process
2. Eliminates the need for the RBC treatment train's
3. Corrects the Activated Sludge aeration and clarifier overloads
4. Provide increased capacity of the plant without constructing additional tankage
5. Provide additional enhanced treatment in existing aeration tanks with good BOD and ammonia removal rates

BBA WWTP – UPGRADE REQUIRED BIOMAG SYSTEM OPTION

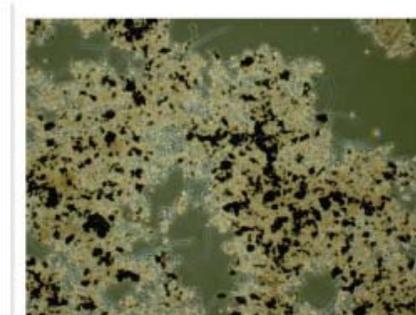


A Simple, Reliable and Robust Process

- **Magnetite injected into the floc**
- **Floc becomes impregnated with magnetite**
- **Specific gravity of floc rises sharply**
- **Floc settles faster and more reliably**
- **Enables higher SORs and SLRs**
- **Enables greater treatment capacity in smaller or existing tanks**



Floc without ballast settles slowly



Ballasted floc settles rapidly and reliably

BBA WWTP – UPGRADE REQUIRED BIOMAG SYSTEM OPTION - HISTORY



BIOMAG Option Development

1. The BIOMAG technology has been used in industrial applications for decades and then the benefits applied to municipal wastewater in 2002
2. BIOMAG was selected for further evaluation since it has the major benefit of correcting the Activated Sludge clarifier issue and adding capacity
3. BBA staff visited a plant in Upper Gwynedd (PA) facility where BIOMAG has been successfully used
4. Evoqua (BIOMAG) completed specific testing at BBA's facility to help verify system performance
5. Evoqua completed BIOWIN computer modeling of BIOMAG using BBA's facility and influent parameters that has become today's design standard for proposed wastewater systems
6. Evoqua will provide a Performance Warranty with a guarantee of results based on their initial work.

BBA WWTP – UPGRADE REQUIRED

ADDITIONAL ACTIVATED SLUDGE TANK OPTION



Benefits

1. No major process change – only expansion (new tank) of existing process
2. Eliminates the need for the RBC treatment train's
3. Corrects the Activated Sludge aeration overload
4. Addition of Anoxic Tank in Activated Sludge tank reduces sludge production and provides some DO return

BBA WWTP – UPGRADE REQUIRED EVALUATION OF ALTERNATIVES



Alternative/Factors	New AS Unit	BioMAG	Comments/Location
Cost			
Capital Cost	Highest	Lowest	Refer to Table 8.7
Energy Cost	Highest	Lowest	Refer to Table 8.7
Total Operations Cost	Highest	Lowest	Refer to Table 8.7
Overall Present Worth	Highest	Lowest	Refer to Table 8.7
Effluent			
TN Control	Good	Best	Refer to Section VII
NH4 Control	Good	Best	Refer to Section VII
TSS Control	Good	Best	Refer to Section VII
COD Control	Good	Best	Refer to Section VII
BOD Control	Good	Best	Refer to Section VII
Operation			
Slug/Peaking Control	Good	Best	Refer to Section VII
Ease Of Operation	Similar	Similar	Refer to Section VII
Construction			
Footprint Change	Yes	No	Refer to Section VII
Major Construction	Yes	No	Refer to Section VII
Phasing	Similar	Similar	Refer to Section VII
Additional Clarifier	Required	Not Required	Refer to Section VII
Special Screening	Not Required	Required	Refer to Section VII
Magnetite Separation	Not Required	Required	Refer to Section VII
Maintenance			
Magnetite Addition	Not Required	Required	Refer to Section VII
General Maintenance	Similar	Similar	Refer to Section VII

BBA WWTP – UPGRADE REQUIRED COST COMPARISON AND RECOMMENDATION



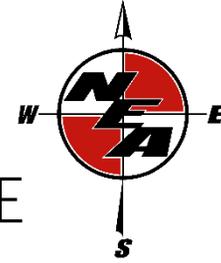
PARAMETER	COSTS	
	<i>BioMAG</i>	<i>New AS Unit</i>
Annual O&M Cost	\$168,527	\$170,283
20-yr PW of O&M Cost	\$2,420,000	\$2,450,000
Capital Cost	\$3,823,528	\$4,527,660
Combined Capital and O&M PW Costs	\$6,412,055	\$7,147,943

Benefits

1. Based on the evaluation, the BioMAG process stands reasonably apart as a front-runner from a general performance and cost standpoint.
 - Lowest Cost
 - Better Wastewater Treatment
 - Better Slug and Peak Control
2. Minimal impact during construction to incorporate the process is an added benefit that is substantial due to environmental impact.
3. We recommend that BBA continue with the BioMAG permitting and final design process as a solution based on these findings.

Nittany Engineering and Associates, LLC.

BBA WWTP – UPGRADE REQUIRED ADDITIONAL CAPACITY FOR THE FUTURE



Year	Number of New EDUs	Average BOD5 Loading (lbs BOD5/day)	Peak Monthly BOD5 Loading (lbs BOD5/day)
2015	86	4,278	5,775
2016	150	4,317	5,828
2017	150	4,356	5,881
2018	150	4,395	5,933
2019	150	4,434	5,986

Additional BOD Loading (Flow is not an issue)

Current BOD Loading

- Current average monthly load is approximately 4,278 lbs per day
- Maximum monthly average peak months - 6595 and 6363 lbs per day (2014/2015 Chapter 94 reports)

Proposed Loading Limit

- Based on new higher BOD loading (based on 331 mg/l) – 8,888 lbs
- Increase would provide an approximate 2500 pound per day

Future Capacity

- SBWJA's 2014 (Chapter 94 report) projects 150 EDUs being added/per year
- Increased BOD5 loading of 0.259 lbs/day/EDU
- Increase of 150 EDU's for 20 years yield is 780 lbs

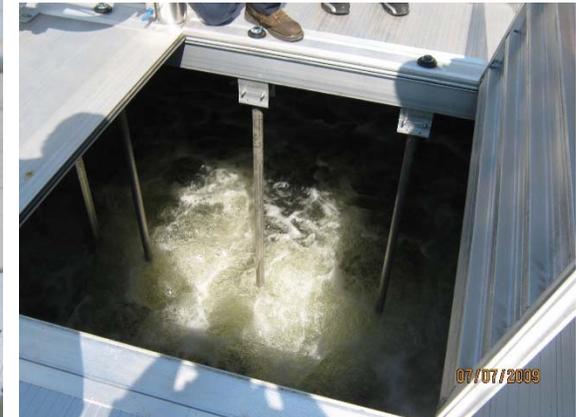
BBA WWTP – UPGRADE REQUIRED

PROPOSED INTERMEDIATE SLUDGE DIGESTER



Current Issues

- Required to keep up with increasing organic solids loading
- Installed in existing RBC basin
- Sludge treatment



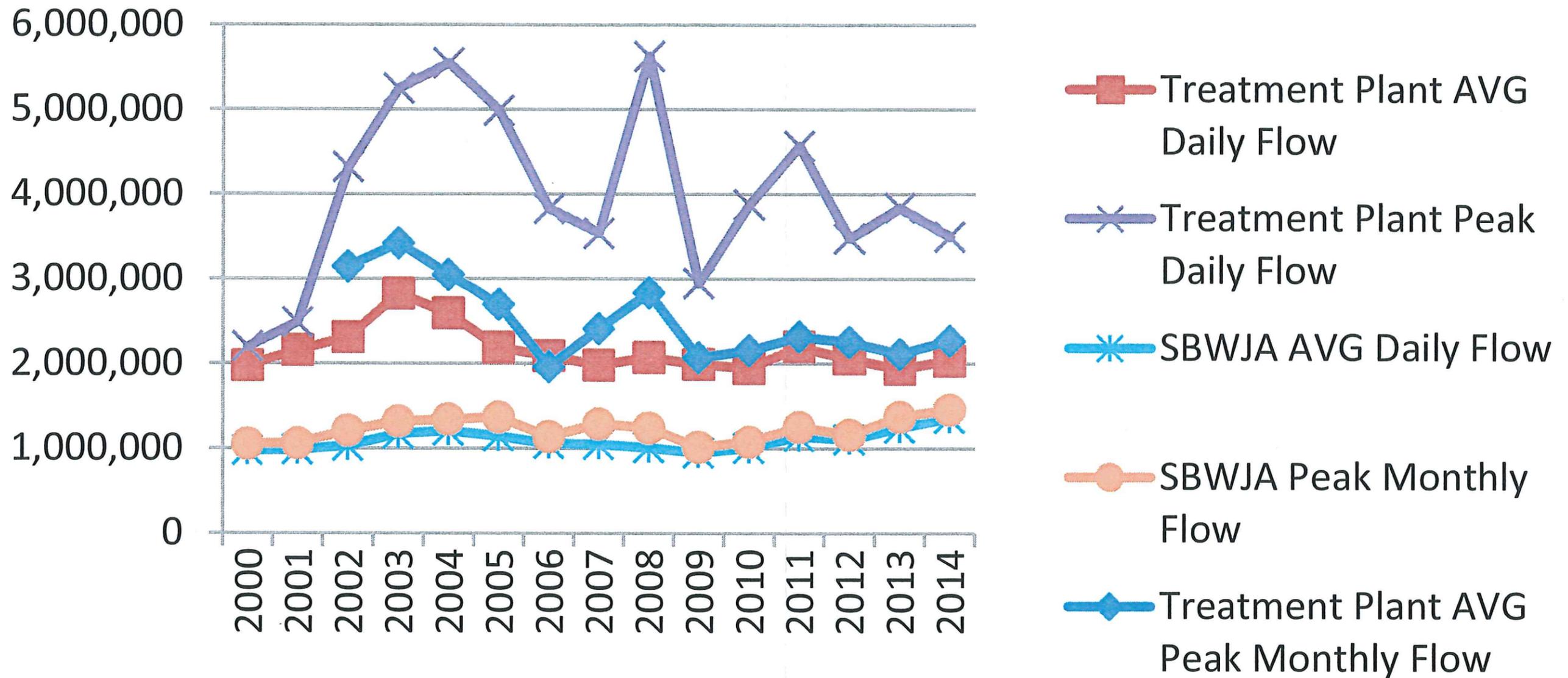
Nittany Engineering and Associates, LLC.

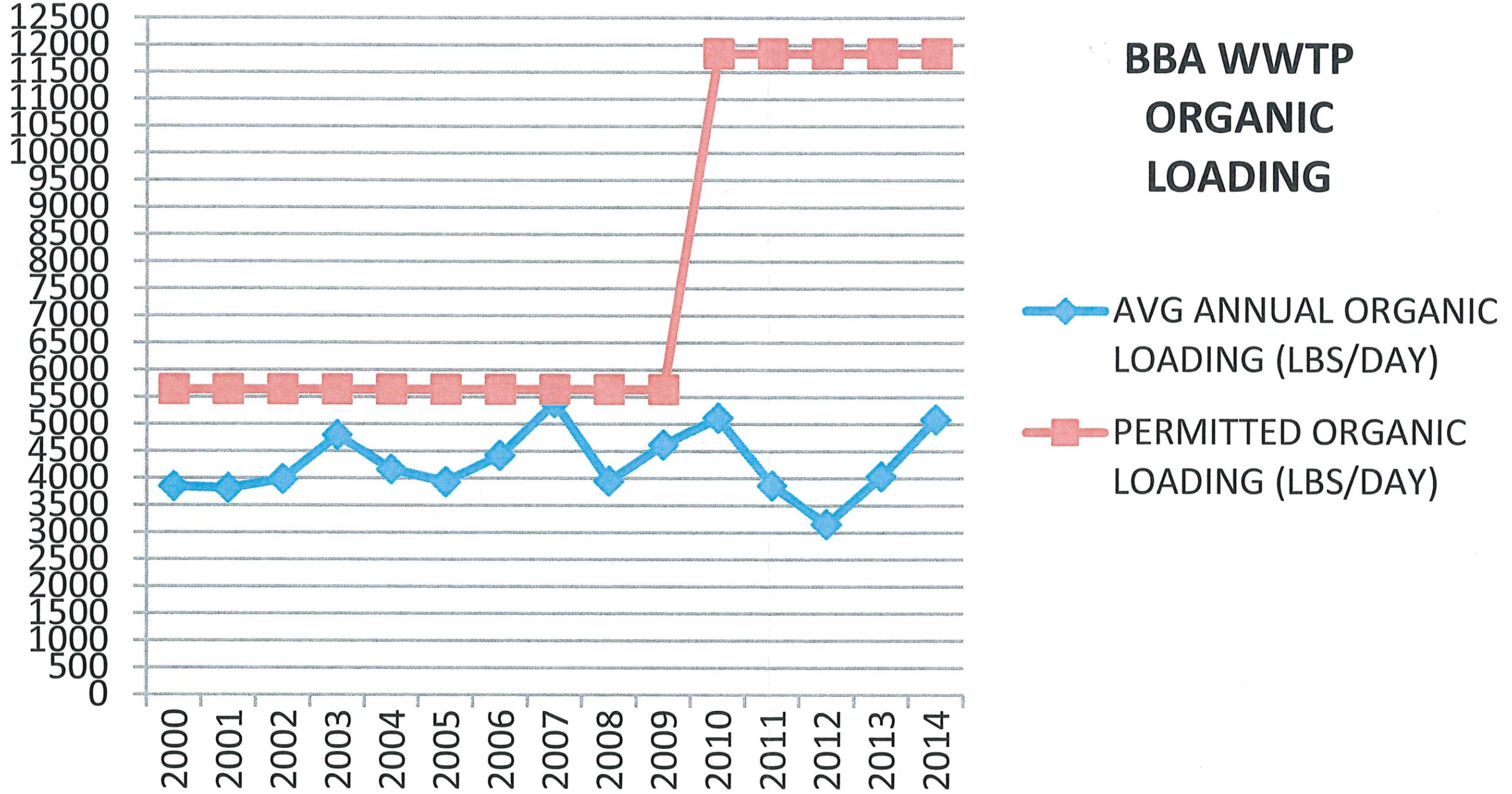
BELLEFONTE BOROUGH AUTHORITY WASTEWATER TREATMENT FACILITY THANK YOU



Nittany Engineering and Associates, LLC.

BBA WWTP HYDRAULIC LOADING





Spring Benner Walker Joint Authority

Public Comments read at the

Centre County Planning Commission Meeting, March 15, 2016

I would like to start by stating this proposed BIOMAG upgrade by the BBA is NOT PA DEP mandated. This is the decision of the seven members of the BBA who have been unwilling to discuss this upgrade with the Board of the SBWJA as they have with all past upgrades at the treatment plant. NEA, BBA continues to publicize the populations of our systems served as Bellefonte population 6,500 SBWJA's population as 10,000. This was in the past two studies, 2007 BNR upgrade special study \$8.5M and the 2015 BIOMAG study \$6.5M. However, when you consider the population served by the SBWJA includes approximately 6000 inmates detained in two State prisons and one local prison it is easy to see the population served by our system is much higher. Our current estimate of population served is closer to 30,000 people. The population served by the Bellefonte wastewater treatment plant is made up of 20% Bellefonte customers and 80% SBWJA customers. However, the current flows contributed to the treatment plant are closer to 30% BBA - 70% SBWJA average. The SBWJA system consists of approximately 150 miles of gravity sewer, 25 miles of pressurized sewers with 18 pumping stations. We believe the Bellefonte system contains perhaps 40 miles of gravity sewer with no pumping stations. The SBWJA has a wet weather flow to average flow ratio of 1.04 to 1. This is indicative of a very tight system with few leaks. The SBWJA spends a lot of money on equipment, material and personnel to achieve this result. Why would NEA and the BBA continue to skew the actual population numbers so much...

Distribute Flow graph and discuss what is represented. Graph Title: BBA WWTP Hydraulic Loading

These graphs show a continued Inflow and Infiltration problems within the BBA system even after they had a company complete extensive work on their Spring Creek interceptor line in 2012 and removed a reported 410,000 GPD of I&I from their system. In fact the PA DEP continues to stress to the BBA their need to make significant repairs to their system each year after the submission of their Chapter 94 Wasteload management report. This report reflects the past 5 years of hydraulic and organic loading as well as projecting the next 5 years of loading. Hydraulic loading is the amount of flow entering the plant and organic loading represents the oxygen demand placed on the plants biological organisms.

The SBWJA continues to ask why the BBA is replacing the RBC's. There are numerous BBA and NEA documents where they praise the efficiency and effectiveness of these units and their ability to denitrify the ammonia. They are now claiming in the current study the excessive cost to maintain these units. As we have been told there are only a few of the 21 units that require repairs at this time and the BBA minutes a few years ago claim these units have never had any maintenance or mechanical issues that required repairs. The BBA is now proposing to completely change the method of treatment from biological (RBC's) to a system that infuses magnetite into the biological floc to make it heavier and improve settling. This process is relatively new and an unproven technology in the sewer industry. It is called BIOMAG. There is currently only one plant utilizing this technology in PA and a handful in the

Northeast. We ask why is the BBA proposing to remove a technology they have claimed for years is very effective and have documented no maintenance in the past with this unproven technology and a certain rise in sewer rates for all customers. The current rate of service for the BBA is \$110/ quarter and the SBWJA is \$65/quarter. Recent BBA minutes claim their rate will be \$130-\$140/ Qtr for their customers in the next several years as a result of this upgrade.

This all began when NEA completed a treatment study for PSU and BIOMAG was one of the three options they considered at the time of the study. We are now told that PSU will not choose this technology for their plant upgrade, however, NEA has brought this work to the BBA and convinced them not only to pay again for this study work but to in fact take the chance on this new and expensive technology.

The reason that NEA and the BBA use as their need for this plant upgrade is Organic loading. The BBA continues to blame the SCI at Rockview and Benner Twp for the problems at their treatment plant. The study claims that since the new State prison was constructed and populated they have seen issues. BBA has an industrial pre-treatment program which SBWJA has adopted by resolution that sets the strength limits of what is allowed to be dumped into the sanitary sewer system. Within this program the BBA is permitted to enter the premises of any connection on the SBWJA system and test the strength of the sewer being drained from that particular facility. The BBA regularly tests the waste stream from the two state prisons, however, they have only once in the past six years been charged for adding high organic loading into the public sewer system. In fact, due to the lack of income the BBA is able to generate from the high strength waste not being added by the prisons they are now charging the Commonwealth for time, mileage and lab fees to run these tests. Yet they continue to lay blame on this significant local employer for their plant issues. However, when we look at the BBA Chapter 94 reports from 2000 through 2014 (2015) information must be submitted within the next two weeks by regulation, it is hard to see their claims for organic loading issues..... Yes they have had spikes in CBOD readings on a few isolated occasions in the past few years but the PA DEP files on the BBA indicates that the treatment plant personnel have stated these “flyer” readings are likely lab errors.

Distribute ORGANIC CHART Graph Title: BBA WWTP Organic Loading

When you look at the rate of Organic loading that the BBA plant has measured over these 15 years and extrapolate that rate of increase, even with the addition of a new state prison and the significant expansion of our County prison they would have enough organic capacity for decades to come. In fact the past BBA Chapter 94 reports do not project any hydraulic or organic overloading of their treatment plant. Why is the BBA planning this expensive new technology at their plant.

Based on the information contained in the recent Act 537 study completed by NEA we believe there may be two reasons.....

One: BIOMAG is advertised as a solution for treatment plants with wet weather issues. We believe that at times with wet weather flows the BBA is their own worst enemy. We believe they see bulking or overflow of contaminates through their plant that they are trying to remove. This is due to the significant increase in flow the treatment plant experiences during heavy rainfall. BIOMAG is a ballasted

floc agent the BBA hopes will eliminate the ongoing concerns expressed by the PA DEP regarding their treatment plants performance when impacted by I & I issues that are not being addressed by the BBA.

Secondly: We believe the BBA is using this upgrade to help reduce problems they are experiencing with the denitrification of nitrates. The BBA has proposed in this latest upgrade to convert an equalization chamber to an anoxic zone the only purpose of which would be for the de-nitrification of nitrates. This process was addressed in the \$8.5M BNR upgrade they had completed in 2008 however, the BBA personnel continue to say this upgrade works fine yet they have indicated in a public meeting at our office they are experiencing times of problems with this process.

We have reason and history to show our concern. In 2012 the BBA insisted on a \$1.4M energy efficiency upgrade at their treatment plant. When we met with the BBA to express our concerns with their contract and proposed project we were told simply we do not have any say in the matter based on our outdated 1976 agreement and they were moving forward with the project. Recent BBA minutes indicate the BBA has not seen the electrical savings they were promised and when we questioned them on this we were told in a public meeting the reason the electrical costs at the treatment plant did not go down, you guessed it.... It was the new State Prison and the growth of SBWJA that consumed the electrical savings. We believe the BBA is preparing to challenge the contractor of the 2012 energy upgrade and we believe, however the BBA has yet to confirm, a recent fee added to our quarterly treatment bill for the SBWJA includes costs associated with the BBA hiring a consultant for their defense. We do not believe we should have to continue to pay for their mistakes.

THANK YOU FOR YOUR TIME AND I WOULD BE HAPPY TO TRY TO ANSWER ANY QUESTIONS YOU MAY HAVE.....

3/15/16

CCMPO Update

Transportation Alternatives Program

There were two projects submitted in Centre County:

<i>SPONSOR</i>	<i>PROJECT</i>	<i>TAP FUNDING REQUEST</i>
Centre Hall Borough	Centre Hall Borough Pedestrian Enhancement Project	\$354,603
Patton and Ferguson Townships	Valley Vista Shared Use Path	\$1,041,212

Small MPOs and RPOs in Pennsylvania no longer receive a regional allocation of funding, and PennDOT selects projects in the CCMPO area. To get a local perspective on TAP projects, the PennDOT Central Office has asked the MPO to rank and provide comments on the Centre County projects related to:

- Project delivery
- Public discussion of the project
- Consistency with adjacent projects
- Consistency with local long range plans

A TAP Review Committee was formed to review the projects; it is comprised of representatives of:

- PennDOT 2-0
- PennDOT Central Office
- CCPCDO
- CRPA
- Two members of the Technical Committee representing entities that did not submit a TAP application.

The TAP Review Committee will meet later this month to provide a recommendation on project priorities and comments to the MPO committees.

2017-18 Unified Planning Work Program

At its February meeting, the CCMPO adopted the 2017-18 Unified Planning Work Program (UPWP). The UPWP lists the work tasks to be completed by the CRPA, CATA and the Centre County Planning and Community Development Office (CCPCDO) on behalf of the CCMPO.

Key tasks in the new UPWP include:

- Implement performance measures for the Long Range Transportation Plan (LRTP) 2044
- Adopt and administer the 2017-2020 Transportation Improvement Program (TIP)
- Implement the CATA Strategic Plan
- Advance bicycle and pedestrian plans and projects
- Assist in advancing design and construction of projects on the TIP
- Administer the Transportation Alternatives Program

Beyond the base allocation provided by PennDOT, supplemental planning funds are distributed through a statewide competitive process. The MPO voted to include two potential supplemental transit planning projects for consideration for supplemental transit planning funds:

- Assessment of Articulated Bus Utilization
- Identification of Service Models for Areas of Low Population Density

2016 Technical Committee

Voting Members:

Centre County	Bob Jacobs
Centre County	Sue Hannegan
College Township	Kent Baker - Chair
Ferguson Township	Ron Seybert – Vice Chair
Halfmoon Township	Don Franson
Harris Township	John Wainright
Patton Township	Stephen Casson
State College Borough	Amy Kerner
Nittany Valley Planning Region	Bill MacMath (Spring Twp)
Penns Valley Planning Region	Joel Myers (Potter Twp)
Lower Bald Eagle Valley Planning Region	Irv Hoy (Howard Boro)
Upper Bald Eagle Valley Planning Region	(open)
Moshannon Valley Planning Region	Joel Watson (Philipsburg Boro)
Mountaintop Planning Region	Michele Barbin (Citizen Rep)
Centre Area Transportation Authority	Louwana Oliva
Centre Regional Planning Commission	Jim May
PennDOT Central Office (Harrisburg)	Frank Hampton
PennDOT District 2-0 Office (Clearfield)	Karen Michael

Non-Voting Members:

Pennsylvania State University	Rob DeMayo
Federal Highway Administration	Matt Smoker
Federal Transit Administration	(open)

2016 Coordinating Committee

Voting Members:

Centre County	Michael Pipe – Vice Chair
Centre County	Mark Higgins
College Township	Lynn Herman
Ferguson Township	Janet Whitaker
Halfmoon Township	Barbara Spencer
Harris Township	Frank Harden
Patton Township	Jeff Luck - Chair
State College Borough	Teresa Lafer
Nittany Valley Planning Region	Dave Wise (Benner Twp)
Penns Valley Planning Region	Dick Decker (Potter Twp)
Lower Bald Eagle Valley Planning Region	Rich Watters (Citizen Rep)
Upper Bald Eagle Valley Planning Region	Jadine Reese (Worth Twp)
Moshannon Valley Planning Region	Jack Shannon (Rush Twp)
Mountaintop Planning Region	Ken Hall (Citizen Rep)
Centre Area Transportation Authority	John Spychalski
Centre Regional Planning Commission	Jon Eich
PennDOT Central Office (Harrisburg)	Larry Shifflet
PennDOT District 2-0 Office (Clearfield)	Kevin Kline

Non-Voting Members:

Pennsylvania State University	Rob Cooper
Federal Highway Administration	Matt Smoker
Federal Transit Administration	(open)