APPENDIX A

DEP LETTER TO TRIBUTARY MUNICIPALITIES REGARDING PLANNING RESPONSIBLITIES

DECEMBER 20, 2005

Pennsylvania Department of Environmental Protection

Southeast Regional Office

2 East Main Street
Norristown, PA 19401
December 20, 2005

Phone: 484-250-5970
Fax: 484-250-5971

Mr. Jean Krack
City of Coatesville
One City Hall Place
Coatesville, PA 19320

Ms. Wendy A. Keegan
Parksburg Borough
329 West First Avenue
Parkesburg, PA 19365

Ms. Karen E. Chandler
Valley Township
890 West Lincoln Highway
PO Box 467
Coatesville, PA 19320

Ms. Janet Bugar
Caln Township
253 Municipal Drive
Thorndale, PA 19372

Mr. Ronald A. Rambo, Jr.
West Brandywine Township
198 Lafayette Road
Coatesville, PA 19320

Ms. Lisa A. Myers
Sadsbury Township
PO Box 261
Sadsburyville, PA 19369

Mr. David Leavitt
East Fallowfield Township
2264 Strasburg Road
Coatesville, PA 19320

Mr. Gary L. Dunlap
West Caln Township
721 West Kings Highway
PO Box 175
Wagontown, PA 19376-0175

Ms. Cynthia Mammarella
West Sadsbury Township
6400 North Moscow Road
Parkesburg, PA 19365

Ms. Patricia Montgomery
Highland Township
100 Five Points Road
Coatesville, PA 19320

Re: Act 537 Planning Requirements
Pennsylvania American Water
Company Coatesville Wastewater
Treatment Plant Expansion

Dear Ladies and Gentleman:

As discussed at our meeting with PA American and the 10 contributory municipalities on December 7, 2005, at West Brandywine Township, the Department is sending this letter to clarify municipal sewage facilities planning responsibilities for the proposed expansion of the PA American Coatesville Wastewater Treatment Facility.

Under the Pennsylvania Sewage Facilities Act 537 and the pursuant regulations, Title 25, Chapter 71, of the Pennsylvania Code, sewage facilities planning is a municipal responsibility. Each municipality is required to develop and implement an official plan for the municipality that addresses existing and future needs throughout your municipality (71.11). You are also required to review and revise your official plan whenever needs change (71.12(a)).

Although two or more municipalities may submit a joint plan, or a single municipality may prepare a joint plan on behalf of several municipalities (71.12(b), or a consulting firm can be contracted to prepare the plan on behalf of all involved municipalities, the Department is recommending that each municipality prepare an individual plan. This will assure that any deficiencies or delays in an individual municipal plan will not delay planning approval for other municipalities. We are making the following recommendations to guide you in preparing the required sewage facilities planning, in order to assure that municipal needs in all municipalities are met and the proposed expansion to the treatment facility is appropriately sized.

1. URS Corporation, on behalf of PA American, has already prepared a draft joint plan that has been distributed to each municipality. The plan proposes an expansion of the treatment facility to 7.0 MGD. URS has based the expansion on existing contracts between PA American and developers in your communities. Instead, the expansion must be based on the needs analyses required from each municipality under Act 537.

2. We recommend that each municipality prepare an individual plan that includes a municipal-wide needs analysis, and discusses and selects alternatives and the required financial commitments to meet those needs consistent with the plan content requirements of Section 71.21. Your plan must also meet all the review, adoption, and implementation requirements of Section 71.31.

3. The Department is currently trying to determine what the existing sewer service areas are in each of your municipalities. Please provide us immediately with any mapping or information that your municipality currently has available that may assist us in making this determination, including the Department's approval letter of any official plan or planning module that extended your sewer service area.

4. Each municipality that does not have a current municipal-wide plan that is being implemented must complete an official plan. Sewer service and growth areas must be delineated, as well as areas designated for agriculture or low density development. EPA, DEP, and your Chester County planning agencies all support land application in the municipalities around Coatesville, rather than stream discharge for two reasons: We need to renew our water resources and keep groundwater levels high, and the soils around Coatesville and in much of Chester County are the best in Pennsylvania for land application. Therefore, your plans must fully address land application alternatives.

5. Other specific issues that must be addressed include ordinances covering the operation and maintenance of individual grinder pumps in sewer service areas and the operation and maintenance of on-lot systems in non-sewer service areas.

6. Conveyance capacity in sewer service areas must also be addressed. Because of the multiple municipalities involved in conveyance, it is extremely important that each municipality identify their own needs as soon as possible and share that information with all upstream and downstream municipalities, as well as with PA American, so that appropriate capacity evaluations and planning for conveyance system expansion, if needed, may be included in the official plans of all affected municipalities.

7. We provided copies of the Department's Consent Order and Agreement (CO&A) with PA American for each municipality at our meeting on December 7, 2005. Because of the urgent needs in the area, the Department requests all municipalities to immediately contact me at 484-250-5172, or Donna Ulan Smith at 484-250-5179 to set up a Plan of Study meeting in early January with your consultants, so that your supervisors can authorize the required planning, unless your municipality already has a Plan of Study approved by the Department. Please note that the Department reimburses municipalities for 50% of their cost in completing the plan after the plan has been approved by the Department, if we have previously approved your Plan of Study.

8. The CO&A includes a copy of PA American's November 2005 Connection Management Plan (CMP), which has been approved by the Department. The CO&A also requires PA American to submit quarterly revisions to the CMP, which will allow contributory municipalities and developers with projects in the current sewer service area to obtain approvals of Sewage Facilities Planning Modules that will bring the projected flows at the wastewater treatment facility up to a capacity of 4.6 million gallons per day, prior to the facility expansion. To assist PA American in preparing these quarterly CMP revisions, each municipality should identify all known projects proposing to connect to PA American and work with their developers to provide to PA American and the Department (1) each project's status in the Act 537 sewage planning process; and (2) each project's status in land development process, including whether there has been application or receipt of requisite approvals or permits from the municipality, and (3) the developer's projected build-out schedule. In similar situations, developers without allocations that are ready to move ahead have been able to purchase allocations that were available in other municipalities, if those municipalities were willing to sell allocations they had purchased that were in excess of their pre-expansion needs.

9. Please be advised that the Department intends to issue permits to PA American for the expansion by the end of 2006. Municipalities that have not completed Act 537 planning may risk obtaining any additional capacity in the expansion.

10. Also, please note that East Fallowfield Township and Caln Township have already submitted township-wide plans to the Department that are under review. West Brandywine Township has also submitted versions of official plan revisions; however, those proposals do not cover the entire township and may not comply with all of the Chapter 71 requirements referenced above.

If you have any questions, please feel free to contact me at 484-250-5172, or Donna Ulan Smith at 484-250-5179.

Sincerely,

Clinton Cleaver
Sewage Planning Specialist Supervisor
Water Management

cc: Chester County Planning Commission
Chester County Health Department
Mr. Gerald DeBalko - Pennsylvania American Water Company
Mr. Stan Corbett – URS Corporation
Planning Section

APPENDIX B

DEP APPROVAL LETTER FOR CCA ACT 537 PLAN

MARCH 15, 2001

Pennsylvania Department of Environmental Protection
Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428

Southeast Regional Office

610-832-6130
Fax: 610-832-6133

Mr. Paul G. Janssen, Jr., City Manager
City of Coatesville
114 East Lincoln Highway
P.O. Box 791
Coatesville, PA 19320

Re: Act 537 Plan Update
APS Id. 340495, AUTH Id. 348175
City of Coatesville
Chester County

Dear Mr. Janssen:

We have completed our review of your municipality's updated official sewage facilities plan entitled "City of Coatesville Authority, Coatesville, Pennsylvania, Act 537 Sewage Facilities Plan Revision" as prepared by the City of Coatesville Authority, dated December 22, 2000, as supplemented by additional information dated; January 10, 2001; January 24, 2001; February 2, 2001; February 13, 2001; and March 8, 2001. The review was conducted in accordance with the provisions of the Pennsylvania Sewage Facilities Act.

Approval of the Plan is hereby granted.

The Plan provides for the transfer ownership of all of the existing sewerage facilities currently owned by the City of Coatesville Authority to the Pennsylvania American Water Company.

This Plan approval is conditioned upon Pennsylvania American Water Company commitment, as outlined in its letter to the Department, dated December 22, 2000, to finalize agreements with municipalities where Pennsylvania American Water Company will own and/or operate sewerage facilities, including; Coatesville City, East Fallowfield Township, Parkesburg Borough, Sadsbury Township, South Coatesville Borough, Valley Township, and West Sadsbury Township.

Please be advised, the remaining tributary municipalities; Caln Township and West Brandywine Township do not appear to contain sewerage facilities either owned or operated by CCA. However, if such conditions are found to exist then the above referenced condition applies.

This plan approval does not apply to any future rights of sewer service by Pennsylvania American Water Company to any additional areas other than those shown on a map received by the Department on March 8, 2001, entitled "CCA Sanitary Sewer System", as prepared by Gannett

Fleming, Inc., depicting existing and approved sewer systems. Modification of the sewer service area will be determined on a case-by-case basis using Department sewage facilities planning module forms.

This plan approval does not provide for the transfer of ownership of sewer lines in East Fallowfield Township.

This plan approval does not apply to the proposed expansion of the Pennsylvania American Water Company sewage treatment facilities. The preparation of such plan will require all tributary municipalities review and adoption of such plan, include a full evaluation of structural alternatives to the expanded discharge, a full evaluation of collection/conveyance integrity and capacities, and potential modifications and/or development of capacity agreements between all the tributary municipalities and Pennsylvania American Water Company.

If you have any questions, please contact John M. Veneziale of this office.

Sincerely,

James Newbold, P.E.
Regional Manager
Water Management

cc: Chester County Planning Commission
Chester County Health Department
City of Coatesville Authority
Pennsylvania American Water Company
Caln Township
East Fallowfield Towship
Parkesburg Borough
Sadsbury Township
South Coatesville Borough
Valley Township
West Bradywine Township
West Sadsbury Township
Ms. Moore
Ms. Grant
Planning Section
Re 30

APPENDIX C

PAWC NPDES PERMIT #PA 0026859

cc: BMcGinty

3800-PM-WSWM0013 Rev. 4/2005
Permit

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM DISCHARGE REQUIREMENTS FOR NON-MUNICIPAL SEWAGE TREATMENT WORKS

NPDES PERMIT NO: PA0026859

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 *et seq.* ("the Act") and Pennsylvania's Clean Streams Law, *as amended*, 35 P.S. Section 691.1 *et seq.*,

Pennsylvania American Water Company

800 West Hershey Park Drive

Hershey, PA 17033

is authorized to discharge from a facility known as **Coatesville STP**, located on **Gibbons Avenue**, in **South Coatesville Borough, Chester County,** to **West Branch Brandywine Creek** in Watershed **3H** in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts A, B and C hereof.

THIS PERMIT SHALL BECOME EFFECTIVE ON July 1, 2008

THIS PERMIT SHALL EXPIRE AT MIDNIGHT ON June 30, 2013

The authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application, its supporting documents and/or amendments and the terms and conditions of this permit, the terms and conditions shall apply.

2. Failure to comply with the terms, conditions, or effluent limitations of this permit is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

3. A complete application for reissuance of this permit, or notice of intent to cease discharging by the expiration date, must be submitted to DEP at least 180 days prior to the above expiration date (unless permission has been granted by DEP for submission at a later date), using the appropriate NPDES permit application form.

   In the event that a timely and complete application for reissuance has been submitted and DEP is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit, including submission of the Discharge Monitoring Reports (DMRs), will be automatically continued and will remain fully effective and enforceable against the discharger until DEP takes final action on the pending permit application.

4. This NPDES permit does not constitute authorization to construct or make modifications to wastewater treatment facilities necessary to meet the terms and conditions of this permit.

DATE PERMIT ISSUED June 17, 2008

DATE PERMIT AMENDMENT ISSUED _____

ISSUED BY _____

TITLE: Water Management Program Manager

Permit No. PA0026859

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

I. **For Outfall** 001, **Latitude** 39°58'23", **Longitude** 75°49'26", **River Mile Index** 15.5, **Stream Code** 00085

which receives wastewater from Coatesville STP

a. The permittee is authorized to discharge during the period from issuance, based on a discharge rate of 3.85 mgd through date of a Department Act 537 Sewage Facilities Planning Approval letter approving 4.6 mgd, or expiration. See Other Requirements 13 and 14 in Part C of this permit for more information.

b. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements, Footnotes and Supplemental Information).

Discharge Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) [1]		Concentrations (mg/L)				Minimum [3] Measurement Frequency	Required Sample Type
	Monthly Average	Weekly Average	Instantaneous Minimum	Monthly Average	Weekly Average	Instantaneous Maximum [2]		
Flow	Monitor/Report	Monitor/Report Daily Maximum					Continuous	Metered
$CBOD_5$ (05/01 to 10/31)	355	533		11.07	16.61	22.14	2/Week	24-Hour Comp.
$CBOD_5$ (11/01 to 04/30)	711	1,066		22.14	33.21	44.28	2/Week	24-Hour Comp.
Total Suspended Solids	963	1,445		30	45	60	2/Week	24-Hour Comp
Ammonia as N (05/01 to 10/31)	64			2.0		4.0	2/Week	24-Hour Comp.
Ammonia as N (11/01 to 04/30)	193			6.0		12.0	2/Week	24-Hour Comp.
Phosphorus as P (04/01 to 10/31)	48			1.48		2.96	2/Week	24-Hour Comp.
Phosphorus as P (11/01 to 03/31)	64			2.0		4.0	2/Week	24-Hour Comp.
Fecal Coliform				200/100 ml Geo Mean		1,000/100 ml**	2/Week	Grab
Dissolved Oxygen			5.0				Daily	Grab
pH (STD Units)			6.0			9.0	Daily	Grab
Total Residual Chlorine				0.2		0.7	Daily*	Grab
Total Nitrogen	Monitor/Report			Monitor/Report			2/Week	24-Hour Comp.
Copper, Total	0.48			0.015		0.030	1/Month	24-Hour Comp.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Outfall 001.

*Only when the chlorination system is in operation. **Not greater than 1,000/100 ml in more than 10 percent of the samples tested.

Re 30 (joh07wqm)165-6f

Permit No. PA0026859

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

I. **For Outfall** 001, **Latitude** 39°58'23", **Longitude** 75°49'26", **River Mile Index** 15.5, **Stream Code** 00085

which receives wastewater from Coatesville STP

a. The permittee is authorized to discharge during the period from date of a Department Act 537 Sewage Facilities Planning Approval letter approving 4.6 mgd through expiration. See Other Requirements 13 and 14 in Part C of this permit for more information.

b. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements, Footnotes and Supplemental Information).

Discharge Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (3)	
	Monthly Average	Weekly Average	Instantaneous Minimum	Monthly Average	Weekly Average	Instantaneous Maximum (2)	Measurement Frequency	Required Sample Type
Flow	Monitor/Report	Monitor/Report Daily Maximum					Continuous	Metered
$CBOD_5$ (05/01 to 10/31)	355	533		9.3	13.9	18.6	2/Week	24-Hour Comp.
$CBOD_5$ (11/01 to 04/30)	711	1,066		18.5	27.8	37.0	2/Week	24-Hour Comp.
Total Suspended Solids	1,151	1,726		30	45	60	2/Week	24-Hour Comp.
Ammonia as N (05/01 to 10/31)	64			1.7		3.4	2/Week	24-Hour Comp.
Ammonia as N (11/01 to 04/30)	193			5.0		10.0	2/Week	24-Hour Comp.
Phosphorus as P (04/01 to 10/31)	48			1.3		2.6	2/Week	24-Hour Comp.
Phosphorus as P (11/01 to 03/31)	77			2.0		4.0	2/Week	24-Hour Comp.
Fecal Coliform				200/100 ml Geo Mean		1,000/100 ml**	2/Week	Grab
Dissolved Oxygen			5.0				Daily	Grab
pH (STD Units)			6.0			9.0	Daily	Grab
Total Residual Chlorine				0.17		0.54	Daily*	Grab
Total Nitrogen	Monitor/Report			Monitor/Report			2/Week	24-Hour Comp.
Copper, Total	0.54			0.014		0.028	1/Month	24-Hour Comp.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Outfall 001.
*Only when the chlorination system is in operation. **Not greater than 1,000/100 ml in more than 10 percent of the samples tested.

Re 30 (joh07wqm)165-6f

Permit No. PA0026859

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

I. **For Outfall** 001, **Latitude** 39°58'23", **Longitude** 75°49'26", **River Mile Index** 15.5, **Stream Code** 00085

which receives wastewater from Coatesville STP

a. The permittee is authorized to discharge with the effluent limits on this page only during the period after the date of a Department Act 537 Sewage Facilities Planning Approval letter approving 7.0 mgd, and after issuance of applicable Water Quality Management permit(s), and after completion of construction of physical expansion of treatment facilities through expiration. See Other Requirements 13 and 14 in Part C of this permit for more information.

b. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements, Footnotes and Supplemental Information).

Discharge Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) [1]		Concentrations (mg/L)				Minimum [3] Measurement Frequency	Required Sample Type
	Monthly Average	Weekly Average	Instantaneous Minimum	Monthly Average	Weekly Average	Instantaneous Maximum [2]		
Flow	Monitor/Report	Monitor/Report Daily Maximum					Continuous	Metered
$CBOD_5$ (5/1 to 10/31)	355	533		6.1	9.2	12.2	2/Week	24-Hour Comp.
$CBOD_5$ (11/1 to 4/30)	711	1,066		12.2	18.3	24.4	2/Week	24-Hour Comp.
Total Suspended Solids	1,751	2,627		30	45	60	2/Week	24-Hour Comp.
Ammonia as N (5/1 to 10/31)	64			1.1		2.2	2/Week	24-Hour Comp.
Ammonia as N (11/1 to 4/30)	193			3.3		6.6	2/Week	24-Hour Comp.
Phosphorus as P (04/01 to 10/31)	48			0.82		1.64	2/Week	24-Hour Comp.
Phosphorus as P (11/01 to 03/31)	96			1.64		3.28	2/Week	24-Hour Comp.
Fecal Coliform				200/100 ml Geo Mean		1,000/100 ml**	2/Week	Grab
Dissolved Oxygen			5.0				Daily	Grab
pH (STD Units)			6.0			9.0	Daily	Grab
Total Residual Chlorine				0.11		0.36	Daily*	Grab
Total Nitrogen	964			Monitor/Report			2/Week	24-Hour Comp.
Copper, Total	0.76			0.013		0.026	1/Month	24-Hour Comp.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Outfall 001.

*Only when the chlorination system is in operation. **Not greater than 1,000/100 ml in more than 10 percent of the samples tested.

Re 30 (joh07wqm)165-6f

Permit No. PA0026859

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

I. **For Outfall** 002, **Latitude** 39°58'23", **Longitude** 75°49'26", **River Mile Index** 15.5, **Stream Code** 00085
For Outfall 003, **Latitude** 39°58'24", **Longitude** 75°49'25", **River Mile Index** 15.5, **Stream Code** 00085

which receive stormwater from Coatesville STP site

a. The permittee is authorized to discharge during the period from issuance through expiration.

b. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements, Footnotes and Supplemental Information).

Discharge Parameter	Effluent Limitations			Monitoring Requirements	
	Concentrations (mg/L)			Minimum Measurement Frequency	Required Sample Type
	Average Annual	Average Semi Annual	Maximum Daily		
$CBOD_5$	Monitor/Report		Monitor/Report	1/Year	Grab
COD	Monitor/Report		Monitor/Report	1/Year	Grab
Oil and Grease	Monitor/Report		Monitor/Report	1/Year	Grab
pH (STD Units)	Monitor/Report		Monitor/Report	1/Year	Grab
Total Suspended Solids	Monitor/Report		Monitor/Report	1/Year	Grab
Total Kjeldahl Nitrogen	Monitor/Report		Monitor/Report	1/Year	Grab
Total Phosphorus	Monitor/Report		Monitor/Report	1/Year	Grab
Iron, Dissolved	Monitor/Report		Monitor/Report	1/Year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Outfall 003.
Since Outfalls 002 and 003 are identical, no monitoring is required for Outfall 002.
Discharges from these outfalls must comply with Other Requirement No. 11.

Re 30 (joh07wqm)165-6f

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (Con't)

Additional Requirements

c. All discharges of floating materials, oil, grease, scum, sheen and substances which produce color, tastes, odors, turbidity or settle to form deposits shall be controlled to levels which will not be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life.

Footnotes

(1) When sampling to determine compliance with mass effluent limitations, discharge flow at the time of sampling must be measured and recorded.

(2) The Instantaneous Maximum Discharge Limitations are for compliance use by DEP only. Do not report instantaneous maximums on DMRs or supplemental DMRs unless specifically required on those forms to do so.

(3) This is the minimum number of sampling events required. Permittees are encouraged, and it may be advantageous in demonstrating compliance, to perform more than the minimum number of sampling events.

Supplemental Information

(1) The effluent limitations for Outfall 001 on page 2 were determined using an effluent discharge rate of 3.85 million gallons per day.

(2) For page 2, a monthly average flow of 4.6 mgd is the rated capacity of the treatment facility and is used to help determine whether a "hydraulic overload" situation exists, as defined in 25 Pa. Code Chapter 94 (relating to municipal wasteload management).

(3) The effluent limitations for Outfall 001 on page 3 were determined using an effluent discharge rate of 4.6 million gallons per day.

(4) For page 3, a monthly average flow of 4.6 mgd is the rated capacity of the treatment facility and is used to help determine whether a "hydraulic overload" situation exists, as defined in 25 Pa. Code Chapter 94 (relating to municipal wasteload management).

(5) The effluent limitations for Outfall 001 on page 4 were determined using an effluent discharge rate of 7.0 million gallons per day.

(6) For page 4, a monthly average flow of 7.0 mgd is the rated capacity of the treatment facility and is used to help determine whether a "hydraulic overload" situation exists, as defined in 25 Pa. Code Chapter 94 (relating to municipal wasteload management).

II. DEFINITIONS

At Outfall (XXX) means a sampling location in outfall line XXX below the last point at which wastes are added to outfall line (XXX), or where otherwise specified.

Average refers to the use of an arithmetic mean, unless otherwise specified in this permit.

Best Management Practices ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution to surface waters of the Commonwealth. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

Clean Water Act means the Federal Water Pollution Control Act, as amended, (33 U.S.C.A. §§1251 to 1387).

Composite Sample (for all except GC/MS volatile organic analysis) means a combination of individual samples (at least eight for a 24-hour period or four for an 8-hour period) of at least 100 milliliters each obtained at spaced time intervals during the compositing period. The composite must be flow-proportional; either the volume of each individual sample is proportional to discharge flow rates, or the sampling interval is proportional to the flow rates over the time period used to produce the composite.

Composite Sample (for GC/MS volatile organic analysis) consists of at least four aliquots or grab samples collected during the sampling event (not necessarily flow proportioned). The samples must be combined in the laboratory immediately before analysis and then one analysis is performed.

Daily Average Temperature means the average of all temperature measurements made, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar day or during the operating day if flows are of a shorter duration.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Daily Maximum Discharge Limitation means the highest allowable "daily discharge."

Discharge Monitoring Report ("DMR") means the DEP or EPA supplied form(s) for the reporting of self-monitoring results by the permittee.

Estimated Flow means any method of liquid volume measurement based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters, and batch discharge volumes.

Geometric Mean means the average of a set of n sample results given by the nth root of their product.

Grab Sample means an individual sample of at least 100 milliliters collected at a randomly selected time over a period not to exceed 15 minutes.

Hazardous Substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act.

Immersion Stabilization (i-s) means a calibrated device is immersed in the wastewater until the reading is stabilized.

Maximum Any Time or Instantaneous Maximum means the level not to be exceeded at any time in any grab sample.

Measured Flow means any method of liquid volume measurement, the accuracy of which has been previ demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

Monthly Average Discharge Limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

Non-contact Cooling Water means water used to reduce temperature which does not come in direct contact with any raw material, intermediate product, waste product (other than heat), or finished product.

Severe Property Damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Stormwater means the runoff from precipitation, snow melt runoff, and surface runoff and drainage.

Stormwater Associated With Industrial Activity means the discharge from any conveyance which is used for collecting and conveying stormwater and which is directly related to manufacturing, processing, or raw materials storage areas as defined at 40 CFR §122.26(b)(14).

Total Dissolved Solids means the total dissolved (filterable) solids as determined by use of the method specified in 40 CFR Part 136.

Toxic Pollutant means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly fror e environment or indirectly by ingestion through food chains, may, on the basis of information available to DEP cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in these organisms or their offspring.

III. SELF-MONITORING, REPORTING, AND RECORDS KEEPING

A. Representative Sampling

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

2. Records Retention

Except for records of monitoring information required by this permit related to the permittee's sludge use and disposal activities which shall be retained for a period of at least 5 years, all records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for 3 years from the date of the sample measurement, report, or application. The 3-year period shall be extended as requested by DEP or the EPA Regional Administrator.

3. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The exact place, date, and time of sampling or measurements.
b. The person(s) who performed the sampling or measurements.
c. The date(s) the analyses were performed.
d. The person(s) who performed the analyses.
e. The analytical techniques or methods used; and the associated detection level.
f. The results of such analyses.

4. Test Procedures

Facilities that test or analyze environmental samples used to demonstrate compliance with this permit shall be in compliance with laboratory accreditation requirements of Act 90 of 2002 (27 Pa. C.S. §§4101 - 4113), relating to environmental laboratory accreditation. Unless otherwise specified in this permit, the test procedures for the analysis of pollutants shall be those approved under 40 CFR Part 136 (or in the case of sludge use or disposal, approved under 40 CFR Part 136, unless otherwise specified in 40 CFR Part 503), or alternate test procedures approved pursuant to those parts, unless other test procedures have been specified in this permit.

5. Quality/Assurance/Control

In an effort to assure accurate self-monitoring analyses results:

a. The permittee, or its designated laboratory, shall participate in the periodic scheduled quality assurance inspections conducted by DEP and EPA.

b. The permittee, or its designated laboratory, shall develop and implement a program to assure the quality and accurateness of the analyses performed to satisfy the requirements of this permit, in accordance with 40 CFR Part 136.

B. Reporting of Monitoring Results

1. The permittee shall effectively monitor the operation and efficiency of all wastewater treatment and control facilities, and the quantity and quality of the discharge(s) as specified in this permit.

2. Unless instructed otherwise in PART C of this permit, a properly completed DMR must be received by the following address within 28 days after the end of each monthly report period:

Department of Environmental Protection
Water Management Program
2 East Main Street
Norristown, PA 19401

NPDES DMR (3WP42)
Water Protection Division
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3. The completed DMR Form shall be signed and certified either by the following applicable person, as defined in 40 CFR §122.22(a), or by that person's duly authorized representative, as defined in 40 CFR §122.22(b):

- For a corporation - by a principal executive officer of at least the level of vice president, or an authorized representative if the representative is responsible for the overall operation of the facility from which the discharge described in the NPDES form originates.
- For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
- For a municipality, state, federal or other public agency - by a principal executive officer or ranking elected official.

If signed by a person other than the above, written notification of delegation of DMR signatory authority must be submitted to DEP in advance of or along with the relevant DMR form.

4. If the permittee monitors any pollutant, using analytical methods described in PART A III.A.4 herein, more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR.

C. Reporting Requirements

1. Planned Changes - The permittee shall give notice to DEP as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

   a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR §122.29(b).

   b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in this permit, nor to notification requirements under 40 CFR §122.42(a)(1).

   c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2. Anticipated Noncompliance

   The permittee shall give advance notice to DEP of any planned changes in the permitted facility or act that may result in noncompliance with permit requirements.

3. Unanticipated Noncompliance or Potential Pollution Reporting

   a. The permittee shall report any noncompliance, accident or incidents causing or threatening pollution pursuant to Title 25 Pa. Code §91.33 to DEP by telephone immediately giving the location and nature of the danger and, if reasonably possible to do so, to notify known downstream users of the waters.

   b. The permittee shall immediately take or cause to be taken steps necessary to prevent injury to property and downstream users of the waters from pollution or a danger of pollution and, in addition, within 15 days from the incident, shall remove any residual substances from the ground and affected waters to the extent required as stated in Title 25 Pa. Code § 91.33.

   c. A written submission shall also be provided within 5 days of the time the permittee becomes aware of any noncompliance or incident causing or threatening pollution. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including the exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

   d. DEP may waive the written report on a case-by-case basis for reports under paragraph C.3.c of this section if the oral report was received immediately and no adverse impact has been reported.

4. Other Noncompliance

   The permittee shall report all instances of noncompliance not reported under paragraph C.3.a of this section, at the time DMRs are submitted. The reports shall contain the information listed in paragraph ( ) of this section.

PART B

I. MANAGEMENT REQUIREMENTS

A. Compliance Schedules

1. The permittee shall achieve compliance with the terms and conditions of this permit within the time frames specified in this permit.

2. The permittee shall submit reports of compliance or noncompliance, or progress reports as applicable, for any interim and final requirements contained in this permit. Such reports shall be submitted no later than 14 days following the applicable schedule date or compliance deadline.

B. Permit Modification, Termination, or Revocation and Reissuance

1. This permit may be modified, terminated, or revoked and reissued during its term in accordance with Title 25 Pa. Code Chapter 92.

2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

3. In the absence of DEP action to modify or revoke and reissue this permit, the permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time specified in the regulations that establish those standards or prohibitions.

C. Duty to Provide Information

1. The permittee shall furnish to DEP, within a reasonable time, any information which DEP may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.

2. The permittee shall furnish to DEP, upon request, copies of records required to be kept by this permit.

3. Other Information - Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to DEP, it shall promptly submit the correct and complete facts or information.

D. Proper Operation and Maintenance

1. The permittee shall employ operator's certified in compliance the Water and Wastewater Systems Operators Certification Act (63 P.S. §§1001-1015.1).

2. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems that are installed by the permittee, only when necessary to achieve compliance with the terms and conditions of this permit.

E. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge, sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

F. Bypassing

1. Bypassing Not Exceeding Permit Limitations - The permittee may allow a bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are subject to the reporting and notification requirements of Part A.III.C.4. (Other Noncompliance).

2. Other Bypassing - In all other situations, bypassing is prohibited and DEP may take enforcement action against the permittee for bypass unless:

   a. A bypass is unavoidable to prevent loss of life, personal injury, or "severe property damage."

   b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance.

   c. The permittee submitted the necessary reports required under F. 4.a. and b. below.

3. DEP may approve an anticipated bypass, after considering its adverse effects, if DEP determines that it will meet the conditions listed in F. 2. above.

4. Notice

   a. Anticipated Bypass – If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the bypass.

   b. Unanticipated Bypass – The permittee shall submit notice of an unanticipated bypass as required in PART A.III.C.3. (Unanticipated Noncompliance or Potential Pollution Reporting) and other bypass as required in C.4. (Other Noncompliance).

II. PENALTIES AND LIABILITY

A. Violations of Permit Conditions

Any person violating Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act or any permit condition or limitation implementing such sections in a permit issued under Section 402 of the Act is subject to civil, administrative, and/or criminal penalties as set forth in 40 CFR §122.4l(a)(2).

Any person or municipality who violates any provision of this permit; any rule, regulation, or order of DEP; or any condition or limitation of any permit issued pursuant to the Clean Streams Law, is subject to criminal and/or civil penalties as set forth in Sections 602, 603, and 605 of the Clean Streams Law.

B. Falsifying Information

The Clean Water Act provides that any person who does any of the following:

- Falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, or

- Knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit (including monitoring reports or reports of compliance or noncompliance),

shall, upon conviction, be punished by a fine and/or imprisonment as set forth in 18 P.S. §4904 and 40 CFR §122.41(j)(5) and (k)(2).

C. Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance pursuant to Section 309 of the Clean Water Act or Sections 602, 603, or 605 of the Clean Streams Law.

Nothing in this permit shall be construed to preclude the institution of any legal action or to relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under the Clean Water Act and the Clean Streams Law.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

III. OTHER RESPONSIBILITIES

A. Right of Entry

Pursuant to Sections 5(b) and 305 of Pennsylvania's Clean Streams Law, and Title 25 Pa. Code Chapter 92 and 40 CFR §122.41(i), the permittee shall allow authorized representatives of DEP and EPA, upon the presentation of credentials and other documents as may be required by law:

1. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

4. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Clean Streams Law, any substances or parameters at any location.

B. Transfer of Permits

1. Transfers by modification. Except as provided in paragraph 2 of this section, a permit may be transferred by the permittee to a new owner or operator only if this permit has been modified or revoked and reissued, or a minor modification made to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

2. Automatic transfers. As an alternative to transfers under paragraph 1 of this section, any NPDES permit may be automatically transferred to a new permittee if:

   a. The current permittee notifies DEP at least 30 days in advance of the proposed transfer date in paragraph 2.b of this section;

   b. The notice includes the appropriate DEP transfer form signed by the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

   c. If DEP does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue this permit, the transfer is effective on the date specified in the agreement mentioned in paragraph 2.b of this section.

3. In the event DEP does not approve transfer of this permit, the new owner or controller must submit a r permit application.

C. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

D. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

E. Other Laws

The issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

PART C

I. OTHER REQUIREMENTS

1. Notification of the designation of the responsible operator must be submitted to the permitting agency by the permittee within 60 days after the effective date of the permit and from time to time thereafter as the operator is replaced.

2. For reporting purposes on the DMR, the term "average weekly" shall mean the highest average weekly value observed during the monthly monitoring period.

3. If, at anytime, the DEP determines that the discharge permitted herein creates a public nuisance or causes environmental harm to the receiving water of the Commonwealth, the DEP may require the permittee to adopt such remedial measures as will produce a satisfactory effluent. If the permittee fails to adopt such remedial measures within the time specified by the DEP, the right to discharge herein granted shall, upon notice by the DEP, cease and become null and void.

4. No stormwater from pavements, area ways, roofs, foundation drains, or other sources shall be admitted to the sanitary sewers associated with the herein approved discharge.

5. The approval herein given is specifically made contingent upon the permittee acquiring all necessary property rights by easement or otherwise, providing for the satisfactory construction, operation, maintenance, and replacement of all sewers or sewerage structures associated with the herein approved discharge in, along, or across private property, with full rights of ingress, egress and regress.

6. If there is a change in ownership of this facility or in permittee name, an application for transfer of permit must be submitted to the DEP.

7. The permittee will ensure that applied chlorine dosages, used for disinfection or other purposes, are optimized to the degree necessary such that the total residual chlorine (TRC) in the discharge effluent does not cause an adverse stream impact. In doing so, the permittee shall consider relevant factors affecting required chlorine dosage, such as wastewater characteristics, mixing and contact times, desired result of chlorination, and expected impact on the receiving water body. The TRC data shall be recorded daily and maintained at the facility.

   If the DEP determines or receives documented evidence that levels of TRC in the permittee's effluent are causing adverse water quality impacts in the receiving water, the permittee shall be required to institute necessary additional steps to reduce or eliminate such impact.

8. Collected screenings, slurries, sludges, and other solids shall be handled and disposed of in compliance with 25 Pa. Code, Chapters 271, 273, 275, 283, and 285 (relating to permits and requirements for landfilling, land application, incineration, and storage of sewage sludge), Chapters 262, 263, and 264 (related to permits and requirements for landfilling and storage of hazardous sludge) and applicable Federal Regulations, the Federal Clean Water Act, RCRA, and their amendments.

9. The permittee shall submit the results of chronic whole effluent toxicity testing with the next NPDES application, according to 40 C.F.R. 122.21(j)(5). The permittee shall submit the results of a minimum of four quarterly tests, from the year preceding the submission of the application. The permittee shall obtain the appropriate biomonitoring protocol for the testing from the DEP's Regional Office. The dilution series for the testing shall be 100, 59, 35, 21, and 12 percent, unless modified in writing by the DEP.

10. Instantaneous maximum limitations are imposed to allow for a grab sample to be collected by the appropriate regulatory agency to determine compliance. The permittee does not have to monitor for the instantaneous maximum limitation except for the parameters temperature, oil and grease, pH, and total residual chlorine. However, if grab samples are collected for parameters normally monitored through composite sampling, the results must be reported.

11. REQUIREMENTS APPLICABLE TO STORMWATER OUTFALLS

A. Prohibition of Non-stormwater Discharges

1. Except as provided in A.2, all discharges to stormwater Outfalls 002 and 003 shall be composed entirely of non-polluting stormwater.

2. The following non-polluting water discharges may be authorized, provided the discharge is in compliance with D.2.b: discharges from fire fighting activities, fire hydrant flushings, potable water sources, including waterline flushings, irrigation drainage, lawn watering, routine external building washdown which does not use detergents or other compounds, pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used, air conditioning condensate, springs, uncontaminated groundwater, and foundation or footing drains where flows are not contaminated with process materials such as solvents.

B. Spills

This permit does not authorize the discharge of any polluting substances resulting from an on-site spill. Such spills shall be controlled through proper implementation of a Preparedness, Prevention, and Contingency (PPC) Plan as stated in Section D below.

C. This permit does not authorize any discharge (stormwater or non-stormwater) containing any pollutant that may cause or contribute to an impact on aquatic life or pose a substantial hazard to human health or the environment due to its quantity or concentration.

D. Preparedness, Prevention, and Contingency Plans

1. Development of Plan

Operators of facilities shall have developed a PPC Plan in accordance with 25 Pa. Code Section 91.34 and the "Guidelines for the Development and Implementation of Environmental Emergency Response Plans." The PPC Plan shall identify potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharges from the facility. In addition, the PPC Plan shall describe the BMPs that are to be used to reduce the pollutants in stormwater discharges at the facility ensuring compliance with the terms and conditions of this permit. The PPC Plan shall be completed within 90 days from the permit effective date.

2. Non-stormwater Discharges

a. The PPC Plan shall contain a certification that the discharge has been tested or evaluated for the presence of non-stormwater discharges. The certification shall include the identification of potential significant sources of non-stormwater at the site, a description of the results of any test and/or evaluation for the presence of non-stormwater discharges, the evaluation criteria or testing methods used, the date of any testing and/or evaluation, and the on-site drainage points that were directly observed during the test. Such certification may not be feasible if the facility operating the stormwater discharge does not have access to an outfall, manhole, or other point of access to the ultimate conduit that receives the discharge. In such cases, the source identification section of the PPC Plan shall indicate why the certification was not feasible. A discharger that is unable to provide the certification must notify the DEP within 90 days of the effective date of this permit.

b. Except for flows from fire fighting activities, sources of non-stormwater listed in A.2. (authorized non-stormwater discharges) that are combined with stormwater discharges must be identified in the Plan. The Plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge.

3. Special Requirements for SARA Title III, Section 313 Facilities

a. Facilities subject to SARA Title III, Section 313 shall include in the PPC Plan a description of releases to land or water of Section 313 water priority chemicals that have occurred within the last three years. Each of the following shall be evaluated for the reasonable potential for contributing pollutants to runoff: loading and unloading operations, outdoor storage activities, outdoor manufacturing or processing activities, significant dust or particulate generating process, and on-site waste disposal practices. Factors to consider include the toxicity of chemicals; quantity of chemicals used, produced or discharged; the likelihood of contact with stormwater; and history of significant leaks or spills of toxic or hazardous pollutants.

b. Engineering Certification. No stormwater PPC Plan for facilities subject to SARA Title III, Section 313 requirements for chemicals that are classified as "Section 313 water priority chemicals" shall be effective unless it has been reviewed by a Registered Professional Engineer and certified to by such Professional Engineer. A Registered Professional Engineer shall recertify the PPC Plan every year thereafter. This certification may be combined with the required annual evaluation in D.4. By means of these certifications, the engineer, having examined the facility and being familiar with the provisions of this part, shall attest that the storm water PPC Plan has been prepared in accordance with good engineering practices. Such certification shall in no way relieve the owner or operator of a facility covered by the PPC Plan of the duty to prepare and fully implement such Plan.

4. Comprehensive Site Compliance Evaluations and Recordkeeping

Qualified personnel shall conduct site compliance evaluations at least once a year. Such evaluations shall include:

a. Visual inspection and evaluation of areas contributing to a stormwater discharge for evidence of, or the potential for, pollutants entering the drainage system. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural stormwater management measures, sediment and erosion control measures, and other structural pollution prevention measures identified in the Plan shall be observed to ensure that they are operating correctly. A visual inspection of equipment needed to implement the Plan, such as spill response equipment, shall be made.

b. Based on the results of the inspection, the description of potential pollutant sources identified in the PPC Plan, and pollution prevention measures and controls identified in the Plan shall be revised as appropriate within 15 days of such inspection and shall provide for implementation of any changes to the Plan in a timely manner, but in no case more than 90 days after the inspection.

c. A report summarizing the scope of the inspection, using the DEP's Annual Inspection form shall be completed and made available upon request and retained as part of the PPC Plan for at least one year after coverage under this permit terminates.

E. Stormwater Management Best Management Practices (BMPs)

The permittee shall implement at least the following BMPs:

1. Manage sludge in accordance with all applicable permit requirements; temporarily collect and store sludge in enclosed containers or tanks.

2. Store chemicals in secure and covered areas on impervious surfaces away from storm drains.

3. For new facilities and improvements: Design wastewater treatment facilities to prevent runoff and avoid storm water commingling with sanitary wastewater.

4. Efficiently use herbicides for weed control; where practicable, investigate use of the least toxic herbicides; do not apply during windy conditions.

5. Do not wash parts or equipment over impervious surfaces that wash into storm drains.

6. Conduct Good Housekeeping Practices.

7. Implement infiltration techniques, including infiltration basins, trenches, dry wells, porous pavements, etc., wherever practicable.

F. Stormwater Sampling and Reporting

1. If stormwater samples are required by this permit, they shall be collected as grab samples during the first 30 minutes, but no later than one-hour of the discharge result from a storm event that occurs at least 72 hours from the previously measurable storm event.

2. When the discharger is unable to collect samples due to adverse climatic conditions, the discharger must submit, in lieu of sampling data, a description of why samples could not be collected, including available documentation of the event. This sampling waiver may not be used more than once during a two-year period.

3. Stormwater monitoring results shall be summarized on a DMR form and the DEP's "Additional Information for the Reporting of Stormwater Monitoring" form.

4. When a facility has two or more outfalls that may reasonably be believed to discharge substantially identical effluents, based on a consideration of features and activities within the area drained by the outfall, the permittee may sample one such outfall and report that the quantitative data also applies to the substantially identical outfalls.

12. The facility shall be operated under the charge of a responsible operator(s) certified under the Pennsylvania Water and Wastewater Systems Operations Certification Act (Act 11). The operator(s) shall comply with the continuing education requirements required under the regulations and guidelines related to Act 11.

13. Effluent limits on page 2 are based on a discharge rate of 3.85 mgd and apply beginning on the date this PA0026859 renewal permit is issued. Limits on page 3 are based on 4.6 mgd and will apply beginning on the date when a DEP Act 537 Sewage Facilities Planning Approval letter approves 4.6 mgd and will supersede limits based on 3.85 mgd. Limits on page 4 are based on 7.0 mgd and will apply after completion of three steps: (1) DEP Act 537 Sewage Facilities Planning Approval for 7.0 mgd, (2) issuance of any necessary Water Quality Management Permit(s), and (3) completion of construction authorized by the Water Quality Management Permit(s) for facilities needed for physical expansion of the treatment plant. After the three steps have been completed, the limits on page 4 will supersede those on page 3 or 2.

14. The U.S. EPA established Total Maximum Daily Loads (TMDL) for nutrients, including wasteload allocations for TN, and low dissolved oxygen under low-flow conditions in the Christina River Basin.

The permittee shall collect data twice a week for Total Nitrogen (TN) in the effluent. Permit pages 2, 3, and 4 in Part A each include this minimum number of sampling events as requirements become effective for discharge rates of 3.85, 4.6, or 7.0, respectively (see Other Requirement 13 above). Three years after permit issuance, DEP will review the TN data and evaluate whether or not there is reasonable potential to exceed the Wasteload Allocation for TN for this discharge. DEP may modify the applicable permit pages 2, 3, or 4 to either incorporate or remove wasteload allocations and monitoring requirements for TN based on the results of the reasonable potential analysis.

APPENDIX D

PAWC 2007 CHAPTER 94 REPORT

TED REED

PENNSYLVANIA AMERICAN WATER COMPANY

2007

MUNICIPAL WASTELOAD MANAGEMENT REPORT

COATESVILLE DISTRICT

SUBMITTED BY:

PENNSYLVANIA AMERICAN WATER
COATESVILLE DISTRICT
100 CHESHIRE COURT, SUITE 104
COATESVILLE, PA 19320
T: (610) 384-1776
F: (610) 384-2996

PREPARED BY:

GERALD A. DEBALKO
PROJECT MANAGER

PERMITTEE:

ROBERT F. SCHNITZLER, P.E.
PRODUCTION MANAGER

Pennsylvania American Water

March 27, 2008

James Newbold, P.E.
Pennsylvania Department of Environment Protection
Southeast Regional Office
2 East Main Street
Norristown, PA 19401

Re: Chapter 94 Report – 2007

Dear Mr. Newbold:

Enclosed please find two (2) copies of Pennsylvania American Water's 2007 Chapter 94 Wasteload Management Report which includes the Connection Management Plan Revised: January, 2008.

If you have any questions or require additional information, please call me or email me.

Sincerely,

David Kaufman

RWE GROUP

2007 Municipal Wastewater Management Report
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2007 MUNICIPAL WASTELOAD MANAGEMENT REPORT
PENNSYLVANIA AMERCIAN WATER COMPANY
COATESVILLE DISTRICT

1. GENERAL

The 2007 Municipal Waste Load Management Report has been prepared for the Pennsylvania American Water Company ("PAWC") Coatesville Wastewater Treatment Plant ("Plant") and collection system serving the City of Coatesville, the Borough of Parkesburg, Caln Township, East Fallowfield Township, Highland Township (one connection in early 2007), Sadsbury Township, Valley Township, West Brandywine Township, West Caln Township, and West Sadsbury Township, in accordance with Chapter 94, Title 25 of the Rules and Regulations of the Pennsylvania Department of Environmental Protection ("DEP"). The Plant is currently operating under NPDES Permit Number 0026859 A2, which was renewed by DEP on June 27, 2006, and amended on September 14, 2006, contingent on various milestones being obtained and has an expiration date of May 5, 2007. In November, 2006, PAWC submitted a renewal application to DEP for the 2007-2012 NPDES permits. DEP has received comments from EPA with additional comments from PAWC submitted in February. A Water Quality Management ("WQM") Part 2 application for expansion of the sewage treatment plant was submitted to DEP on March 31, 2006, and the permit was issued on January 15, 2008. Construction bids were received on January 17, 2008, and are presently under review. It is expected a contract and notice to proceed will be issued in April.

2. CONSENT ORDER & AGREEMENT

On November 30, 2005, PAWC entered into a Consent Order and Agreement ("CO&A") with DEP which required PAWC to award all necessary construction contracts for construction of the expanded sewage treatment plant by January 30, 2007, provided, however, that PAWC is in receipt of all necessary permits for the construction of the Plant by December 31, 2006. All permits were not received by December 31, 2006, due to the lack of final approval from the Delaware River Basin Commission ("DRBC") and the Federal Emergency Management Administration ("FEMA"). The DRBC approved this project on February 28, 2007, by Docket No. D-92-64 CP-2 contingent upon FEMA approval of the Letter of Map Revision ("LOMR") submitted by the Borough of South Coatesville, the host municipality, on February 9, 2007. The Borough approved the Letter of Consistency on September 28, 2007. As stated above, DEP issued the Part II Construction Permit on January 15, 2008.

This CO&A requires PAWC to complete construction of the expanded Plant within 24 months after the issuance of all permits necessary for the construction of the expanded Plant. Additionally, the CO&A requires the quarterly submission of a Connection Management Plan ("CMP") which provides for projected five years' sewer connections within the 10 municipalities before the completion of the expanded Plant and also sets forth specific dates for completion of certain actions by PAWC and establishes compliance parameters for effluent discharges.

3. CONNECTION MANAGEMENT PLAN ("CMP")

In accordance with the CO&A, PAWC submits the updated CMP to DEP on a quarterly basis (January 15, April 15, July 15 and October 15) which includes certain stipulated information. (See Appendix B for the January, 2008 CMP.) The CMP submission shall continue until DEP conducts a final inspection and approves the operation of the expanded Plant. PAWC will only commit capacity and/or allocate, approve and allow connections according to the schedule provided in Table A2 of the CMP as approved by DEP and future DEP-approved CMPs consistent with DEP's Act 537 planning module approvals. DEP will review quarterly CMPs and may allocate total flows treated at the Plant up to an average annual flow of 4.6 mgd prior to the Plant expansion. Upon approval of the municipal Act 537 Plans, Table A2 of the CMP may show allocations beyond 4.6 mgd, provided such allocations are projected to connect after the completion of the Plant expansion ("post-plant").

4. ACT 537 PLAN STATUS

PAWC has been developing a Regional Act 537 Plan since 2001 and initially distributed the draft plan to the tributary municipalities, the Chester County Planning Commission and the Chester County Health Department for review and comment in 2005. Most of the municipalities and the County agencies did respond and their comments were reflected in a revised draft Plan. PAWC was moving forward in 2005 with finalizing the Plan for submission to DEP.

At a meeting with the tributary municipalities on December 7, 2005, in which PAWC and representatives from DEP attended, DEP explained it had made the decision that each tributary municipality must submit its own revised Act 537 Plan from which certain elements of these plans must be incorporated into PAWC's Regional Act 537 Plan. This was a change from the premise PAWC and the municipalities had been following since PAWC began the update in 2001.

Caln Township submitted its revised Act 537 Plan to DEP on November 7, 2005. After a number of meetings and submission of additional information, DEP has informed Caln Township that it will approve its Act 537 Plan at the same time it approves PAWC's Plan. The other municipalities are in various stages of preparation of their Plans most of which are expected to be submitted by the end of 2008. PAWC has been working closely with each municipality on the preparation of its Act 537 Plans to assure continuity with PAWC's Regional Plan. One new, proposed tributary, Highland Township, is in the process of developing its first Act 537 Plan which is expected to be completed in 2009. Each municipality must approve its own Act 537 Plan after a Public Hearing and must also approve PAWC's Regional Plan by Resolution. PAWC anticipates it will receive all municipal approvals of its Act 537 Plan and submit it to DEP by September 2008. The municipalities have been advised that the individual municipal Act 537 Plans will not be approved by DEP until DEP has approved PAWC's Plan.

Additionally, on December 7, 2005, DEP directed that sewer connections would be allowed only in those sewer service areas of the Act 537 Plan approved by DEP on March 15, 2001. Any developments proposed in areas outside the 2001 service area will not be approved until after the Plant expansion unless a municipality's Limited Scope Act 537 Plan Revision is first approved by DEP and, further, provided the additional capacity requested

does not exceed the CMP allocation of 4.6 mgd prior to the Plant expansion. Valley Township and West Brandywine Township are the only municipalities that submitted a Limited Scope Act 537 Plan Revision for developments outside the 2001 service area which have been approved by DEP.

5. CURRENT HYDRAULIC LOADING

The DEP NPDES Permit issued to PAWC in 2002 for the discharge of treated sewage into the West Branch of the Brandywine Creek set the average annual capacity at 3.85 mgd and established a maximum monthly flow rate of 4.6 mgd, as a basis for hydraulic capacity.

On August 11, 2005, PAWC submitted to DEP an analysis prepared by Buchart-Horn, Inc., engineers, of the sewage treatment plant capacity capabilities and requested the Plant be rerated to 4.86 mgd. In the CO&A the DEP acknowledges the Plant is capable of processing a flow of 4.86 mgd and it approved the maximum monthly average flow limit of 4.86 mgd. After applying a five (5) year maximum peaking factor of 1.059 to the maximum monthly flow limit, the result is an annual average treatment capacity of 4.6 mgd for purposes of the CMP until the Plant expansion is completed in 2009-10. This amount was approved by DEP which is included in the current and proposed NPDES permit.

Both the monthly and yearly averages for the hydraulic loading on the treatment plant for the years 2003 through 2007 are tabulated on Table 1 in Appendix A. (Note: All Tables and Graphs are included in the Appendices). Graph 1 shows the monthly average hydraulic loading for the past five years. The annual average hydraulic loading for 2007 was 3.650 mgd which is 0.096 mgd (2.7%) more than 2006's average of 3.554 mgd, and the 5-year annual average is 3.560 mgd. The maximum 3-month flow in 2007 was 4.259 mgd (which was 0.484 mgd higher than 2006) and the maximum month flow in 2007 was 4.657 mgd (which was 0.718 mgd higher than 2006). The 2007 calculated peaking factor (ratio of 3-month maximum to annual average) is 1.167 (compared to 1.062 in 2006) and the 5-year average peaking factor is 1.093 (compared to 1.086 in 2006). The 2007 annual rainfall total recorded at the wastewater treatment plant was 53.14 inches (monthly average of 4.43 inches) which is 1.78 inches (0.03%) more than 2006 total rainfall of 51.36 inches. PAW did not experience any overflows because of the peak wet weather flows.

In order to balance the wet weather years and take into account the differences in annual rainfall, the adjusted 5 year average annual flow of 3.714 mgd and 5-year maximum 3-month flow of 4.237 mgd have been used for projection purposes and charts. The PAWC Coatesville District ("PAWC/CD") Annual Wastewater Treatment Plant Report for 2007 and the Municipal Flow Report for 2007 can be found in Appendix A.

6. CURRENT ORGANIC LOADING

Both the monthly and yearly averages for the organic loading on the treatment plant for the years 2003 through 2007 are tabulated in Appendix A, Table 2. In addition, Graph 2 shows the monthly average organic loading for the past five years. The average monthly organic loading for 2007 was 9,558 lbs/day or 269 lbs/day less than the 2006 average of 9,827 lbs/day and 1,743 lbs/day more than the 5-year annual average of 7,815 lbs/day. The highest month's loading for 2007 was 13,399 lbs/day in May. The organic loading projection factor based on 2007 data (ratio of peak month to annual average) was 1.40 and the 5-year average peak

organic loading factor was 1.36. In Table 3 the average organic loading for 2007 was 314 mg/l. We are projecting an average of 263.0 mgl per year based upon the five (5) year average.

7. DISCUSSION OF BASIS FOR PROJECTIONS

The current contributors of wastewater to the PAW/CD treatment Plant include: City of Coatesville, Caln Township, East Fallowfield Township, Borough of Parkesburg, Sadsbury Township, VA Hospital, Valley Township, West Brandywine Township, West Caln Township and West Sadsbury Township. The projections have been summarized in Appendix A, Table 3 and are discussed below. Data from Table 3 are used for all projections with 225 gpd/edu as the basis for all new sewer connection units.

In June, 2006, DEP approved a reduction in projected flows from 262.5 gpd/edu to 225 gpd/edu for all new connections regardless of the type of connection. This approval was contingent upon PAWC keeping a one year record of metered sewer flows from established developments in order to determine the actual daily average gallons used per edu. This analysis was begun on October 6, 2006 and concluded on October 5, 2007. The study included two built-out subdivisions: Branford Village (Phases I, IV and V) and Briton Station, both in East Fallowfield Township and each with an individual sewer meter. The draft report was submitted to DEP on January 24, 2008. The year-long results showed Branford Village with an average flow of 129 gpd/EDU and Briton Station with an average flow of 147 gpd/EDU. PAWC requested a reduction in flow allowance to 200 gpd/EDU for single family units; 175 gpd/EDU for townhouses and apartments; and 150 gpd/EDU for senior housing units. DEP is presently reviewing the study and will make its decision shortly.

The data from Table 3 has been revised and updated from Table A1A in the January, 2008, Connection Management Plan (CMP) which is attached as Appendix B. PAWC, in coordination with tributary municipalities, provides on-going and revised projections through PAWC's CMP which is submitted to DEP on a quarterly basis as set forth in the CO&A. The CMP has two summaries of projections on Table A2 in the report and reflects those developments approved by DEP for construction and connection to the sewer system which is located within the 2001 DEP approved Act 537 service areas of the tributary municipalities or as approved through a Limited Scope Study Revision. These developments may be connected prior to the completion of the sewer plant expansion pending final DEP approval of the applicable sewer planning modules.

Table 3 in Appendix A of this Chapter 94 report is composed of two (2) different projections. The first projection at the top of the page ("Projected Total Per CMP, Table A2 [2007 Q4,Revised January 2008], Summary No. 2") begins with the 2007 actual average flow of 3,649,642 gpd and projects flows for the five year period of 2008-2012 with a 2012 average projected flow of 4,742,467 gpd.

The second projection in the middle of the page ("Projected Total Per CMP [revised 1/08] Table A2 [Summary No. 2] – Based on 5 Year Adjusted Averages"), begins with the five year adjusted average flow of 3,713,892 gpd, and projects flows for the five year period of 2008-2012 which result in a projected average flow of 4,806,717 gpd in 2012.

Looking at both summaries, and presuming the number of connections will take place as projected, PAWC anticipates the actual flow in the next five years will more realistically follow this second projection for pre- and post-Plant expansion. Once the expanded Plant is completed in 2009-10 and new, additional capacity provided, flows will be able to exceed the pre-Plant capacity limit of 4.6 mgd.

The hydraulic loading and the organic loading projections for the next five years are also shown in Appendix A on Graphs 3 and 4 respectively.

PROJECTED HYDRAULIC LOADING

The five year projected hydraulic loading tabulated on Table 3 was developed based on PAWC's continual discussion with DEP and the municipalities and the continuing revisions to the Connection Management Plan. Using projections as shown on Table 3 at the bottom of the page, the average annual flow at the end of the five years (2012) is projected to be 4,806,717 mgd with a three month maximum of 5,250,746 mgd based on the five (5) year annual average. PAWC will continue to monitor and allocate connections to the system during the upcoming years in accordance with the Connection Management Plan report as approved by DEP.

The **City of Coatesville's** average daily flow for 2007 was 1,944,104 gpd, which was 32,490 gpd (1.70%) more than the 2006 average flow of 1,911,614 gpd. The City of Coatesville is projecting an increase of 208,350 gpd (926 EDUs) over the next five years pending DEP approval. Most of the projected EDUs are residential with some allocated for commercial purposes. A large percentage of the projected residential EDUs are part of the City of Coatesville Revitalization Project that is underway; however, recent events indicate that the projected EDUs may be reduced or delayed due to several developers deciding to delay or not to proceed with certain projects. All sewer facilities in the City are owned, operated and maintained by PAWC.

Valley Township's (Bulk Service) average daily flow for 2007 was 618,060 gpd, which was 45,244 gpd (7.9%) more than the 2006 average flow of 572,815 gpd. By agreement the Township has a current capacity of 1,140,000 gpd with an additional 400,000 gpd (to 1,540,000 gpd) after the Plant expansion is completed in 2009-10. Valley Township is projecting an increase of approximately 258,300 gpd (1,148 EDUs) over the next five years, pending DEP approval, which will be mostly residential in nature with some commercial. PAWC owns, operates and maintains a very small portion of the sewer facilities in the southeastern section of the Township while the remainder is owned, operated and maintained by the Township.

Caln Township's (Bulk Service) 2007 average daily flow, which does not include the Veterans Hospital or the Brandywine Hospital located within the Township, was 173,330 gpd which was 10,191 gpd (5.5%) less than the 2006 average flow of 183,521 gpd. Table A2 of the CMP projects that over the next 5 years the Township will increase its flows by 52,650 gpd (234 EDUs). According to Caln's 2007 Chapter 94 Report the Township's total flows from all sources was 1,323,317 gpd. Of this amount, 1,149,987 gpd (86.90%) went to the Downingtown Area Regional Authority ("DARA") and the remainder of 173,330 gpd (13.10%) went to the PAWC treatment facilities. All sewer facilities in the Township are owned,

operated and maintained by the Caln Township Municipal Authority. (See Caln's full 2007 Chapter 94 Report submitted to DEP separately by the Township.)

In March, 2005, PAWC and Caln Township entered into an agreement with Phase I increasing the capacity from 180,000 gpd to 570,000 gpd and would require Caln to pay for certain identified improvements to the East End Trunk Line ("EETL"). Phase II of the agreement will increase the capacity to 800,000 gpd after the Plant expansion and also pending additional identified improvements to the EETL. After the PAWC wastewater treatment plant expansion, Caln Township proposes to divert 250,000 gpd from the DARA plant to the PAWC Plant in 2011. Caln projects this to be an equivalent flow of 1,000 EDUs.

West Brandywine Township's (Bulk Service) average daily flow for 2007 was 139,974 gpd, which was 3,148 gpd (2.3%) more than the 2006 average flow of 136,826 gpd. By agreement the Township has a current Plant capacity of 345,000 gpd. The Township is projecting an additional 133,650 gpd (594 EDUs) over the next five years pending DEP approval.

West Brandywine submitted a Limited Scope Study Act 537 Revision to DEP to allow the start-up of two new residential subdivisions which was approved by DEP on January 17, 2006. Through additional discussions and by letter dated December 13, 2007, DEP advised West Brandywine Township, "According to the Department's September 5, 2007 approval of the PAWC 2nd Quarter 2007 Corrective Action Plan and Connection Management Plan, a total of 140 connections (31,400 gpd @ 225 gpd EDU) have been allocated to both the Culbertson and Swinehart residential projects prior to the expansion of PAWC's facilities." PAWC is currently working with the Township on an addendum treatment agreement that will accommodate additional flows the Township. This agreement will also provide for upgrades to the East End Trunk Line as necessary to serve the additional requested flows. All sewer facilities in the Township are owned, operated and maintained by the Township.

Sadsbury Township's (Bulk Service) average daily flow for 2007 was 150,469 gpd which was 34,722 gpd (30.0%) more than the 2006 average flow of 115,747 gpd. By agreement the Township has a Plant capacity of 410,750 gpd. The Township is projecting an additional 146,250 gpd (650 EDUs) over the next 5 years. Sadsbury Township has been experiencing problems with existing on-lot systems and is continuing to construct public sewers throughout the Township. The Township is also experiencing continued, strong, new residential development within the community along with some limited commercial development. The Township has received inquiries for additional sewer capacity outside the 2001 service area and is anticipating a revision to its Act 537 Plan to serve these new areas postplant. All sewer facilities in the Township are owned, operated and maintained by the Township.

West Sadsbury Township's average daily flow for 2007 was 48,749 gpd, which was 1,640 gpd (3.5%) more than the 2006 average flow of 47,109 gpd. Table A2 of the CMP shows additional flows of 12,825 (57 EDUs) over the next 5 years pending the update of the Township's Act 537 Plan and the designation of additional service areas. The 2001 sewer service areas have been built-out at this time. In Table A3 of the CMP, however, the Township and PAWC are projecting an additional 56,700 gpd (252 EDUs) in the five years' projection pending DEP approval. One large development that PAWC has shown on the CMP is the Mast Property with 50 EDUs per year beginning in 2011 with a total buildout of 600 EDUs after

the Plant expansion. This development would, of course, depend on the Township's approval as well as DEP's approval of its Act 537 revisions. All facilities in the Township are owned, operated and maintained by PAWC.

East Fallowfield Township's average daily flow in 2007 was 103,657 gpd, which was 3,467 gpd (3.5%) more than the 2006 average flow of 100,190 gpd. The Township and PAWC are projecting an additional flow of 85,725 gpd (381 EDUs) from residential development in the next five years.

In December, 2005, East Fallowfield Township and PAWC entered into an agreement which dedicated all wastewater facilities to PAWC. Prior to this agreement all facilities had been owned to the Township but PAWC operated and maintained the sewer system. The agreement provides that PAWC will extend a sewer main to Cardinal Drive where some 85 existing dwellings will be removed from their septic systems and connected to the PAWC sewer. This work will get underway this spring.

Parkesburg Borough's average daily flow in 2007 was 350,071 gpd, which was 14,970 gpd (4.1%) less than the 2006 average flow of 365,041 gpd. The Township and PAW are projecting an additional flow of 177,075 gpd (787 EDUs) over the next 5 years. All sewer facilities in the Borough are owned, operated and maintained by PAWC.

West Caln Township's average daily flow in 2007 was 20,861 gpd, which was 5,594 gpd (36.6%) more than the 2006 average flow of 15,267 gpd due to new housing construction. The Township and PAW are projecting an additional 18,000 gpd (80 EDUs) over the next five years. All sewer facilities in the Township are owned, operated and maintained by PAWC.

The **Veterans Administration Hospital's ("VA")** average daily flow in 2007 was 98,078 gpd, which was 2,488 gpd (2.5%) less than the 2006 average flow of 100,566 gpd. The VA has been unable to determine why the flows have increased since 2005 when the flow was just under 79,000 gpd. The VA is not projecting any significant change in wastewater flows. The number of patients has been fairly stable over the past few years due to the declining number of WWII veterans. They do not anticipate any future increase in patients even from the Iraq war. Flow projections for the VA are shown to be steady on Table 3 to be conservative. The VA sewer line was placed into the main constructed by West Brandywine in January 1998, and the flow meter at Eleventh Street and Diamond Street has given PAWC additional information to more accurately determine the VA Hospital flows. All sewer facilities in the Hospital property are owned, operated and maintained by the Hospital.

Other contributors to the PAWC treatment plant include septic waste haulers from various areas in our region. These flows contributed an average of 4,064 gpd in 2007 which was a decrease of 2 gpd (.0005%) from the 4,066 gpd in 2006. This amount is not anticipated to change significantly over the next 5 years.

8. PROJECTED ORGANIC LOADING

The 5 year projected organic loading in Appendix A, Table 3, Summary No. 2, Based on 5 Years' Average, was developed by multiplying the projected average daily flow for each of the next five years found on Table A2 of the CMP by the 5 year average influent organic concentration of 263.0 mg/l. The 2012 projected average daily organic loading is 10,402

pounds per day. The projected five year maximum month loading is 14,147 pounds per day in 2012 which is an increase of 748 pounds per day above the 2007 maximum monthly average of 13,399 pounds.

The PAWC 2007 Wastewater Treatment Plant Annual Report (in Appendix A) indicates that current final effluent annual average CBOD level is 4.4 mg/l which is well below the permitted levels of 10.5 and 21 mg/l adjusted seasonally and reflects 134.0 lbs/day which is well below the permit level of 337 and 674 lbs/day adjusted seasonally. This data supports the fact that the Plant is having no difficulty treating the organic loadings. Graph 4 illustrates the five-year organic loading projections.

9. INDUSTRIAL WASTEWATER

PAWC has an Industrial Wastewater Management Program ("IWMP") which monitors industries and commercial establishments to determine what, if any, industrial waste is being discharged into the sewer system. The last full survey of industries was conducted in 2003. The IWMP is part of the PAWC Sewer Use Rules and Regulations effective on March 22, 2001 (See Appendix C for the Sewer Use Rules and Regulations and the survey form), and provides for the issuance of an Industrial Waste Permit at least every five (5) years or sooner to those industries or businesses which discharge industrial waste into the sewer system. Only two of the fifteen establishments surveyed in 2003 actually discharged industrial waste: Alleghany Ludlum and Quebecor World Atglen, Inc. The other thirteen were non-industrial waste producers such as funeral homes, gas stations, car washes, auto mechanic shops, etc. Mittal Steel Company, formerly ISG Steel Company, discharges only domestic waste to the sewer system. It maintains its own wastewater facility and, although PAWC periodically monitors the company, it is not issued an industrial waste permit. Additionally, G. O. Carlson, Inc., a previous industrial contributor, closed its business in 2004 and the facilities have been demolished by the City of Coatesville which purchased the property.

PAWC has formed a working group to begin review of the IWMP to update the rules and regulations to the latest requirements and best practices. Once updated PAWC will submit the revisions to DEP for its review and comment.

PAWC monitors eight (8) manholes in various locations in the collection system. A twenty-four (24) hour composite sample is taken and analyzed for copper at each location once per month. With the NPDES copper limits at the wastewater treatment plant outfall being set at 0.015 mgl, it is important to monitor in the collection system for this metal to assure industrial compliance so as not to provide a high copper load the Plant cannot process. These composite samples include the manhole on the Quebecor property and the manhole just downstream of the Alleghany Ludlum discharge.

10. SEWER COLLECTION SYSTEM

The PAWC wastewater collection system consists of mains in the City of Coatesville, the Borough of Parkesburg, and the Townships of East Fallowfield, Highland, West Caln and West Sadsbury. As of December 31, 2007, service is provided to the following customers:

Residential connections	5,530
Commercial connections	337
Industrial connections	2
Institutional connections	19
Municipal connections (bulk)	4
Total	5,892

Caln Township, Sadsbury Township, Valley Township and West Brandywine Township are the bulk municipal customers which own and maintain their own collection systems that ultimately flow through the PAWC collection system conveying the municipal waste to the sewage treatment plant. The PAWC-owned systems contain approximately 447,709' (85 miles) of sewer mains and approximately 1,562 manholes. The sewer mains range in age from a few months to over seventy-five (75) years and sizes range from 4 inch to 30 inch. Most of the older pipe is vitrified clay or reinforced concrete with the new mains consisting of SDR 26 PVC sewer pipe. Older manholes are made of brick and mortar while newer manholes are pre-cast concrete set in place. Overall, the older collection system is considered to be in fair to good condition with areas of Inflow/Infiltration (I&I) which is discussed later in this report. The newer collection systems (less than fifteen years) are considered to be in excellent condition and contributing very little I&I.

PAWC maintains television inspection equipment mounted in an enclosed van and a sewer line vacuum truck both of which are used in a maintenance inspection program. A three-person crew works in the sewer system by cleaning and flushing problem areas and systematically maintaining the system. In 2007 approximately 8,000 feet (1.5 miles) of the sewer collection system were televised, inspected and maintained as part of the routine maintenance program. The Collection Maintenance Crew marks the PA One Calls and also inspects all new lateral connections to existing and new sewer mains. In addition, the Crew installs inserts in manholes to prevent runoff water from entering the collection system and works with our contractor performing annual I&I reduction projects throughout the system.

Hydraulically, the sewer collection system is adequate with a few potential bottlenecks located mostly in the East End Trunk Line ("EETL"). Section 12 discusses PAWC's action plans pertaining to the EETL.

11. TRUNK LINES

As shown in the CMP (See Appendix B, "Summary of Management Plan Goals for EETL"), PAWC has developed an action plan to repair/replace sections of the EETL to remove bottlenecks which have been identified as restrictions of projected flows through this transmission main. The repairs and upgrades to the EETL will be completed prior to the sewer plant expansion and will be capable of serving all projected flows during the planning period.

In coordination with two municipalities (Caln Township and West Brandywine Township) and various developers in the eastern section of East Fallowfield Township, PAWC has set priorities for resolving the EETL bottlenecks. The first construction was completed in the Spring, 2006, which replaced the sewer main between manholes #16 and #18 that crosses South First Avenue and joins the 30" trunk main near the Plant.

A contract was awarded in October, 2006, for repair/replacement of other identified critical sections as shown in the CMP which included manholes 19-26 and manholes 29-31. This work was completed in the summer, 2007.

East End Trunk Line Construction – MH 19-26 & MH 29-31	
18-Inch Ductile Iron Pipe	1,629 Lin. Ft.
24-Inch Ductile Iron Pipe	2,706 Lin. Ft.
6-Inch Ductile Iron Service Connections	1,800 Lin. Ft.
24x24x6 Ductile Iron Tees	50 Each
18x18x6 Ductile Iron Tees	50 Each
Precast Concrete Manholes	225 Vert. Ft.

Manhole segments 10 to 9 was identified early as a major concern for a bottleneck since this section receives and transports the sewer flows from all sources to the Plant. This 30" interceptor, located within the Mittal Steel property, must be enlarged as part of the Plant expansion prior to acceptance of any additional post-plant flows. A contract for this interceptor replacement was awarded on October 12, 2007, with the Notice to Proceed issued on December 3, 2007. The estimated completion for the construction of this new 42" interceptor is the Fall, 2008, in advance of the Plant expansion.

Pending DEP approval of West Brandywine's and Caln Townships' Act 537 Plans and working with these municipalities, PAWC will replace remaining, permitted EETL segments. With the completion of these sections the EETL will be sufficient to handle all presently projected flows through the planning period.

In 2006 PAWC authorized its consultant, Buchart-Horn, to proceed with the process of an updated hydraulic model of the invert and outfall manhole elevations and pipe capacities in the PAWC sewer collection system. This study was completed during 2007. This information is critical in determining potential pipe slopes which may cause possible flow problems. It has also verified the existing pipe sections needing attention. We also performed flow metering throughout the collection system which has provided information to assist in our I&I reduction program.

Additional work is planned to be accomplished on the EETL pending approvals of the PAWC, Caln Township and West Brandywine Township Act 537 Plans.

13. INFLOW/INFILTRATION (I&I) ABATEMENT PROGRAM

The Coatesville collection system is divided into seven (7) basins and the Parkesburg collection system is divided into three (3) basins, from which additional sub-basins are

identified and prioritized for the inflow/infiltration monitoring and abatement program. Work has continued in these basins since the mid-1990s.

In 2007 actual I&I rehabilitation work continued in all three Parkesburg Basins. Work began in the Parkesburg system in October, 2006, and was completed by mid-year of 2007. The work consisted of inspections, televising, cleaning, grouting and repairs within the collection system pipes. The work accomplished in 2007 is shown in the following insert:

Parkesburg Basins 1, 2 & 3	
Mains inspected and cleaned	41,578 Lin. Ft.
Pipe joints tested	5,809 each
Pipe grouting	202 gals
Manhole rehab and sealed	84 each
Manhole channels repaired	19 each

14. SEWER EXTENSIONS

In 2007 there were 186 new sewer connections from all sources through the collection system. During 2007, extensions to the PAWC collection system were completed as follows:

Providence Hill Subdivision – Phase C	Parkesburg Knoll – Phase 2A
(East Fallowfield Township)	(Parkesburg Borough)
1,349' of 8" sewer mains 1,010' of 6" sewer laterals 9 - 4' diameter manholes 34 sewer service connections	2,800' of 8" sewer main 1,100' of 6" sewer laterals 13 - 4' diameter manhole 35 sewer lateral connections

15. SEWAGE PUMPING STATIONS

Appendix D provides information for fifteen (15) pump stations owned and operated by PAWC of the twenty-three (23) pump stations and metering stations within the total regional sewer collection system including those stations connected directly to the PAWC system from bulk service municipalities. It does not include any internal pump stations located within the bulk service municipalities which are owned and maintained by the municipalities. This information includes a narrative of the drawdown tests for each pump station which were performed during 2006 along with inspection date, make and model, capacities, current flow rates, etc. This information is still considered germane to this 2007 Chapter 94 Report. All pump stations owned by PAWC are maintained by PAWC staff on a regular basis to insure proper and efficient operation.

There are eighteen (18) sewer pump stations with meters which are read every three (3) to five (5) days. These meters include, among others, seven (7) municipal and private conveyance points introduced to the PAWC collection system as well as pump stations installed in new subdivisions. This information allows PAWC to monitor the flows emanating inside and outside the Coatesville collection system.

There is one sewer pump station within the City of Coatesville. The Parkesburg Pump Station, owned and maintained by PAWC, was completed in June, 1997, and is fully automated with SCADA. Flow equalization facilities also exist at the Parkesburg site. In West Sadsbury Township, PAWC owns and maintains two grinder pump stations: one at the Quebecor facility and one at the West Sadsbury Commons shopping center. In West Caln Township there is one pump station and in East Fallowfield Township there are eight (8) pump stations for subdivisions.

Sadsbury, Valley and West Brandywine Townships own and maintain one pump station each which discharges to the PAWC collection system. PAWC owns and maintains the single pump station in Caln Township which discharges to the PAWC collection system.

APPENDIX A

PENNSYLVANIA-AMERICAN WATER COMPANY - COATESVILLE WASTEWATER PLANT
2007 SUMMARY OF DAILY OPERATONS REPORT

Month		Water Processed: Influent Flow in MGD	Water Processed: Effluent Flow in MGD(3.85 lbs.loading)	RAIN FALL (INCHES)	Chemicals Used: Soda Ash in dry lbs.($.193/lb.)	Chemicals Used: PRESS Polymer in lbs.* zetag7557 ($1.605Lb.)	Chemicals Used: Liquid Alum GALS. .04456/lb. x11.1=6.52 gal.	KW HRS.	Natural Gas (Cuft x100)	pH: Raw	pH: Aerator	pH: Effluent (limit 6-9)	pH: >6.5 Digester pH	Total Phosphorus mg/l: Raw	Total Phosphorus mg/l: Effluent (Limit 1 ppm)	BOD mg/l: Raw	BOD mg/l: Effluent (C-BOD) May-Oct 10.5 ppm Nov-April 21 ppm	TOTAL SUSPENDED SOLIDS in mg/l: Raw (comp)	TOTAL SUSPENDED SOLIDS in mg/l: Effluent (30 ppm)	EFFLUENT NTU	AMMONIA-NITROGEN-N: Raw MGL	AMMONIA-NITROGEN-N: TOTAL NITROGEN N	AMMONIA-NITROGEN-N: Effluent MGL 2.0-6.0 ppm	Dissolved Oxygen in ppm: Influent	Dissolved Oxygen in ppm: Effluent	Fecal Coliform Bacteria Count per 100 mls: Effluent	Chlorine Residual in mg/l: Effluent	Copper in mg/l Current - monitor only 2008-0.015 mg/l: Raw	Copper in mg/l Current - monitor only 2008-0.015 mg/l: Effluent	Temperature: Influent	Temperature: Aerator	Temperature: Effluent	LANDFILL FEES $$$	HAULERS FEES ($141.80)
January	Daily Avg	3.5	3.8	0.2	50.0	12.2	173.0	32.9	148.4	7.5	7.0	7.1		6.5	1.3	298.3	7.8	304.9	18.1	6.4	16.6	20.5	0.8	3.9	8.3	7.4	0.0	0.2	0.009	14.1	12.1	12.9	743.0	176.7
	Totals	108.5	117.7	4.8	1550.0	378.0	5363.0	1019.0	4599.0				0.0	61.6	10.3	2306.0	62.0	2439.0	146.1	199.0	124.5	163.7	6.8	118.4	260.0	60.0	1.0	0.2	0.009	437.4	375.4	401.2	10402.5	2473.9
February	Daily Avg	3.4	3.5	0.0	50.0	10.3	203.7	33.8	164.3	7.6	7.1	7.1		7.2	1.5	295.9	7.6	294.5	22.9	10.9	18.5	20.0	5.3	4.8	8.7	20.3	0.0	0.1	0.013	11.9	9.3	10.2	796.8	176.7
	Totals	95.0	98.5	1.2	1400.0	288.0	5704.0	946.0	4321.0	213.0	199.4	199.6	0.0	67.6	12.8	2367.0	61.0	2276.0	183.0	286.3	147.7	159.7	42.7	133.7	243.7	162.0	0.6	0.1	0.013	333.4	260.2	266.1	8765.1	1943.7
March	Daily Avg	3.9	4.2	0.1	50.0	13.4	215.0	34.4	105.5	7.5	7.1	7.1		6.10	1.66	248.9	6.5	293.8	23.7	10.9	19.0	26.2	5.2	4.8	8.1	13.3	0.0	0.1	0.012	12.0	10.5	11.8	770.1	177.1
	Totals	119.4	129.8	3.9	1550.0	414.0	6665.0	1067.0	3270.0	233.6	212.1	220.5	0.0	49.5	13.2	1978.5	52.3	2360.0	189.8	338.7	106.3	209.6	41.2	149.0	250.6	106.0	0.9	0.1	0.008	370.6	315.9	366.5	8471.0	1948.4
April	Daily Avg	4.2	4.7	0.2	50.0	15.6	251.1	32.4	103.2	7.6	7.0	7.1		7.9	0.9	279.9	5.2	349.9	12.6	6.4	13.4	16.7	3.3	4.2	7.5	20.0	0.0	0.1	0.0	13.7	12.1	13.6	787.5	177.1
	Totals	127.0	139.7	5.3	1500.0	421.0	7533.0	972.0	3096.0	223.8	203.5	212.6	0.0	62.6	7.3	2239.0	41.9	2791.0	101.0	191.1	107.4	133.4	26.3	126.2	224.3	166.0	0.7	0.1	0.0	409.9	337.7	407.9	10237.5	2302.1
May	Daily Avg	3.7	4.0	0.1	50.0	19.0	245.8	31.2	86.7	7.5	7.0	7.1		11.5	0.8	405.1	5.5	583.8	11.6	7.8	14.5	16.8	1.83	2.3	7.2	32.0	0.0	0.2	0.0	16.9	16.0	17.5	748.3	177.9
	Totals	113.3	122.9	2.4	1550.0	474.0	7373.0	967.0	2657.0	231.0	218.4	221.1	0.0	91.8	6.6	3240.8	43.9	4670.0	93.2	342.2	97.8	131.8	16.4	70.4	222.5	256.0	0.4	0.2	0.0	522.5	496.6	543.7	10478.6	2490.9
June	Daily Avg	3.5	3.7	0.1	50.0	20.7	252.6	34.1	78.0	7.4	7.1	7.1		15.8	0.8	395.8	5.1	647.8	11.6	5.5	17.7	16.4	1.9	1.0	7.3	53.0	0.0	0.4	0.0	19.3	19.1	20.0	784.3	182.9
	Totals	106.3	110.8	4.2	1500.0	537.0	7579.0	1022.0	2339.0	222.1	206.3	213.4	0.0	126.7	6.2	3166.0	40.7	5182.0	92.9	160.4	159.9	131.3	18.7	31.2	220.0	424.0	0.2	0.4	0.0	578.7	562.9	600.6	9806.2	2377.1
July	Daily Avg	3.3	3.6	0.2	50.0	16.0	229.0	32.6	68.4	7.3	6.9	7.0		7.5	1.0	407.0	3.2	398.3	9.4		17.9	21.8	0.2	1.0	7.5	6.6	0.0	0.2	0.0	21.0	20.9	21.8	731.0	206.4
	Totals	102.7	110.6	6.5	1550.0	421.0	7006.0	1011.0	2121.0	226.7	214.7	217.9	0.0	60.2	7.9	3256.0	25.8	3186.0	74.9	0.8	143.3	173.0	1.4	29.8	234.0	53.0	0.3	0.2	0.0	650.7	629.2	675.8	10234.3	2875.6
August	Daily Avg	3.3	3.5	0.2	50.0	16.4	232.0	30.7	90.0	7.3	6.9	7.1		7.0	0.9	300.6	2.6	206.9	3.5	3.8	15.5	20.4	0.1	0.7	7.5	24.7	0.0		0.0	21.7	22.2	22.3	776.9	206.4
	Totals	102.6	107.5	5.7	1550.0	427.0	7192.0	963.0	2479.0	227.6	214.7	218.7	0.0	56.0	6.9	2404.0	20.7	1656.5	27.7	110.7	124.1	163.6	0.8	20.9	231.2	222.0	0.5	0.0	0.0	671.9	687.9	692.6	10099.4	2683.5
September	Daily Avg	3.1	3.0	0.0	50.0	18.7	247.0	29.4	81.0	7.3	6.9	7.0		8.3	0.9	283.8	1.2	282.3	6.0	3.4	15.9	19.5	0.1	0.8	7.3	26.5	0.0		0.0	21.9	21.3	21.7	782.1	206.5
	Totals	93.6	90.5	0.1	1500.0	243.0	7409.0	881.0	2430.0	220.0	207.1	210.1	0.0	66.3	6.9	2270.6	9.2	2250.0	48.1	103.0	127.3	156.0	1.1	18.1	218.3	212.0	0.4	0.0	0.0	666.3	636.3	660.8	6256.6	1652.2
October	Daily Avg	3.3	3.2	0.3	50.0	15.5	237.4	26.3	83.8	7.3	6.9	6.9		9.1	0.8	266.9	2.2	310.1	7.0	3.1	15.5	20.4	0.1	1.5	7.5	9.1	0.0		0.0	20.2	19.6	19.8	796.5	207.2
	Totals	102.4	99.9	8.1	1550.0	341.5	7360.0	814.0	2598.0	227.3	212.4	215.1	0.0	72.9	7.6	2127.3	17.6	2481.0	56.3	96.0	124.1	163.1	0.8	46.4	232.4	73.0	0.3	0.0	0.0	627.2	608.6	614.3	11136.9	2901.1
November	Daily Avg	3.3	3.199	0.1	50.0	17.5	217.0	29.3	130.4	7.4	6.9	7.0	7.0	11.3	0.9	279.7	2.2	364.4	8.2	3.4	18.3	20.4	0.1	2.4	8.5	3.7	0.0		0.0	17.0	14.9	14.9	763.4	207.8
	Totals	97.9	96.0	3.3	1500.0	368.0	6509.0	878.0	3913.0	222.8	207.3	211.3	7.0	90.1	7.6	2237.3	17.9	2915.0	65.8	100.5	106.8	163.0	1.0	71.2	254.2	29.5	0.3	0.0	0.0	510.3	446.5	447.5	11460.7	3117.3
December	Daily Avg	3.5	3.6	0.2	50.0	13.0	201.0	31.1	152.4	7.6	7.0	7.1		7.1	1.1	306.2	3.7	236.5	13.1	6.2	17.8	20.8	0.5	4.0	9.5	11.5	0.0		0.0	13.7	11.9	12.0	743.8	209.5
	Totals	109.4	110.7	5.4	1550.0	324.0	6231.0	966.0	4725.0	231.8	216.0	218.8	0.0	66.5	8.8	2441.3	29.3	1892.0	104.4	182.1	142.6	106.1	4.3	119.5	295.1	92.0	0.4	0.0	0.0	412.2	366.0	372.4	9666.1	2723.5
Annual	Daily Avg	3.5	3.7	0.1	50.0	15.3	225.1	31.6	106.8	7.4	7.0	7.1	7.0	8.8	1.1	313.7	4.4	355.2	12.3	6.1	16.1	19.8	1.7	2.8	7.9	19.1	0.0	0.2	0.0	17.0	15.9	16.6	784.7	192.7
	Totals	1278.0	1332.5	51.0	18250.0	4636.5	81924.0	11494.0	38547.0	2479.6	2310.9	2359.0	7.0	841.5	101.8	30110.7	422.0	34095.5	1182.2	2935.0	1490.0	1852.3	160.5	933.8	2884.3	1854.5	6.0	1.3	0.2	6181.1	5703.1	6059.3	117001.9	29489.3

PAWC MUNICIPAL FLOWS [illegible]7

Line #	Total Meter	Flow	January	February	March	April	May	June	J[illegible]	August	September	October	November	December	Total	GPD
1			117,651,700	98,474,600	128,765,500	139,702,600	122,943,900	110,756,200	110,601,[illegible]	107,494,000	90,460,800	98,930,500	95,956,800	110,731,300	1,332,469,600	3,649,417
2		GPD	3,795,216	3,516,950	4,153,726	4,656,753	3,965,932	3,691,873	3,567,797	3,467,548	3,015,360	3,191,306	3,198,560	3,571,977		
3		Rainfall Total (in.)	4.84	1.17	3.76	8.61	2.42	4.07	6.09	5.72	0.28	6.57	3.33	5.43	52.29	
4	Cain Township															
5		Pump Station	3,900,203	3,469,125	4,022,932	5,221,290	4,879,121	4,721,790	2,823,976	2,784,580	3,423,214	4,112,553	3,548,460	5,358,474	48,245,718	132,180
6		Carver Court	613,428	1,008,069	785,165	551,580	329,166	289,330	356,167	337,646	291,984	329,406	339,480	298,933	5,527,253	15,143
7		Megargee Heights	1,025,583	682,535	616,706	686,535	587,760	499,928	854,083	809,729	717,214	619,822	759,750	576,954	8,446,569	23,141
8		Brandywine Fab & Keehn	130,458	43,500	69,125	25,714	87,685	173,571	110,714	88,571	93,214	75,285	90,000	38,085	1,045,922	2,866
9		Total	5,669,672	5,203,229	5,513,948	6,495,119	5,882,732	5,683,619	4,143,940	4,000,424	4,525,606	5,137,066	4,737,690	6,272,446	63,265,491	173,330
10		GPD	182,893	185,830	177,869	216,504	189,766	189,454	133,675	129,046	150,854	165,712	157,923	202,337		
11	Valley Township															
12		Rock Run Pump Station	7,042,053	5,550,977	8,104,113	8,625,360	7,043,333	5,660,160	5,632,917	5,572,949	4,773,514	5,803,541	5,893,140	6,853,635	76,555,692	209,742
13		Valley Road	6,099,746	5,084,019	6,955,036	7,996,090	6,289,492	5,585,400	5,599,127	6,053,750	5,960,700	6,609,603	5,872,350	7,037,217	75,144,630	205,875
14		Charles Street	7,628,635	5,686,726	7,866,777	9,563,070	8,010,187	5,837,990	5,529,861	5,747,276	4,506,857	5,923,418	5,374,530	6,885,503	78,359,850	214,685
15		Country Club (line 27)	(9,548)	(42,962)	(25,175)	(40,655)	(310,885)	(256,500)	(191,549)	(201,234)	(98,035)	(60,574)	(38,670)	(35,960)	(1,311,747)	
16		Strasburg Hunt (line 32)	(320,333)	(268,518)	(232,000)	(286,551)	(193,085)	(297,964)	(318,000)	(217,974)	(300,535)	(239,320)	(289,250)	(212,748)	(3,156,278)	(8,647)
17		Total	20,440,553	16,010,242	22,668,751	25,859,314	20,839,042	16,329,086	16,251,376	16,954,767	14,842,501	18,036,668	16,832,100	20,527,647	225,592,047	618,060
18		GPD	659,373	571,794	731,250	861,977	672,227	544,303	524,238	546,929	494,750	581,828	561,070	662,182		
19	Parkesburg Borough															
20		Pump Station	12,328,669	10,703,030	13,955,456	15,387,610	15,510,540	12,162,390	11,625,000	11,167,564	10,028,690	11,282,946	9,458,820	11,960,482	145,569,397	398,820
21		Quebecor (line 43)	(901,170)	(793,408)	(927,768)	(719,760)	(792,825)	(794,340)	(876,959)	(719,173)	(898,650)	(909,478)	(779,970)	(680,946)	(9,794,447)	(26,834)
22		West Sadsbury Commons (line 44)	(529,728)	(503,804)	(736,529)	(695,880)	(711,760)	(655,170)	(722,734)	(724,594)	(670,710)	(671,119)	(640,710)	(736,374)	(7,999,112)	(21,915)
23		Bulk to Parkesburg PS (line 63+64+65)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24		Total	10,897,771	9,405,818	12,291,159	13,972,170	14,005,955	10,712,880	10,025,307	9,723,797	8,457,330	9,702,349	8,038,140	10,543,162	127,775,838	350,071
25		GPD	351,541	335,922	396,489	465,739	451,805	357,096	323,397	313,671	281,911	312,979	267,938	340,102		
26	West Cain Township															
27		Coatesville Country Club	9,548	42,962	25,175	40,655	310,885	256,500	191,549	201,234	98,035	60,574	38,670	35,960	1,311,747	3,594
28		Sandy Hill	490,420	432,320	568,044	525,270	503,409	488,790	507,439	509,976	477,996	671,119	538,740	589,000	6,302,523	17,267
29		Total	499,968	475,282	593,219	565,925	814,294	745,290	698,988	711,210	576,031	731,693	577,410	624,960	7,614,270	20,861
30		GPD	16,128	16,974	19,136	18,864	26,268	24,843	22,548	22,942	19,201	23,603	19,247	20,160		
31	East Fallowfield Township															
32		Strasburg Hunt	320,333	268,518	232,000	286,551	193,085	297,964	318,000	217,974	300,535	239,320	289,250	212,748		-
33		Brinton Station	392,987	344,484	428,668	404,820	373,209	353,100	384,002	372,869	363,840	382,912	399,360	417,167	4,587,417	12,568
34		Branford Village PS #1 - Main	2,055,610	1,859,172	2,072,412	2,050,320	1,923,581	1,820,040	1,837,339	1,833,867	1,825,680	1,974,286	1,884,840	2,050,402	23,187,529	63,527
35		Branford Village PS #2	513,453	471,600	525,729	529,500	552,699	492,980	504,401	479,694	476,040	509,733	374,100	504,587	5,834,886	16,259
36		Hilltop Mobile Home Park	352,346	318,248	318,680	336,690	237,825	250,200	232,097	202,957	233,280	291,245	241,650	339,481	3,354,789	9,191
37		Stone Creek	774,070	692,468	705,219	894,660	806,372	791,160	835,357	847,509	852,630	912,485	935,610	1,002,354	10,049,894	
38		Providence Hill	100,037	105,586	120,528	116,820	140,161	133,410	148,025	156,054	154,980	174,871	184,560	202,709	1,737,731	
39		Northwoods						5,000	57,906	15,624	20,820	22,878	23,550	23,126	168,906	
40		Total	3,543,000	3,164,642	3,438,299	3,636,351	3,296,247	3,282,264	3,354,698	3,272,218	3,342,686	3,508,983	3,480,060	3,682,671	37,834,840	76,123
41		GPD	114,290	113,023	110,913	121,212	106,331	108,742	108,216	105,556	111,423	113,193	116,302	118,796		103,657
42	West Sadsbury Township															
43		Quebecor	901,170	793,408	927,768	719,760	792,825	794,340	876,959	719,173	898,650	909,478	779,970	680,946	9,794,447	26,834
44		West Sadsbury Commons	529,728	503,804	736,529	695,880	711,760	655,170	722,734	724,594	670,710	671,119	640,710	736,374	7,999,112	21,915
45		Total	1,430,898	1,297,212	1,664,297	1,415,640	1,504,585	1,449,510	1,599,693	1,443,767	1,569,360	1,580,597	1,420,680	1,417,320	17,793,559	48,749
46		GPD	46,158	46,329	53,687	47,188	48,535	48,317	51,603	46,573	52,312	50,987	47,356	45,720		
47	West Brandywine Township															
48		Pump Station	4,321,431	3,831,128	4,155,302	4,141,620	4,312,503	4,246,017	4,513,831	4,958,132	4,222,689	4,414,721	3,971,922	4,001,077	51,090,373	139,974
49		Total	4,321,431	3,831,128	4,155,302	4,141,620	4,312,503	4,246,017	4,513,831	4,958,132	4,222,689	4,414,721	3,971,922	4,001,077	51,090,373	139,974
50		GPD	139,401	136,826	134,042	138,054	139,113	141,534	145,607	159,940	140,756	142,410	132,397	129,067		
51	Sadsbury Township															
52		Pump Station	4,675,327	4,048,492	5,502,407	5,751,000	5,186,486	4,234,290	4,011,276	4,128,845	3,844,500	4,198,454	3,992,790	4,353,299	53,927,166	147,746
53		Sadsbury Crossing	78,000	69000	67,636	72,413	110,437	75,000	95,000	78,000	94,545	81,000	82,000	91,000	994,031	2,723
54		Sandy Hill	490,420	432,320	568,044	525,270	503,409	488,790	507,439	509,976	477,996	671,119	538,740	589,000	6,302,523	
55		Total	4,753,327	4,117,492	5,570,043	5,823,413	5,296,923	4,309,290	4,106,276	4,206,845	3,939,045	4,279,454	4,074,790	4,444,299	54,921,197	150,469
56		GPD	153,333	147,053	179,679	194,114	170,868	143,643	132,461	135,705	131,302	138,047	135,826	143,364		
57	Veterans Hospital															
58		11th & Diamond	7,153,095	6,869,128	7,587,870	7,173,660	6,997,971	6,817,992	7,280,738	See Below	See Below	7,747,215	6,951,970	6,791,469	71,371,108	195,537
59		West Brandywine PS (line 48)	(4,321,431)	(3,831,128)	(4,155,302)	(4,141,620)	(4,312,503)	(4,246,017)	(4,513,831)	(4,958,132)	(4,222,689)	(4,414,721)	(3,971,922)	(4,001,077)	(51,090,373)	(139,974)
60		Total	2,831,664	3,038,000	3,432,568	3,032,040	2,685,468	2,571,975	2,766,907			3,332,494	2,980,048	2,790,392	35,068,480	96,078
61		GPD	91,344	108,500	110,728	101,068	86,628	85,733	89,255	94,284	89,471	107,500	99,335	90,013		
62	Bulk Delivery															
63		Rock Run to Parkesburg	-	-	-	-	-	-	-	-	-	-	-	-		
64		Octoraro to Parkesburg													-	-
65		Haulers to Parkesburg													-	-
66		Rock Run to Plant													-	-
67		Octoraro to Plant													-	-
68		Haulers to Plant	95,300	44,900	112,300	161,800	165,700	151,500	158,800	126,900	120,600	137,200	99,800	108,400	1,483,200	4,064
69		Total	95,300	44,900	112,300	161,800	165,700	151,500	158,800	126,900	120,600	137,200	99,800	108,400	1,483,200	4,064
70		GPD	3,074	1,604	3,623	5,393	5,345	5,050	5,123	4,094	4,020	4,426	3,327	3,497		
71	City of Coatesville															
72		Total Metered Plant Flow	117,651,700	98,474,600	128,765,500	139,702,600	122,943,900	110,756,200	110,601,700	107,494,000	90,460,800	98,930,500	95,956,800	110,731,300	1,332,469,600	3,649,417
73		Total Contributing	54,483,584	46,587,945	59,439,886	65,103,392	58,803,449	49,461,431	47,619,816	48,320,869	44,279,962	50,861,225	46,221,640	54,412,374	625,595,573	1,705,313
74		Total	63,168,116	51,886,655	69,325,614	74,599,208	64,140,451	61,294,769	62,981,884	59,173,131	46,180,838	48,069,275	49,735,160	56,318,926	706,874,027	1,944,104
75		GPD	2,037,681	1,853,095	2,236,310	2,486,640	2,069,047	2,043,159	2,031,674	1,908,811	1,539,361	1,550,622	1,657,839	1,816,740		

Footnotes (Line #)
7,8,16,32 & 52 - Based on Water Meter Usage
Line 5 June estimated could get access to Pump Station lock changed
Line 3d Jan - March meter malfuntion meter replaced by PAWC
Line 56 & 48 August & Sept West Brandywine's meter malfunctioned
Line [illegible] 11th & Diamond meter malfunctioned

Table 1
Monthly Average Hydraulic Loadings (mgd)

Month	2002	2003	2004	2005	2006	2007	5-YR AVG
January	2.204	2.965	3.546	3.776	3.939	3.795	3.604
February	2.076	3.195	3.749	3.652	3.913	3.517	3.605
March	2.248	4.011	3.183	3.688	3.472	4.154	3.702
April	2.264	3.421	3.315	4.337	3.411	4.657	3.828
May	2.599	3.204	3.296	3.402	3.189	3.966	3.411
June	2.511	4.501	3.251	3.124	3.891	3.692	3.692
July	2.377	3.449	3.118	3.530	3.811	3.568	3.495
August	2.358	3.696	3.422	3.171	3.353	3.468	3.422
September	2.364	4.266	3.408	2.905	3.403	3.015	3.399
October	2.650	3.719	3.288	3.663	3.292	3.191	3.431
November	2.763	4.072	3.269	3.297	3.593	3.199	3.486
December	3.126	4.296	3.371	3.609	3.379	3.572	3.645
Min	2.076	2.965	3.118	2.905	3.189	3.015	2.905
Avg	2.462	3.733	3.351	3.513	3.554	3.650	3.560
Max	3.126	4.501	3.749	4.337	3.939	4.657	4.657
3 Month Max *	2.846	4.029	3.493	3.892	3.775	4.259	3.890
Flow Peaking Factor **	1.156	1.079	1.042	1.108	1.062	1.167	1.093

*** : Represents the average of the three highest consecutive month's flows.**
**** : Calculated by dividing the maximum 3-month average flow by the average annual flow**

Graph 1

5 Year Annual Average Hydraulic Loading

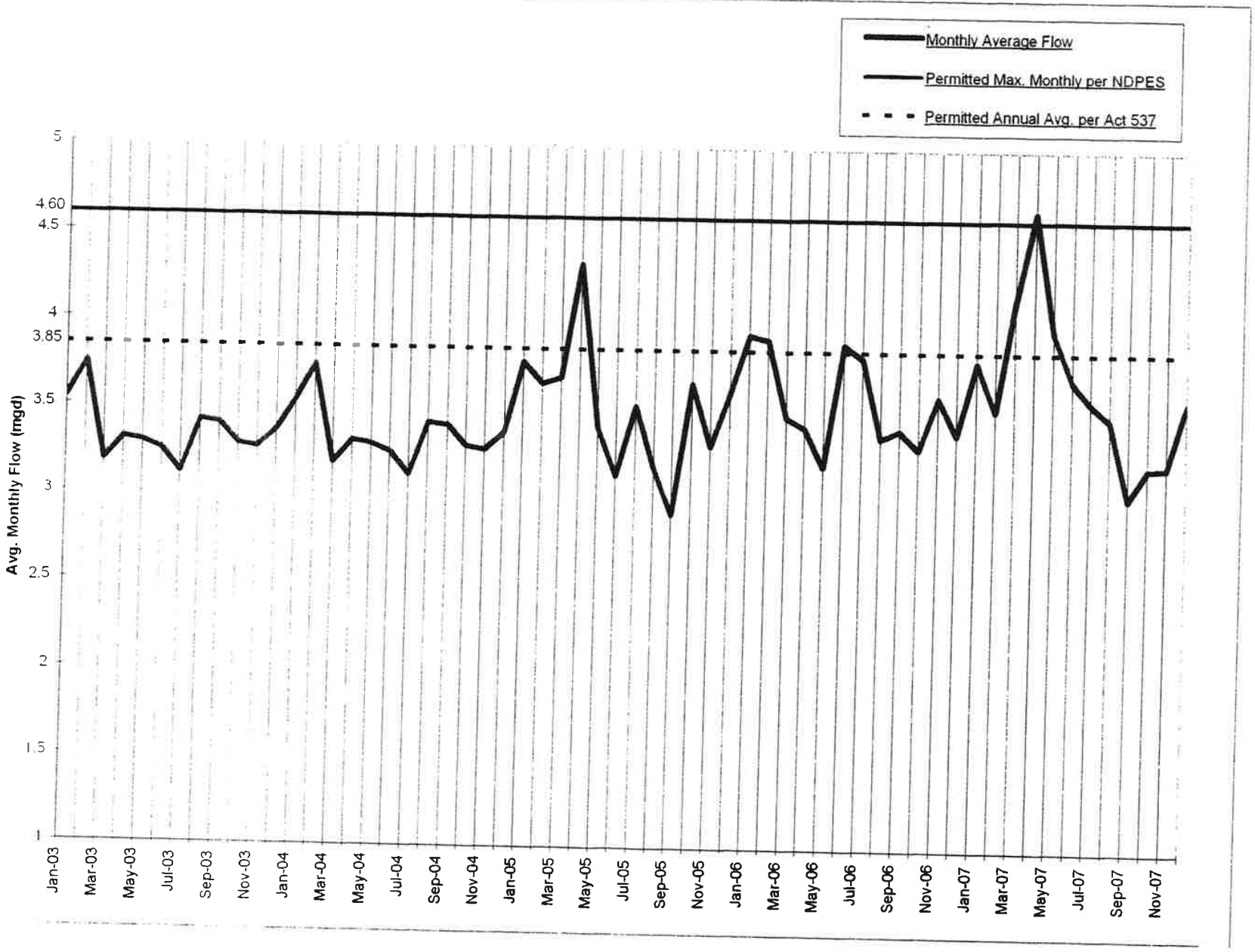
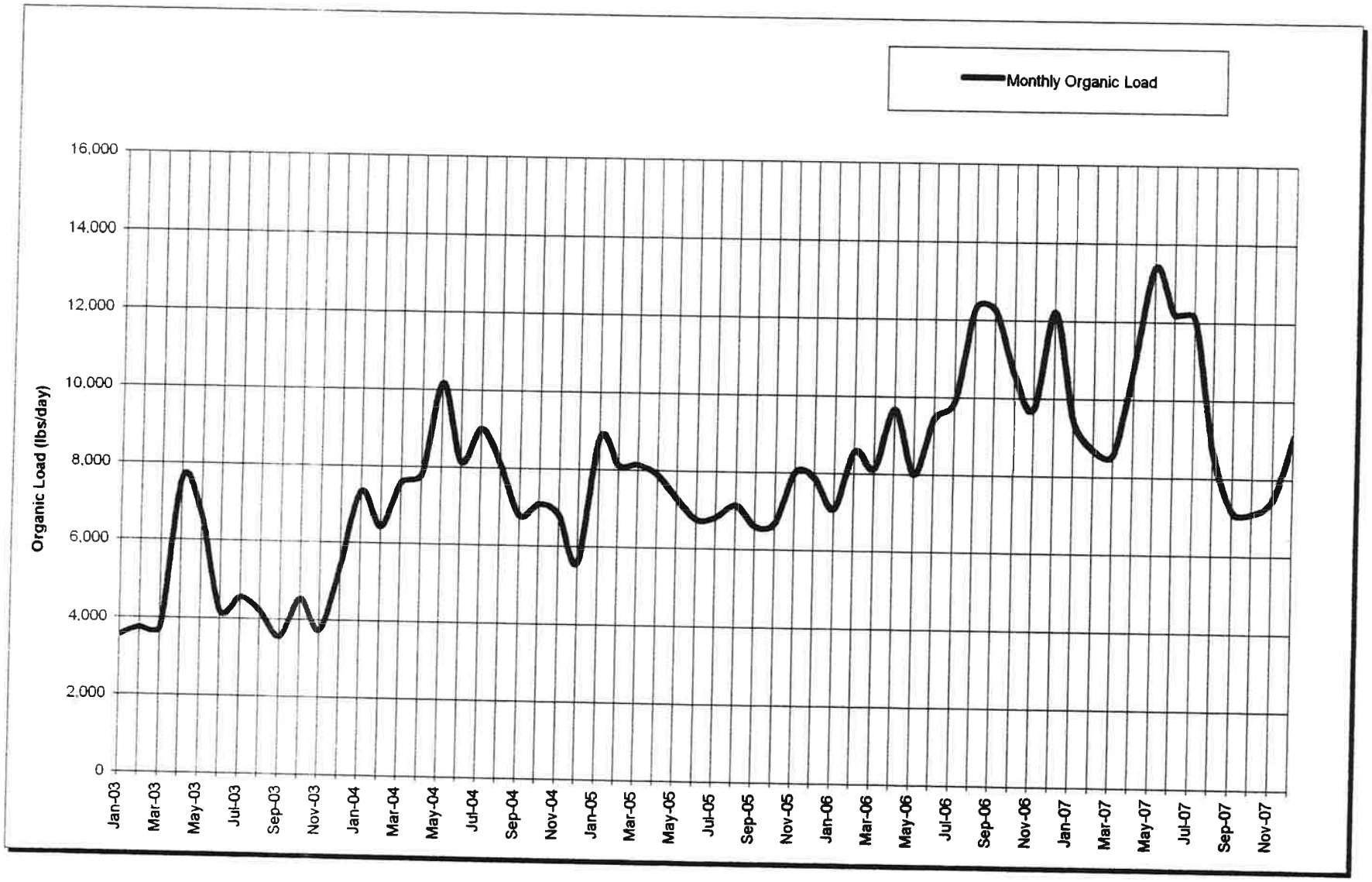


Table 2
Monthly Average Organic Loadings (lbs/day)

Month	2002	2003	2004	2005	2006	2007	5-YR AVG
January	4,963	3,548	7,334	8,833	7,070	9,441	7,245
February	3,376	3,757	6,425	8,098	8,576	8,679	7,107
March	4,668	3,750	7,584	8,140	8,125	8,554	7,231
April	6,344	7,609	7,788	7,873	9,679	10,871	8,764
May	8,844	6,633	10,182	7,279	7,991	13,399	9,097
June	6,408	4,188	8,123	6,732	9,453	12,187	8,137
July	6,383	4,560	9,013	6,793	9,885	12,111	8,472
August	5,270	4,228	8,074	7,122	12,315	8,691	8,086
September	4,416	3,549	6,762	6,586	12,266	7,136	7,260
October	4,752	4,553	7,075	6,671	10,611	7,076	7,197
November	5,208	3,733	6,789	8,003	9,727	7,462	7,143
December	5,397	5,423	5,598	7,856	12,228	9,092	8,039
Min (lbs/d)	3,376	3,548	5,598	6,586	7,070	7,076	7,107
Avg (lbs/d)	**5,502**	**4,628**	**7,562**	**7,499**	**9,827**	**9,558**	**7,815**
Max (lbs/d)	8,844	7,609	10,182	8,833	12,315	13,399	9,097
Ave (mg/l)	268	149	271	256	332	314	263
Peaking Factor *	1.61	1.64	1.35	1.18	1.25	1.40	1.36

*** : Calculated by dividing the maximum month loading by the average annual loading**

Graph 2
5 Year Annual Average Organic Loadings



2007 CHAPTER 94 REPORT
WASTEWATER TREATMENT PLANT FLOWS AND PROJECTIONS PER MUNICIPALITY

TABLE 3

PROJECTED TOTAL PER CMP, TABLE A2 (REVISED MARCH 2008) SUMMARY NO. 2

	Act 537 Approved Contracted Allocation	Chapter 94 Flow 2007	2008	2009	2010	2011	2012	5-year Net Increase
City of Coatesville	*	1,944,104	2,017,904	2,112,854	2,146,829	2,152,454	2,152,454	208,350
Valley Township	550,000	618,060	722,235	851,385	876,360	876,360	876,360	258,300
Caln Township	167,000	173,330	175,805	183,455	201,230	219,230	225,980	52,650
West Brandywine Township	345,000	139,974	186,099	225,699	243,924	255,399	273,624	133,650
Sadsbury Township	410,750	150,469	178,369	219,994	264,994	296,719	296,719	146,250
West Sadsbury Township	*	48,749	48,749	61,574	61,574	61,574	61,574	12,825
East Fallowfield Township	*	103,657	139,657	172,732	189,382	189,382	189,382	85,725
Borough of Parkesburg	*	350,071	434,446	527,146	527,146	527,146	527,146	177,075
West Caln Township	*	20,861	29,861	38,861	38,861	38,861	38,861	18,000
Veterans Hospital	*	96,078	96,078	96,078	96,078	96,078	96,078	-
Highland Township		225	225	225	225	225	225	-
Bulk Delivery		4,064	4,064	4,064	4,064	4,064	4,064	-
Ave. Total Flow (MGD)		**3,649,642**	**4,033,492**	**4,494,067**	**4,650,667**	**4,717,492**	**4,742,467**	**1,092,825**
3-Month Max (MGD)		**4,259,000**	**4,706,939**	**5,244,413**	**5,427,180**	**5,505,142**	**5,534,287**	**1,275,287**
Peak Factor		**1.167**	**1.167**	**1.167**	**1.167**	**1.167**	**1.167**	

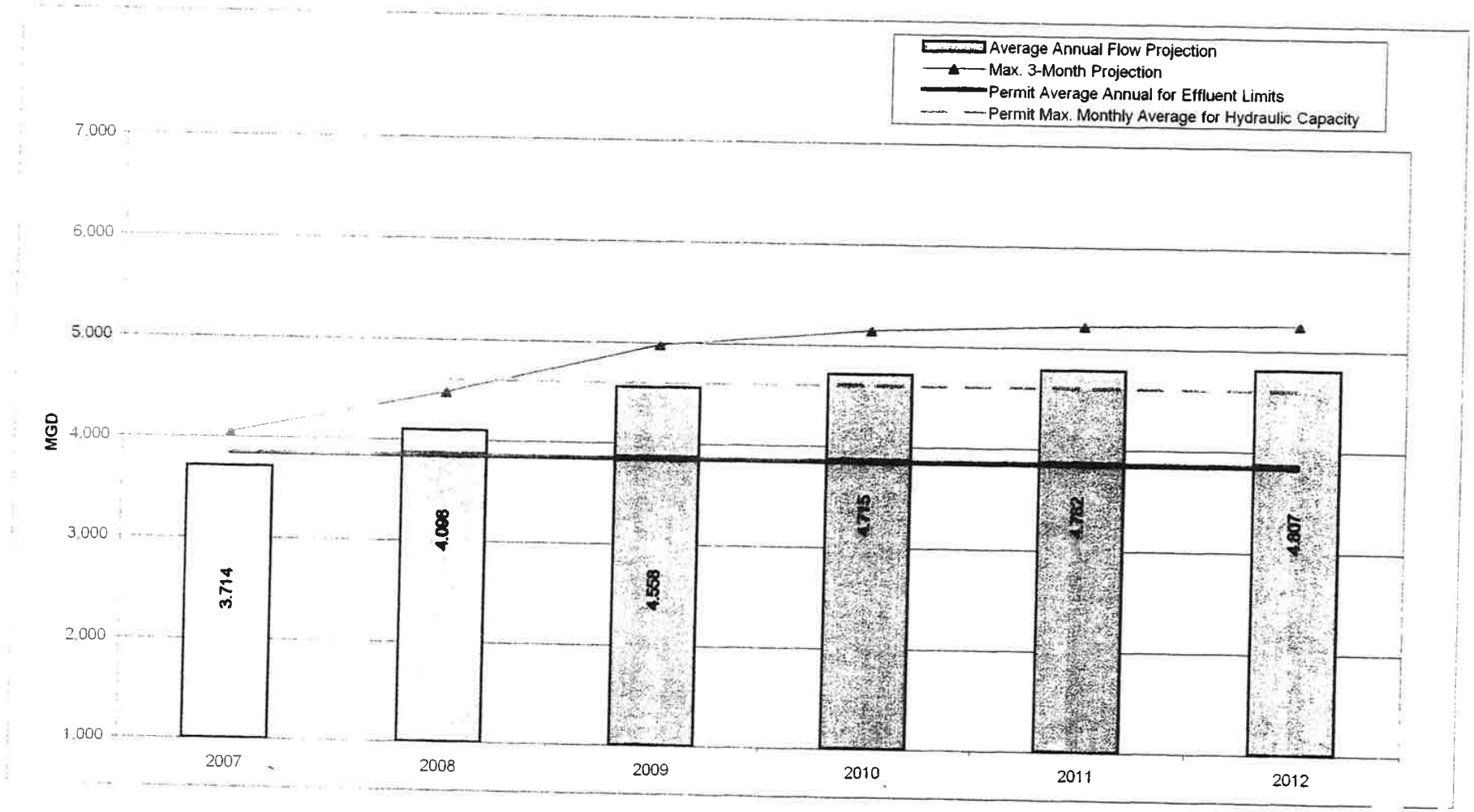
PROJECTED TOTAL PER CMP (revised 3/08) TABLE A2 (SUMMARY NO. 2) BASED ON 5 YEAR ADJUSTED AVERAGES

Ave. Total Flow (MGD)		**3,713,892**	**4,097,742**	**4,558,317**	**4,714,917**	**4,781,742**	**4,806,717**	**1,092,825**
3-Month Max (MGD)		**4,056,969**	**4,476,278**	**4,979,399**	**5,150,466**	**5,223,464**	**5,250,746**	**1,193,776**
Peak Factor		**1.092**	**1.092**	**1.092**	**1.092**	**1.092**	**1.092**	
Organic Loading (mg/l)		**314.0**	**263.0**	**263.0**	**263.0**	**263.0**	**263.0**	
Ave. Organic Loading (lbs/day)		**9,558**	**8,847**	**9,857**	**10,201**	**10,347**	**10,402**	**844**
Max. 1-Mth. Organic Loading (lbs/day)		**13,399**	**12,032**	**13,406**	**13,873**	**14,073**	**14,147**	**748**
Peak Factor		**1.40**	**1.36**	**1.36**	**1.36**	**1.36**	**1.36**	

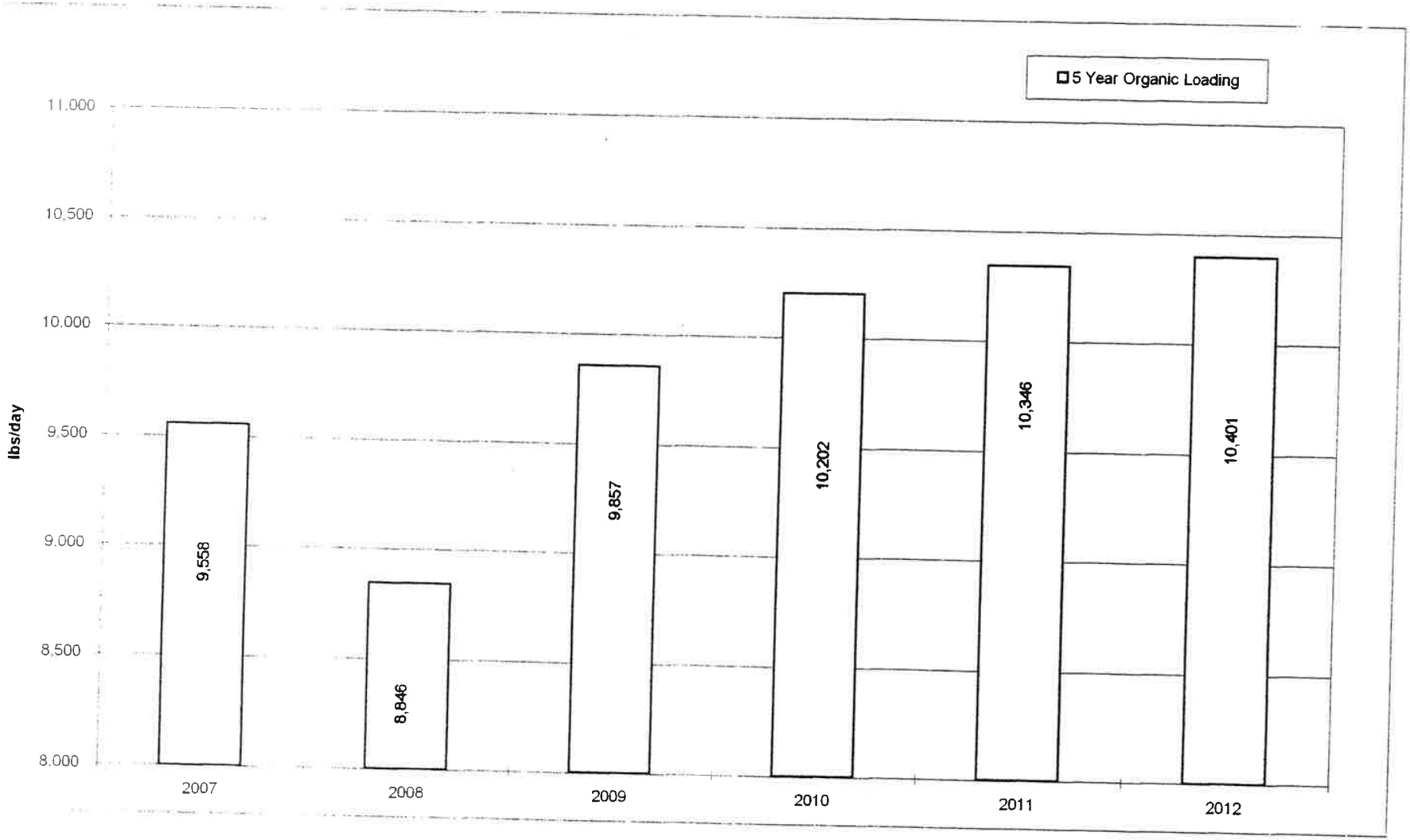
Contract and Planning Allocations For WWTF Expansion			
	Allocation	Contracted Capacity	
City of Coatesville	2,391,490		
Valley Township		1,540,000	
Caln Township		800,000	
West Brandywine Township		345,000	(1)
Sadsbury Township		410,750	
West Sadsbury Township	111,951		
East Fallowfield Township	329,232		
Borough of Parkesburg	633,416		
West Caln Township	251,089		
Veterans Hospital	74,271		
Highland Township	56,436		
Totals:	3,847,887	3,095,750	6,943,637

NOTE (1) Draft Sewer Agreement 4/25/05 pending with requested amounts of 473,000 gpd and 835,000 gpd post plant

Graph 3
5 Year Hydraulic Projection



Graph 4
5 Year Organic Load Projection



APPENDIX B

Pennsylvania American Water

COATESVILLE DISTRICT
CHESTER COUNTY

CONNECTION MANAGEMENT PLAN

WASTEWATER TREATMENT PLANT

AND

COLLECTION SYSTEM

REPORTING 4th Quarter 2007 Data REVISED: January 2008

PLEASE NOTE
CMP SUBMITTAL DATES BY PAWC TO PADEP:
1/15/2008

PADEP APPROVAL DATES:
PENDING

PREPARED BY:
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Pennsylvania American Water

CONNECTION MANAGEMENT PLAN
WASTEWATER TREATMENT PLANT (WWTP)
&
COLLECTION SYSTEM
REPORTING 4th Quarter 2007 Data REVISED: January 2008

SUMMARY OF MANAGEMENT PLAN GOALS FOR WWTP

PAWC, in coordination with tributary municipalities, provides on-going and revised projections through PAWC's Connection Management Plan (CMP) which is submitted to DEP on a quarterly basis as set forth in the Consent Order & Agreement (CO&A). The CMP has two summaries of projections on Table A2 in the report and reflects those developments approved by DEP for construction and connection to the sewer system which is located within the 2001 DEP approved Act 537 service areas of the tributary municipalities. These developments may be connected prior to the completion of the sewer plant expansion pending final DEP approval of the applicable sewer planning modules. The 5 year projected annual flows approved by DEP at this time project total flows in Summary # 1 of 4.790 mgd with a total construction of 4,783 EDUs by 2012. Summary # 2 is a PAWC projection of projects with Planning Modules signed by PAWC or pending submission by PAWC which is 74 EDU's more than Summary #1 in this submission, 14 EDU's is because PAWC is proposing the addition of several small projects in Valley Township and one in Caln Township while reducing other projects that do not require the quantity originally listed on Table A2. 57 of the 74 EDU's is because PAWC is requesting the movement of 57 EDU's from the Parkesburg Borough Miscellaneous to West Sadsbury to serve two existing industrial facilities. 71 of the 74 pending EDU's were listed on the October 2007 CMP, however no official approval of that submission was received. The addition of these projects on Table A2 of the CMP is consistent with DEP's March 27, 2007 and September 5, 2007 Letters to PAWC in that the municipalities remain under their respective allocation approved with the addition of these two projects.

On the CMP, Table A3, Summary #1 indicates all units as requested by developers and townships, and is a highly aggressive growth number which would produce an average flow in 2012 of 5.862 mgd. Summary #2 indicates all units requested which have planning modules signed by PAWC or pending, and is a more conservative and realistic growth number which would produce an average flow in 2012 of 4.790 mgd. Summary #3 shows the difference between Summary #1, the aggressive EDU projection, and Summary #2; and represents the remaining EDU's not yet signed by PAWC.

Table A1A is composed of two (2) different projections. The first projection at the top of the page (Projected Total per CMP Table A2 (2007 Q4, Revised January 2008), Summary No. 2) begins with the 2006 actual average flow of 3,552,763 gpd as reported in the 2006 Chapter 94 report and projects flow in 2007 based off the actual connections for each municipality and then projects flows for the five year period of 2008-2012 resulting in a 2012 average flow of 4,687,438 gpd.

The second projection at the bottom of the page Summary No. 2 – Based on adjusted 5 Year Average refers to the CMP Table A2, Summary #2 for which PAWC has approved planning modules or considers to be pending. Starting with the most recent adjusted five year average flow of 3,713,892 gpd, the average flow in 2012 is projected to be 4,806,717 gpd. Table A1B shows the derivation of the adjusted 5 year average flow based on flow adjustments for prior year connections.

Looking at both summaries, PAWC anticipates the actual flow in the next five years will most realistically follow this second projection for pre-plant expansion. Once the expanded plant is completed and new, additional capacity provided, flows will be able to exceed the pre-plant capacity limits.

CORRECTIVE ACTIONS TO ADDRESS PROJECTED HYDRAULIC OVER LOAD:

PAWC has been developing a Regional Act 537 Plan since 2001 and distributed the draft plan to the tributary municipalities, the Chester County Planning Commission and the Chester County Health Department for review and comment in 2005. Most of the municipalities and the County agencies did respond and their comments were reflected in a revised draft Plan. PAWC submitted this plan to DEP for review in the 4th Quarter of 2005. At a meeting with the tributary municipalities on December 7, 2005, in which PAWC and representatives from DEP attended, DEP explained it had made the decision that each tributary municipality must submit its own revised Act 537 Plan from which certain elements of these plans must be incorporated into PAWC's Regional Act 537 Plan.

East Fallowfield submitted its revised Act 537 Plan to DEP in 2004; however, DEP determined it was not administratively complete. East Fallowfield is in the process of revising and updating the Plan for submission in late 2007 or early 2008.

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Caln Township submitted its revised Act 537 to DEP on November 7, 2005, and has met a number of times with DEP to resolve issues pertaining to a proposed pump station which would separate flows to the Downingtown Area Regional Authority ("DARA") and PAWC's Coatesville Plant. By letter dated September 27, 2007, DEP advised Caln Township that it "...will be unable to issue an approval for the Townships Act 537 plan update until we have approved the PAWC Regional Plan that provides the expansion of the PAWC Regional Plant and will release the approval of the Township's plan concurrently with our approval of the regional plan."

Only minor revisions were required to the City of Coatesville's and the Borough of Parkesburg's Act 537 Plan which pertains to projected capacity needs. The City of Coatesville planning effort has been submitted to DEP for final approval pending approval of the PAWC Act 537 Plan. The Borough of Parkesburg planning effort has been included as an appendix in the PAWC Act 537 Plan and concurrent DEP approvals are subsequently anticipated.

Sadsbury Township has determined there are no changes needed in its existing, approved Act 537 Plan at this time. Its Plan provides for present and future needs and is still appropriate for its planning period; therefore, their Plan will not need revisions.

Valley, West Brandywine, West Caln and West Sadsbury Townships are in various stages of Act 537 revisions which are anticipated to be completed most likely in 2008. Highland Township is also considering proceeding with its first Act 537 Plan but has yet to authorize its preparation. All ten tributary municipalities are aware that their projected, future sewer capacity needs cannot be approved until PAWC's Act 537 Plan, as well as the individual municipality's Plan, is approved by DEP and, further, until the Coatesville sewage treatment plant expansion is completed.

PAWC has successfully worked with all tributary municipalities in the development of the needs analysis for sewer capacity which we are including in our ACT 537 Plan. We completed our Plan draft in August 2006 and sent it to the tributary municipalities and to South Coatesville Borough, the host municipality for our sewage treatment plant, for their review and comment. Draft Plan copies were also sent to the Chester County Planning Commission ("CCPC") and the Chester County Health Department ("CCHD").

PAWC and our consulting firm, URS, have met with each of the eleven municipal planning commissions (including South Coatesville) to discuss and respond to questions regarding our Plan. All ten of the tributary municipal planning commissions have sent their comments and recommendations to their respective governing bodies for consideration of the approval of the PAWC Act 537 Plan. The South Coatesville Borough Planning Commission has not made their recommendations yet although PAWC has met with the Borough Planning Commission several times. We continue to work with this planning body to encourage their recommendations.

It should be noted here that on September 11, 2007, the South Coatesville Borough Council approved the issuance to PAWC of a Letter of Consistency indicating compliance with its Chapter 52 Flood Management Ordinance. The Letter of Consistency dated September 28, 2007, was sent to PAWC. PAWC forwarded a copy of this letter to DEP for the final approval needed for the issuance of the construction permit.

We will finalize additional information for the Plan which will be sent to all municipal governing bodies in the first or second quarter of 2008. We will then request meetings with all eleven governing bodies to make a formal presentation of the Plan and respond to questions and comments. We will present a sample resolution for the governing bodies to consider for adoption of the PAWC Plan. We anticipate receiving all municipal approvals by late fall.

Due to many scheduling problems in setting up meetings with the planning commissions, we have had to move the submission of the Plan to DEP to late summer. We continue working with all municipalities to lend any assistance requested in the development of their individual ACT 537 Plans to try to assure continuity with all Plans. Because of time constraints and delays we have faced throughout this whole process, we will be requesting that DEP assist us by expediting its review and approval.

On December 7, 2005, DEP directed that sewer connections would be allowed only in those sewer service areas of the Act 537 Plan approved by DEP on March 15, 2001. Any developments proposed in areas outside the 2001 service area will not be approved until after the plant expansion unless the municipality's limited scope Act 537 Plan revision is first approved by DEP and, further, provided the additional capacity requested does not exceed the CMP allocation of 4.6 mgd prior to the Plant expansion. For four projects (Bone Tract, London Tract, Southwoods, and Ridgecrest) that are outside the Act 537 2001 service areas, PAWC requested and DEP approved to move these projects from Table A3 to A2 in the Q2 2006 CMP revised July 2006. At this time there are no other requests for connections outside the 2001 sewer service areas.

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PAWC submitted a re-rating study to DEP which shows the organic and hydraulic capacity of the facility to be 4.86 MGD. As part of the CO&A, DEP will permit flow allocations up to the average annual flow rate of 4.6 MGD to be used in the CMP projections prior to the completion of the sewer plant expansion. DEP received the Part I NPDES permit for the proposed 7.0 MGD facility on September 17, 2005. DEP received the Part II NPDES permit for the proposed 7.0 MGD facility on March 31, 2006. PAWC has completed the design engineering for the WWTP expansion. PAWC anticipates having the WWTP expanded capacity online by early 2010 pending issuance of Part 2 permit by DEP.

SUMMARY OF MANAGEMENT PLAN GOALS FOR COLLECTION SYSTEM

Previous Connection Management Plans (CMP) identified MH #16 to #18 as the most critical section of the East End Trunk Line (EETL) and allocated new connections as shown in Table B2 of the CMP, until the line upgrade of this critical section was completed. Construction of this upgrade was substantially completed and placed into service on 5/10/06. There is no need for further allocation of new connections as it pertains to this section.

Previous Connection Management Plans (CMP) identified MH #20 to #21 as the most critical section of the East End Trunk Line (EETL) and allocated new connections as shown in Table B2 of the CMP, until the line upgrade of this critical section was completed. Construction of this upgrade was substantially completed and placed into service on 1/25/07. There is no need for further allocation of new connections as it pertains to this section.

All EETL segments previously awarded for replacement (sections 19 through 26 and 29 through 31) are now complete.

Utilizing flow projections for the next five years, and based on system flows as monitored in May 2002, Table B1 shows the next critical section of the Collection System to be between manholes 10 and 9. Peak flows are based on projections of average daily flow, which correlate to the increase in projected new connections based on Table A2 – summary #2, times a peaking factor of 2.8. The projected EDU's are based on the EDU's as submitted by the contributing municipalities and currently signed Planning Modules and PAW/developer estimates of buildout. Provided that all projected EDU's on Table A2 become active, we project a hydraulic overload in this critical section in 2010. The full pipe design capacity of the line is 10,741,680 gpd, and the present peak flow if 7,691,600 gpd. The projected EDU's remaining based on the average daily flow would be 4,841 EDU's.

As shown in Table 2, PAW currently has capacity to accept 4,841 new EDU's through this critical section of the collection system. All proposed connections on Table A2 are upstream of this section. Table B2 indicates that a total of 4,723 new EDU's through 2009 are projected to flow through this section and 196 have connected since establishing the limit, leaving a total of 4,527 EDU's remaining to be connected. The total EDU allowed through 2009 is consistent with DEP's September 5, 2007 approving the July 2007 submission of the CMP. PAWC is limiting connection until this critical section is upgraded and placed into service.

Manhole segment 10 to 9 is located within the Mittal Steel Property just north of the existing sewage treatment plant. The sewer main is part of the 30" interceptor that collects the sewage from the East and West End trunk lines which combine at manhole 15. The 30" interceptor conveys all the sewage in the Coatesville sewer service area from manhole 15 to the headworks of the existing treatment plant.

PAWC plans to upgrade this section in conjunction with its planned upgrades to the Coatesville WWTP. The following action items are underway with regards to this project.

PAWC installed surcharge level indicators at MH locations 9, 10, 12, 20, 21 and 22 to monitor operating conditions during wet weather conditions. Buchart Horn and PAWC has monitored them since July 28, 2006 and has not recorded any sewer overflows during the monitoring period.

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- PAWC has completed plan and profile drawing of the proposed improvement.
- PAWC has funding for upgrade of this critical section and EDU's are allocated in accordance with this agreement as shown in Table A2.
- PAWC has received the Part II Permit January 8, 2007 for this upgrade. Permit No. 1506416.
- PAWC has received bids for construction on July 17, 2007.
- PAWC awarded the contract on October 12, 2007 and issued a Notice to Proceed on December 3, 2007.
- Estimated completion of construction is fall 2008 in conjunction with the treatment plant expansion.

PAWC has recently signed planning modules for three developments with the Borough of Parkesburg, the Davis Tract 324 EDU's, Crystal Springs 129 EDU's, and HDC Site 75 EDU's. PAWC performed a capacity analysis and identified the combined total of the additional EDU's will cause specified segments to be greater than its design capacity. A restriction shall be placed upon these three developments that prior to connection of a combined total of 232 EDU's, pipe segments must be replaced. To assist the developers, PAWC will coordinate the design, permitting and construction of the improvements and offer the following Corrective Action Plan (CAP).

- PAWC will begin design efforts in October 2007 pending developers commitment.
- PAWC will submit Part II permit to DEP in January 2008.
- PAWC will receive bids for construction in April 2008.
- Notice of Award and Proceed issued by June 2008.
- Construction timeframe June 2008 through October 2008.

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CONNECTION MANAGEMENT PLAN - REPORTING 4th Quarter 2007 Data REVISED: January 2008

WASTEWATER TREATMENT PLANT (WWTP) CAPACITY PROJECTIONS

TABLE 1

Line/Note	CAPACITY BASED ON ACT 537 PLANNING	
A	ANNUAL AVERAGE FLOW PER ACT 537	3.85 mgd
B	AVAILABLE ALLOCATION LIMIT PER CONSENT ORDER	4.60 mgd
C	ADJUSTED 5 YEAR ANNUAL AVERAGE FLOW	3.714 mgd
D	AVAILABLE CAPACITY TO ALLOCATE	0.886 mgd
E	AVAILABLE EDUS BASED ON AVAILABLE CAPACITY	**3,938 edu**
1	PERMITTED 3-MONTH MAXIMUM FLOW PER NPDES PERMIT	4.600 mgd
2	5 YEAR MAXIMUM 3-MONTH AVERAGE FLOW	4.057 mgd
3	5 YEAR AVERAGE PEAKING FACTOR: 3-MONTH MAXIMUM TO ANNUAL AVERAGE	1.092

Note

All referenced tables are located in Appendix

EDU = 225 gpd/edu

(A) Annual Average Flow per 1995 ACT 537 Plan

(B) Available capacity to be allocated per November 30, 2005 Consent Order prior to facilty expansion in 2008.

(C) Calculated using the running Adjusted 5 Year Equivalent Base Flows from Table A1B.

(D) Calculated as Line A - Line B

(E) Calculated as (Line C * 1,000,000) divided by (225 gpd/edu). Available EDU's could be greater when lower EDU vaules for for senior housing are factored in.

(1) 4.60 mgd is the Maximum Month Flow per the NPDES permit which is used to help determine hydraulic loading at WWTP. Hydraulic overload does not occur until the maximum month average is exceeded for 3 consecutive months.

(2) From Table A1A, calculated as Adjusted 5 year annual average flow times peak factor from Table A1.

(3) 5 Year Peak factor from Table A1.

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CONNECTION MANAGEMENT PLAN - REPORTING 4th Quarter 2007 Data REVISED: January 2008

30" INTERCEPTOR CAPACITY PROJECTIONS

TABLE 2

Line/Note	CAPACITY BASED ON MOST CRITICAL SECTION	
1	HYDRAULIC PEAK CAPACITY AT CRITICAL SECTION (MH# 10 to MH# 9)	10,741,680 gpd
2	INTERCEPTOR AVERAGE DAILY FLOW	2,747,000 gpd
3	INTERCEPTOR PEAK DAILY FLOW	7,691,600 gpd
4	AVAILABLE CAPACITY AS PEAK FLOW	3,050,080 gpd
5	AVAILABLE CAPACITY AS AVERAGE FLOW	1,089,314 gpd
6	AVAILABLE EDUS AT AVERAGE FLOW	4,841 edu
7	NUMBER OF CONNECTIONS MADE	196 edu

Note	
	All referenced tables are located in Appendix
(1)	Critical Section as indicated on Table B1
(2)	Average Daily Flow as indicated in Table B1 for critical section. Average Daily Flow values as indicated on Table B1 are obtained from the I&I Program's May 2002 metering of basins.
(3)	Peak Daily Flow as calculated by multiplying Line 2 by 2.8
(4)	Available Capacity as indicated on Table B1 for critical section.
(5)	Calculated by removing peaking factors from Peak Flow on Line 4.
(6)	Calculated as Line 5 divided by 225 gpd/EDU
(7)	Connections made as detailed on Table B2

APPENDIX A

Pennsylvania American Water

CONNECTION MANAGEMENT PLAN - REPORTING 4th Quarter 2007 Data REVISED: January 2008
WASTEWATER TREATMENT PLANT FLOWS

TABLE A1

Annual Average 3.85 MGD
3 Consecutive Month Maximum 4.6 MGD

MONTH	YEAR	MONTHLY FLOW AVERAGE (MGD)			
		2003	2004	2005	2006
JANUARY		2.965	**3.546**	3.776	**3.939**
FEBRUARY		3.195	**3.749**	**3.652**	**3.901**
MARCH		4.011	**3.183**	**3.688**	**3.472**
APRIL		3.421	3.315	**4.337**	3.411
MAY		3.204	3.296	3.402	3.189
JUNE		4.501	3.251	3.124	3.891
JULY		3.449	3.118	3.530	3.811
AUGUST		3.696	3.422	3.171	3.353
SEPTEMBER		4.266	3.408	2.905	3.403
OCTOBER		**3.719**	3.288	3.663	3.292
NOVEMBER		**4.072**	3.269	3.297	3.593
DECEMBER		**4.296**	3.371	3.609	3.379
AVERAGE		3.733	3.351	3.513	3.553
3 Month MAX		4.029	3.493	3.892	3.771

2007

MONTHLY FLOW AVERAGE (MGD)	3 MONTH MAXIMUM (MGD)	RAIN TOTAL (in.)
3.795		4.84
3.517		1.17
4.154	3.822	3.86
4.657	4.109	7.98
3.966	**4.259**	2.42
3.692	4.105	3.69
3.568	3.742	6.52
3.468	3.576	5.72
3.015	3.350	0.05
3.191	3.225	8.13
3.199	3.135	3.33
3.572	3.321	5.43
3.650	–	4.43
AVERAGE 3 MTH. MAX.	4.259	

Number of Connections During Quarter 2007	
1st Quarter	40
2nd Quarter	53
3rd Quarter	48
4th Quarter	45
Total for Year	186

5 YEAR FLOW HISTORY			
	ANNUAL AVERAGE	3 MONTH MAXIMUM	PEAKING FACTOR
2007	3.650	4.259	1.167
2006	3.553	3.771	1.061
2005	3.513	3.892	1.108
2004	3.351	3.493	1.042
2003	3.733	4.029	1.079

RUNNING ANNUAL AVERAGE FLOW

3.650 **MGD** January 2007 through December 2007

RUNNING 5 YEAR AVERAGE

3.560	**3.889**	**1.092**

CONNECTION MANAGEMENT PLAN - REPORTING 4th Quarter 2007 Data REVISED: January 2008
WASTEWATER TREATMENT PLANT FLOWS

TABLE A1A

PROJECTED TOTAL PER CMP, TABLE A2 (2007 Q4, REVISED JANUARY 2008), SUMMARY NO. 2									
	Act 537 Approved Contracted Allocation	Chapter 94 Flow 2006	2007 Projected Based off Actual Connections	2008	2009	2010	2011	2012	5-year Net Increase
City of Coatesville	*	1,911,615	1,915,215	1,989,015	2,083,965	2,117,940	2,123,565	2,123,565	211,950
Valley Township	550,000	572,815	585,640	689,815	818,965	843,940	843,940	843,940	271,125
Caln Township	167,000	183,521	183,521	185,996	193,646	211,421	229,421	236,171	52,650
West Brandywine Township	345,000	136,826	136,826	182,951	222,551	240,776	252,251	270,476	133,650
Sadsbury Township	410,750	115,747	115,747	143,647	185,272	230,272	261,997	261,997	146,250
West Sadsbury Township	*	47,109	47,109	47,109	59,934	59,934	59,934	59,934	12,825
East Fallowfield Township	*	100,190	118,190	150,815	179,840	203,915	203,915	203,915	103,725
Borough of Parkesburg	*	365,041	368,641	453,016	545,716	545,716	545,716	545,716	180,675
West Caln Township	*	15,267	18,867	27,867	36,867	36,867	36,867	36,867	21,600
Veterans Hospital	*	100,566	100,566	100,566	100,566	100,566	100,566	100,566	-
Highland Township		0	225	225	225	225	225	225	225
Bulk Delivery		4,066	4,066	4,066	4,066	4,066	4,066	4,066	-
Ave. Total Flow (MGD)		**3,552,763**	**3,594,613**	**3,975,088**	**4,431,613**	**4,595,638**	**4,662,463**	**4,687,438**	**1,092,825**
3-Month Max (MGD)		**3,770,667**	**3,815,083**	**4,218,894**	**4,703,420**	**4,877,505**	**4,948,429**	**4,974,935**	**1,159,852**
Peak Factor		**1.061**	**1.061**	**1.061**	**1.061**	**1.061**	**1.061**	**1.061**	

PROJECTED TOTAL PER CMP (revised 1/08), TABLE A2 (SUMMARY NO. 2)- BASED ON 5 YEAR ADJUSTED AVERAGES									
Ave. Total Flow (MGD)			**3,713,892**	**4,094,367**	**4,550,892**	**4,714,917**	**4,781,742**	**4,806,717**	**1,092,825**
3-Month Max (MGD)			**4,056,969**	**4,472,591**	**4,971,288**	**5,150,466**	**5,223,464**	**5,250,746**	**1,193,776**
Peak Factor			**1.092**	**1.092**	**1.092**	**1.092**	**1.092**	**1.092**	

Contract and Planning Allocations For WWTF Expansion				
	Allocation	Contracted Capacity		
City of Coatesville	2,391,490			
Valley Township		1,540,000		
Caln Township		800,000		
West Brandywine Township		345,000	(1)	
Sadsbury Township		410,750		
West Sadsbury Township	111,951			
East Fallowfield Township	329,232			
Borough of Parkesburg	633,416			
West Caln Township	251,089			
Veterans Hospital	74,271			
Highland Township	56,438			
Totals:	3,847,887	3,095,750		6,943,637

NOTE (1) Draft Sewer Agreement 4/25/05 pending with requested amounts of 473,000 gpd and 835,000 gpd post plant

TABLE A1B
SUMMARY OF CONNECTIONS

SOURCE	2003 New Flow	2003 Equiv. EDU's	2004 New Flow	2004 Equiv. EDU's	2005 (2) New Flow	2005 (2) Equiv. EDU's	2006 New Flow	2006 Equiv. EDU's	2007 New Flow	2007 Equiv. EDU's	5 Year Totals New Flow	5 Year Totals Equiv. EDU's
Bulk Customers												
Valley Twp.	29,025	129	33,075	147	17,325	77	20,475	91	12,825	57	112,725	501
Caln Twp.	0		0	0	675	3	0	0	0	0	675	3
W. Brandywine Twp.	5,850	26	1,350	6	225	1	0	0	0	0	7,425	33
Sadsbury	26,325	117	25,200	112	31,500	140	7,650	34	0	0	90,675	403
Subtotal	61,200	272	59,625	265	49,725	221	28,125	125	12,825	57	211,500	940
Billed Customers [1]	65,250	290	53,100	236	55,125	245	41,175	183	29,025	129	243,675	1083
Veteran's Hospital	(4,525)	(20)	(3,542)	(16)	4,606	20	21,689	96		0	18,228	81
TOTAL	121,925	542	109,183	485	109,456	486	90,989	404	41,850	186	473,403	2104

[1] Net EDU addition for City of Coatesville, East Fallowfield Twp., Parkesburg Boro, West Sadsbury, West Caln, & Bulk Haulers

(2) The 2005 total was previously reported at 859 EDU's, however 2004 EDU's were counted as 2005 when updating the CMP to date.

Note: One EDU = 225 GPD

Base Flow Determination

	2003	2004	2005	2006	2007	5-YR Adjusted Average
Actual Annual Average	3.733	3.351	3.513	3.554	3.650	
Flow Adjustments 2004	0.109					
Flow Adjustments 2005	0.109	0.109				
Flow Adjustments 2006	0.091	0.091	0.091			
Flow Adjustments 2007	0.042	0.042	0.042	0.042		
Total Adjustment	0.351	0.242	0.133	0.042	0	
Equivalent Flow	4.084	3.593	3.646	3.596	3.650	3.714

CONNECTION MANAGEMENT PLAN - REPORTING 4th Quarter 2007 Data REVISED: January 2008

PROJECTED NEW CONNECTION ...TH SIGNED PLANNING MODULES

PLEASE NOTE - CMP WAS SUBMITTED BY PAWC BUT NOT APPROVED BY DEP

TABLE A2

LINE	DEP Code No.	NAME	TOTAL EC. EDU's	EDUS EQ. ACTIVE	EDUS REMAINING	EST. GPD REMAINING	PLANNING (b) MODULE	EETL &WETL MH	TYPE	PROJECTED NEW CONNECTIONS (c) 2008	2009	2010	2011	2012	TOTAL IN 5 YEARS	TOTAL BEYOND 2010
1	**City of Coatesville**															
2	1-15001-036-3IJ	Cambria Terrace	69	14	55	12,375	Y	16	R	24	22	9			55	-
3	1-15001-029-3H	Penn Crossing	78	78	-	-	Y	40	R	-	-	-			-	-
4	1-15001-023-3H	Millview	187	187	-	-	Y	523	R	-	-	-			-	-
5	1-15001-032-3J	Millview Apartments	350	350	-	-	Y	523	R	-	-	-			-	-
6		Cox II	11	11	-	-	Y	37	R	-	-	-			-	-
7	1-15001-037-3IJ	Bond House (Mount Pleasant Street)	13	10	3	675	Y	523	R	-	-	-			-	-
8		Brandywine View	638		638	143,550	Y	23	R	3	-	-			3	-
9		Pulver Office Building 1	8		8	1,800	Y	578	C	205	205				410	228
10		Marriott Hotel & Resturant	78		78	17,550	Y	578	C	-	8				8	-
11		Chetty Towers 1 - Residential	60		60	13,500	Y	23	R	-	78				78	-
12		Chetty Towers 1 - Commercial	10		10	2,250	Y	23	C	60	-	-			60	-
13		Chetty Towers 2 - Residential	150		150	33,750	Y	16	R	10	-	-			10	-
14		Chetty Towers 2 - Commercial	25		25	5,625	Y	16	C	-	60	90			150	-
15		ChesPenn - Residential	15		15	3,375	Y	33	R	-	5	20			25	-
16		ChesPenn - Commercial	4		4	900	Y	33	C	5	10				15	-
17		701 ELH - Residential	7		7	1,575	Y	33	R	4	-	-			4	-
18		731 ELH - Residential	9		9	2,025	Y	33	R	7	-	-			7	-
19		Williams Tract	80		80	18,000		16	R	9	-	-			9	-
20		Coatesville VoTech	4		4	900	Y		R	-	25	31	24		80	-
21		McColl-Coatesville Condominium	8		8	1,800	Y		R	1	1	1	1		4	-
22											8	-	-	-	8	-
23		Total EDU	1,804	650	1,154	259,650			EDU	328	422	151	25	-	926	228
24		Total Flow	405,900	146,250	259,650				FLOW	73,800	94,950	33,975	5,625	-	208,350	51,300
25	**Valley Township (d)**															
26	1-15956-117-3H	Hillview	512	278	234	52,650	Y	16	R	90	144	-	-	-	234	-
27	1-15956-119-3H	Meadow Brook	88	88	-	-	Y	16	R	-	-	-	-	-	-	-
28	1-15956-134-3IJ	Oak Crest (Dague)	188	20	168	37,800	Y	16	R	60	108	-	-	-	168	-
29	1-15956118-3H	Valley Crossing IV	49	49	-	-	Y	578	R	-	-	-	-	-	-	-
30	1-15956-123-3J	Timberlane	46	46	-	-	Y	581	R	-	-	-	-	-	-	-
31	1-15956-126-3J	Round Hill (Buckthorn Area)	230	11	219	49,275	Y	581	R	75	94	50	-	-	219	-
32	1-15956-127-3J	Hanscom Subdivision	1	-	1	225	Y	578	R	1	-	-	-	-	1	-
33	1-15956-124-3J	Lambert Subdivision	3	2	1	225	Y	578	R	1	-	-	-	-	1	-
34	1-15961-308-4	Highlands Corp. Center Phase I, II, III	90	27	63	14,175	Y	16	C	63	-	-	-	-	63	-
35	1-15956-132-3J	Woodland Point (Risbon)	9	4	5	1,125	Y	581	R	5	-	-	-	-	5	-
36	1-15956-125-3J	Valley Suburban (Stoltzfus Commercial)	340	-	340	76,500	Y	578	R/C	100	200	40	-	-	340	-
37	1-15956-128-3IJ	Valley Farm & Mt. Airy Road	81	12	69	15,525	Y	16	R	20	28	21	-	-	69	-
38	1-15956-131-3IJ	Terry Middleton	1	1	-	-	Y	578	R	-	-	-	-	-	-	-
39	1-15956-135-3J	London Tract	14	-	14	3,150	Y	578	R	14	-	-	-	-	14	-
40	1-15956-133-3IJ	Bone Tract (Keystone Foods Portion)	20	-	20	4,500	Y	578	C	20	-	-	-	-	20	-
41	1-15956-140-X	Albert Koenig	1	-	1	225	Y	581	R	1	-	-	-	-	1	-
42		Concern	3		3	675	P	581	R	3	-	-	-	-	3	-
43		Valley Farm Associates	1		1	225	P	581	R	1	-	-	-	-	1	-
44		Lawrence Professional Center	2		2	450	P	581	C	2	-	-	-	-	2	-
45	1-15956-144-X	Saligman Hangar	1		1	225	P	581	C	1	-	-	-	-	1	-
46		John Woodward	6		6	1,350	P	581	R	6	-	-	-	-	6	-
47		Valley Miscellaneous	-	-	-	-									-	-
48		Total EDU	1,686	538	1,148	258,300			EDU	463	574	111	-	-	1,148	-
49		Total Flow	379,350	121,050	258,300				FLOW	104,175	129,150	24,975	-	-	258,300	-
50	**Caln Township (d)**															
51	1-15912-186-3J	Hillview (aka Hill Farm)	99		99	22,275	Y	26	R	-	-	-	-	-	-	-
52		Southwoods (Weiss)	20		20	4,500	Y	54	R	10	10	49	50	-	99	-
53	1-15912-159-E	Loew/Southdown (Ducca/Haron)	300		300	67,500	Y	54	R	-	-	-	-	-	-	-
54		Croft - 110 Walnut Street	1		1	225	P	54	R	1	24	30	30	30	114	186
55															1	-
56		Total EDU	420	-	420	94,500			EDU	11	34	79	80	30	234	186
57		Total Flow	94,500	-	94,500				FLOW	2,475	7,650	17,775	18,000	6,750	52,650	41,850
58	**West Brandywine Township (d)**															
59		Monacy Manor	42		42	9,450	Y	46	R	21	21	-	-	-	42	-
60		Freedom Village	297	269	28	6,300	Y	46	R	28	-	-	-	-	28	-
61		YMCA	67	19	48	10,800	Y	46	C	20	20	8	-	-	48	-
62		Brandywine Hospital	418	210	208	46,350	Y	46	C	50	50	55	51	-	206	-
63		CASD	100	32	68	15,300	Y	46	C	1	-	-	-	68	68	-
64		Nunemaker Subdivision	2	1	1	225	Y	46	R						1	-
65		MSI	13		13	2,925	Y	46	R	45	45			13	13	-
66		Culbertson Residential	178		178	40,050	Y			25	25				50	88
67		Swinehart Residential	113		113	25,425	Y			15	15	18			48	63
68		West Brandywine Twp MA	305	257	48	10,800	Y	46	R/C							-
69		Total EDU	1,533	788	745	167,625			EDU	205	176	81	51	81	594	151
70		Total Flow	344,925	177,300	167,625				FLOW	46,125	39,600	18,225	11,475	18,225	133,650	33,975
71	**Highland Township**															
72	1-15930-113-X	Sitl Crook property	1	1	-	-	Y	638	R	-	-	-	-	-	-	-
73																
74		Total EDU	1	1	-	-			EDU	-	-	-	-	-	-	-
75		Total Flow	225	225	-	-			FLOW	-	-	-	-	-	-	-
76	**Sadsbury Township (d)**															
77	1-15947-086-3H	Sadsbury Village	149	149	-	-	Y	638	R	-	-	-	-	-	-	-

78	1-15947-076-E	Quarry Ridge																					
79	1-15947-088-3H	AIM Business Park - Bellaire	185	185	-	-	Y	638	R	*	*					-	-
80	1-15947-094-3J	Octoraro Glen	132	96	36	8,100	Y	638	C	36						36	-
81	1-15947-092-3J	Morris Farm	44	44	-	-	Y	638	R	*	*					-	-
82	1-15947-104-3J	Sadsbury Park	12	11	1	225	Y	638	C	1	*					-	-
83		Bone Tract (Sadsbury Portion)	461		461	103,725	Y	638	R	75	110	135	141			1	-
84		D&S Developers	20		20	4,500	Y	638	C	10	10					461	-
85		Lafayette Square	-		-	-	Y	638	C	0	*					20	-
86		Pomeroy Partnership	130		130	29,250	Y	638	R		65	65				-	-
87			2		2	450	Y	638	R	2	*					130	-
88																2	-
89		Total EDU	1,115	465	650	146,250											
90		Total Flow	250,875	104,625	146,250				EDU	124	185	200	141	-		650	-
91	**East Fallowfield Township**								FLOW	27,900	41,625	45,000	31,725	-		146,250	-
92	1-15918-159-3H	Stone Creek (Robins Cove)	53	52	1	225	Y	37	R	1							
93	1-15918-184-3J	Harkins Farm	21		21	4,725	Y	37	R	12	9					1	-
94		Brinton Station	87	87	-	-	Y	37	R	*	*					21	-
95		Branford Village	247	247	-	-	Y	523	R	*	*					-	-
96	1-15918-207-3I	Brook Crossing	186	186	-	-	Y	523	R	*	*					-	-
97	1-15918-208-3I	North Woods (Thompson North)	27	18	11	2,475	Y	37	R	7	4					-	-
98	1-15918-211-3IJ	Mendenhall Tract	74	7	67	15,075	Y	37	R	25	25	17				11	-
99	1-15918-198-3J	Providence Hill (Chen Tract)	218	113	105	23,625	Y	37	R	35	35	35				67	-
100	1-15918-213-3J	Manchester Farms (Thompson South)	112	86	26	5,850	Y	37	R	20	6	*				105	-
101		Ridgecrest (Martin)	72		72	16,200	Y	37	R	25	25	22				26	-
102		Cardinal Drive Area	78		78	17,550	Y	37	R	20	25	33				72	-
103																78	-
104		Total EDU	1,155	774	381	85,725											
105	**Parkesburg Borough**	Total Flow	259,875	174,150	85,725				EDU	145	129	107	-	-		381	-
106	1-15807-051-3J	Harkins Property	10		10	2,250	Y	638	FLOW	32,625	29,025	24,075	-	-		85,725	-
107	1-15807-037-3H	Parkesburg Knoll	171	99	72	16,200	Y	638	R	10	*						
108	1-15807-050-3J	Crystal Springs Expansion (Heritage)	129		129	29,025	Y	638	R	32	40					10	-
109	1-15807-046-3H	Lindale Village	31		31	6,975	Y	638	R	65	64					72	-
110		Davis Tract	324		324	72,900	Y	638	R	16	15					129	-
111		MK Builders	3	-	3	675	Y	638	R	162	162					31	-
112		Phillips Site	4	-	4	900	Y	638	R	3	-					324	-
113		Library Site	131	-	131	29,475	Y	638	R	4						3	-
114		Minch Park East	1	-	1	225	Y	638	R		131					4	-
115		HDC Site	75	-	75	16,875	Y	638	R	1						131	-
116		CON-LYN	2		2	450	Y	638	R/C	75						1	-
117		Church - 94 East 2nd Avenue	1		1	225	Y	638	R	2						75	-
118		19 Boro Line Road	1		1	225	Y	638	C	1						2	-
119	1-15930-120-X	Ross Property - 30 Boroline Road	1		1	225	Y	638	R	1						1	-
120		Williams Subdivision Rosemont Ave	2		2	450	P	639	R	1						1	-
121							P	640	R	2						1	-
122																2	-
123		Total EDU	886	99	787	177,075											
124	**West Cain Township**	Total Flow	199,350	22,275	177,075				EDU	375	412	-	-	-	-	787	-
125	1-15981-554-3Hrev	Cainshire West	124	57	67	15,075	Y	638	FLOW	84,375	92,700	-	-	-	-	177,075	-
126	1-15981-554-3Hrev	Sandy Hill	87	74	13	2,925	Y	638	R	27	40						
127					-	-			R	13						67	-
128		Total EDU	211	131	80	18,000										13	-
129	**West Sadsbury Township**	Total Flow	47,475	29,475	18,000				EDU	40	40	-	-	-	-	80	-
130		JD Eckman	7		7	1,575.0	P	638	FLOW	9,000	9,000	-	-	-	-	18,000	-
131		Lower Valley Road Partners, LP	100		100	22,500.0	P	638									
132											7					7	-
133											50					50	50
134		Total EDU	107	-	107	24,075											
135		Total Flow	24,075	-	24,075				EDU	-	57	-	-	-		57	50
136									FLOW	-	12,825	-	-	-		12,825	11,250

	PROJECTED EDUS		REMAINING EDUS	
	TOTAL	ACTIVE	TOTAL	FLOW
Total EDU	8,918	3,446	5,472	1,231,200
Total Flow	2,006,550	775,350	1,231,200	

Summary #1

	CURRENT	2008	2009	2010	2011	2012	TOTAL IN 5 YEARS	TOTAL BEYOND 2009
TOTAL EDU'S		1,674	1,972	729	297	111	4,783	565
TOTAL FLOW		376,650	443,700	164,025	66,825	24,975	1,076,175	127,125
TOTAL PROJECTED WWTP FLOW	3,713,892	4,090,542	4,534,242	4,698,267	4,765,092	4,790,067	4,790,067	4,917,192

Summary #2

PROJECTED EDU's WITH PM SIGNED BY PAW AND PENDING PROJECTS								
TOTAL EDU'S		1,591	2,029	729	297	111	4,857	615
TOTAL FLOW		380,475	456,525	164,025	66,825	24,975	1,092,825	138,375
TOTAL PROJECTED WWTP FLOW	3,713,892	4,094,367	4,550,892	4,714,917	4,781,742	4,806,717	4,806,717	4,945,092

EDU = 225.0

(a) Status Legend: 0=Completed, 1=Under Construction, 2=Under Agreement,
3=Under PAWC Plan Review, 4=Initial Planning, 5=Speculative

(b) Signed by PAWC, does not indicated approval by DEP

(c) * indicates project completion. Other developments are projected to extend beyond 5 years.

(d) Municipal agreements will be governed the CMP.

"P" - indicates PAWC has not signed planning modules and is requesting approval by DEP to move the projects from Table A3 to A2, and upon approval PAWC will then sign the planning modules.

Apartments= 225
Senior Housing= 225

Pennsylvania American Water

CONNECTION MANAGEMENT PLAN - REPORTING 4th Quarter 2007 Data REVISED: January 2008

PROJECTED NEW CONNECTIONS

PLEASE NOTE - CMP WAS SUBMITTED BY PAWC BUT NOT APPROVED BY DEP

TABLE A3

LINE	DEP Code No.	NAME	TOTAL EC EDU's	EDUS EQ. ACTIVE	EDUS REMAINING	EST. GPD REMAINING	PLANNING (b) MODULE	EETL MH	TYPE	PROJECTED NEW CONNECTIONS (c) 2008	2009	2010	2011	2012	TOTAL IN 5 YEARS	TOTAL BEYOND 2011
1	**City of Coatesville**															
2	1-15001-038-3IJ	Cambria Terrace	89	12	57	12,825	Y	16	R	26	22	9			57	-
3	1-15001-029-3H	Penn Crossing	78	78	-	-	Y	40	R	-	-	-			-	-
4	1-15001-023-3H	Millview	187	187	-	-	Y		R	-	-	-			-	-
5	1-15001-032-3J	Millview Apartments	350	350	-	-	Y		R	-	-	-			-	-
6		Cox II	11	11	-	-	Y		R	-	-	-			-	-
7	1-15001-037-3IJ	Bond House (Mount Pleasant Street)	13	1	-	-	Y	37	R	-	-	-			-	-
8		Brandywine View	638		12	2,700	Y	x	R	-	-	-			-	-
9		Pulver Office Building 1	8		638	143,550	Y	x	R	12	-	-			-	-
10		Marriott Hotel & Resturant	78		8	1,800	Y		R	205	205				12	-
11		Chetty Towers 1 - Residential	60		78	17,550	Y		C	-		8			410	228
12		Chetty Towers 1 - Commercial	10		60	13,500	Y		C	-		78			8	-
13		Chetty Towers 2 - Residential	150		10	2,250	Y	x	R	60		-			78	-
14		Chetty Towers 2 - Commercial	25		150	33,750	Y	x	C	10		-			60	-
15		Chetty Tower 3 - Residential	325		25	5,625	Y	x	R	-	60	90			10	-
16		Chetty Tower 3 - Commercial	68		325	73,125		x	C	-	5	20			150	-
17		Chetty Tower 4 - Residential	48		68	14,850		x	R	-	-	-	-	50	25	-
18		Chetty Tower 4 - Commercial	6		48	10,800		x	C	-	-	-	-	-	50	275
19		Chetty Tower 5 - Residential	195		6	1,350		x	R	-	-	-	-	-	-	66
20		Chetty Tower 5 - Commercial	34		195	43,875		x	C	-	-	-	-	-	-	48
21		Chetty Tower 6 - Residential	85		34	7,650		x	R	-	-	-	-	50	50	6
22		Chetty Tower 6 - Commercial	9		85	19,125		x	C	-	-	-	-	-	-	145
23		Flats Tract - Residential	950		9	2,025		x	R	-	-	-	-	-	-	34
24		Flats Tract - Commercial	90		950	213,750			C	-	-	-	-	-	-	85
25		Pulver Office Building 2	25		90	20,250			R	-	75	80	150	150	-	9
26		Pulver Office Building 3	25		25	5,625			C	-	10	15	20	45	455	495
27		Pulver Office Building 4	25		25	5,625			C	-	-	-	25	-	90	-
28		Pulver Office Building 5	12		25	5,625			C	-	-	-	-	15	25	-
29		Pulver Office Building 6	12		12	2,700			C	-	-	-	-	15	15	10
30		129-133 ELH - Residential	32		12	2,700			C	-	-	-	-	6	15	10
31		129-133 ELH - Commercial	3		32	7,200			C	-	-	-	-	6	6	6
32		ChesPenn - Residential	15		3	675		x	R	-	32	-	-	-	6	6
33		ChesPenn - Commercial	4		15	3,375	Y	x	C	-	3	-	-	-	32	-
34		701 ELH - Residential	7		4	900	Y	x	R	5	10				3	-
35		731 ELH - Residential	9		7	1,575	Y	x	C	4		-			15	-
36		Cansler Tower East - Residential	65		9	2,025	Y	x	R	7		-			4	-
37		Cansler Tower East - Commerical	9		65	14,625		x	R	9		-			7	-
38		Cansler Tower West - Residential	40		9	2,025		x	R	-	-	-	-	30	9	-
39		Cansler Tower West - Commerical	6		40	9,000		x	C	-	-	-	-	5	30	35
40		Regional Recreation Complex	20		6	1,350		x	R	-	-	-	-	20	5	4
41		Steel Heritage Musemum	20		20	4,500			C	-	-	-	-	3	20	20
42		G.O. Carlson/Mittal Steel Tract	30		20	4,500			C	-	20	-	-	-	3	3
43		Train Station	5		30	6,750		x	C	-	-	-	20	-	20	-
44		Williams Tract	80		5	1,125			C	-	10	20	-	-	20	-
45		Coatesville VoTech	4		80	18,000	Y	x	R	-	-	-	5	-	30	-
46		McColl-Coatesville Condominium	8		4	900	Y		R	-	25	31	24	-	5	-
47		City Request Other	60	-	8	1,800	Y		R	1	1	1	1	-	80	-
48		Total EDU	4,001	639	60	13,500	-	x	R	-	8	-	-	-	4	-
49		Total Flow	900,225	143,775	3,382	756,450				10	10	10	10	10	8	-
50	**Valley Township (d)**				756,450				EDU	349	498	362	255	405	50	10
51	1-15956-117-3H	Hillview							FLOW	78,525	111,600	81,450	57,375	91,125	1,887	1,495
52	1-15956-119-3H	Meadow Brook	525	278	247	55,575	Y	16	R	90	144				420,075	336,375
53	1-15956-134-3IJ	Oak Crest (Dague)	88	88	-	-	Y	16	R	-	-	-			234	13
54	1-15956118-3H	Valley Crossing IV	188	20	168	37,800	Y	16	R	80	108				-	-
55	1-15956-123-3J	Timberlane	49	49	-	-	Y		R	-	-	-			168	-
56	1-15956-126-3J	Round Hill (Buckthorn Area)	46	46	-	-	Y		R	-	-	-			-	-
57	1-15956-127-3J	Hanscom Subdivision	230	11	219	49,275	Y		R	-	-	-			-	-
58	1-15956-124-3J	Lambert Subdivision	1	-	1	225	Y		R	75	94	50			-	-
59		Highlands Corp. Center Phase I, II, III	3	2	1	225	Y		R	1	-	-			219	-
60	1-15956-132-3J	Woodland Point (Risbon)	90	27	63	14,175	Y	16	R	1	-	-			1	-
61	1-15956-125-3J	Valley Suburban (Stoltzfus Commercial)	9	4	5	1,125	Y		C	63	-	-			1	-
62	1-15956-128-3IJ	Valley Farm & Mt. Airy Road	340	-	340	76,500	Y		C	5	-	-			63	-
63		Terry Middleton	81	12	69	15,525	Y	16	C	100	200	40			5	-
64		Rainbow	1	1	-	-	Y		R	20	28	21			340	-
65		London Tract	30	-	30	6,750	-		R	-	-	-			69	-
			14	-	14	3,150	Y	16	R	14	-	15	15	-	-	-
															30	-
															14	-

Pennsylvania American Water

		Bone Tract (Valley Portion)	430	-	430	96,750			R/C	80	50	50	50	50	280	150								
		Bone Tract (Keystone Foods Portion)	20	-	20	4,500	Y		C	20				-										
		Airport	111	-	111	24,975	-		C	10	20	20	20	20	90	21								
		Green Trees	80	-	80	18,000			R	14	13	13	20	20	80	-								
		CASD	200	-	200	45,000	-		C	-	-	50	50	50	150	50								
		Heagy Residential	250	-	250	56,250	-	16	R	-	-	50	50	50	150	100								
		Albert Koenig	1	-	1	225	Y		R	1					1	-								
		Concern - 3 EDU	3		3	675	P	581	R	3					1	-								
		Valley Farm Associates - 1 EDU	1		1	225	P	581	R	1					3	-								
		Lawrence Professional Center - 2 EDU	2		2	450	P	581	C	2					1	-								
		Saligman Hangar - 1 EDU	1		1	225	P	581	R	1					2	-								
		Zarelli Apartment Building - 22 EDU	22		22	4,950	P		R	6	16				1	-								
		John Woodward	6		6	1,350	P		R	6					22	-								
		Township Request Other	90	-	90	20,250	-		R	30	15	15	15	15	90	-								
		Total EDU	2,912	538	2,374	534,150			EDU	603	688	324	220	205	2,040	334								
		Total Flow	655,200	121,050	534,150				FLOW	135,675	154,800	72,900	49,500	46,125	459,000	75,150								
	Cain Township (d)																								
1-15912-186-3J		Hillview (aka Hill Farm)	99		99	22,275	Y	28	R	-	-	49	50	-	99	-								
		Southwoods (Weiss)	20		20	4,500	Y	54	R	10	10	*			20	-								
1-15912-159-E		Loew/Southdown (Ducca/Haron)	300		300	67,500	Y	54	R		25	30	30	30	115	185								
		Cain Road	40		40	9,000	-	54	R	-		-	40	-	40	-								
		Township Flow Diverted from DARA	952		952	214,200	-	54	R	-	-	-	250	250	500	452								
		Township Request Other	608		608	136,800	-	54	R	50	75	85	85	85	380	228								
		Total EDU	2,019	-	2,019	454,275			EDU	60	110	164	455	365	1,154	865								
		Total Flow	454,275	-	454,275				FLOW	13,500	24,750	36,900	102,375	82,125	259,650	194,625								
	West Brandywine Township (d)																								
		Monacy Manor	42		42	9,450	Y	46	R	21	21	*			42	-								
		Freedom Village	297	269	28	6,300	Y	46	R	28	*	*			28	-								
		YMCA	67	19	48	10,800	Y	46	C	20	20	8			48	-								
		West Brandywine Hospital	418	210	208	46,350	Y	46	C	50	50	56	50		206	-								
		CASD	100	32	68	15,300	Y	46	C					68	68	-								
		Nunemaker Subdivision	2	1	1	225	Y	46	R	1	*	*			1	-								
		MSI	13		13	2,925	Y	46	R					13	13	-								
		Culbertson Residential	178		178	40,050	Y	46	R	45	45	45	43		178	-								
		Culbertson Commercial	33		33	7,425		46	C	-	-	-	15	18	33	-								
		Swinehart Residential	113		113	25,425	Y	46	R	25	25	36	27		113	-								
		Beaver Creek Apartments	280		280	58,500		46	R	-	-		30	60	90	170								
		Beaver Creek Commercial	30		30	6,750		46	C	-	-	-	-	15	15	15								
		Janiec Residential	32		32	7,200		46	R	-	-		32		32	-								
		Janiec Commercial	2		2	450		46	C	-	-		2		2	-								
		West Brandywine Twp MA	305	257	48	10,800	-	46	R/C	15	15	18			48	-								
		Total EDU	1,890	788	898	156,600			EDU	205	176	163	199	174	917	185								
		Total Flow	425,250	177,300	156,600				FLOW	46,125	39,600	36,675	44,775	39,150	206,325	41,625								
	Highland Township																								
1-15930-113-X		Siti Crook property	1		1	225	Y		R	1	-	-			1	-								
		Boor Property	58		58	13,050	-		R	-	-	20	20	18	58	-								
		Genterra (Meadow Ridge)	82		82	18,450	-		R	-	-	30	30	22	82	-								
		Township Request Other	75		75	16,875	-		R	-	-	25	25	25	75	-								
		Total EDU	215	-	215	48,375			EDU	-	-	75	75	65	215	-								
		Total Flow	48,375	-	48,375				FLOW	-	-	16,875	16,875	14,625	48,375	-								
	Sadsbury Township (d)																								
1-15947-088-3H		Sadsbury Village	149	149	-	-	Y		R	*	*				-	-								
1-15947-079-E		Quarry Ridge	165	165	-	-	Y		R	*	*				-	-								
1-15947-088-3H		AIM Business Park - Bellaire	132	96	36	8,100	Y		C	36					-	-								
1-15947-094-3J		Octoraro Glen	44	44	-	-	Y		R	*	*				36	-								
1-15947-092-3J		Morris Farm	12	11	1	225	Y		C	1	*				-	-								
1-15947-104-3J		Sadsbury Park	461		461	103,725	Y		R	75	110	135	141		1	-								
		Bone Tract (Sadsbury Portion)	20		20	4,500	Y		C	10	10				461	-								
		D&S Developers	-		-	-	Y		C		*				20	-								
		Lafayette Square	130		130	29,250	Y		R		65	65			-	-								
		Pomeroy Partnership	2		2	450	Y		R	2	*				130	-								
		Township Request Other	828		828	186,300	-		R	88	83	91	100	100	462	366								
		Total EDU	1,943	465	1,478	332,550			EDU	212	266	291	241	100	1,112	366								
		Total Flow	437,175	104,625	332,550				FLOW	47,700	60,300	65,475	54,225	22,500	250,200	82,350								
	East Fallowfield Township																								
1-15918-159-3H		Stone Creek (Robins Cove)	53	47	6	1,350	Y	37	R	6	*	*			6	-								
1-15918-194-3J		Harkins Farm	21		21	4,725	Y	37	R	12	9	*			21	-								
		Brinton Station	87	87	-	-	Y	37	R	*	*	*			-	-								
		Branford Village	247	247	-	-	Y		R	*	*	*			-	-								
		Brook Crossing	186	186	-	-	Y		R	*	*	*			-	-								
1-15918-207-3J		North Woods (Thompson North)	27	6	21	4,725	Y	37	R	14	7	*			-	-								
1-15918-208-3J		Mendenhall Tract	74		74	16,650	Y	37	R	20	30	24			21	-								
1-15918-211-3JJ		Providence Hill (Chen Tract)	218	91	127	28,575	Y	37	R	27	70	30			74	-								
1-15918-213-3J		Ridgecrest (Martin)	112	67	45	10,125	Y	37	R	7	38	*			127	-								
															45	-								

Pennsylvania American Water

133	1-15918-196-3J	Manchester Farms (Thompson South)																					
134	1-15918-212-3J	Scott Farm	72		72	16,200	Y	37	R	25	25	22				72	-
135		Beagle Club	78		78	17,550	-		R	-	-	-	25	25		50	28
136		Etteleson Development	181		181	40,725	-		R	-	-	-	70	70		140	41
137		Cardinal Drive Area	32		32	7,200	-		R	-	-	-	-	10		10	22
138		Bonsall Farm	78		78	17,550	-	37	R	20	25	33	-	-		78	-
139		Township Request Other	20		20	4,500	-		R	-	-	-	20	-		20	-
140			100		100	22,500	-		-	5	5	5	5	5		25	75
141		Total EDU	1,566	711	855	192,375			EDU	138	209	114	120	110		689	188
		Total Flow	352,350	159,975	192,375				FLOW	30,600	47,025	25,650	27,000	24,750		155,025	37,350
142	**Parkesburg Borough**																						
143	1-15807-051-3J	Harkins Property	10		10	2,250	Y		R	10	-					10	-
144	1-15807-037-3H	Parkesburg Knoll	171	86	85	19,125	Y		R	42	43					85	-
145	1-15807-050-3J	Crystal Springs Expansion (Heritage)	250		250	56,250	Y		R	125	125					250	-
146	1-15807-048-3H	Lindale Village	31		31	6,975	Y		R	16	15					31	-
147		Davis Tract	368		368	82,800	Y		R	163	185					368	-
148		MK Builders	3	-	3	675	Y		R	3	-					3	-
149		Phillips Site	4	-	4	900	Y		R	4	-					4	-
150		Library Site	131	-	131	29,475	Y		R		131					131	-
151		Minch Park East	1	-	1	225	Y		R	1						1	-
152		HDC Site	75	-	75	16,875	Y		R/C	75						75	-
153		CON-LYN	2		2	450	Y	638	R	2						2	-
154		Church - 94 East 2nd Avenue	1		1	225	Y	638	C	1						1	-
155		Township Request Other	256	6	250	56,250	-		R	5	5	5	5	5		25	225
156		Total EDU	1,303	92	1,211	272,475			EDU	467	504	5	5	5		986	225
		Total Flow	293,175	20,700	272,475				FLOW	105,075	113,400	1,125	1,125	1,125		221,850	50,625
157	**West Cain Township**																						
158	1-15961-554-3Hrev	Cainshire West	124	48	76	17,100	Y		R	36	40					-	-
159	1-15961-554-3Hrev	Sandy Hill	87	73	14	3,150	Y		R	14						76	-
160	1-15961-533-3	Country Meadows (Lawrence)	171		171	38,475	Y		R	-	-	-				14	-
161	1-15961-624-3J	Crane Tract	542		542	121,950	Y	16	R	-	-	-	50	50		100	71
162		Township Request Other	60	4	56	12,600	-		C	5	5	5	50	50		100	442
163		Total EDU	984	125	859	193,275			EDU	55	45	5	5	5		25	31
164		Total Flow	221,400	28,125	193,275				FLOW	12,375	10,125	1,125	105	105		315	544
165	**West Sadsbury Township**												23,625	23,625		70,875	122,400
166		Mast Property	600		600	135,000	-		R	-	-	-				-	-
167		Springer Development	20		20	4,500			R	20	-	-	50	50		100	500
168		JD Eckman	7		7	1,575	P	638	I		7		-	-		20	-
169		Lower Valley Road Partners, LP	100		100	22,500	P	638	I		50						
170		Township Request Other	25		25	5,625	-		-	5	5	5	50	50		25	-
171		Total EDU	752	-	752	169,200			EDU	25	62	5	5	5			
172		Total Flow	169,200	-	169,200				FLOW	5,625	13,950	1,125	105	55		252	500
173													23,625	12,375		56,700	112,500
174			PROJECTED EDUS		REMAINING EDUS																		
175			TOTAL	ACTIVE	TOTAL	FLOW																	
176		Total EDU	17,585	3,358	13,821	3,109,725			Summary														
177		Total Flow	3,956,625	755,550	3,109,725				#1	CURRENT	2008	2009	2010	2011	2012	TOTAL IN 5 YEARS	TOTAL BEYOND 2010						
178									TOTAL EDU'S		2,112	2,558	1,508	1,760	1,589	9,547	4,680						
179									TOTAL FLOW		475,200	575,550	339,300	400,500	357,525	2,148,075	1,053,000						
180									TOTAL PROJECTED WWTP FLOW	3,713,892	4,189,092	4,764,642	5,103,942	5,504,442	5,861,967	5,861,967	6,914,967						
181	EDU = 225.0								#2	PLANT PROJECTED FLOW + PROJECTED EDU's WITH PLANNING MODULES SIGNED BY PAW													
182	(a) Status Legend: 0=Completed, 1=Under Construction, 2=Under Agreement,								TOTAL EDU'S		1,674	1,972	729	297	111	4,783	565						
183	3=Under PAWC Plan Review, 4=Initial Planning, 5=Speculative								TOTAL FLOW		376,650	443,700	164,025	66,825	24,975	1,076,175	127,125						
184	(b) Signed by PAWC, does not indicated approval by DEP								TOTAL PROJECTED WWTP FLOW	3,713,892	4,090,542	4,534,242	4,698,267	4,765,092	4,790,067	4,790,067	4,917,192						
185	(c) * indicates project completion. Other developments are projected to extend beyond 5 years.								#3	REMAINING EDU's NOT SIGNED BY PAWC													
186	(d) Municipal agreements will be governed the CMP.								TOTAL EDU'S		438	586	779	1,483	1,478	4,764	4,115						
187	Apartments= 225								TOTAL FLOW		98,550	131,850	175,275	333,675	332,550	1,071,900	925,875						
188	Senior Housing= 225								TOTAL PROJECTED WWTP FLOW		98,550	230,400	405,675	739,350	1,071,900	1,071,900	1,997,775						
189																							

APPENDIX B

CONNECTION MANAGEMENT PLAN - COLLECTION SYSTEM
COLLECTION SYSTEM HYDRAULIC MODEL USING MAY 2002 METERED FLOWS

TABLE B1

Upstream Manhole	Upstream Invert Elevation	Downstream Manhole	Downstream Invert Elevation	Pipe Diameter	Pipe Length	Pipe Slope	n	Nominal Capacity	Metered ADF (2002)	Metered ADF + Proj ADF(2008)	Metered ADF + Proj ADF(2009)	Metered ADF + Proj ADF(2010)	Metered ADF + Proj ADF(2011)	Metered ADF + Proj ADF(2012)	Metered ADF + Proj ADF (Beyond 2012)	Peak Calculated Flow (2008)	Peak Calculated Flow (2009)	Peak Calculated Flow (2010)	Peak Calculated Flow (2011)	Peak Calculated Flow (2012)	Peak Calculated Flow (Beyond 2012)	Available Capacity	% of capacity used
	ft		ft	in	ft	ft/ft		gpd	gpd	gpd	gpd	gpd	gpd	gpd	gpd	gpd	gpd	gpd	gpd	gpd	gpd	gpd	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.013	[illegible]	141 000	143 250	150 900	157 650	164 400	171 150	213 000	401 100	422 520	441 420	460 320	479 220	596 400	1 409 160	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	152 403	[illegible]	[illegible]	172 462	215 130	405 111	426 745	445 834	464 323	484 012	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	174 590	217 261	409 162	431 013	450 293	469 572	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	144 227	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	219 454	413 254	435 323	454 795	474 268	493 741	614 472	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	221 649	417 346	439 676	459 343	479 011	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	223 865	421 560	444 073	463 937	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	226 104	425 776	448 513	468 576	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	228 365	430 033	452 999	473 262	493 525	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.013	[illegible]	375 000	421 875	466 525	493 500	[illegible]	535 700	612 525	1 179 570	1 311 870	1 381 800	1 432 830	1 502 760	1 715 070	2 042 250	45.6%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	618 550	1 191 366	[illegible]	1 395 618	1 447 155	[illegible]	1 732 221	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	631 023	1 215 193	[illegible]	1 425 530	1 476 101	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	563 490	757 228	1 456 232	1 621 786	1 706 236	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	764 800	1 472 814	1 639 004	1 725 319	1 789 035	1 876 350	2 141 441	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	780 098	1 502 270	1 670 764	1 759 835	1 824 816	1 913 877	2 164 269	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	579 340	[illegible]	[illegible]	[illegible]	697 198	795 898	1 532 316	1 704 179	1 795 022	1 861 312	1 952 154	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	829 117	1 596 673	1 775 755	1 870 413	1 939 467	2 034 145	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	863 340	1 663 733	1 850 337	1 948 970	2 020 946	2 119 579	2 419 033	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.013	5 742 360	800 000	874 400	945 050	988 675	1 024 900	1 029 875	1 105 700	2 448 320	2 646 140	2 762 690	2 813 720	2 863 650	3 095 960	2 646 400	53.9%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	954 501	[illegible]	[illegible]	1 040 174	1 116 757	2 472 803	2 672 601	2 790 317	2 841 857	2 912 487	[illegible]	2 615 440	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	964 045	1 006 507	[illegible]	[illegible]	1 127 925	2 497 531	2 699 327	2 818 220	2 870 276	2 941 611	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1 035 349	1 061 081	1 139 204	2 522 507	2 726 321	2 846 402	2 899 979	2 971 027	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.013	5 742 360	885 000	964 850	1 036 800	1 074 425	1 096 850	1 121 625	1 197 450	2 701 020	2 903 040	3 019 590	3 070 820	3 140 550	3 352 980	2 389 500	58.4%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1 127 233	1 201 437	2 714 525	2 917 555	3 034 688	3 085 973	3 156 253	3 369 624	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1 047 134	[illegible]	[illegible]	1 132 969	1 209 454	2 728 098	2 932 143	3 049 861	3 101 403	3 172 034	3 386 472	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1 052 430	[illegible]	[illegible]	1 135 534	1 215 502	2 741 739	2 946 904	3 065 111	3 116 910	3 187 894	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1 144 226	1 221 579	2 755 447	2 961 538	3 080 436	3 132 495	3 203 834	3 420 422	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1 062 985	1 105 657	[illegible]	1 149 847	1 227 687	2 769 224	2 976 345	3 095 838	3 148 157	3 219 853	3 437 524	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	993 954	1 068 295	[illegible]	[illegible]	1 155 697	1 233 926	2 783 070	2 991 227	3 111 318	[illegible]	3 235 952	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.013	[illegible]	945 000	1 024 650	1 098 900	1 145 775	1 171 500	1 198 475	1 287 150	2 889 020	3 071 040	3 208 170	3 280 200	3 350 130	3 604 020	3 370 620	51.7%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	954 000	[illegible]	[illegible]	[illegible]	[illegible]	1 209 440	1 300 022	2 897 710	3 101 750	3 240 252	3 313 002	3 383 631	3 640 060	1 400 300	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1 195 047	1 220 524	1 313 022	2 926 687	3 132 768	3 272 854	3 346 132	3 417 468		(774 651)	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.013	7 090 200	1 329 000	1 469 525	1 587 800	1 636 775	1 662 500	1 687 475	1 829 450	4 114 670	4 445 840	4 582 970	4 655 000	4 724 930	5 122 460	1 967 740	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1 329 000	1 469 525	1 587 800	1 636 775	1 662 500	1 687 475	1 829 450	4 114 670	4 445 840	4 582 970	4 655 000	4 724 930	5 122 460	5 380 540	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1 329 000	1 469 525	1 587 800	1 636 775	1 662 500	1 687 475	1 829 450	4 114 670	4 445 840	4 582 970	4 655 000	4 724 930	5 122 460	4 508 980	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1 329 000	1 469 525	1 587 800	1 636 775	1 662 500	1 687 475	1 829 450	4 114 670	4 445 840	4 582 970	4 655 000	4 724 930	5 122 460	5 861 360	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1 329 000	1 469 525	1 587 800	1 636 775	1 662 500	1 687 475	1 829 450	4 114 670	4 445 840	4 582 970	4 655 000	4 724 930	5 122 460	3 277 540	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1 329 000	1 469 525	1 587 800	1 636 775	1 662 500	1 687 475	1 829 450	4 114 670	4 445 840	4 582 970	4 655 000	4 724 930	5 122 460	2 471 020	67.5%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1 329 000	1 469 525	1 587 800	1 636 775	1 662 500	1 687 475	1 829 450	4 114 670	4 445 840	4 582 970	4 655 000	4 724 930	5 122 460	1 972 300	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1 329 000	1 469 525	1 587 800	1 636 775	1 662 500	1 687 475	1 829 450	4 114 670	4 445 840	4 582 970	4 655 000	4 724 930	5 122 460	2 471 020	67.5%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.013	8 450 940	1 934 000	2 026 800	2 222 275	2 309 725	2 340 850	2 365 825	2 507 800	5 874 480	6 222 370	6 487 230				(571 000)	106.9%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.013	15 491 600	2 747 000	3 127 475	3 584 000	3 748 025	3 814 850	3 839 825	3 978 200	8 756 930	10 035 200	10 494 470	10 681 580	10 751 510	11 138 960	5 352 640	67.5%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2 747 000	3 127 475	3 584 000	3 748 025	3 814 850	3 839 825	3 978 200	8 756 930	10 035 200	10 494 470	10 681 580	10 751 510	11 138 960	2 628 880	80.9%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2 747 000	3 127 475	3 584 000	3 748 025	3 814 850	3 839 825	3 978 200	8 756 930	10 035 200	10 494 470	10 681 580	10 751 510	11 138 960	4 052 520	73.3%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2 747 000	3 127 475	3 584 000	3 748 025	3 814 850	3 839 825	3 978 200	8 756 930	10 035 200	10 494 470	10 681 580	10 751 510	11 138 960	3 499 360	76.1%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2 747 000	3 127 475	3 584 000	3 748 025	3 814 850	3 839 825	3 978 200	8 756 920	10 035 200	10 494 470	10 681 580	10 751 510	11 138 960	4 052 320	73.3%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2 747 000	3 127 475	3 584 000	3 748 025	3 814 850	3 839 825	3 978 200	8 756 930	10 035 200	10 494 470				(397 280)	102.7%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14 635 320	2 747 000	3 127 475	3 594 000	3 748 025	3 814 850	3 839 825	3 978 200	8 756 930	10 035 200	10 494 470	10 681 580	10 751 510	11 138 960	3 499 360	76.1%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2 747 000	3 127 475	3 534 000	3 748 025	3 814 850	3 839 825	3 978 200	8 756 930	10 035 200	10 494 470	10 681 580	10 751 510	11 138 960	4 645 040	69.7%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2 747 000	3 127 475	3 594 000	3 749 025	3 814 850	3 839 825	3 978 200	8 756 930	10 035 200	10 494 470	10 681 580	10 751 510	11 138 960	3 215 320	77.6%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2 747 000	3 127 475	3 584 000	3 748 025	3 814 850	3 839 825	3 978 200	8 756 930	10 035 200	10 494 470	10 681 580	10 751 510	11 138 960	697 840	94.1%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2 747 000	3 127 475	3 584 000	3 748 025	3 814 850	3 839 825	3 976 200	8 756 930	10 035 200	10 494 470	10 681 580	10 751 510	11 138 960	5 101 000	56.6%

Notes:

[illegible]

CONNECTION MANAGEMENT PLAN - REPORTING 4th Quarter 2007 Data REVISED: January 2008

TABLE B2

30" Interceptor Allocation until Expansion is Complete from MH 10 to MH 9

Township	Development	Total Connections (1)	Connections Allowed (2)	Connections Made (3)	Connections Remaining (3)
City of Coatesville					
	Cambria Terrace	69	60	5	55
	Bond House (Mount Pleasant Street)	13	13	10	3
	Brandywine View	639	410	0	410
	Pulver Office Building 1	8	25	0	8
	Marriott Hotel & Resturant	78	40	0	78
	Chelty Towers 1 - Residential	60	60	0	60
	Chelty Towers 1 - Commercial	10	10	0	10
	Chelty Towers 2 - Residential	150	150	0	150
	Chelty Towers 2 - Commercial	25	25	0	25
	ChesPenn - Residential	15	15	0	15
	ChesPenn - Commercial	4	4	0	4
	701 ELH - Residential	7	4	0	7
	731 ELH - Residential	9	9	0	9
	Williams Tract	80	80	0	48
	Coatesville VoTech	4	3	0	3
	McCoil-Coatesville Condominium	9	0	0	9
		Subtotal	908	15	893
Valley Township					
	Hillview	512	270	23	234
	Oak Crest (Deque)	188	174	6	168
	Timberlane	48	11	11	0
	Round Hill (Buckthorn Area)	230	180	11	169
	Hanscom Subdivision	1	1	0	1
	Lambert Subdivision	3	3	2	1
	Highlands Corp. Center Phase I, II, III	90	63	0	63
	Woodland Point (Risbon)	9	7	2	5
	Valley Suburban (Stoltzfus Commercial)	340	300	0	300
	Valley Farm & Mt. Airy Road	81	60	12	48
	London Tract	14	14	0	14
	Bone Tract (Keystone Foods Portion)	20	20	0	20
	Albert Koenig	1	1	0	1
	Concern	3	0	0	3
	Valley Farm Associates	1	0	0	1
	Lawrence Professional Center	2	0	0	2
	Saligman Hangar	1	0	0	1
	John Woodward	6	0	0	6
	Valley Miscellaneous	0	0	0	0
		Subtotal	1104	67	1037
Caln Township					
	Hillview (aka Hill Farm)	99	99	0	99
	Southwoods (Weiss)	20	20	0	20
	Lowe/Southdown (Ducca/Haron)	300	86	0	84
	Croft - 110 Walnut Street	1	0	0	1
		Subtotal	204	0	204
West Brandywine Township					
	Monacy Manor	42	42	0	42
	Freedom Village	297	28	0	28
	YMCA	87	48	0	48
	Brandywine Hospital	416	155	0	155
	Nunemaker Subdivision	2	2	1	1
	Culbertson Residential	178	90	0	90
	Swinehart Residential	113	50	0	50
	West Brandywine Twp MA	305	48	0	48
		Subtotal	463	1	462
Highland Township					
	Sib Crook Property	1	1	1	0
Sadsbury Township					
	AIM Business Park - Bellare	132	82	0	38
	Morris Farm	12	1	0	1
	Sadsbury Park	461	320	0	320
	Bone Tract (Sadsbury Portion)	20	20	0	20
	D&S Developers	0	25	0	0
	Lafeyette Square	130	80	0	130
	Pomeroy Partnership	2	2	0	2
	Sadsbury Township Misc		0	0	1
		Subtotal	510	0	510
East Fallowfield Township					
	Stone Creek (Robins Cove)	53	9	8	1
	Harkins Farm	21	21	0	21
	North Woods (Thompson North)	27	24	13	11
	Mendenhall Tract	74	74	7	67
	Providence Hill (Chen Tract)	219	135	30	105
	Manchester Farms (Thompson South)	112	48	22	26
	Ridgecrest (Martin)	72	72	0	72
	Cardinal Drive Area	78	78	0	78
		Subtotal	461	80	381
Parkesburg Borough					
	Harkins Property	10	10	0	10
	Parkesburg Knoll	171	88	16	72
	Crystal Springs Expansion (Heritage)	129	250	0	129
	Lindale Village	31	31	0	31
	Davis Tract	324	366	0	324
	MK Builders	3	3	0	3
	Phillips Site	4	4	0	4
	Library Site	131	131	0	131
	Mulch Park East	1	1	0	1
	HDC Site	75	92	0	75
	CONI-LIN	2	0	0	2
	Church - 1st East 2nd Avenue	1	0	0	1
	19 Borg Line Road	1	0	0	1
	Ross Property - 30 Boroline Road	1	0	0	1
	Williams Subdivision Rosemont Ave	2	0	0	2
	Parkesburg Borough Misc	116	0	0	116
		Subtotal	976	16	903
West Caln Township					
	Cainshire West	124	81	14	67
	Sandy Hill	87	15	2	13
		Subtotal	96	16	80
West Sadsbury Township (4)					
	JD Eckman	7	0	0	7
	Lower Valley Road Partners, LP	100	0	0	50
		Subtotal	0	0	57
Total Connections			4723	196	4527
Total Connections Available			4841		

NOTE (1) - Total projected new connections both pre and post plant expansion from Table A2 upstream of critical section

(2) - Connection allowed prior to completion of Interceptor replacement of Manhole 10 to Manhole 9 as per DEP's March 27, 2007 and September 5, 2007 Letters.

(3) - Connections made and remaining since the CMP revised January 2007

APPENDIX C

Pennsylvania American Water

PENNSYLVANIA AMERICAN WATER CO.

SEWER USE RULES AND REGULATIONS

Pennsylvania American Water
100 Cheshire Court, Suite 104
Coatesville, PA 19320
USA
T: 1 610 384-1776
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Effective March 22, 2001

RWE GROUP

PENNSYLVANIA AMERICAN WATER COMPANY

SEWER USE RULES AND REGULATIONS

INDEX

RULE 1

INTRODUCTION

Section 1.01 - The following Rules and Regulations shall be and are hereby declared to be a part of the Rules and Regulations of Pennsylvania American Water Company (THE COMPANY) regarding the use of the Wastewater System and the nature of wastes to be discharged into THE COMPANY's Treatment Works, either directly or indirectly.

Section 1.02

1. These Rules and Regulations replace all prior Rules and Regulations, and all such prior Rules and Regulations are hereby rescinded and on the effective date of these Rules and Regulations all such prior Rules and Regulations shall be null and void.

2. This Tariff may be revised, amended, supplemented and otherwise changed from time to time in accordance with the "Pennsylvania Public Utility Code," and such changes, when effective, shall have the same force and effect as the present Tariff.

3. The Tariff provisions apply to any party or parties applying for or receiving service from THE COMPANY.

RULE 2

PURPOSE

Section 2.01. The purposes of these Rules and Regulations are as follows:

1. To provide the conditions of service by THE COMPANY including application and contracting for service connection to THE COMPANY facilities, rendering and payment of bills and discontinuance of service.

2. To prohibit the discharge into THE COMPANY's Treatment Works of any wastewaters that are not in compliance with any Federal standards promulgated pursuant to the Federal Water Pollution Control Act Amendments of 1972, the Clean Water Act of 1977, or any subsequent Federal legislation.

3. To require that all wastewaters discharged to and from THE COMPANY's Treatment Works are in compliance with the Federal Water Pollution Control Act Amendments of 1972, the Clean Water Act of 1977, and any subsequent amendments to this legislation.

4. To require the pretreatment of all wastewaters discharged into THE COMPANY's Treatment Works for which pretreatment standards have been promulgated pursuant to Federal or State legislation required by the Federal General Pretreatment Regulation (40 CFR, Part 403). Provided, however, that THE COMPANY does not represent that it is the control authority referenced in 40 CFR ' 403.12(a).

5. To prohibit the discharge of any wastewaters of a flammable or explosive nature or which may create in any way a poisonous or hazardous environment for THE COMPANY's maintenance and operating personnel or the public.

6. To prohibit the discharge of any wastewaters into THE COMPANY's Treatment Works

which may cause operational or maintenance difficulties in it as it is now constructed or as it may be modified, expanded, or improved on in the future.

7. To prohibit or require pretreatment before introduction into THE COMPANY's Treatment Works of any wastewaters which may adversely affect the integrity, operation and/or maintenance of THE COMPANY's Treatment Works by direct or indirect chemical or physical action, or which may interfere with the treatment process.

8. To regulate excessive volumes and/or inordinate rates of discharge of any wastewaters into THE COMPANY's Treatment Works.

9. To regulate the discharge of any wastewaters which require the levying of a surcharge for either their discharge into, or treatment by THE COMPANY's Treatment Works.

10. To prohibit or require pretreatment before introduction into THE COMPANY's Treatment Works of any wastewater which may adversely affect the disposal of sludge in any manner.

11. To provide procedures for the extension of sewer service.

12. To provide violation and enforcement procedures, provide for protection against damage to the wastewater collection system or treatment works and establishment of fees and charges for use of the wastewater disposal system for both domestic and industrial wastes and other miscellaneous regulations designed to bring about the safe and efficient operation of THE COMPANY's wastewater collection and treatment system.

13. To acknowledge that THE COMPANY has, by this tariff, provided that these Rules and Regulations are a proper means of protecting public health, safety and welfare.

RULE 3

EFFECTIVE DATE

Section 3.01. These Rules and Regulations shall become effective at once and shall be applicable on or after March 22, 2001, to all properties then connected to, or as soon as they respectively become connected to and have the right to use, the sewer system.

RULE 4

DEFINITIONS

Section 4.01. Definitions

Unless the context specifically and clearly indicates otherwise, the meaning of terms used in these Rules and Regulations shall be as follows:

1. "Company" - Pennsylvania American Water Company (also called "THE COMPANY").

2. "Applicant" - A customer who enters into a service agreement for sewer service at a premises.

3. "Authorized Representative of a User" - An authorized representative of a user may be: (1) A principal executive officer of at least the level of vice president, if the user is a corporation; (2) A general partner or proprietor if the user is a partnership or

proprietorship, respectively; (3) A duly authorized representative of the individual designated above if such representative is responsible for the overall operation of the facilities from which the indirect discharge originates.

4. "B.O.D." (Biochemical Oxygen Demand) shall mean the quantity of oxygen, expressed in milligrams per liter, utilized in the biochemical oxidation of organic matter under standard laboratory procedure for five (5) days at twenty (20) degrees Centigrade. The standard laboratory procedure shall be that found in the latest approved edition of "Standard Methods for the Examination of Water and Sewage" published by the American Public Health Association.

5. "Building Sewer" shall mean the extension from the building sewer system to THE COMPANY's sewer main.

6. "Bypass" means the intentional or negligent diversion of industrial wastewater from any portion of an industrial user's pretreatment process through which the wastewater normally passes.

7. "Categorical Standards" - A Pretreatment Standard promulgated by the EPA as provided by Section 307 of the Clean Water Act (33 USC 1317) which applies to a specific category of Industrial Users, as provided in 40 CFR Chapter I, Subchapter N, Parts 405 through 471.

8. "Chlorine Demand" shall mean the quantity of chlorine absorbed in water, wastewater or other liquids, allowing a residual of 0.1 ppm by weight after fifteen (15) minutes of contact. The standard laboratory procedure shall be that found in the latest approved edition of "Standard Methods for the Examination of Water and Sewage" published by the American Public Health Association.

9. "Composite Sample" means a sample consisting of several effluent portions collected at intervals during a specific time period and combined to make a Representative sample. When special sampling techniques are required for a particular pollutant, e.g., volatile organic compounds requiring grab samples of fixed size, or when otherwise provided by a permit, the requirement that a composite sample be a Representative sample may be waived by THE COMPANY.

10. "Connection Fee" means a fee authorized under Act 203 of 1990 to recover THE COMPANY's cost for facilities installed between the sewer mains and the property line of the property to be connected to the system.

11. "Cooling Water" means any water used for the purpose of carrying away excess heat, both direct and indirect, and which may or may not contain biocides used to control biological growth. See also "Non-contact Cooling Water" in these definitions.

12. "Customer" means any individual, firm, company, partnership, corporation, association, group or society, including the Commonwealth of Pennsylvania, and agencies, districts, commissions and political subdivisions created by or pursuant to State law, and Federal agencies, departments or instrumentalities thereof, who have executed a Service Agreement with THE COMPANY.

13. "Customer Facilities Fee" means a fee permitted under Act 203 of 1990 to recover THE COMPANY's actual cost for facilities installed between the property line and the

internal plumbing of the building being connected to the system.

14. "Daily Measurement" is the result obtained for a Composite Sample, or the average of the measurements of all grab samples, taken over the course of a calendar day or a similar period reasonably representative of one day of normal operation.

15. "Department" means the Pennsylvania Department of Environmental Protection (PADEP).

16. "Discharge" means an Indirect Discharge; "To discharge," means to cause or allow the introduction of material into the Treatment Works.

17. "Domestic Wastewater" means the liquid waste or liquid borne waste (1) resulting from the non-commercial preparation, cooking, and handling of food, (2) consisting of human excrement, or (3) consisting of washwater, non-commercial laundering waters, domestic housekeeping wastewater, and similar types of wastes from sanitary uses, whether generated in residences or sanitary facilities in commercial or industrial facilities, but does not include stormwater introduced from roof leaders, sump pumps, floor drains or industrial wastewater.

18. "EPA" means the United States Environmental Protection Agency.

19. "Federal Act" means the Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 USC 1251, et. seq.

20. "Garbage" shall mean solid wastes resulting from preparation, cooking and dispensing of food and from handling, storage and sale of produce.

21. ""Government" means the United States of America and the Commonwealth of Pennsylvania and any department or agency thereof.

22. "Grab Sample" means a sample, which is taken from a waste stream on a one-time basis with no regard to the flow in the waste stream and without consideration of time.

23. "Holding Tank Waste" means any waste from holding tanks such as vessels, chemical toilets, campers, trailers, septic tanks and vacuum-pump tank trucks.

24. "Indirect Discharge" shall mean the discharge or the introduction of non-domestic pollutants from any source regulated under Section 307(b) of the Act (33 USC 1317), into the POTW (including holding tank waste discharged into the POTW).

25. "Industrial User" means any person that causes, allows, or permits an Indirect Discharge or any Discharge of Industrial Wastewater.

26. "Industrial Wastewater" shall mean the liquid waste or liquid borne waste resulting from any industrial, manufacturing, trade, or business process or activity, or in the course of developing, recovering or processing of natural resources which, whether treated or untreated, is discharged into the Treatment Works, but not Non-contact Cooling Water or Domestic Wastewater unless such wastes are mixed with Industrial Wastewater; a mixture of any other water or wastewater with Industrial Wastewater is Industrial Wastewater.

27. "Industrial Pretreatment Program" means the provisions of this Resolution and any applicable law, regulation or ordinance of any government or municipality applicable to the control of Indirect Discharges, and such rules, policies, procedures and

administrative activities adopted or carried out by THE COMPANY in furtherance of the mandates and goals of such laws, Rules and Regulations.

28. "Industrial Waste Discharge Permit" is a permit issued to industrial users as provided by Rule 9 of these Rules and Regulations.

29. "Interference" means (i) inhibiting or disrupting a treatment works system or its treatment process or operation so as to contribute to, or cause a violation of any condition of a state or federal permit or any restriction, condition, or prohibition on the discharge from the treatment works established by any government statute, regulation, or policy, or (ii) discharging industrial process wastewater which, alone or in combination with existing domestic wastewater is of such volume or strength as to exceed the treatment process capacity; or (iii) preventing the use or disposal of sludge produced by the treatment works in accordance with any State rules or regulations or Section 405 of the Federal Clean Water Act (33 USC 1345) or the regulations adopted thereunder; or any regulations or criteria or guidelines developed pursuant to the Federal Resource Conservation and Recovery Act of 1976 (42 USC 6901 et. seq.), the Federal Clean Air Act (42 USC 7401 et. seq.), or the Federal Toxic Substances Control Act (15 USC 2601 et. seq.).

30. "Local Limits" means numerical or narrative requirements respecting the allowable concentration or mass of pollutants in industrial wastewater. Local limits are adopted by THE COMPANY to implement the provisions of the pretreatment program.

31. "Main Extension" means extension of service requiring the construction of one or more additional sewers including pumping stations and force or pressure mains.

32. "Monthly Average" shall mean the arithmetic mean of all of the daily measurements taken during a calendar month. Should only one daily measurement be obtained during the month, that result is the Monthly Average.

33. "Municipality" means any city of any class, any borough, township, municipal authority, or any other municipality other than a county or a school district.

34. "National Pollutant Discharge Elimination System" (NPDES) means the system of discharge permits (NPDES) issued by PADEP pursuant to Section 402 of the Clean Water Act (33 USC 1342).

35. "National Prohibited Standards" means prohibited discharge standards established in 40 CFR Section 403.5.

36. "Non-Contact Cooling Water" means cooling water that does not contact any raw material, intermediate or finished product or waste.

37. "Owner" means the person in whose name the deed for a property is recorded.

38. "Pass Through" means the discharge of pollutants to the waters of the State either untreated or insufficiently treated so as to cause or contribute to pollution or a violation of the NPDES permit issued to THE COMPANY; or the concentration of pollutants in the sludge produced by the treatment plant so that the end use of the sludge results in pollution, harm to the environment, or a violation of any State or Federal sludge disposal regulation, guideline or standard.

39. "pH" means the logarithm base 10 of the reciprocal of the concentration of hydrogen ions in grams per liter of solution. Solutions with a pH greater than 7

basic; solutions with a pH less than 7 are said to be acidic; pH equal to 7 is considered neutral.

40. "Person" means an individual, partnership, company, corporation, association, corporate political body, joint ownership, or any other entity capable of functioning in the context used herein.

41. "Pollutant" means any dredged spoil, solid waste, incinerator residue, sewage, garbage, refuse, oil, grease, sewage sludge, munitions, chemical wastes, biological materials, radioactive substance, thermal waste, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal or agricultural waste or other residue, or any substance identified in these Rules and Regulations as regulated, restricted, or prohibited.

42. "Premises" means the property, building, or other site to which water service is furnished, including:

a. A building under one roof, owned and leased by one person, and occupied as one residence or business;

b. Each combination of buildings owned or leased by one person, served by one service line and occupied by one family or business;

c. Each side of a double house or each housing unit;

d. Each apartment, office, or suite of offices located in a building having several such apartments, offices, or suites of offices and using in common one or more means of entrance; or

e. Such other situations as THE COMPANY shall deem proper and advisable.

43. "Pretreatment" means the application of physical, chemical and/or biological processes to reduce the amount of pollutants in, or alter the nature of the polluting properties of, an industrial process wastewater prior to discharging such wastewater into the Treatment Works.

44. "Pretreatment Standards and Requirements" means any applicable Federal or State rules and regulations implementing Sections 306 and 307 of the Clean Water Act (33 USC 1316 & 1317), as well as any non-conflicting standards or regulations adopted by THE COMPANY.

45. "Publicly Owned Treatment Works" (or "POTW") defined by Section 212 of the Act (33 USC § 1292). For the purposes of these Rules and Regulations, "POTW" shall also include local collection systems of participants or other sewers that convey wastewaters to the POTW from persons outside the district who are, by contract or agreement with THE COMPANY, users of THE COMPANY's POTW.

46. "Regional Administrator" shall mean the Administrator of the applicable Region of the United States Environmental Protection Agency or his/her authorized representative.

47. "Representative Sample" means a sample obtained in such a way that the relative proportions of its constituents reliably approximates the proportions occurring in the total discharge from the facility during the course of a calendar day. A representative sample is normally obtained by means of a flow-proportioned Composite sample taken during the hours when a discharge is occurring. When sampling to determine

compliance with a maximum instantaneous limit, a representative sample may be a grab sample. When conditions require, and with the approval of THE COMPANY, a representative sample may be obtained as a series of grab samples, or using other non-proportionate methods.

48. "Service Line" means the service pipe extending from THE COMPANY's sewer main to a point immediately inside the portion of the customer's property, which abuts the street or road. Except, in cases where the customer did not dedicate to THE COMPANY the sewer service line between the main and the property line, the service line is the property of THE COMPANY.

49. "Sewer" shall mean a sewer of THE COMPANY or of the tributary sewer systems that discharge to THE COMPANY system, which carries wastewater and to which storm, surface and groundwaters are not intentionally admitted.

50. "Sewer Connection Fee" means the "Connection Fee" as set forth in this section.

51. "Sewer Discharge Permit" means a permit issued by THE COMPANY allowing a user to discharge wastewater to THE COMPANY sanitary sewer system. See also, Industrial Waste Discharge Permit in these definitions.

52. "Sewer Service Application" means an application required for any customer requesting or receiving sewer service from THE COMPANY.

53. "Sewer Service Connection" means the fitting or manhole owned by THE COMPANY and installed or authorized to be installed in THE COMPANY main by THE COMPANY, connecting a service line to THE COMPANY sewer.

54. "Significant Industrial User" means any industrial user that discharges industrial wastewater which either (1) exceeds an average rate of 25,000 gallons per day, or (2) exceeds a BOD loading of sixty-three (63) pounds of BOD, one hundred four (104) pounds of Chemical Oxygen Demand, or sixty-three (63) pounds of TSS, (3) is regulated by Categorical Pretreatment Standards, or (4) is determined by THE COMPANY to have the potential of adversely affecting the POTW, causing Pass Through or Interference, or of violating any Pretreatment Standard or Requirement.

55. "Slug" shall mean any discharge of water, wastewater or industrial waste which exceeds for any period of duration longer than fifteen (15) minutes, (1) more than five (5) times the average twenty-four (24) hour concentration of any constituent therein, or (2) more than five (5) times the average rate of flow(s) during normal operation.

56. "State" means the Commonwealth of Pennsylvania.

57. "State Act" means the Pennsylvania Clean Streams Law (35 P.S. 691.1-691.801).

58. "Storm Water" means any flow occurring during or immediately following any form of natural precipitation and resulting therefrom.

59. "Surcharge" shall mean the additional charge that will be levied against a user discharging wastewater whose BOD and suspended solids concentrations are in excess of the standard adopted for surcharges, or which contain constituents in concentrations for which THE COMPANY has determined an additional charge is required for their treatment.

60. "Suspended Solids" or "Total Suspended Solids (TSS)" means the Total Filterable Residue as defined by 40 CFR 136.

61. "Tapping Fee" means the fees authorized to be established by Act 203 of 1990, including four components: the Capacity Part, the Collection Part, the Special Purpose Part and the Reimbursement Component.

62. "Tenant" means a user who leases or rents premises from an owner.

63. "Toxic Pollutant" means any pollutant so designated by the EPA in accordance with the provisions of Section 307(a) of the Clean Water Act (33 USC 1317).

64. "Treatment Works" means POTW as defined herein and any device or system, whether public or private, used in the storage, treatment, recycling, or reclamation of domestic or industrial waste of a liquid nature, including: intercepting sewers, outfall sewers, systems served by THE COMPANY, sewage collection, cooling towers and ponds, pumping, power and other equipment and their appurtenances; extensions, improvements, remodeling, additions, and alterations thereof; elements essential to provide a reliable recycling supply such as standby treatment units and clear well facilities; any other works including sites for the treatment process or for ultimate disposal of residues resulting from such treatment.

65. "Treatment Plant" means that portion of the Treatment Works designed to provide treatment to wastewater and thence to discharge treated wastewater to the environment.

66. "User" means any person, corporation or institution who discharges, causes, or permits the discharge of wastewater into the Treatment Works, either directly or indirectly.

67. "Wastewater" means the liquid and water-carried industrial or domestic wastes from dwellings, commercial facilities, industrial facilities, and institutions, together with any groundwater, surface water, and storm water that may be present, whether treated or untreated, which is discharged into or permitted to enter THE COMPANY Treatment Works.

Section 4.02. Abbreviations

The following abbreviations shall have the designated meaning:

BOD - Biochemical Oxygen Demand

THE COMPANY- Pennsylvania American Water Company

CFR - Code of Federal Regulations

COD - Chemical Oxygen Demand

EPA - Environmental Protection Agency

L - Liter

mg - Milligrams

mg/L - Milligrams per Liter

NH3-N	- Ammonia Nitrogen
P	- Phosphorus
NPDES	- National Pollutant Discharge Elimination System
PADEP	- Pennsylvania Department of Environmental Protection
POTW	- Publicly Owned Treatment Works
ppb	- parts per billion
ppm	- parts per million
SS	- Suspended Solids
TSS	- Total Suspended Solids
USC	- United States Code

RULE 5

SEWER SERVICE

Section 5.01. Sewer Service Agreements

1. An agreement for sewer service must be made and sewer discharge permit obtained where domestic wastewater is proposed to be introduced through a connection of a service line to a sewer owned and maintained by THE COMPANY and approved by THE COMPANY for introduction of new sewer service including where there is any change in ownership of property or in tenancy where tenant is the user. THE COMPANY shall have the right, upon seven (7) days notice, to discontinue existing sewer service until such a new agreement has been made and approved. If industrial waste is proposed to be introduced into any sewer system tributary to THE COMPANY's Treatment Works, whether the sewer system is owned and maintained by THE COMPANY or by any other municipality or private party, the customer or user shall obtain a sewer discharge permit from THE COMPANY and enter into a sewer service agreement with THE COMPANY before commencing the discharge of such waste.

2. All agreements for sewer service are made subject to approval of THE COMPANY.

3. The agreement for sewer service must be signed by the applicant, which shall together with the Rules and Regulations of THE COMPANY, regulate and control the provision of sewer service to the premises.

4. All agreements for sewer service shall continue in force from day to day, but either party may cancel the contract by giving seven (7) days written notice that the contract shall terminate at the expiration date contained in the notice. If the minimum charge is not exceeded at the time of termination, it shall be pro-rated on a daily basis for the quarter in which sewer service is terminated.

5 For purposes of the sewer service agreement, the term Customer shall include user as defined by Rule 4 of these Rules and Regulations. Service agreements shall be made between customers and THE COMPANY and the customer will be responsible for all users

tributary to a customer service line.

6 Separate agreements for sewer service must be made for:

a. Each building under one roof owned or leased by one party, and occupied as one residence or business;

b. Each combination of buildings owned or leased by one party in one common enclosure and occupied by one family or business;

c. Each side of a double house having a solid vertical partition wall; or

Such other cases as THE COMPANY shall seem proper and advisable under the circumstances.

7. All sewer service provided by THE COMPANY must be entered through approved connections. Any wastewater discharged through unapproved connections to THE COMPANY sewers will cause the discontinuance of service and the imposition of penalties and other charges as described herein.

Section 5.02. Sewer Discharge Permits

1. Any person desiring the introduction of a new service line or lines from THE COMPANY 's main into the premises must first enter into an agreement for sewer service as provided in Section 5.01 above on the form furnished by THE COMPANY. At least seven (7) days before service is required, application for sewer service must also be made. The application shall state the time when the trench to THE COMPANY 's sewer will be ready for completing the connection to THE COMPANY sewer. The applicant shall guarantee that such service will continue for at least one (1) year.

2. The agreement will not be approved until THE COMPANY receives payment of the appropriate tapping fee and connection fee, as stipulated in the Schedule of Rates and Charges and other charges stipulated by THE COMPANY in duly adopted schedules of charges.

Section 5.03. Deposits

1. Deposits may be required from customers as deemed necessary by THE COMPANY.

2. Deposits will be returned to the depositor when he has paid bills for service over a period of twelve (12) consecutive months; or upon discontinuance of service by the customer and payment of all charges due. Any customer having secured the return of a deposit will not be required to make a new deposit unless the service has been discontinued or the customer's credit standing is impaired through failure to comply with the Rules and Regulations.

3. No interest will be paid on deposits.

4. Any customer having a deposit shall pay bills for sewer service as rendered in accordance with the Rules and Regulations of THE COMPANY and the deposit shall not be considered as payment on account of a bill during the time the customer is receiving sewer service.

RULE 6

CONDITIONS OF INSTALLATION, DISCONNECTION AND USE

Section 6.01. Service Limited to Premises

No customer or any premises supplied with sewer service by THE COMPANY shall be allowed to supply said service to other persons or families or other premises except by written permission from THE COMPANY. Customers who violate this rule shall have their sewer service discontinued after a notice of five (5) days, and it shall remain off until THE COMPANY is satisfied that the Rules and Regulations are observed.

Section 6.02. Customer Service Connection/Disconnection

1. After a customer applies for and obtains a sewer discharge permit, pays all applicable tapping fees, connection fees, and other charges, and enters into an agreement for sewer service, the customer will construct a complete building sewer (see definition) which shall be air tested by the installer under the supervision of THE COMPANY 's representative, and subsequently approved through a service line inspection form completed by said THE COMPANY representative.

2. The customer or owner is responsible for excavation, backfill, street restoration and any street opening permits at the location where the new sewer service or the disconnection of the old sewer service is made.

3. Building sewers, including all fittings, manholes, meter locations and sampling points, shall be constructed in accordance with THE COMPANY specifications.

RULE 7

USE OF THE TREATMENT WORKS

Section 7.01. General Prohibitions on Wastewater Discharge

No person shall discharge, deposit, cause or allow to be discharged or deposited into THE COMPANY Treatment Works any Wastewater which contributes to a violation of any of the parameters in THE COMPANY NPDES permit, or which contains any of the following:

1. Stormwater, surface water, groundwater, roof runoff, subsurface drainage, or foundation or basement sump drainage;

2. Oils, tar, grease, combustible gases and liquids, insoluble solids of any kind, or other substances which may impair, impede, affect, interfere with or endanger the Treatment Works or any part thereof;

3. Gasoline, benzene, naphtha, paints, lacquers, fuel oil, or other flammable or explosive liquid, solid, or gas which by reason of its nature or quality may cause fire or explosion or which, in any way, may be injurious to personnel or the Treatment Works;

4. Substances of such a nature as to form noxious or malodorous gases or substances which either singularly or through interaction with other wastes or substances found in wastewater treatment processes may create a public nuisance, hazard to life, or prevent entry into any portion of the Treatment Works for operational duties, maintenance or repair;

5. Solids or viscous substances in quantities or of such size capable of causing obstruction of the flow in sewers, or other interference with the proper operation of the treatment works, such as, but not limited to, ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch manure, hair, fleshings, offal, entrails and paper products.

6. Garbage from any institutional, commercial or domestic source not properly shredded.

7. Septic tank or cesspool wastes. These wastes may, however, be accepted directly at THE COMPANY's wastewater treatment facilities at charges and during times prescribed by THE COMPANY. THE COMPANY reserves the right, however, to discontinue the acceptance of such wastes without notice should such wastes result in any operational problems.

8. Wastewaters having an objectionable color which is not removable in the wastewater treatment facility.

Section 7.02. Specific Prohibitions

No person shall discharge or permit to be discharged the following described substances, materials or wastewater, in amounts, rates, or concentrations that will or may cause or contribute to pass through, interference, risk to human health or environment, or a public or private nuisance. The prohibited substances are:

1. Any wastewater having a temperature higher than 150°F (65°C).

2. Any wastewater containing fats, wax, grease, or oils of such concentration or consistency that would cause or contribute to obstructions in the sewer, or increased removal or treatment costs at the Treatment Works. Unless shown by the discharger that a higher concentration will not violate this standard, it is presumed that a concentration of hexane extractable materials (as defined by 40 CFR Part 136) in excess of 100 mg/L is a prohibited concentration.

3. Wastewater having a pH less than 6.0 or greater than 9.0 or found to be excessively corrosive.

4. Wastewater containing any radioactive substances.

5. Wastewater having a flash point lower than 235° F (113° C) as determined by the TAG or Pensky-Martins closed cup method, as applicable.

6. All wastes containing toxic pollutants or corrosive substances in sufficient quantity or concentration to cause or contribute to injury, damage or hazard to personnel, structures or equipment, interference or pass through.

7. Any constituent in industrial wastewater in excess of the limits imposed by an industrial waste discharge permit issued by THE COMPANY, or in excess of applicable

Categorical Standards.

8. Unusual volume of flow or concentration of wastes constituting "slugs" as defined herein.

9. Substances interfering with Sludge Management - Any substance which may cause the POTW's sludge to be unsuitable for disposal or to interfere with the reclamation process where the POTW is pursuing a reuse and reclamation program. In no case shall a substance discharged to the POTW cause the POTW to be in non-compliance with sludge use or disposal criteria, guidelines or regulations developed under Section 405 of the Clean Water Act (33 USC 1345) including 40 CFR Section 503; any criteria, guidelines, or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act, the Clean Air Act, the Toxic Substances Control Act, or any State statute, regulation or guideline.

Section 7.03. Local Limits and Discharge Limitations

1. Appendix A presents the local limits for certain pollutants. The local limits are the allowable wastewater discharges to the treatment works by all industrial users, including both significant industrial users and other (non-significant) industrial users.

2. Discharge limits in Industrial Waste Discharge Permits may be in terms of mass, concentration, flow volume, or a combination of these to be determined by THE COMPANY.

3. For local limits that are expressed as a total allowable mass, discharges by Significant Industrial Users shall be limited by means of Industrial Waste Discharge Permits so that the total mass of pollutants allowed to be discharged by Significant Industrial Users, plus that expected to be discharged by non-significant industrial users, shall not exceed the local limits. In such a case, THE COMPANY may allocate the allowable mass of limited pollutants among industrial dischargers as is appropriate to reflect the nature of the industrial wastes, flow rates, and other considerations. The allocation may be changed administratively from time to time as THE COMPANY sees fit, without action of THE COMPANY or amendment of this rule.

4. When local limits are expressed in terms of concentration, such limits shall be included in all Industrial Waste Discharge Permits, subject to the provisions of Section 7.11 of this RULE.

Section 7.04. Federal Categorical Pretreatment Standards

1. Upon the effective date of the Federal Categorical Pretreatment Standard for a particular industrial subcategory, the Federal Standard, if more stringent than limitations imposed under these Rules and Regulations for sources in that subcategory, shall become the industrial wastewater discharge standard for any industrial user subject to the standard.

2. THE COMPANY shall endeavor to notify all affected users of the applicable reporting requirements in 40 CFR, Section 403.12. Whether notified or not, any industrial user subject to national pretreatment standards shall be responsible for compliance with all such standards and associated national reporting requirements, and failure or inadequacy of notice by THE COMPANY shall not be reason for any non-compliance by

the industrial user, nor grounds for a claim at law or in equity against THE COMPANY.

3. THE COMPANY is not the "Control authority" for purposes of industrial user reporting under the provisions of 40 CFR Section 403.12, and industrial users subject to Categorical Pretreatment Standards shall submit required reports to EPA, as provided in Section 10.01 of these Rules and Regulations.

Section 7.05. State Requirements

State requirements and limitations on discharges shall apply in any case where they are more stringent than Federal requirements and limitations or those in these Rules and Regulations.

Section 7.06. THE COMPANY Right of Revision

THE COMPANY reserves the right to establish more stringent limitations or requirements on discharges to the Treatment Works if deemed necessary by THE COMPANY to comply with objectives of these Rules and Regulations.

Section 7.07. Excessive Discharge

No user shall ever increase the use of process water or in any way attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations for adequate treatment, to achieve compliance with the limitations contained in the Federal Categorical Pretreatment Standards, or to achieve compliance with any other pollutant-specific limitation developed by the State or THE COMPANY.

Section 7.08. Unacceptable Wastes

If any wastewaters are discharged, or are proposed to be discharged to the Treatment Works which wastewaters contain the substances or possess the characteristics enumerated or referred to in Section 7.01 or 7.02 of this RULE, THE COMPANY will exercise one or more of the following options:

1. Reject the wastes permanently, in which case any discharge of the wastewater to the POTW is a violation of this resolution for which THE COMPANY may take such actions as are allowed by law to abate.

2. Reject the wastes and bar the discharge of the rejected wastes until such time as the discharger of such wastes provides a detailed report (prepared by a professional engineer registered in the Commonwealth of Pennsylvania with recognized expertise in the treatment of industrial wastes) containing recommendations as to the method of pretreatment and acceptability of such wastes into the Treatment Works. Upon THE COMPANY's acceptance of said report, said wastes may be accepted on a trial basis under such terms and conditions as THE COMPANY may impose, and subject to termination by THE COMPANY for any reason.

3. Require pretreatment to an acceptable condition for disch[illegible]

Treatment Works.

4. Require control over the quantities, rates and times of discharge.

5. Accept the wastes as provided in Section 7.11 of this RULE.

Section 7.09. Design of Pretreatment Facilities

If THE COMPANY permits the pretreatment or equalization of discharge of wastes which are to be accepted in the Treatment Works, the design and installation of the pretreatment facilities shall be reviewed and approved by THE COMPANY, and are subject to the requirements of the Pretreatment Standards and all other applicable codes, ordinances and laws. Such review and approval of proposed pretreatment facilities shall not be an endorsement or warranty of the effectiveness, efficiency or capability of such pretreatment facilities, and shall not act as a waiver of any applicable Pretreatment Standard or Requirement.

Section 7.10. Maintenance of Pretreatment Facilities

Where pretreatment or flow equalization or time of discharge control facilities are provided for any wastewaters discharged to the Treatment Works, it shall be maintained continuously in satisfactory and effective operation by the user or the Owner, as appropriate, at the expense of said user or owner.

Section 7.11. High Strength Wastes

No statement contained in this RULE shall be construed as preventing any special agreement or arrangement between THE COMPANY and any user whereby a wastewater with high BOD or suspended solids concentrations, a high chlorine demand or with unusual strength or characteristics may be accepted by THE COMPANY for treatment at an additional charge, provided THE COMPANY has determined, at the expense of the user, that the wastewater can be adequately conveyed and treated by the Treatment Works without any deleterious effects, and provided further that such waste discharges do not violate any State or National Pretreatment Standards, including National Prohibited Standards and applicable Categorical Pretreatment Standards.

RULE 8

NOTIFICATION, INSPECTION, TESTING AND CONTROL FOR INDUSTRIAL WASTES

Section 8.01. Industrial Waste Analysis

All users desiring to discharge industrial wastes to THE COMPANY Treatment Works must file with THE COMPANY a complete physical and chemical analysis of the wastes proposed to be discharged into the Treatment Works. This information shall be filed on forms prescribed by THE COMPANY.

Section 8.02. Notification of Change

Any industry which is connected to the Treatment Works, either directly or indirectly, and is discharging industrial wastes thereto, which shall change its method of operation so as to alter the nature of the wastes previously discharged, either in quality or quantity, shall notify THE COMPANY at least thirty (30) days in advance of any such change, if such a change is planned, otherwise, immediately upon becoming aware of such a change. The industrial user shall report on the expected changes in the waste, and shall sample and analyze the waste for any substances expected to be found therein, or as directed by THE COMPANY. THE COMPANY may require that the industry apply for an Industrial Waste Discharge Permit or for an amendment of an existing permit, as provided in RULE 9 of these Rules and Regulations.

Section 8.03. Admission to Property

Whenever it shall be necessary for the purposes of implementing the requirements of these Rules and Regulations, any duly authorized employees or representatives of THE COMPANY, upon the presentation of credentials and identification, shall at any time be permitted to enter all properties to inspect, observe, measure, sample, test or monitor any discharge of wastewater to the Treatment Works or records thereof, in accordance with the provisions of these Rules and Regulations.

Section 8.04. User Held Harmless

While performing the necessary work on private properties referred to in Section 8.03, duly authorized employees or representatives of THE COMPANY shall observe all reasonable safety rules applicable to the premises established by the user or owner of which employees or representatives have been provided notice.

Section 8.05. Control Manhole

When required by THE COMPANY, the user shall install a suitable control manhole together with such necessary meters and other appurtenances in the building sewer as may be approved by THE COMPANY to facilitate observation, sampling, and measurement of the wastewater. Such manhole or other appurtenances, when required, shall be accessibly and safety located, and shall be constructed in accordance with plans approved by THE COMPANY. The control manhole shall be installed by the user at his expense, and shall be maintained by him so as to be safe and accessible to THE COMPANY representatives at all times. If the user does not maintain the control manhole and the equipment in it in a satisfactory condition as determined by THE COMPANY, THE COMPANY shall maintain them at the user's expense.

Section 8.06. Measurements and Tests

All measurements, tests and analyses of the characteristics of waters and wastes to which reference is made in these Rules and Regulations shall be determined in accordance with Section 10.03 of these Regulations and shall be determined at the control manholes provided. In the event that no special control manhole has been required, the control manhole shall be considered to be the nearest downstream manhole in the public sewer to the point at which the building sewer is connected. Sampling shall

standard test methods in the waste treatment industry, to reflect the effect of constituents upon the Treatment Works and to determine the existence of hazards to life, limb and property.

Section 8.07. Submission of Plans

Where pretreatment or equalization of wastewater flows or control of time of discharge prior to discharge into any part of the Treatment Works is required, the user shall notify THE COMPANY, and plans, specifications, and other pertinent data prepared by an Engineer licensed in the Commonwealth of Pennsylvania or information relating to such pretreatment or flow-control facilities shall be submitted by the user to THE COMPANY for review and approval. Such approval shall not exempt the discharge of such facilities from compliance with any applicable code, ordinance, rule, regulation or order of any governmental authority. Any subsequent modifications to such pretreatment or flow-control facilities shall not be made without due notice to and prior approval of THE COMPANY.

Section 8.08. Pretreatment Facilities Operations

Pretreatment facilities shall be maintained in good working order and operated efficiently by the user at his/her own costs and expense, subject to the requirements of these Rules and Regulations and all other applicable local, State and Federal codes, ordinances, and laws.

Section 8.09. Accidental Discharges

Each user shall provide protection from accidental discharge of prohibited materials or other substances regulated by these Rules and Regulations to the Treatment Works. Facilities to prevent accidental discharge of prohibited materials shall be provided and maintained at the user's own expense. Detailed plans showing facilities and operating procedures to provide this protection shall be submitted to THE COMPANY for review and shall be approved prior to construction of the facility. All existing users shall complete such a plan at least sixty (60) days before scheduled start of construction of the facility. If any pretreatment or control facilities are in existence when these Regulations are adopted, the user shall submit drawings along with the plan mentioned above. No user who commences contribution to the Treatment Works after the effective date of these Rules and Regulations shall be permitted to introduce pollutants into the system until accidental discharge procedures have been approved by THE COMPANY. Review and approval of such plans and operating procedures shall not relieve the user from the responsibility of modifying the facility as necessary to meet the requirements of these Rules and Regulations.

1. Telephone Notice: In the case of an accidental discharge to THE COMPANY Treatment Works or, if for any reason a user does not comply, or will be unable to comply, with any prohibition or limitation in these Rules or Regulations, the user responsible for such discharge shall immediately telephone and notify THE COMPANY of the incident or non-compliance. (See telephone numbers and addresses in Appendix B). The notification shall include location of discharge, type of waste, concentration and volume. Furthermore, such user shall take immediate action to prevent interference with the treatment process or damage to the Treatment Works

2. Written Notice: Within five (5) days following an accidental or non-complying discharge to THE COMPANY Treatment Works, the user shall submit to THE COMPANY a detailed written report describing the date, time and cause of the discharge, the quantity and characteristics of the discharge and corrective action taken at the time of the discharge, and the measures to be taken by the user to prevent similar future occurrences. Such notification shall not relieve the user of any expense, loss, damage, or other liability which may be incurred as a result of damage to the Treatment Works, fish kills, or any other damage to person or property; nor shall such notification relieve the user of any fines, civil penalties, or other liability which may be imposed by this RULE or other applicable law.

3. Notice to Employees: A notice shall be permanently posted on the user's bulletin board or other prominent place advising user's employees whom to call in the event of a dangerous discharge to THE COMPANY Treatment Works. Employers shall insure that all employees who may cause or suffer such a dangerous discharge to occur are advised of the emergency notification procedure.

RULE 9

DISCHARGE PERMIT SYSTEM

Section 9.01. Permitted Discharges

No significant industrial user shall discharge industrial wastes into the Treatment Works without first obtaining an Industrial Waste Discharge Permit from THE COMPANY. Issuance or denial of an Industrial Waste Discharge Permit shall be a final administrative action of THE COMPANY.

Section 9.02. New Users

New users which desire to discharge industrial wastewater into the Treatment Works or existing industrial users which desire to commence operations of a new facility or a new or different process that will affect the characteristics of the industrial wastewater discharging into the Treatment Works, shall notify THE COMPANY prior to the commencement of the new or different operations at the facility and provide such other information regarding the proposed discharge as THE COMPANY may request, including an application for an Industrial Waste Discharge Permit when deemed necessary.

Section 9.03. Compliance with Permit Conditions

Any user issued an Industrial Waste Discharge Permit or other permit provided for by these Rules and Regulations shall abide by all of the provisions, conditions and terms of the permit, and a violation thereof shall be a violation of these Rules and Regulations. If a user objects to any term or condition of a permit it may appeal the specific terms and conditions to THE COMPANY as provided in RULE 13 of these Rules and Regulations.

Section 9.04 Types of Permits

THE COMPANY may issue wastewater discharge permits other than Industrial Waste Discharge Permits to special classes of dischargers in order to regulate the wastewater characteristics, duration, time of discharge, or other things necessary to achieve the purposes of these Rules and Regulations. The terms and conditions of such permits may be determined by THE COMPANY at its sole discretion. These special permits may be denoted by any appropriate caption except "sewer discharge permit" or "Industrial Waste Discharge Permit" so as to distinguish them from these types of permits. Issuance of a special permit under this section shall be a final administrative action; denial of a special permit shall not be a final administrative action and a user may, upon such a denial, apply for an Industrial Waste Discharge Permit. When determined to be appropriate or necessary, THE COMPANY may, in lieu of issuing a permit, enter into a contract or agreement with a discharger for the control of the discharge. Special permits shall not be issued to Significant Industrial Users.

Section 9.05. Renewal of Industrial Waste Discharge Permit

1. If a permittee wishes to continue discharging Industrial Wastewater to the Treatment Works, it shall request a renewal of its Industrial *Waste* Discharge Permit no less than three (3) months prior to the expiration date of the permit then in force. The request shall be contained in a form prepared by THE COMPANY. Renewal of the permit shall be contingent upon the permittee having complied with the terms and conditions of the expired permit. Renewal or denial of renewal of a permit is a final administrative action.
2. If a request for renewal is timely made and complete, and the permit is not renewed by the expiration date by reason of delay caused by THE COMPANY, then the existing permit shall continue in full force and effect until THE COMPANY issues a new permit or notifies the user that the permit has expired and will not be renewed. Failure to timely renew an Industrial Waste Discharge Permit is not a final administrative action.

Section 9.06. Duration of Industrial Waste Discharge Permits

The Permit expiration date will be as indicated in the permit. Permits will not be issued for a term of more than five (5) years. Except as provided in Section 9.05 (relating to extension of permits upon delay in renewal), upon expiration of a permit the right to discharge industrial wastewater ceases and such a discharge is a violation of these Rules and Regulations as if the permit had not been obtained. Expiration of a permit is not a final administrative action.

Section 9.07. Changes to Industrial Waste Discharge Permits

Any user that proposes to make any changes in its facility or processing which significantly affects either the quality or quantity of its discharge to the Treatment Works shall notify THE COMPANY as provided in Section 8.02 of these rules. Upon notice from THE COMPANY, the user shall apply for an amended permit. Forms may be procured from THE COMPANY.

Section 9.08. Transfer of Industrial Waste Discharge Permits

Industrial Waste Discharge Permits are issued to a specific user for a specific operation and are not transferable. An Industrial Waste Discharge Permit shall not be reassigned or transferred or sold to a new user, or a new or changed operation. The permittee shall notify THE COMPANY of any plans to transfer a facility to a new owner or operator, and shall notify the new owner or operator of the existence of an Industrial Waste Discharge Permit and the requirements of this resolution. The new user shall be governed by the provisions of Section 9.02 of this RULE.

Section 9.09. Procedure for Obtaining an Industrial Waste Discharge Permit

Persons required to obtain an Industrial Waste Discharge Permit shall complete THE COMPANY application form and forward it to THE COMPANY. The application shall be approved if THE COMPANY, in its sole judgment, determines that applicant has complied with all applicable requirements of these Rules and Regulations and furnished to THE COMPANY all requested information, and if THE COMPANY determines that there is adequate hydraulic and/or treatment capacity in the Treatment Works to convey, treat and dispose of the wastes. An application submitted shall be signed by an Authorized Representative of a user. An application signed by an individual other than an Authorized Representative shall include a corporate resolution or other evidence of authorization satisfactory to THE COMPANY granting the individual the authority to make the application on behalf of the user and to commit to compliance with the Rules and Regulations.

Section 9.10. Industrial Waste Discharge Permit Conditions

Discharge permits shall be issued with the following applicable conditions:

1. Monitoring requirement for surcharge;
2. Monitoring requirements for pretreatment;
3. Monitoring requirements for flow;
4. Prohibitions and limitations on wastewaters discharged to the sewer (including pretreatment requirements);
5. Compliance schedules;
6. Reporting requirements;
7. Management requirements and responsibilities;
8. Special conditions applicable to users on a case-by-case basis.

The terms and conditions of the permit may be subject to modification and change by THE COMPANY during the life of the permit, as limitations or requirements as identified in Section 7.04 are modified and changed. The user shall be informed of any proposed changes in his permit at least thirty (30) days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.

Section 9.11. Suspension or Revocation of Permits

THE COMPANY may suspend or revoke a Sewer Discharge Permit or an Industrial Waste

Discharge Permit in accordance with RULE 13, Violation and Enforcement Procedures, of these Rules and Regulations.

RULE 10

WASTEWATER MONITORING AND REPORTING REQUIREMENTS FOR USERS WITH INDUSTRIAL WASTE DISCHARGE PERMITS

Section 10.01. Reporting Requirements

1. All users subject to pretreatment standards and requirements shall comply with the applicable reporting requirements contained in 40 CFR 403.
2. Compliance Reports for Industrial Users Subject to Categorical Standards. Any user subject to Categorical pretreatment standards shall submit to THE COMPANY and to EPA the reports required by 40 CFR Section 403.12, including a baseline monitoring report and a report on compliance with the Categorical Standard deadline. For purposes of reporting compliance with Categorical Pretreatment Standards, EPA is the "Control authority" described in the Federal regulations, but copies of all such reports shall be provided to THE COMPANY.
3. Periodic Discharge Reports. Every Significant Industrial User shall submit a periodic discharge report to THE COMPANY during the months of June and December, unless required more frequently in a pretreatment standard or by THE COMPANY. At the discretion of THE COMPANY and in consideration of such factors as local high or low flow rates, holidays, budget cycles, and similar matters, THE COMPANY may alter the months during which the above reports are to be submitted. THE COMPANY may require any other industrial users discharging or proposing to discharge into the treatment works to file such periodic reports. The discharge report shall include such information regarding the operation of the facility, quality and quantity of discharge, permit compliance status, planned changes in the process or operation, and other information as THE COMPANY may require. THE COMPANY shall provide a form for use in submitting periodic reports.

Section 10.02. Records and Monitoring

1. All users who discharge or propose to discharge Industrial Wastewater to the Treatment Works shall maintain such records of production and related factors, effluent flows, and pollutant amounts or concentrations as are necessary to demonstrate compliance with the requirements of these Rules and Regulations and any applicable State or Federal pretreatment standards and requirements.
2. Such records shall be made available upon request by THE COMPANY. All such records relating to compliance with pretreatment standards shall be made available to officials of the Department and the EPA upon demand. A summary of such data indicating the user's compliance with these Rules and Regulations shall be prepared and submitted to THE COMPANY. All records shall be retained for a minimum of three (3) years.
3. Any user discharging Industrial Wastewater into the Treatment Works shall install at the user's own cost and expense suitable monitoring equipment to facilitate the accurate

observation, sampling, and measurement of wastewater, as required. Such equipment shall be maintained in proper working order and kept safe and accessible at all times. THE COMPANY shall determine what, if any, equipment is required.

4. Whether constructed on public or private property, the monitoring facilities shall be constructed in accordance with THE COMPANY requirements and all applicable construction standards and specifications. Plans and specifications for all such work will be submitted to THE COMPANY for approval prior to construction.

Section 10.03. Inspection, Sampling and Analysis

1. Representative Sampling Point. All users proposing to discharge or intending to continue to discharge industrial wastewater to any part of the Treatment Works must make available a sampling point representative of the discharge, which is acceptable to, and approved by, THE COMPANY. This point must be available to THE COMPANY, the Department, or EPA for purposes of conducting sampling inspections, compliance monitoring and/or metering operations.
2. Compliance Determination. Compliance determinations by THE COMPANY with respect to RULE 7 of these Rules and Regulations shall be made on the basis of representative samples obtained and analyzed as provided by these Rules and Regulations and the Industrial Waste Discharge Permit. THE COMPANY may obtain the necessary samples or may, by means of a requirement in an Industrial Waste Discharge Permit or other permit, require an industrial user to obtain samples and report the results.
3. Analysis of Industrial Wastewaters. Sampling, sample handling and preservation, and laboratory analyses of industrial wastewater samples shall be performed in accordance with EPA regulations in 40 CFR Part 136. Analysis of those pollutants not provided for in the EPA rules shall be performed in accordance with procedures approved by THE COMPANY.
4. Sampling Frequency. Sampling of industrial wastewater for the purpose of compliance determinations with respect to RULE 7 of these Rules and Regulations will be done at such intervals as THE COMPANY may designate. Sampling to determine compliance with Categorical Pretreatment Standards shall be performed as required by the applicable standard. However, it is the intention of THE COMPANY to conduct compliance sampling or to cause such sampling to be conducted for all significant industrial users at least once in every calendar year.

Section 10.04. Pretreatment; Facility Operation; Regulation of Bypasses

1. Users shall provide necessary wastewater pretreatment as required to comply with these Rules and Regulations and shall achieve compliance with all applicable Federal Categorical Pretreatment Standards within the time limitations as specified by the Federal Pretreatment Regulations. Any facilities required to pretreat wastewater to a level acceptable to THE COMPANY shall be provided, operated and maintained at the user's expense. Detailed plans showing the pretreatment facilities and operating procedures shall be provided as prescribed by Section 8.07 of these Regulations. The review of such plans and operating procedures by THE COMPANY will in no way relieve the user from the responsibility of modifying the facility as necessary to produce an

effluent acceptable to THE COMPANY under the provisions of these Rules and Regulations. Any subsequent changes in the pretreatment facilities or method of operation shall be reported to and be acceptable to THE COMPANY prior to the user's initiation of the changes.

2. If pretreatment facilities are necessary to achieve the limitations imposed by an industrial wastewater discharge permit, such facilities shall be properly operated at all times, and Bypass of a pretreatment system that will result in a violation of any Pretreatment Standard or Requirement is prohibited unless the Bypass is necessary to protect or preserve human life, or to avoid severe property damage. If such a Bypass occurs, the reporting requirements for an accidental spill, set forth in Section 8.09 of these Rules and Regulations shall be followed.

3. A Bypass is not permitted for maintenance or repair purposes, unless:

   a. The Industrial Waste discharged during the period of Bypass will continue to meet all applicable requirements and limitations, and

   b. The planned Bypass is reported to THE COMPANY at least three (3) calendar days prior to the activity, and observation and sampling of the discharge is provided by the user as may be requested by THE COMPANY.

Section 10.05. Confidential Information

Information and data on a user obtained from reports, questionnaires, permit applications, permits and monitoring programs and from inspections shall be available to the public or other governmental agency without restriction unless the user specifically requests and is able to demonstrate to the satisfaction of THE COMPANY that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets of the user. When requested by the person furnishing a report, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public but shall be made available upon written request to the EPA and/or the Department for uses related to these Rules and Regulations, the National Pollutant Discharge Elimination System (NPDES) and the State or Federal Pretreatment Programs; provided, however, that, such portions of a report shall be available for use by the State in judicial review or enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics will not be recognized as confidential information. Information accepted by THE COMPANY as confidential shall not be transmitted to any governmental agency by THE COMPANY until and unless a ten-day notification is given to the user. Provided, however, that in no event shall THE COMPANY be required to maintain any information received from a user as confidential if THE COMPANY shall be required by law, ruling, court order, statue or other legal authority to disclose such information.

RULE 11

TERMS OF PAYMENT

Section 11.01. Bills Rendered

1. All bills will be rendered quarterly for the period immediately preceding the date of the

bill. Bills shall be determined according to the rates in the Schedule of Rates and Charges based upon metered water consumption or in the case of municipal interconnections as mutually agreed upon. In every case where a meter fails to register, a bill will be rendered based on average consumption for the previous twelve (12) months, or average consumption for the total period of service, whichever is shorter.

2. Bills for new services and final bills will be computed for the initial or final period of water use according to the Schedule of Rates and Charges on the actual consumption or a pro-rated minimum, whichever is greater. The minimum charge shall be pro-rated on a daily basis for the quarter in which service is established or terminated.
3. Where special service rates are fixed, or cost of service of any kind is estimated, payment must be made at the time application is submitted and before the service is granted.

Section 11.02. Bills Due and Payable

1. All sewer bills must be paid within thirty (30) days of the date of the bill.
2. Charges for connections, uses, and special services shall be payable on demand.
3. A penalty of 1.5 percent will be added to all bills unpaid by the due date.
4. The use of sewer service by the same customer in different premises or localities will not be combined and each installation shall be billed separately.

Section 11.03. Bills of Doubtful Accuracy

Any customer, upon receipt of any bill, having reason to doubt its accuracy, shall bring or mail such bill, within seven (7) days of its date, to THE COMPANY's office for investigation. THE COMPANY will thereupon check the billing in question and either confirm the original billing or issue a corrected bill. In either case, the due date will be adjusted by the time required to check and re-issue the bill.

Section 11.04. Failure to Receive Bill

Failure to receive a bill shall not exempt any customer from the obligation to pay the bill.

Section 11.05. No Waiver or Reduction of Rates or Fees

THE COMPANY will not waive or reduce any rate or fee set forth in its Schedule of Rates and Charges as established now or in the future unless such waiver or reduction is necessitated by an act for which THE COMPANY has direct responsibility.

RULE 12

EXTENSION OF SERVICE

(RESERVED)

RULE 13

VIOLATIONS AND ENFORCEMENT PROCEDURES

Section 13.01. Notice of Violation

Whenever THE COMPANY finds that any user has violated or is violating these Rules and Regulations, or any prohibition, limitation or requirement contained herein or in an Industrial Waste Discharge Permit, THE COMPANY may serve upon such user a written notice stating the nature of the violation and providing a reasonable time for the satisfactory correction thereof. The requirements and conditions of such a notice shall be a pretreatment requirement under these Rules and Regulations, and shall be subject to such enforcement action as allowed by law for the enforcement of the pretreatment program. Issuance of a notice of violation shall be final administrative action of THE COMPANY when it requires action on the part of the user.

Section 13.02. Damages

Any user violating any of the provisions of these Rules and Regulations shall become liable to THE COMPANY for any expense, loss, or damage occasioned by THE COMPANY by reason of such violation, whether incidental or consequential.

Section 13.03. Suspension of Service or Permit

1. THE COMPANY may suspend the wastewater treatment service, an Industrial Waste Discharge Permit, or the sewer discharge permit of a user where:

    a. The user neglects to make payments of any charges against the property.

    b. In the opinion of THE COMPANY it is necessary to stop an actual or threatened discharge which:

        (1) presents, or may present, an imminent or substantial endangerment to the health, safety or welfare of any person, including THE COMPANY personnel, any property, or to the environment;

        (2) causes or contributes to any Interference or Pass Through; or

        (3) causes, or could cause, THE COMPANY to violate any condition of its NPDES permit.

    c. The user fails to factually report the wastewater constituents and characteristics of its discharge;

    d. The user fails to report significant changes in its operations, or wastewater

constituents and characteristics;

e. The user fails to provide reasonable access to its premises for the purpose of inspection or monitoring; or,

f. There is a violation of provisions of these Rules and Regulations or applicable Federal or State regulations pertaining to the reporting, discharging, treatment or pretreatment of wastewater.

The suspension shall be a final administrative action.

2. Any user notified of a suspension of its wastewater treatment service and/or a discharge permit shall immediately stop or eliminate the endangering discharge or otherwise correct the violation which prompted the suspension. In the event of a failure of a person to comply voluntarily to correct the violation, THE COMPANY shall take such steps as deemed necessary, including severance of the sewer connection without prior notice, to prevent or minimize damage to the POTW system or endangerment to the health, safety or welfare of any persons. THE COMPANY shall reinstate the suspended permit and/or the wastewater treatment service upon proof of the elimination of the non-complying discharge. A detailed written statement submitted by the user describing the causes of the harmful discharge and the measures taken to prevent any future occurrence shall be submitted to THE COMPANY prior to reinstatement.

Section 13.04. Publication of Industrial Users in Significant Non-compliance

THE COMPANY may, at its discretion, annually publish in the largest newspaper published in THE COMPANY service area, or in such other public forums as may be appropriate, a list of the users which, during the previous twelve (12) months, were in significant non-compliance, as defined by 40 CFR ' 403.8(f) (2) (vii).

Section 13.05. Legal Action

Any user violating any of the provisions of these Rules and Regulations or falsifying any information required by THE COMPANY of the user pursuant to these Rules and Regulations shall be subject to the following actions:

1. A civil suit may be instituted in the Court of Common Pleas of Chester County for injunctive or other equitable relief to prohibit and prevent such violation; or
2. A penalty may be collected in a civil action by summary proceeding under the laws of the City of Coatesville or the Commonwealth of Pennsylvania.

RULE 14

PROTECTION FROM DAMAGE

Section 14.01. Damage

No person shall maliciously, willfully, or negligently break, damage, destroy, uncover, deface, or tamper with any structure, appurtenance, or equipment which is a part of the sewer system. THE COMPANY will take appropriate action against any person violating this provision.

Section 14.02. Emergency Termination of Service

If a violation consists of the discharge of an explosive or flammable material or any other material which is highly toxic or creates a toxic gas so that there is imminent danger to the personnel, property or treatment process of THE COMPANY, or to the public or the environment, then THE COMPANY shall take whatever action is necessary to halt service and to protect life and property.

RULE 15

FEES

Section 15.01. Purpose

It is the purpose of this section to establish fees for users of THE COMPANY's wastewater treatment and sludge disposal system and to provide for the recovery of costs associated with the implementation. The applicable charges or fees shall be set forth in THE COMPANY's Schedule of Charges and Fees.

Section 15.02. Charges and Fees

THE COMPANY may adopt charges and fees, which may include:

1. Fees for reviewing accidental discharge procedures and construction;
2. Fees for permit applications;
3. Tapping fees;
4. Connection fees;
5. Fees to compensate THE COMPANY for the cost of testing, monitoring and/or inspection required at the user's property;
6. Other fees as THE COMPANY may deem necessary to carry out the requirements contained herein.

These fees relate solely to the matters covered by these Rules and Regulations and are separate from all other fees chargeable by THE COMPANY.

SURCHARGES

Section 16.01. Surcharges

1. Any user discharging wastewater into the Treatment Works in which the concentrations of any of the substances listed in this section shall be greater than the indicated value when measured at the user's metering station(s) or at the user's control manhole, shall be subject to a Surcharge for the acceptance and treatment of such wastewater. In addition, THE COMPANY may establish concentration limits for the Surcharge of any other constituent, which requires special or excessive expenditures by THE COMPANY to adequately accept or treat.

2. The amount of the Surcharge for each constituent shall be as determined by THE COMPANY, taking into account the flow and concentration of the constituent in the wastewater and the costs of treatment, solids handling, pumping, energy, manpower and other costs associated with the acceptance and treatment of the constituents in excess of the Surcharge concentration limit. The Surcharge for the acceptance, conveyance, and treatment of the Wastewater shall be in addition to any other charges and fees billed to the user and shall be included in the total bill for the billing period.

3. Surcharge Limits. Surcharges shall be imposed for the following:

   a. BOD - 400 mg/L

   b. TSS - 400 mg/L

   c. Ammonia-nitrogen - 35 mg/L

   d. Phosphorus - 8 mg/L

RULE 17

MISCELLANEOUS

Section 17.01. Access by THE COMPANY Personnel

Any authorized employee of THE COMPANY, upon presentation of credentials, shall be provided with access at all reasonable hours to any premises supplied with sewer service, for the purpose of reading meters, making inspections or repairs and securing such other information as may be deemed necessary by THE COMPANY. Upon neglect or refusal on the part of the customer to provide such access to the premises, service may be discontinued, and in that case, THE COMPANY will not be liable for any damages or inconveniences suffered by the customer.

Section 17.02. Discontinuance of Service at Customer's Request

1. When the premises are vacated, the customer must make a written request to THE

COMPANY for discontinuance of sewer service. The customer will be responsible for payment of all sewer charges until the water service is disconnected. THE COMPANY has the right to require installation of such valves at the customer's expense before discontinuing service. When service is discontinued, the water meter will be removed. Meters will be re-installed upon the completion of a new contract for water and sewer service for the premises involved.

2. The customer may request a temporary discontinuance of sewer service without removal of meter at no charge but the monthly minimum sewer service charge shall continue during the period of discontinuance. The customer may request the removal of the water meter and discontinuance of sewer service in order to suspend minimum charges during the period of discontinuance in accordance with THE COMPANY Rules and Regulations relating to water service.

Section 17.03. Policy and Standards for Plumbing Fixtures and Fittings

1. General Policy. No public sewer service shall be provided to, supplied to, or utilized for internal or external use to or by any residential, commercial, industrial, agricultural, recreational, governmental, or public building or structure of any kind or nature whatsoever, which are, constructed or remodeled and in which plumbing, water piping or water fixtures are to be installed, extended or altered in any way, and for which a permit for such construction or remodeling is to be obtained from a municipality served by THE COMPANY (or for public or governmental agencies) unless the new, extended or altered plumbing, water piping and/or other water using fixtures therein conform to the requirements and standards set forth herein.

2. Water Conservation and Performance Standards for Plumbing Fixtures and Fittings

   a. Toilets, Water Closets, and Associated Flushing Mechanisms. The water consumption of toilets, water closets, and/or other associated flushing mechanisms shall not exceed an average of 1.6 gallons per flush cycle over a range of test pressures from 20 to 80 psi, and, in addition, all such fixtures shall perform in accordance with the test requirements of the American National Standards Institute (ANSI) A112.19.2M and ANSI A112.19.6M.

   b. Urinals and Associated Flushing Mechanisms. The water consumption of urinals and associated flushing mechanisms shall not exceed an average 1.5 gallons per flush cycle over a range of test pressures from 20 to 80 psi. The fixtures shall perform in accordance with the requirements of ANSI A 112.19.2M and ANSI A112.19.6M.

   c. Shower Heads. The maximum discharge rate of showerheads shall not exceed 3.0 gallons of water per minute over a range of test pressures from 20 to 80 psi. The fixtures shall perform in accordance with the test requirements of ANSI A112.18.1 M.

   d. Faucets. Sink and lavatory faucet discharge rates shall not exceed 3.0 gallons of water per minute over a range of test pressures from 20 to 80 psi. The fixtures shall perform in accordance with the test requirements of ANSI A112.18.1 M.

3. Special Provisions. These performance standards, shall not apply to fixtures and fittings for emergency purposes, including but not limited to emergency showers, aspirator faucets, blowout fixtures, etc., which, in order to perform a specialized function, cannot

meet the standards specified above.

4. Exemptions. Any person or entity (through its duly authorized agent or representative) may apply in writing to THE COMPANY for an exemption from any provision herein, which said exemption may, but need not be, granted by THE COMPANY upon proper proof that some other device, system or procedure will save as much (or more) water as those set forth herein, or that compliance with those set forth herein cannot be effectuated without undue hardship. No exemption shall be granted unless the municipality having jurisdiction over the applicant has first granted the same exemption from its ordinance.

5. Certifications. The plumbing fixtures and fittings required by this Resolution shall be certified and labeled by the manufacturer as meeting the Water Conservation Performance Standards of this Resolution. All certifications shall be based on independent test results and plumbing fixtures and fittings shall be labeled in accordance with ANSI A112.18.1 M and ANSI A112.19.2M.

6. Municipal Compliance by Ordinance. Municipalities provided public sewer service by THE COMPANY shall document that regulations consistent with the above standards have been adopted with their jurisdictions. Such documentation shall be a condition for continued service, sewer service contract extension, or increased sewer treatment allocation. Reference to this Policy and these Standards shall be included in all sewer service agreements to which THE COMPANY is a party.

RULE 18

ENACTMENT OF THIS RESOLUTION

Section 18.01. Amendments

THE COMPANY reserves the right to amend these Rules and Regulations or to adopt additional Rules and Regulations from time to time as it shall deem necessary for the operation, maintenance and protection of the sewer system, for meeting revised standards of influent or effluent quality of any regulatory agencies having jurisdiction in this regard, or for any other reason THE COMPANY deems is desirable or necessary for performing its functions. Any such amendments or additions shall become effective within fifteen (15) days of their issuance by THE COMPANY or as may specifically be required by any Federal or State regulatory agency having jurisdiction.

Section 18.02. Savings Clause

In the event that any provisions, section, sentence, clause or part of these Rules and Regulations shall be held to be invalid, such invalidity shall not affect or impair any remaining provisions, section, sentence, clause or part of these Rules and Regulations, it being the intent of THE COMPANY that such remainder shall be and shall remain in full force and effect.

APPENDIX A

LOCAL LIMITS FOR SPECIFIED POLLUTANTS

PARAMETER	LIMIT (Pounds/Day)	PARAMETER	LIMIT (Pounds/Day)
Antimony	0.82	Chlorobenzene	5.3
Arsenic	0.35	Chloroethane	5.3
Beryllium	0.25	Chloroform	0.022
Cadmium	0.036	Methyl Chloride	0.021
Chromium (T)	1.0	1,1 Dichloroethane	5.3
Copper	0.15	1,2 Dichloroethane	0.27
Cyanide	0.44	1,1 Dichloroethylene	5.3
Lead	0.098	1,2 transDichloroethylene	0.16
Mercury	0.002	1,2 Dichloropropane	5.3
Nickel	0.22	cis-1,3 Dichloropropylene	5.3
Selenium	0.47	trans-1,3 Dichloropropylene	2.0
Silver	0.25	Ethylbenzene	0.95
Zinc	0.84	Methylene Chloride	0.43
Acrolein	3.3	Methyl Ethyl Ketone	5.3
Acrylonitrile	5.3	1,1,2,2, Tetrachloroethane	5.3
Benzene	0.76	Tetrachloroethylene	0.44
Bromodichloromethane	0.13	Toluene	0.19
Bromoform	0.13	1,1,1 Trichloroethane	0.15
Bromomethane	0.13	1,1,2 Trichloroethane	0.52
Carbon Tetrachloride	0.95	Trichloroethylene	0.17
Chlorodibromomethane	0.13	Trichlorofluoromethane	5.3
2-Chloroethylvinyl Ether	5.3	Vinyl Chloride	0.013

These Discharge Limits apply to the total of all Industrial Waste Discharges received into the Treatment Works. Limitations on individual discharges by Significant Industrial Users are established by inclusion of limitations in Industrial Waste Discharge Permits.

APPENDIX B

Pennsylvania
American Water

100 Cheshire Court, Suite 104, Coatesville, PA 19320
Phone: (610) 384-1776 Fax: (610) 384-2996

EMERGENCY NOTIFICATION

Operations Supervisor - Wastewater, Rich Lutz	(610) 384-2872
Operations Superintendent, Terry McKim	(610) 384-1776, X-102
Operations Superintendent, Steve Gibbs	(610) 384-1776, X-101

In the event of a spill or accidental discharge to the Company's Treatment Works, please make direct voice contact with one of the above. The notification shall include location of discharge, type of waste, concentration and volume. Immediate action must be taken to prevent interference with the treatment process and/or damage to the Treatment Works.

Pennsylvania-American Water Company

4 Wellington Boulevard • Wyomissing, PA 19610

(610) 670-7789 • Fax (610) 678-6057

Dear Customer:

The Pennsylvania-American Water Company owns and operates the Coatesville Wastewater Treatment Plant. The plant holds a National Pollutant Discharge Elimination System (NPDES) permit, issued by the Pennsylvania Department of Environmental Protection, to discharge to the West Branch of Brandywine Creek. Under the plant's current permit we are required to identify possible sources of pollution in wastewater treated at the plant in an effort to reduce the amount of this pollutant that is discharged.

To meet permit requirements, we are therefore sending the enclosed questionnaire to non-residential facilities within the service area of the wastewater treatment plant. The enclosed questionnaire is designed to provide us with information about the generation and discharge of waste at your facility. Even if you do not discharge or have the potential to discharge you must still complete portions of the questionnaire, primarily Sections A, I, and J. If you do discharge (or have the potential to discharge) waste, you must complete the enclosed questionnaire. Please note that responses to this questionnaire are subject to verification by inspection.

Most of the information requested should be self-explanatory. To assist you in completing the questionnaire, we have enclosed instructions. Please read these instructions before attempting to complete the questionnaire, and take the time to complete the questionnaire as accurately and completely as possible. Note especially the requirement in Section H of the form to obtain and analyze wastewater samples.

If you have questions about the form or how to complete it, please contact Terrance McKim at phone (610) 384-5070. We also ask that you return the completed questionnaire in the enclosed, self addressed, stamped envelope by November 26, 2002.

Sincerely,

Douglas J. DeArment
Operations Manager

Enclosure

INSTRUCTIONS
FOR COMPLETING INDUSTRIAL WASTEWATER
DISCHARGE QUESTIONNAIRE

Section A-General Information

1 – 3 Self-explanatory. (Subsequently, self-explanatory questions will not be referred to in these instructions.)

4 ***Name of Authorized Representative.***

The **Authorized Representative** must be one of the following:

- For a corporation: A principle executive officer of at least the level of vice-president;
- For a partnership or proprietorship: a general partner or proprietor;
- For other organizations: a principle executive officer or a director having responsibility for the overall operation of the discharging facility; OR
  A duly authorized representative of the individual described above if such representative is responsible for the overall operation of the facilities from which the discharge originates and provided that the authorization is provided in writing.

If you elect to appoint a representative under the third option above, the appointment must be in writing by a responsible corporate official as described, and must accompany the questionnaire.

If your facility is <u>not connected</u> to the sewer system in any way please confirm this in a letter signed by the Authorized Representative and return the form with only Section A, Items 1 through 6 completed. If you have sewer service, continue to Item 7.

7 ***Nature of the Discharge.***

If your facility does not discharge (or have the potential to discharge) any <u>industrial wastewater</u> to the sewer system you do not need to complete all portions of the questionnaire, but you do need to provide this information. Industrial wastewater encompasses a variety of discharges and is defined as:

> "Any solid, liquid, or gaseous substance or form of energy which is produced as a result, whether directly or indirectly, of any industrial, manufacturing, trade or business process or activity, or in the course of developing, recovering, or processing of natural resources, but not Sanitary Sewage."

If your <u>only</u> discharge to the sewer system is from restrooms, cafeterias, drinking fountains, etc., and there are <u>no other potential sources of discharge</u> such as floor drains that could allow spills or leaks of industrial wastes to enter the sewers then you do not have to complete Sections B through H of the form. In such a case, answer Question 7 "No" and

proceed to Section I of the form. You will also need to certify the accuracy of the form by signing the certification statement in Section J. Note that shop sinks and other similar kinds of clean-up facilities are considered possible sources of industrial waste unless you certify that such facilities do not receive any industrial wastes. If there is any question, call Pennsylvania-American Water Company to discuss this situation and arrange for a site inspection.

If you DO have a discharge other than from restrooms and cafeterias, or a potential discharge through floor drains, shop sinks, or other means, answer Question 7 "Yes" and proceed to the next question, Question A.8.

8 ***Discharge of Cooling Water Only or Spill Potential Only.***

- If your facility discharges any industrial waste (other than non-contact cooling water) to the sewer system, do not check any boxes in Question 8 and continue to Section B on Page 2 of the questionnaire. Instructions for this portion of the form are provided below.
- If the **only** routine or intermittent discharge of industrial wastes is of non-contact cooling water (water from cooling towers or equipment cooling, and *which does not come into contact with the raw materials, the products, or waste materials*), check the box provided and complete ONLY the following sections of the questionnaire:

Questions to be completed for non-contact cooling water discharges

Section B, Question 1: indicate the nature of the cooling water, what equipment is used and how the discharge occurs.
Section B, Question 4: list any chemicals used to condition the cooling water.
Section E, Question 1: estimate the volume of non-contact cooling water discharged to the sewer, and the volume discharged to other points.
Section F, Questions 1 and 2: indicate the location of discharge of the cooling water to the sewer system.
Section I, complete Question 1 and follow instructions.
Section J, the Authorized Representative must sign the certification statement.

- If there is NO DISCHARGE of industrial wastes, but floor drains or other facilities are present that pose a POTENTIAL for discharge (through a spill, leak, cleaning of containers, etc.), check the lower box on Question 8 and complete ONLY the sections of the questionnaire listed below. If floor drains or shop sinks are routinely used to dispose of clean-up water, then you have a routine industrial waste discharge and should complete the entire form.

Questions to be completed for Potential Discharges Only

Section B, complete all questions.
Section C, complete all questions.
Section D, complete Questions 5, 6, and 7.

(*continues next page*)
Section E, Question 2.
Section F, Questions 1 and 2.
Section I, complete Question 1 and follow instructions.
Section J, the Authorized Representative must sign the certification statement.

- If BOTH non-contact cooling water and floor drains are present, check both boxes in Question 8 and complete all of the sections itemized above for both situations.

Section B-Product or Service Information

1 ***Describe the activities that produce industrial waste.***

Industrial waste is defined as:

"Any solid, liquid, or gaseous substance or form of energy which is produced as a result, whether directly or indirectly, of any industrial, manufacturing, trade or business process or activity, or in the course of developing, recovering, or processing of natural resources, but not Sanitary Sewage."

Industrial wastes include cooling water used to cool machinery or processes, boiler blowdown, water from cleaning operations (including routine cleaning of equipment and buildings), water from plating and rinsing operations, and all other kinds of industrial processes. Pollution control equipment such as air scrubbers may also generate a liquid waste stream that is considered an industrial waste. Industrial wastes can also be generated by spills or leaks of stored chemicals; therefore certain storage and warehousing operations may be considered potential sources of industrial wastes if there are floor drains, sumps, or other means for such wastes to enter the sewer system. The characterization as wastewater does not require that the water discharged be contaminated. Otherwise clean cooling water is considered an industrial waste. Sanitary Sewage is not industrial waste and consists of the types of sewage that are normally discharged from private residences: bathrooms, cleaning dishes, sinks and showers, etc.

You do not need to describe dry processes, or those in which water is recycled and not discharged. If your processes generate wastes that are not discharged to the sewer system (for instance waste solvents that are drummed and sent to a recycler) they must still be reported. Section I of the questionnaire provides a place to discuss these wastes, but they must also be listed in Section B.

3 ***Check Appropriate Industrial Activities.***

The activities listed in Question B.3 are those of particular interest. Many industrial activities that can be characterized by these terms are EPA "Categorical" industries. For a discussion of Categorical industrial processes, see the instructions for Section E.3.

4 List of Materials.

An example list of materials is included in Appendix A. Include on this list any materials that are stored or used, except for household-type chemicals such as detergents and window cleaners. Include maintenance chemicals stored in quantity, such as motor oil, gasoline, water treatment chemicals, etc.

Section C-Plant Operational Characteristics

These items should be self-explanatory.

Section D-Water Usage

This section generally requests information about the use of water in various ways, and where it ends up. Section D provides three separate tabulations of water use. Please review the instructions below and assemble the information requested before completing Questions 5, 6, 7, and 8.

5 List Average Water Usage.

Estimate the quantities of water that are used in each of the listed areas. Although some of this water may evaporate or otherwise not be discharged to the environment, the water usage should be reported anyway. Cooling water includes water that is used in cooling towers for building air conditioning as well as water that is used to cool machinery. Boiler feed is self-explanatory. Process water includes water that is incorporated into a product, water used to clean, rinse, or cool a product, and other uses of water that occur as part of the manufacturing process. Sanitary uses include water used for showers and wash stations for employees, toilets, drinking water, and for cooking and clean up activities in a lunchroom or cafeteria. Equipment washdown includes water used to clean or sanitize the equipment or facilities. These figures may be estimated, but the total water usage should be approximately the same as the water usage measured by the water meter.

6 Tabulation of Wastewater Discharges and Other Water Losses.

This item is intended to show where the water that comes in to the facility eventually goes. This includes discharge to the sewer, evaporation, water contained in a product, wastes hauled by contract haulers, and direct discharges to the environment (such as some cooling water discharges). The total water losses in Question 6 should equal the total water used in Question 5. Estimates are acceptable.

7 Schematic Flow Diagram.

Appendix B provides a sample flow diagram. Most industrial processes are simpler than the example. Show where potable water goes, including water that is contained in chemicals added to the process, and where wastewater is discharged. Evaporated water can be shown by an arrow pointing up and the notation evaporated. As with the other questions, flows can be estimated.