

# Memo



O'DELL ENGINEERING COMPANY

Suite 205

65 E. Elizabeth Avenue  
Bethlehem, PA 18018

(610) 865-9505 : Phone

(610) 865-9084 : Fax

TO: Linden Miller  
FROM: Allen R. O'Dell  
DATE: November 7, 1996

RE: Status Report on Sewer Planning Efforts

The Township is proceeding with sewer studies on two separate fronts. First, the Township is updating its overall sewage facilities plan (Act 537 Plan) as required by DEP. Phase I of the plan update was completed in May 1996. The Phase I report was reviewed by DEP and DEP authorized the township to start work on Phase II in late August. The phase I report evaluated sewage problems throughout the township. It concluded that several areas labelled Mill Rd., Vera Cruz Rd., Vera Cruz, Spruce Rd., Main Rd. East and Moyer Subdivision on the attached map should be studied in detail for the feasibility of providing public sewerage. In Phase II these areas will be studied to determine which lots should be served and which alternatives for wastewater collection and disposal would be most practical. At this time the location and cost of sewers for these areas is not known. The technical and financial work on Phase II will be done during the next 6-9 months. After that, the township will need to make decisions on whether, when and how to proceed. Due to the potential scope, cost and impacts of a major sewer project, there will need to be substantial public input to the decisions. For this reason it is hard to put a time schedule on the decisions. However, it seems likely that it would be several years until a project could be planned, financed and built.

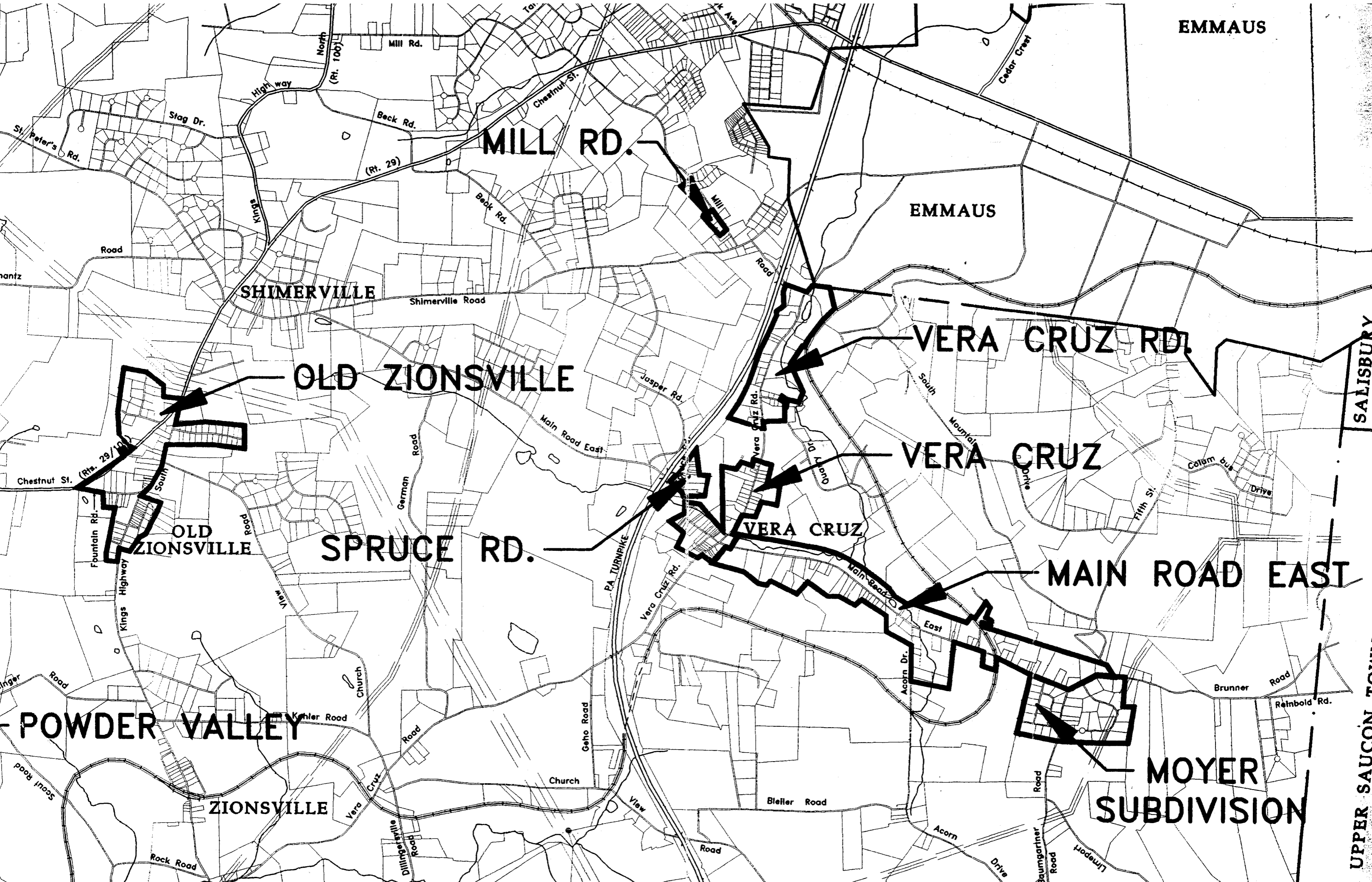
On a shorter term basis, the Township has been approached by some property owners along Vera Cruz Rd. near Emmaus at various times over the past several years about the possibility of getting public sewer into this area. In 1995, the Township requested and got approval from Emmaus to connect sewage flow Equivalent to 45 Dwelling Units (EDU's) to the Emmaus system from the Vera Cruz Rd. Corridor. This offer is valid if the township takes action by August 1, 1997. If no action is taken by then, the township would have make another request for approval to make a connection. The exact location of facilities to serve this area have not been determined, but the attached drawing shows one general possibility. Any project to serve the Vera Cruz Rd. corridor would be designed so that it could be extended later to serve the other areas that are being studied in the Phase II sewer plan update. I am in the process of

updating cost estimates for a Vera Cruz Rd. corridor project. Within the next few months, the Supervisors should be able to evaluate this and meet with affected property owners to determine if it is financially feasible to proceed with a project. If so, it is possible that a project could be constructed within the next year or two.

Please contact me if you have any questions.

ARO:mk

Enclosure



EMMAUS

MILL RD.

EMMAUS

SHIMERVILLE

VERA CRUZ RD.

OLD ZIONSVILLE

VERA CRUZ

OLD ZIONSVILLE

SPRUCE RD.

VERA CRUZ

MAIN ROAD EAST

POWDER VALLEY

ZIONSVILLE

MOYER SUBDIVISION

SALISBURY

UPPER SAUCON TOWNSHIP

# Memo



O'DELL ENGINEERING COMPANY

Suite 205

65 E. Elizabeth Avenue  
Bethlehem, PA 18018

(610) 865-9505 : Phone

(610) 865-9084 : Fax

TO: Board of Supervisors  
Upper Milford Township

FROM: Allen R. O'Dell, P.E.

DATE: April 10, 1998

RE: Preliminary Cost Estimates  
Vera Cruz/Spruce Rd. Area  
Main Rd. East/Moyer Subdivision Area  
Upper Milford Township

At the public meeting regarding the Vera Cruz Rd. North sewer project last October, I was asked to develop cost estimates for a larger sewer project to serve the above-referenced service areas.

The Vera Cruz/Spruce Rd. sewer project would serve an estimated 71 EDUs in the immediate area of the village of Vera Cruz, including Spruce Rd. The project for Main Rd. East and the Moyer Subdivision would add an additional 135 EDUs to give a total of about 206 EDUs. In either case, the Vera Cruz Rd. North sewer project would have to be constructed for these projects to connect into.

If just the extension to Vera Cruz and Spruce Rd. was constructed, sewage would be collected by gravity to the low area where Leibert's Creek passes under Vera Cruz Rd. near the center of the village. From there, a pump station would pump the sewage in a force main north along Vera Cruz Rd. until it connected to the proposed Vera Cruz Rd. North sewer system near the intersection with Quarry Dr. If the project also included Main Rd. East and the Moyer Subdivision, sewage would be collected by gravity to the low spot in Main Rd. East between Vera Cruz and Acorn Dr. From there, a pumping station would pump it in a force main which travelled west along Main Rd. East to the village of Vera Cruz and then north along Vera Cruz Rd. until it connected into the Vera Cruz Rd. North sewer project near Quarry Dr. While the pumping scheme does have the negative of long-term maintenance and pumping costs, this option turned out to be much cheaper from a capital cost viewpoint than building a gravity sewer along Leibert's Creek all the way from Main Rd. East to the Borough of Emmaus.

The major roads throughout all these study areas are state roads. PennDOT prohibits construction of sewers within the roadway, if at all possible. Where such construction cannot be avoided, the costs are higher due to stone backfill, PennDOT inspection, and pavement restoration to PennDOT requirements. For these reasons, I have avoided construction within the state roadway, where possible. In many areas, utility poles near the edge of the roadway would interfere with construction outside the paved roadway, but inside

the right-of-way. In many of these areas, I proposed the sewers further back from the road in the front lawns of the homes to be served. This would require acquisition of easements for the sanitary sewer, but is advantageous because it avoids the road restoration or utility pole relocation costs. Of course, this is just a preliminary cost estimate and the design does not show exact pipe locations and grades. However, I wanted you and the residents to be aware that this design approach is proposed.

The attached Table 1 lists my preliminary cost estimate for a project to serve just Vera Cruz and Spruce Rd. These costs would be in addition to the cost presented last October for the Vera Cruz Rd. North project. Table 2 presents the preliminary cost estimate for serving Vera Cruz/Spruce Rd., as well as Main Rd. East and the Moyer Subdivision. It turns out that adding the additional customers for this expanded service area does reduce the total project cost per EDU from about \$9,150 for Vera Cruz Rd. North alone to about \$8,000 per EDU for an overall project which would serve about 40 EDUs along Vera Cruz Rd. North in addition to the estimated 206 EDUs in the Vera Cruz/Spruce Rd./Main Rd. East/Moyer Subdivision service area.

In addition to the cost of constructing the sewers, each EDU also has to pay capital recovery charges for the Upper Milford Township collection system and the regional collection and treatment system. At the normal Upper Milford Township sewer customer annual charge, some of the annual charge can go to capitalize some of the new capital costs. The tables below summarize these costs per EDU for three different options. Option "A" is for sewerage just 40 EDUs along Vera Cruz Rd. North. These are the costs that were presented at the public meeting last October. Option "B" would add Vera Cruz and Spruce Rd. to the Vera Cruz Rd. North service area. Option "C" would add Main Rd. East and the Moyer Subdivision.

#### OPTION A

Service Area:	Vera Cruz Rd. North
EDUs:	40
Total Project Cost:	\$366,000
	\$9,150 Capital Cost per EDU
	+1,626 Non-Upper Milford Capital Recovery Fees
	\$867 Treatment Capacity
	\$372 Western Lehigh Interceptor
	\$387 Little Lehigh Interceptor
	+99 Upper Milford Capacity Charge
	+100 Upper Milford Connection Inspection Charge
	(can be waived if constructed at same time as sewer system)
	<u>\$10,975</u>
	<u>-2,300</u> Cost Capitalized through Annual Charge
	\$ 8,675 Capital Amount Required Per EDU

OPTION B

Service Area:	Vera Cruz Rd. North, Vera Cruz/Spruce Rd.
EDUs:	111
Total Project Cost:	\$935,000
	\$8,420 Capital Cost per EDU
	+1,626 Non-Upper Milford Capital Recovery Fees
	\$867 Treatment Capacity
	\$372 Western Lehigh Interceptor
	\$387 Little Lehigh Interceptor
	+99 Upper Milford Capacity Charge
	+100 Upper Milford Connection Inspection Charge
	(can be waived if constructed at same time
	as sewer system)
	<u>\$10,245</u>
	<u>-2,300</u> Cost Capitalized through Annual Charge
	\$ 7,945 Capital Amount Required Per EDU

OPTION C

Service Area:	Vera Cruz Rd. North, Vera Cruz/Spruce Rd. Main Rd. East/Moyer Subdivision
EDUs:	246
Total Project Cost:	\$1,833,000
	\$7,450 Capital Cost per EDU
	+1,626 Non-Upper Milford Capital Recovery Fees
	\$867 Treatment Capacity
	\$372 Western Lehigh Interceptor
	\$387 Little Lehigh Interceptor
	+99 Upper Milford Capacity Charge
	+100 Upper Milford Connection Inspection Charge
	(can be waived if constructed at same time
	as sewer system)
	<u>\$9,275</u>
	<u>-2,300</u> Cost Capitalized through Annual Charge
	\$6,975 Capital Amount Required Per EDU

The capital amount per EDU would have to be obtained through connection fees, other contributions, grants, low-interest loans, etc. Typical connection fees are often in the range of \$2,000 - \$4,000 per EDU so this project is still relatively expensive and will not be easy to finance.

Board of Supervisors

April 10, 1998

As you know, the Emmaus Borough Council has only approved an allotment to the township to connect up to 45 EDUs to their existing sanitary sewer in Pennsylvania Avenue. Obviously, serving the entire service area would require more than that. The reason for the limit is that some portion of the borough's collection system has limited capacity primarily during wet weather due to inflow and infiltration of stormwater into the sanitary sewers. It should be technically practical to work with the borough to construct some new collection facilities within the borough to relieve the overloaded portions. Obviously this would require cooperation with the borough and appropriate sharing of the costs involved. I would recommend that the township contact Emmaus Borough Council asking them to authorize their sewer and water engineer to have some preliminary discussions with the township to evaluate the improvements which would be required in their collection system to handle increased flows from the township.

I believe the next step would be to begin some discussions with Emmaus Borough regarding the steps needed for them to consider additional flow capacity for this portion of Upper Milford Township. Then consideration could be given to further meetings with LCA and the affected property owners.

Please contact me if you have any questions regarding this information.

ARO:mk  
Attachments

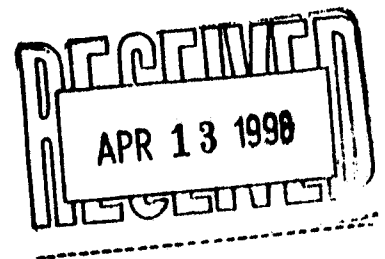


TABLE 1

COST ESTIMATE FOR VERA CRUZ/SPRUCE ROAD SEWER PROJECT  
(Estimated 71 EDUs)

	UNIT COST	UNIT	NO. OF UNITS	TOTAL COST
-----				
PVC Sewer Pipe				
4" Force Main, Separate Trench	22.00	LF	1,050	23,100
4" Force Main, Shared Trench	8.00	LF	850	6,800
4" Force Main, Bored	250.00	LF		
Pumping Station	60,000.00	LS	1	60,000
6" Gravity Lateral, stone backfill	25.00	LF	300	7,500
6" Gravity Lateral, Bored	300.00	LF		
8" Gravity, 0-6' deep, earth backfill	28.00	LF	3,050	85,400
8" Gravity, 6-10' deep, earth backfill	31.00	LF	150	4,650
8" Gravity, 0-6' deep, stone backfill	33.00	LF	2,650	87,450
8" Gravity, 6-10' deep, stone backfill	36.00	LF		
8" Gravity, Bored	350.00	LF	90	31,500
Manholes				
4-6' Deep	2,100.00	Ea	27	56,700
6-8' Deep	2,750.00	Ea		
8-10' Deep	3,350.00	Ea	2	6,700
6" Wyes	120.00	Ea	60	7,200
Miscellaneous				
Connection to existing manhole	1,200.00	LS	1	1,200
Stream crossing	8,000.00	LS	3	24,000
Railroad Crossing	25,000.00	LS		
Traffic Control	5,000.00	LS	1	5,000
E & S Control	5,000.00	LS	1	5,000
PennDOT Inspection	6,000.00	LS	1	6,000
Pavement Removal	5.00	SY	570	2,850
PennDOT Pavement Restoration	25.00	SY	300	7,500
Other Pavement Restoration	20.00	SY	270	5,400
Lawn Restoration	1.50	SY	8,500	12,750
ROW Acquisition	1.00	LF	3,200	3,200
-----				
SUB-TOTAL				449,900
-----				
10% Contingency				44,990
-----				
CONSTRUCTION COST				494,890
-----				
Engineering, Legal Permitting, etc. (15%)				74,234
-----				
TOTAL PROJECT COST				569,124
-----				
TOTAL PROJECT COST per EDU				8,020
-----				
TOTAL PROJECT COST per EDU (Vera Cruz Rd. North Project)				9,150
TOTAL PROJECT COST per EDU (Both Projects Combined)				8,420



TABLE 2

COST ESTIMATE FOR VERA CRUZ/SPRUCE ROAD  
AND MAIN ROAD EAST/MOYER SUBDIVISION SEWER PROJECT (Estimated 206 EDUs)

	UNIT COST	UNIT	NO. OF UNITS	TOTAL COST
<b>PVC Sewer Pipe</b>				
4" Force Main, Separate Trench	22.00	LF	1,050	23,100
4" Force Main, Shared Trench	8.00	LF	2,750	22,000
4" Force Main, Bored	250.00	LF	60	15,000
Pumping Station	60,000.00	LS	1	60,000
6" Gravity Lateral, stone backfill	25.00	LF	1,800	45,000
6" Gravity Lateral, Bored	300.00	LF	30	9,000
8" Gravity, 0-6' deep, earth backfill	28.00	LF	12,300	344,400
8" Gravity, 6-10' deep, earth backfill	31.00	LF	2,200	68,200
8" Gravity, 0-6' deep, stone backfill	33.00	LF	2,650	87,450
8" Gravity, 6-10' deep, stone backfill	36.00	LF	70	2,520
8" Gravity, Bored	350.00	LF	290	101,500
<b>Manholes</b>				
4-6' Deep	2,100.00	Ea	55	115,500
6-8' Deep	2,750.00	Ea	9	24,750
8-10' Deep	3,350.00	Ea	10	33,500
6" Wyes	120.00	Ea	162	19,440
<b>Miscellaneous</b>				
Connection to existing manhole	1,200.00	LS	1	1,200
Stream crossing	8,000.00	LS	3	24,000
Railroad Crossing	25,000.00	LS	1	25,000
Traffic Control	12,000.00	LS	1	12,000
E & S Control	10,000.00	LS	1	10,000
PennDOT Inspection	10,000.00	LS	1	10,000
Pavement Removal	5.00	SY	2,150	10,750
PennDOT Pavement Restoration	25.00	SY	350	8,750
Other Pavement Restoration	20.00	SY	1,800	36,000
Lawn Restoration	1.50	SY	26,200	39,300
ROW Acquisition	1.00	LF	11,600	11,600
<b>SUB-TOTAL</b>				<b>1,159,960</b>
10% Contingency				115,996
<b>CONSTRUCTION COST</b>				<b>1,275,956</b>
Engineering, Legal Permitting, etc. (15%)				191,393
<b>TOTAL PROJECT COST</b>				<b>1,467,349</b>
<b>TOTAL PROJECT COST per EDU</b>				<b>7,120</b>
TOTAL PROJECT COST per EDU (Vera Cruz Rd. North Project)				9,150
TOTAL PROJECT COST per EDU (Both Projects Combined)				7,450

4-16-98  
meeting

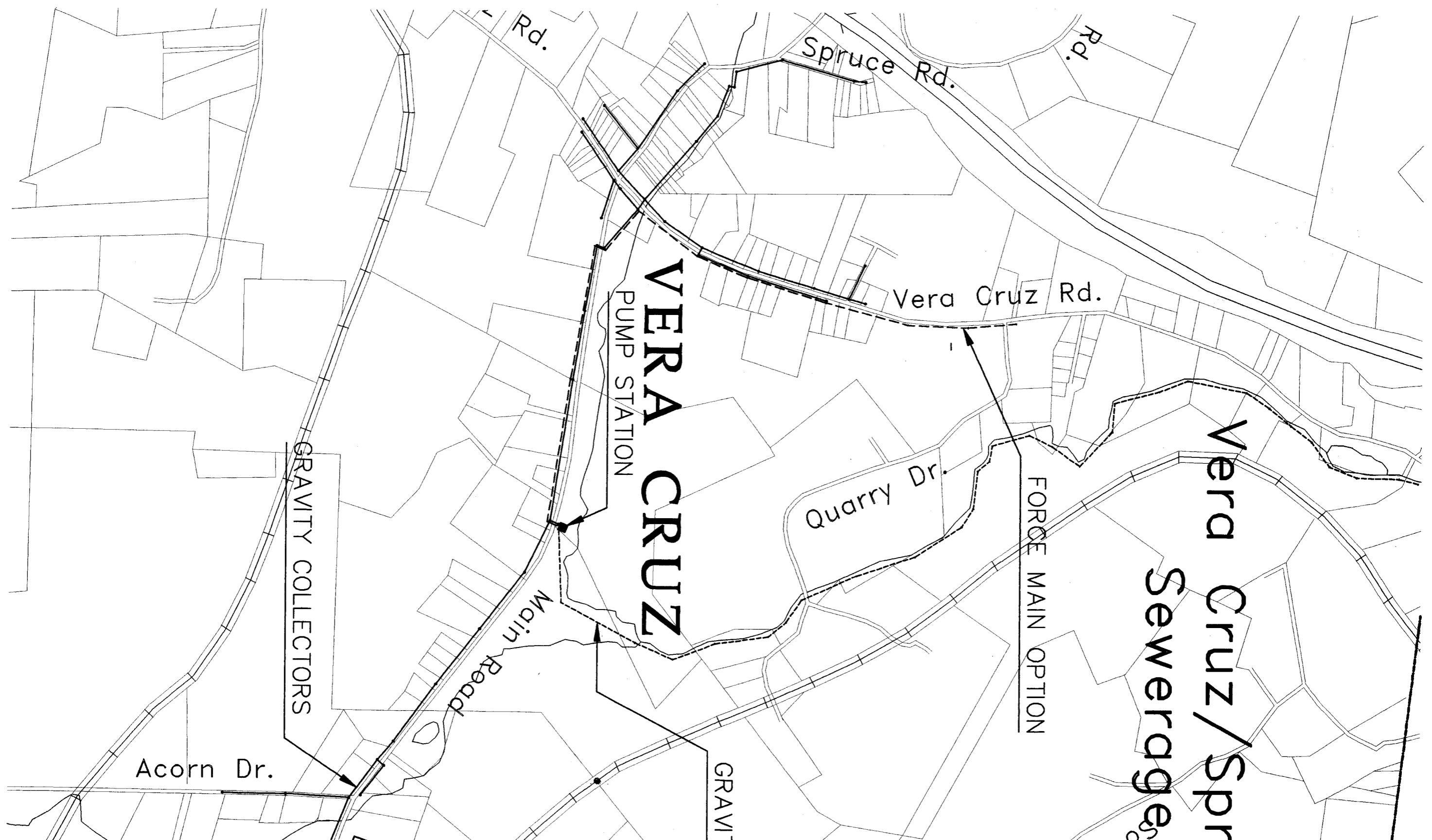
PRELIMINARY  
COMPARISON OF ANNUAL CAPITAL AND O&M COSTS

GRAVITY vs. FORCE MAIN  
Vera Cruz/Spruce Rd./Main Rd. East/Moyer Service Area

(Does not include cost of collection system items  
common to both systems)

	UNIT COST	PRESSURE TOTAL COST	GRAVITY TOTAL COST
-----			
1050' 4" Force Main, Sep. Trench	22	23,100	
2750' 4" Force Main, Shared Trench	8	22,000	
60' 4" Force Main, Bored	250	15,000	
Pumping Station	60,000	60,000	
Valves and Cleanouts	200	4,000	
6000' 8" PVC Gravity Sewer	29		174,000
20 Manholes	2,750		55,000
-----			
SUB-TOTAL		124,100	229,000
-----			
10% Contingency		12,410	22,900
-----			
CONSTRUCTION COST		136,510	251,900
-----			
Engineering, Legal, Permitting	15%	20,477	37,785
=====			
TOTAL PROJECT COST		156,987	289,685
per 246 EDUs		638	1,178
=====			

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Annual Capital Cost, 20 Yrs., 6%		13,686	25,255
Annual Pump Station O&M Cost		9,000	
-----			
TOTAL ANNUAL COST		22,686	25,255
-----			
Annual Cost Saving		2,569	
per 246 EDUs		10	
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# VERA CRUZ

PUMP STATION

Vera Cruz / Spr  
Sewerage

FORCE MAIN OPTION

Quarry Dr.

Vera Cruz Rd.

Spruce Rd.

Rd.

Main Road

GRAVITY COLLECTORS

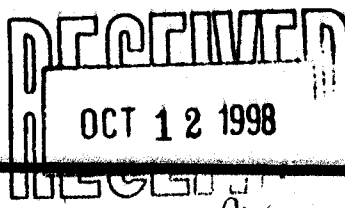
Acorn Dr.

GRAVI

Rice Rd. / Main Rd. East / Moyer  
Options (1" = 500')  
April 1998



# Memo



O'DELL ENGINEERING COMPANY  
Suite 205  
65 E. Elizabeth Avenue  
Bethlehem, PA 18018  
(610) 865-9505 : Phone  
(610) 865-9084 : Fax

*Copy to  
Superintendent  
J. Miller  
Planning Comm.  
10-12-98*

TO: Board of Supervisors  
Upper Milford Township

FROM: Allen R. O'Dell, P.E.

DATE: October 9, 1998

RE: Effluent Criteria for a New Discharge to Leibert Creek

I contacted Paul Swerdon at the DEP Wilkes-Barre office to get preliminary effluent criteria for a local treatment plant discharging to Leibert Creek near Vera Cruz. The effluent criteria I received are as follows:

5-day BOD	10.0 mg/L
Total Suspended Solids	10.0 mg/L
Ammonia Nitrogen	1.5 mg/L
Dissolved Oxygen	(except 4.5 mg/L winter) 5-6 mg/L minimum

These can be used to try to get more specific cost estimates from equipment manufacturers and/or contractors for installation of a local treatment plant. As I mentioned before, I got a very wide range of cost estimates for purchase of equipment and installation of a package treatment plant. The cost comparison between extending the regional sewer system and building a local treatment plant is very sensitive to this cost.

The Little Lehigh Creek Watershed, which includes Leibert Creek, is designated as a "High Quality (HQ) Water" under the DEP regulations. Mr. Swerdon sent me excerpts from the DEP Special Protection Waters Implementation Handbook which includes their guidelines for requesting approval of a new discharge to high quality or exceptional value waters. I have requested a full copy of the handbook.

Under the DEP regulations, new discharges to high quality waters are not permitted unless all other technical options for treatment and discharge are evaluated and found to be less attractive economically, and the new discharge must be socially and economically justified. Their hierarchy of preferred methods for treatment/disposal (T/D) technologies is as follows:

1. The most preferred T/D technology is year-round spray irrigation or extension of existing collection systems to convey wastewater to an existing sewage treatment system outside the watershed. Year-round spray irrigation or

conveyance to an existing treatment plant outside the watershed is required whenever it is technically feasible and the present value cost of construction, operation, and maintenance is equal to or less than the cost of the stream discharge alternative.

2. The next preferred T/D alternative is seasonal or partial spray irrigation. The chief difference between year-round and seasonal spray irrigation is that a stream discharge is permitted during wetter portions of the year when stream flows and waste assimilation capacities are higher. Spray irrigation would be used during other times of the year. Partial spray irrigation consists of disposing of a portion of the wastewater effluent using spray irrigation and a portion is discharged to the stream. Partial spray irrigation would be applicable when the stream can handle a small amount of discharge without degradation, but not the full proposed discharge.
3. The next preferred T/D technology is subsurface disposal. This is not a very likely option unless sewage flows are less than about 10,000 gpd, which is not the case for the Vera Cruz area.
4. The last and least preferred T/D technology is the year-round discharge of treated waste.

Meeting the social justification should not be a problem because new discharges to mitigate an existing public health or water pollution hazard is considered to be socially justified.

There are several implications of the DEP procedures for the possibility of getting approval for a local treatment plant. These are as follows:

1. The DEP review process will be much longer because these additional items of technical and economic justification will have to be evaluated.
2. DEP may reject a proposal for a new discharge if they believe that there is no clear economic advantage over an extension of the regional treatment system.
3. The process of getting the updated sewer plan will be more expensive because the options involving spray irrigation would have to be evaluated and ruled out.
4. There are public notice requirements for new discharges proposed in high quality watersheds. As a result of this, DEP could get comments from residents of other areas opposing a new discharge to the Little Lehigh Creek Watershed.



**SCHOOR DEPALMA**  
Engineers and Design Professionals

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SEP 05 2000  
HARRISBURG, PA

September 1, 2000  
(Via Fax and Regular Mail)

CK  
Copy to  
Supervisors  
L. Miller, P.E.  
9/5/00  
CK

Ms. Susan Rockwell  
Environmental Planner  
Lehigh Valley County Planning Commission (LVPC)  
961 Marcon Boulevard, Suite 310  
Allentown, Pennsylvania 18103-9397

**RE: Vera Cruz Sanitary Sewers Act 537 Plan**  
**September 1, 2000, Morning Call Newspaper Article**  
**Upper Milford Township, Lehigh County**  
**Our Project Number PUPO002B**

Dear Ms. Rockwell:

I was greatly disappointed by the newspaper article that appeared in the September 1, 2000 Morning Call, and your refusal to remove the topic from the meeting agenda as requested by John Sheeran of our office. We had a very positive meeting with Pennsylvania Department of Environmental Protection (PADEP) on August 31, 2000, to discuss some very significant options in making the project more affordable, with PADEP also recommending that the discussion of the plan be removed from your agenda until these options could be more fully discussed with all parties. We feel that by not removing this agenda item, and the negative feeling generated by this article, our efforts to resolve affordability issues have been irreparably damaged. Unfortunately this article gives a very "one-sided" view of our efforts, which we feel does the residents and government officials of Upper Milford Township a great disservice.

I hope this is not an indication of the level of professionalism we are to expect from the Planning Commission on this project as there are many issues which must be resolved through the joint effort of the Township, PADEP and LVPC to insure the residents of the Township their health, safety and welfare is our primary concern. I believe a public apology to all the residents and government officials of Upper Milford Township is in order for the mishandling of your responsibilities for this project.



PUPO002B  
Ms. Susan Rockwell  
September 1, 2000  
Page 2

Should you wish, as always, we are available to meet with you to more fully discuss this important issue.

Very truly yours,

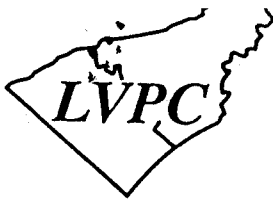
**SCHOOR DEPALMA INC.**

Russell G. Benner, Jr., P.E.  
Vice President

RGB/sk

- c: Geoffrey Reese, Lehigh Valley County Planning Commission (*Via Fax and Regular Mail*)  
Linden Miller, Upper Milford Township (*Via Fax and Regular Mail*)  
Harleth W. Davis, Jr., PA Dept. of Environmental Protection (*Via Fax and Regular Mail*)





# LEHIGH VALLEY PLANNING COMMISSION

961 MARCON BOULEVARD, SUITE 310, ALLENTOWN, PENNSYLVANIA 18103-9397  
(610) 264-4544; FAX (610) 264-2616; e-mail: lvpc@early.com

EARL B. LYNN  
Chair

IRA J. FARO  
Vice Chair

ELEANORE M. HAYDEN  
Treasurer

MICHAEL N. KAISER  
Executive Director

September 1, 2000

Mr. John Sheeran, P.E.  
Schoor DePalma  
P. O. Box 304  
Kulpsville, Pennsylvania 19443-0304

**Re: Draft Official Sewage Facilities Plan for  
Upper Milford Township, Lehigh County**

SEP 05 2000  
COPY TO  
Supervisors  
L. Miller  
9/15/00  
ck

Dear Mr. Sheeran:

The Lehigh Valley Planning Commission (LVPC), at its regular monthly meeting on August 31, 2000, reviewed the above-referenced plan. Our review was based on the adopted plans and policies of the LVPC and provisions of the Pennsylvania Sewage Facilities Act (Act 537). We offer the following comments.

The Upper Milford Township plan update studies the sewage needs of three areas of the Township. These areas are the Vera Cruz, Old Zionsville Village and Powder Valley Village areas. The draft plan identifies the Vera Cruz area as a priority sewage needs area due to the incidence of on-lot system malfunctions and contaminated wells. Previous studies have indicated contamination of Leibert Creek which appears to be caused by malfunctioning systems. Small lot sizes preclude the possibility of installing new on-lot systems for many of the lots. The plan recommends this area to be connected to the Lehigh County Authority collection system with treatment at the Allentown treatment plant as the most cost-effective alternative. Annual user fees are approximately \$1,300 based on PennVest funding, a \$2,500 tap-in fee and no grant. Fees would be less if a grant could be secured. The draft plan indicates that the needs of Old Zionsville and Powder Valley Villages are less critical based on the needs study. Further, connection to a public system would be cost prohibitive for these two areas at this time. Needs for these areas would be revisited within five to ten years.

A municipal Official Sewage Facilities Plan is required to address the existing and future sewage needs of a municipality. This is accomplished by setting guidelines for resolving existing sewage disposal problems, maintaining existing sewage facilities and planning for the needs of future development. The Township's plan studies only three specific areas of the Township. We recommend the Township amend the plan to include the sewage needs of the entire Township. The

Mr. John Sheeran, P.E.  
Schoor DePalma  
September 1, 2000

LVPC *Water Supply and Sewage Facilities Plan*, December 1995 identifies several areas of the Township as potential on-lot sewage disposal problem areas including the Vera Cruz and Old Zionsville areas. Two additional potential problem areas identified in our 1995 Plan are the Zionsville area adjacent to Lower Milford Township and the Knollwood Subdivision. The Township Plan should verify whether problems exist in these areas.

A portion of the Vera Cruz study area is recommended for public sewer service in our 1995 Plan. Providing public sewer service to this area would be consistent with our Plan. Providing public sewer service to on-lot problem areas not recommended for service would be consistent provided that a detailed solution analysis is completed identifying this alternative as the most cost-effective long-term option. If connection to the public system is identified as the best solution, the system should be designed to serve only the area of need and not to encourage urban development. We are concerned about the high user fees associated with the chosen alternative. Further, we don't believe all available alternatives have been evaluated. Past sewer projects in other rural municipalities including East Allen and Lehigh Townships had met with great resistance due to high user fees. The East Allen project was never constructed for this reason. The LVPC completed a study of needs for the Vera Cruz area in 1983. The study compares the costs of a community on-lot system and connection to the public system. The study found that the cost of a community on-lot system was approximately 40% less than connection to the public system. The Township plan does not provide an evaluation of a community on-lot system to serve the area. We recommend that the Township not move forward with the selected alternative until all options are evaluated.

As previously discussed, Old Zionsville and Powder Valley Villages are not proposed for public sewers. Old Zionsville was shown to have a number of suspected malfunctions and both areas were shown to have high percentages of potential malfunctions. No additional alternatives to public sewers were evaluated for these areas. The Township plan should consider other options such as a sewage management program. A sewage management program would provide for the proper operation and maintenance of both existing and new systems through regular pumping and inspection in these areas.

Please contact Susan L. Rockwell if you have any questions regarding these comments.

Sincerely,



Geoffrey A. Reese, P.E.  
Chief Engineer

GAR:kms

cc: Linden Miller, Manager, Upper Milford Township ✓  
Upper Milford Township Supervisors  
Harley Davis, PA Department of Environmental Protection



## MEMORANDUM

TO: Linden Miller, Upper Milford Township Manager

FROM: John W. Sheeran, P.E.

DATE: September 5, 2000

RE: Act 537 Sewage Facilities Plan Update Purpose & History

PROJECT NUMBER: PUPO002B

SEP 07 2000  
L. MILLER  
Copy to:  
Supervisors  
L. Miller  
9/7/00  
CK

**Purpose:** The Pennsylvania Department of Environmental Protection (PADEP) mandates Upper Milford Township through the Act 537 Sewage Facilities Planning process, to prepare and maintain a Sewage Facilities Planning document. The document designates what types of sewage treatment and disposal methods (i.e. on-lot systems, public sewers etc.) are planned for use in the Township. The municipality is responsible to update the plan as necessary to address sewage system malfunctions and changes in proposed sewage treatment options due to Township growth and other changes. PADEP may also direct the municipality to update their plan, if the existing plan does not adequately address municipality growth or current sewage problems.

### History:

- In May of 1994, Upper Milford Township was directed by PADEP to update the Township's existing Act 537 Sewage Facilities Plan due to the results of sewage needs study prepared by the Joint Planning Commission. Supervisors commissioned the Township Engineer to prepare a "Phase I" sewage needs evaluation that is was the first step in updating the Upper Milford Township Sewage Facilities Plan. This study included the Township mailing questionnaires and township engineer performing visual inspections of approximately 300 properties in the Township known to have significant on-lot system failures. The study areas with know on-lot system malfunctions included:
  1. Vera Cruz corridor from Emmaus to Quarry Road.
  2. The Village of Vera Cruz.
  3. Spruce Road (adjacent to Vera Cruz Village).
  4. The Moyer Subdivision.
  5. The corridor along Main Road East from Vera Cruz Village to The Moyer Subdivision.



PUPO002B

Linden Miller, Upper Milford Township Manager

September 5, 2000

Page 2

6. The area in and around the Village of Zionsville.
  7. The Village of Powder Valley.
  8. The area along Mill Road immediately west of Shimersville.
- A draft Act 537 Plan update (Phase I) was then prepared by the Township Engineer the draft update examined all the areas of the Township indicated above, with the areas in and around Vera Cruz, Village having the highest incidence of visual on-lot system failure and on-site well contamination. A public hearing was held in October of 1997, to discuss the draft plan and costs to correct the existing problems. The plan alternatives were felt to be too expensive and the draft plan was never adopted by the Township, or reviewed by PADEP.
  - In 1999 the Township Engineer prepared a detailed Sewage Feasibility Study for the Vera Cruz area. At a public meeting held at the Vera Cruz firehouse, a show of hands vote indicated that the alternative for connection to Lehigh County Authority was the least costly and favored by the residents present. The Township Supervisors indicated that they were going to move ahead with the steps necessary to implement this alternative.
  - In April of 2000, a meeting was held with PADEP to discuss preparation of the Phase II portion of the Act 537 update. The "Phase II" plan update was then prepared in accordance with PADEP guidelines, and included the information obtained in the previous Feasibility Study and the "Phase I" update. The study is currently (August 2000) under review by the Lehigh County Planning Commission, Upper Milford Township Planning Commission, and unofficially by PADEP. The legal notice for the thirty (30) day comment period soliciting public comments was published in early August.

The remaining steps in the Act 537 review, comment and approval process include:

- The Township must consider any written comments received from the public, Lehigh County Planning Commission, and Township Planning Commission. The Township Supervisors then vote to approve or not approve the plan. If approved, the plan is then submitted to PADEP for review and approval.



PUPO002B

Linden Miller, Upper Milford Township Manager

September 5, 2000

Page 3

- The Township must address any PADEP comments. Once the plan is approved by PADEP, the revised plan then becomes the official Township Sewage Facilities Plan, and must be implemented (constructed) by the Township with a "reasonable" period to time (normally 0-5 years).

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# Upper Milford Township

Planning Commission

5831 Kings Highway South

P. O. Box 210, Old Zionsville, PA. 18068-0210

Phone (610) 966-3223 Fax (610) 966-5184

September 1, 2000

Richard F. Knauss, Chairman  
Upper Milford Township  
Board of Supervisors  
P. O. Box 210  
Old Zionsville, PA. 18068

Dear Mr. Knauss,

The Upper Milford Township Planning Commission, at a meeting held on Aug. 28, 2000 discussed the proposed Act 537 Sewage Facilities Plan Update, dated Apr. 2000 prepared by Schoor DePalma.

The Planning Commission recognizes and condones the need to update the Township Sewage Facilities Plan and is in agreement with the 3 study areas (Vera Cruz, Old Zionsville, & Powder Valley). The Planning Commission suggests that the areas of So. 7<sup>th</sup> St. Extension also be studied, since the township has requests for both sewer and water service, due to malfunctioning system(s) and contaminated well water.

The Planning Commission suggests, that the maps included with the plan should have roads shown, in order to orient the viewer. Road names should be checked and edited. On the wetlands map (it was noted, that Main Road East is labeled Brunner Road). The Planning Commission reserves further comment, until such time as the public(s) input is summarized and reviewed.

Sincerely,



Daniel Delong

Chairman

# MEMO

**TO:** Planning Commission Members

**FROM:** Linden L. Miller *LLM*

**DATE:** September 6, 2000

**Subject:** Sewage Facilities Planning

Please review the memorandum of a meeting held the morning of August 31, 2000. Mr. Harleth Davis is a Sanitarian Sewage Specialist from the Wilkes-Barre Northeast Regional Office of the Department of Environmental Protection. Mr. Davis, has over 30 years of experience, and this meeting I felt was productive. Leaving this meeting with the understanding we were removed from the Lehigh County Planning Commission Agenda, I contacted Supervisor Huyett whom planned attendance. John Sheeran, Supervisor Huyett and myself had planned to attend.

To my surprise, we were not removed from the agenda! We were not represented for comment! The Morning Call has the article "LVPC dislikes Vera Cruz sewer plan"! We have heard the phrase many times from Governor Ridge about intergovernmental cooperation; the need for more of it! This stands boldly as a lack of cooperation. We needed a few weeks to revisit working with the Borough of Emmaus. Ms. Rockwell's actions were uncouth and damaging to the Township's public image.

You will also have the opportunity to read the review letter of the LVPC from their meeting of August 31, 2000. A letter to Ms. Rockwell from our Environmental Engineer John Sheeran is included as well.

As always, thank you for your time and dedication.

cc: Board of Supervisors  
Schoor DePalma, Russ Benner



Aug. 31 MEETING  
2000  
SEP 07 2000  
COPY  
Supervisors  
L. Miller  
9/7/00  
CK

## MEMORANDUM

**TO:** Mr. Harley Davis, PA Department of Environmental Protection  
Mr. Linden Miller, Upper Milford Township Manager  
Mr. Russ Benner, Schoor DePalma

**FROM:** John W. Sheeran, P.E.

**DATE:** September 5, 2000

**RE:** Upper Milford Township Act 537 Update Review Meeting

**PROJECT NUMBER:** PUPO002

A meeting was held on August 31, 2000, at the Bethlehem Field Office of Pennsylvania Department of Environmental Protection (PADEP) Northeast Region. The meeting was arranged to discuss PADEP's initial comments with the "draft" Act 537 Update for Upper Milford Township. The discussions were as follows:

### Discussion Items

- John Sheeran asked Harley Davis if he knew the reason Upper Milford was directed to update their existing Act 537 Sewage Facilities Plan. Harley indicated that the PADEP should have correspondence on file indicating the reason, and that he would research and send any applicable documentation to Schoor DePalma. He thought that the request was based upon the results of an on-lot system malfunction study prepared by the Joint Planning Commission (JPC).
- Harley asked if we had a copy of the JPC report, which included cost estimates for constructing community on-lot systems. John indicated that we had not seen a copy of the study. Harley recommended that any proposal to implement a community on-lot system include actual soils testing of the specific site, and that the plan update task activity report would have to be modified to include this work.
- Harley indicated that he was satisfied with the layout and content of the draft plan update, except for the plan "Schedule of Implementation". His concern with the schedule is that for Pennvest funding to be utilized, the Act 537 Plan update, and





PUPO002

Upper Milford Township Act 537 Update Review Meeting

September 5, 2000

Page 2

all permits must be secured prior to submitting the Pennvest application unless design funding is sought.

- Harley asked for additional breakdown on the construction cost estimates for the evaluated alternatives. Harley was directed to the Itemized Estimates included in the "Exhibits" section of the plan update.
- John asked if PADEP was satisfied with the study areas included in the plan update, since a discussion with Sue Rockwell, suggested that the County Planning Commission felt that the plan should address additional areas of the Township. Harley indicated that he thought the study areas were adequate.
- Harley indicated his concern for affordability of the selected alternative. The discussion then turned to the possibility of elimination one pump station through a gravity sewer connection with Emmaus Borough, if Emmaus Borough's collection system capacity problem can be resolved.
- Harley indicated that Emmaus's capacity situation really includes two (2) components. First is a contractual capacity issue with treatment plant capacity at the City of Allentown Waste Water Treatment Plant (WWTP), and second the physical problem of inflow and infiltration into the Emmaus collection system.
- Linden indicated that Dan DeLong of the Upper Milford Township Planning Commission (and Public Works Director of Emmaus Borough) would like to see five (5) existing homes on South Seventh Street with on-lot system malfunctions also be connected to the Emmaus system which was available at the end of the street.
- Linden then related past discussions with the Borough regarding their inflow and infiltration (I&I) problem limiting the connection capacity to 33 EDUs and the fact that the offer was not renewed after the August 31, 1999 expiration. In addition, Emmaus was expecting Upper Milford Township to pay the Borough's Engineer to perform an I & I study to determine if additional capacity might be available. The plan update includes a five hundred thousand (\$500,000.) estimated I & I repair cost since a repair cost based upon an actual study was not available.
- Harley indicated that PADEP would be willing to fund fifty percent (50%) of the cost of an I & I study for both the Borough and Township engineering costs to



PUPO002

Upper Milford Township Act 537 Update Review Meeting

September 5, 2000

Page 3

make the Emmaus sewer connection alternative more cost effective. Eligible study costs would have to be in accordance with an I & I Study Funding Guidance Document dated October 20, 1997, of which Harley provided a copy.

- Harley indicated that he would review Emmaus's Chapter 94 Report by the end of September, to see if the problem of I & I is discussed and how significant the I & I problem is.
- When the draft plan update review is completed, Harley will provide a courtesy copy to Schoor DePalma prior to issuance of the final PADEP review letter.
- ~~Harley stated that it is PADEP's recommendation at this time, to request the Lehigh County Planning Commission to remove discussion of the plan update from their August 31<sup>st</sup> Commission Meeting Agenda to allow further investigation of the Emmaus alternative.~~ Everyone agreed, and John indicated that he would call Sue Rockwell and request the agenda item be removed.
- Harley indicated that he would like to include Sue Rockwell of the County Planning Commission in all future plan update work secessions, to which there was no objection.
- The question was asked if Lehigh County Authority (LCA) should be notified that we were again considering an Emmaus alternative. It was agreed that LCA should be kept informed any changes.
- John also asked if the Township needed to resubmit the task activity report at this time to ensure future reimbursement of fifty percent (50%) of the update costs. Harley indicated that no action was required at this time.

### Action Items

Harley Davis:

- 1) Research the reason for PADEP directing the Township to update their existing plan.
- 2) Harley would provide a copy of the JPC study to Schoor DePalma.
- 3) Review the Emmaus Borough Chapter 94 report, with comments by the end of September.



PUPO002

Upper Milford Township Act 537 Update Review Meeting

September 5, 2000

Page 4

John Sheeran:

- 1) Call Sue Rockwell and request the plan update scheduled for discussion at the August 31<sup>st</sup> meeting be removed from the agenda.
- 2) Revise the Plan update Schedule of Implementation.
- 3) Review the PADEP I & I Guidance Document.

Linden Miller:

- 1) Linden will contact Dan DeLong of the Public Works Department to see what the reception to the Emmaus sewer connection might be with the new administration.

JWS/sk

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**SCHOOR DEPALMA**  
Engineers and Design Professionals

PREPAID  
SEP 05 2000  
USPS

September 1, 2000  
(Via Fax and Regular Mail)

CK  
Copy to  
Supervisors  
L. Miller, P.C.  
9/15/00  
CK

Ms. Susan Rockwell  
Environmental Planner  
Lehigh Valley County Planning Commission (LVPC)  
961 Marcon Boulevard, Suite 310  
Allentown, Pennsylvania 18103-9397

**RE: Vera Cruz Sanitary Sewers Act 537 Plan  
September 1, 2000, Morning Call Newspaper Article  
Upper Milford Township, Lehigh County  
Our Project Number PUPO002B**

Dear Ms. Rockwell:

I was greatly disappointed by the newspaper article that appeared in the September 1, 2000 Morning Call, and your refusal to remove the topic from the meeting agenda as requested by John Sheeran of our office. We had a very positive meeting with Pennsylvania Department of Environmental Protection (PADEP) on August 31, 2000, to discuss some very significant options in making the project more affordable, with PADEP also recommending that the discussion of the plan be removed from your agenda until these options could be more fully discussed with all parties. We feel that by not removing this agenda item, and the negative feeling generated by this article, our efforts to resolve affordability issues have been irreparably damaged. Unfortunately this article gives a very "one-sided" view of our efforts, which we feel does the residents and government officials of Upper Milford Township a great disservice.

I hope this is not an indication of the level of professionalism we are to expect from the Planning Commission on this project as there are many issues which must be resolved through the joint effort of the Township, PADEP and LVPC to insure the residents of the Township their health, safety and welfare is our primary concern. I believe a public apology to all the residents and government officials of Upper Milford Township is in order for the mishandling of your responsibilities for this project.



PUPO002B  
Ms. Susan Rockwell  
September 1, 2000  
Page 2

Should you wish, as always, we are available to meet with you to more fully discuss this important issue.

Very truly yours,

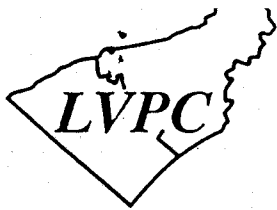
**SCHOOR DEPALMA INC.**

Russell G. Benner, Jr., P.E.  
Vice President

RGB/sk

c: Geoffrey Reese, Lehigh Valley County Planning Commission (*Via Fax and Regular Mail*)  
Linden Miller, Upper Milford Township (*Via Fax and Regular Mail*)  
Harleth W. Davis, Jr., PA Dept. of Environmental Protection (*Via Fax and Regular Mail*)

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# LEHIGH VALLEY PLANNING COMMISSION

961 MARCON BOULEVARD, SUITE 310, ALLENTOWN, PENNSYLVANIA 18103-9397  
(610) 264-4544; FAX (610) 264-2616; e-mail: lvpc@early.com

EARL B. LYNN  
Chair

IRA J. FARO  
Vice Chair

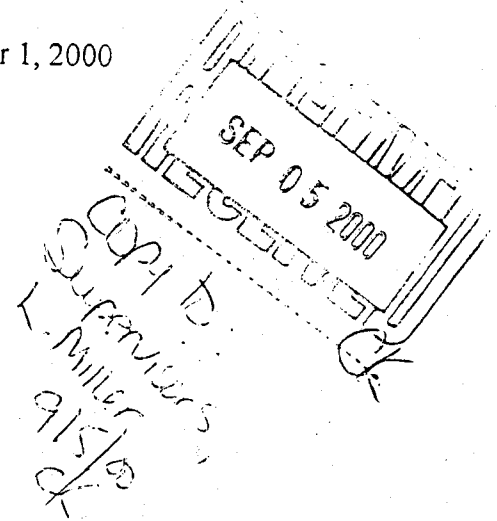
ELEANORE M. HAYDEN  
Treasurer

MICHAEL N. KAISER  
Executive Director

September 1, 2000

Mr. John Sheeran, P.E.  
Schoor DePalma  
P. O. Box 304  
Kulpsville, Pennsylvania 19443-0304

**Re: Draft Official Sewage Facilities Plan for  
Upper Milford Township, Lehigh County**



Dear Mr. Sheeran:

The Lehigh Valley Planning Commission (LVPC), at its regular monthly meeting on August 31, 2000, reviewed the above-referenced plan. Our review was based on the adopted plans and policies of the LVPC and provisions of the Pennsylvania Sewage Facilities Act (Act 537). We offer the following comments.

The Upper Milford Township plan update studies the sewage needs of three areas of the Township. These areas are the Vera Cruz, Old Zionsville Village and Powder Valley Village areas. The draft plan identifies the Vera Cruz area as a priority sewage needs area due to the incidence of on-lot system malfunctions and contaminated wells. Previous studies have indicated contamination of Leibert Creek which appears to be caused by malfunctioning systems. Small lot sizes preclude the possibility of installing new on-lot systems for many of the lots. The plan recommends this area to be connected to the Lehigh County Authority collection system with treatment at the Allentown treatment plant as the most cost-effective alternative. Annual user fees are approximately \$1,300 based on PennVest funding, a \$2,500 tap-in fee and no grant. Fees would be less if a grant could be secured. The draft plan indicates that the needs of Old Zionsville and Powder Valley Villages are less critical based on the needs study. Further, connection to a public system would be cost prohibitive for these two areas at this time. Needs for these areas would be revisited within five to ten years.

A municipal Official Sewage Facilities Plan is required to address the existing and future sewage needs of a municipality. This is accomplished by setting guidelines for resolving existing sewage disposal problems, maintaining existing sewage facilities and planning for the needs of future development. The Township's plan studies only three specific areas of the Township. We recommend the Township amend the plan to include the sewage needs of the entire Township. The

Mr. John Sheeran, P.E.  
Schoor DePalma  
September 1, 2000

LVPC *Water Supply and Sewage Facilities Plan*, December 1995 identifies several areas of the Township as potential on-lot sewage disposal problem areas including the Vera Cruz and Old Zionsville areas. Two additional potential problem areas identified in our 1995 Plan are the Zionsville area adjacent to Lower Milford Township and the Knollwood Subdivision. The Township Plan should verify whether problems exist in these areas.

A portion of the Vera Cruz study area is recommended for public sewer service in our 1995 Plan. Providing public sewer service to this area would be consistent with our Plan. Providing public sewer service to on-lot problem areas not recommended for service would be consistent provided that a detailed solution analysis is completed identifying this alternative as the most cost-effective long-term option. If connection to the public system is identified as the best solution, the system should be designed to serve only the area of need and not to encourage urban development. We are concerned about the high user fees associated with the chosen alternative. Further, we don't believe all available alternatives have been evaluated. Past sewer projects in other rural municipalities including East Allen and Lehigh Townships had met with great resistance due to high user fees. The East Allen project was never constructed for this reason. The LVPC completed a study of needs for the Vera Cruz area in 1983. The study compares the costs of a community on-lot system and connection to the public system. The study found that the cost of a community on-lot system was approximately 40% less than connection to the public system. The Township plan does not provide an evaluation of a community on-lot system to serve the area. We recommend that the Township not move forward with the selected alternative until all options are evaluated.

As previously discussed, Old Zionsville and Powder Valley Villages are not proposed for public sewers. Old Zionsville was shown to have a number of suspected malfunctions and both areas were shown to have high percentages of potential malfunctions. No additional alternatives to public sewers were evaluated for these areas. The Township plan should consider other options such as a sewage management program. A sewage management program would provide for the proper operation and maintenance of both existing and new systems through regular pumping and inspection in these areas.

Please contact Susan L. Rockwell if you have any questions regarding these comments.

Sincerely,



Geoffrey A. Reese, P.E.  
Chief Engineer

GAR:kms

cc: Linden Miller, Manager, Upper Milford Township ✓  
Upper Milford Township Supervisors  
Harley Davis, PA Department of Environmental Protection



**SCHOOR DEPALMA**  
Engineers and Design Professionals

*Copies  
P.O.  
8-2-00  
M...  
K...*

August 2, 2000

Mr. Daniel DeLong, Chairman  
Upper Milford Township Planning Commission  
5831 Kings Highway South  
P.O. Box 210  
Old Zionsville, PA. 18068-0210

**RE: Upper Milford Township Act 537 Sewage Facilities Plan Update  
Township Planning Commission Review And Comment  
Our Project Number PUP002**

Dear: Mr. DeLong,

Enclosed are ten (10) copies of the "Draft " Upper Milford Township Act 537 Sewage Facilities Plan Update, for review and comment by the Planning Commission. The update focuses on identifying and addressing existing sewage needs in the Vera Cruz area, Old Zionsville Village, and Powder Valley Village.

I would be pleased to attend a Planning Commission meeting to answer any questions the members may have regarding the update, if you could let me know when the update is to appear on the agenda.

If you have any questions prior to the Planning Commission meeting date, do not hesitate to contact me at (215) 361-6050

Very truly yours,

**SCHOOR DEPALMA INC.**

John W. Sheeran, P.E.  
Senior Project Engineer

JWS/JWS

Enclosures

c: Linden Miller, Township Manager, (letter only)  
Russ Benner, Jr. P.E. Schoor Depalma (letter only)

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# MEMO

**TO:** Planning Commission Members

**FROM:** Linden L. Miller *LLM*

**DATE:** September 6, 2000

**Subject:** Sewage Facilities Planning

Please review the memorandum of a meeting held the morning of August 31, 2000. Mr. Harleth Davis is a Sanitarian Sewage Specialist from the Wilkes-Barre Northeast Regional Office of the Department of Environmental Protection. Mr. Davis, has over 30 years of experience, and this meeting I felt was productive. Leaving this meeting with the understanding we were removed from the Lehigh County Planning Commission Agenda, I contacted Supervisor Huyett whom planned attendance. John Sheeran, Supervisor Huyett and myself had planned to attend.

To my surprise, we were not removed from the agenda! We were not represented for comment! The Morning Call has the article "LVPC dislikes Vera Cruz sewer plan"! We have heard the phrase many times from Governor Ridge about intergovernmental cooperation; the need for more of it! This stands boldly as a lack of cooperation. We needed a few weeks to revisit working with the Borough of Emmaus. Ms. Rockwell's actions were uncouth and damaging to the Township's public image.

You will also have the opportunity to read the review letter of the LVPC from their meeting of August 31, 2000. A letter to Ms. Rockwell from our Environmental Engineer John Sheeran is included as well.

As always, thank you for your time and dedication.

cc: Board of Supervisors  
Schoor DePalma, Russ Benner

# MEMO

Handwritten notes in the top right corner, including the date "8/14/01" and initials "L.M." and "H.H.".

**TO:** Board of Supervisors  
**FROM:** Linden L. Miller *LM*  
**DATE:** August 14, 2001  
**SUBJECT:** Act 537 DEP Update

Be advised at the September 20, 2001 Workshop Meeting at 6:30 P.M., I have scheduled a discussion item. Russell Benner and Karl Schreiter will present the framework on proceeding with the "Act 537 Update"; as requested by the DEP.

This has significant impact on the Vera Cruz Sewer Project.

cc: Russell Benner, P.E.  
Karl Schreiter, P.E.

BOARD OF SUPERVISORS  
**UPPER MILFORD TOWNSHIP**

LEHIGH COUNTY

5831 Kings Highway South

P.O. Box 210, Old Zionsville, PA 18068-0210

Phone (610) 966-3223

Fax (610) 966-5184

September 21, 2001

Mr. Harleth Davis  
Pennsylvania Department of Environmental Protection  
Bureau of Water Quality Management  
2 Public Square  
Wilkes Barre, PA 18701

**Subject: Upper Milford Township Act 537 Plan Revision  
Identification of Study Areas  
Needs Survey**

Dear Mr. Davis:

As discussed at our meeting of July 31, 2001, the Township has completed a evaluation of areas within Upper Milford Township that will require further study as part of updated Needs Survey. These areas were identified by the Township's Sewage Enforcement Officer (SEO) as areas requiring further examination based on historical on site system failures and subsequent repairs, known marginal to poor soil conditions, and areas with higher densities of existing houses or other property usages.

We have identified these areas on the attached map. As part of the Act 537 Plan Revision, we anticipate that the Township SEO will survey all existing properties within these shaded areas to determine the operational status of the existing onsite systems. The results of the needs survey will then be used to determine alternative methods required to address future needs in these areas. Due to their location and relative densities, the remaining portions of the Township would be addressed under a septic management program. If acceptable to your office, this approach to completing the needs survey will be incorporated into the revised task and activity report for the Township's Act 537 Plan Revision.

BOARD OF SUPERVISORS  
**UPPER MILFORD TOWNSHIP**

LEHIGH COUNTY

5831 Kings Highway South

P.O. Box 210, Old Zionsville, PA 18068-0210

Phone (610) 966-3223

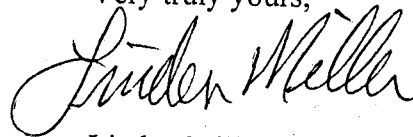
Fax (610) 966-5184

September 21, 2001

Page 2

If you should have any questions regarding this matter, please feel free to contact us at 610-966-3223.

Very truly yours,



Linden Miller  
Township Manager

LM:ck

cc: Board of Supervisors  
Brian Miller, SEO  
Russell Benner, P.E.

Enclosure



Pennsylvania Department of Environmental Protection

2 Public Square  
Wilkes-Barre, PA 18711-0790  
October 16, 2001

570-826-2511  
Fax 570-830-3016

Northeast Regional Office

Upper Milford Township  
5831 Kings Highway South  
P.O. Box 210  
Old Zionsville, PA 18068-0210

Attention: Mr. Linden Miller  
Township Manager

Re: Official Sewage Facilities Plan Update Revision  
Upper Milford Township, Lehigh County

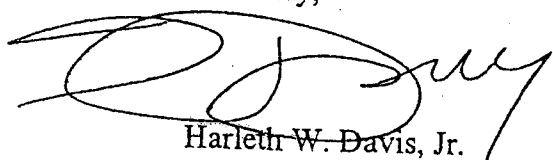
Dear Mr. Miller:

The Department has received your correspondence dated September 21, 2001, proposing that your Township's Sewage Enforcement Officer update the sewage needs compiled in the 1996 O'Dell Report. To obtain the Department's concurrence with this proposal, an amended Task and Activity Report (TAR) should be submitted providing a more detailed explanation of why this work is needed and how it will relate to the O'Dell Report, a completed cost matrix form which can be found in Appendix A of the Department's "A Guide for Preparing Act 537 Update Revisions" and a commitment that the methodology used will be consistent with the standards established in the Department's "Sewage Disposal Needs Identification Guidance, March 1996." Ideally, a field sewage needs survey should be conducted during conditions when the seasonal water table is high so that a more accurate assessment of sewage needs can be made.

The Department is awaiting information regarding the studies done in evaluating the Emmaus alternative.

Please feel free to contact me if you wish to discuss this matter.

Sincerely,



Harleth W. Davis, Jr.  
Sanitarian Sewage Specialist  
Water Management Program

cc: Schöor DePalma Engineers and Design Professionals  
Emmaus Borough  
Hanover Engineering  
Lehigh County Planning Commission

# **Upper Milford Township**

**Brian Miller  
Sewage Enforcement Officer  
P.O. Box 260  
Old Zionsville, Pa. 18068**

## **Memo**

Dec. 26, 2001

Dear Linden Miller:

You recently asked for a approximate cost estimate and time frame for the Act 537 study update, I was able to get some info from Upper Saucon Township who has just completed the same type of study that we will be doing, they also worked with Mr. Schreiter therefore I think our cost and time frame would be similar. Upper Saucon Townships study involved 961 homes it was done over a 7 month period by the townships SEO. and took a total of approximately 270 hrs., at this time I do not have an exact number of properties that we will be checking although from the map I would assume it would be around 800 homes and if our time per home would be similar to Upper Saucon's it would take approx. 225 hrs. to complete this study, at \$30.00 per hour that should bring the SEO costs to approximately \$6750.00 and with my regular SEO duties it should take about 3 months if I would be able to spend 20 hrs. a week on the study. Weather and the amount of my regular township SEO duties could greatly effect this time frame. I have also been told that during the site visits photographs will be needed for documentation there may also be other items needed for the study but I do not have exact protocol for these site visits at this time.

If you have any questions or comments please contact me at (610) 967-2205

Sincerely,

Upper Milford Township Sewage Enforcement Officer



# SCHOOR DEPALMA

Engineers and Design Professionals

1555 Bustard Road  
P.O. Box 304  
Kulpsville, PA 19443-0304  
TEL: 215.361.6050  
FAX: 215.361.6160

## LETTER OF TRANSMITTAL

DATE January 11, 2002	PROJECT NUMBER PUP0002
ATTENTION Mr. Linden Miller	
RE Upper Milford Township Act 537 Update	

To Upper Milford Township

WE ARE SENDING YOU  Attached  Under separate cover via [SEPARATE COVER VIA] the following items:

- Shop Drawings     Prints     Plans     Samples     Specifications  
 Copy of letter     Change Order     \_\_\_\_\_

COPIES	DATE	NO.	DESCRIPTION
1	1/11/02	1	Letter to Harleth Davis (this should be placed on Township letterhead)
1	1/11/02	2	Task Activity Cost Matrix sheet 1 of 2 (this needs to be signed by the Municipal Secretary)
1	1/11/02	3	Task Activity Cost Matrix sheet 2 of 2 (this needs to be signed by the Municipal Secretary)
1	1/11/02	4	A project narrative along with a Task Activity Breakdown.

THESE ARE TRANSMITTED as checked below:

- For Approval     Approval as submitted     Resubmit     copies for approval  
 For your use     Approval as noted     Submit     copies for distribution  
 As requested     Returned for correction     Return     corrected prints  
 For review and comment     \_\_\_\_\_  
 FOR BIDS DUE \_\_\_\_\_     PRINTS RETURNED AFTER LOAN TO US

REMARKS

COPY TO:

SIGNED: Russel Benner, Jr. P.E.

*If enclosures are not as noted, kindly notify us at once.*





UPPER MILFORD TOWNSHIP  
LEHIGH COUNTY

(PART II) ACT 537 SEWAGE FACILITIES PLAN UPDATE TASK ACTIVITY REPORT

PLANNING AREAS: 1) VERA CRUZ VILLAGE AREA  
2) OLD ZIONSVILLE VILLAGE AREA  
3) POWDER VALLEY VILLAGE AREA

DATE COMPLETED PLAN WILL BE SUBMITTED TO DEP: 1/11/2002

SHEET 2 of 2

TASK ACTIVITY NUMBER	PRINCIPAL		PRINCIPAL PROJ. MGR.		SR. ENGINEER		ENGINEER		AUTO CADD		PLANNER		ADMIN.		LEGAL		SUB TOTAL
	HR/ RATE	\$85 HRS.	HR/ RATE	\$85 HRS.	HR/ RATE	\$60 HRS.	HR/ RATE	\$60 HRS.	HR/ RATE	\$60 HRS.	HR/ RATE	\$60 HRS.	HR/ RATE	\$25 HRS.	HR/ RATE	\$75 HRS.	
APPENDIX 1 XXXXXXXXXX																	
2.1.1 TASK		\$0	8	\$680			16	\$960									\$1,640
2.1.2 TASK 2		\$0	8	\$680			6	\$360	90	\$5,400							\$6,440
2.1.3 TASK 3		\$0	20	\$1,700			20	\$1,200	16	\$960							\$3,860
2.1.4 TASK 4		\$0	20	\$1,700			25	\$1,500	15	\$900							\$4,100
2.2.1 TASK 1		\$0	40	\$3,400			9	\$540									\$3,940
2.3.1 TASK 1		\$0	16	\$1,360			3	\$180									\$1,540
2.3.2 TASK 2		\$0	15	\$1,275			3	\$180									\$1,455
2.3.3 TASK 3		\$0	60	\$5,100			10	\$600	18	\$1,080							\$6,780
2.3.4 TASK 4		\$0	4	\$340			1	\$60									\$400
2.3.5 TASK 5		\$0	40	\$3,400			15	\$900	8	\$480							\$4,780
2.3.6 TASK 6		\$0	28	\$2,380			28	\$1,680									\$4,060
		\$0		\$0				\$0									\$0
total hours: 147																	
subtotal labor cost: \$22,015 \$0 \$8,160 \$8,820 \$0.00 \$0 \$38,995																	

PERSON COMPLETING REPORT: Russell Benner, Jr. P.E. TITLE: Township Engineer

SIGNATURE:  TITLE: Township Engineer

MUNICIPAL SECRETARY SIGNATURE: 

January 11, 2002

Pennsylvania Department of Environmental Protection  
Northeast Regional Office  
2 Public Square  
Wilkes -Barre, PA 18711-0790

Attention Mr. Harleth W. Davis, Jr.  
Sanitarian Sewage Specialist  
Water Management Program

Re: Upper Milford Township Act 537 Update

Dear Mr. Davis:

In response to your letter dated October 16, 2001, the following items are respectfully submitted for your review and consideration for the above reference project:

1. A completed cost matrix form (sheet 1 of 2) containing anticipated cost that will be incurred by the work performed by the Township's SEO and the Township for the tasks indicated.
2. A completed cost matrix form (sheet 2 of 2) containing anticipated cost that will be incurred by the work performed by the Consulting Engineer for the tasks indicated.
3. A project narrative and a Task Activity Breakdown providing a detailed explanation of the work to be performed corresponding to the cost matrixs.

Please feel free to contact the Township's Engineer, Russell Benner, at 215-361-6050 if you wish to discuss this matter.

Sincerely,

Linden Miller  
Township Manager

C:

## 1.0 PROJECT NARRATIVE

This study will assess the wastewater treatment needs of Upper Milford Township. The primary objectives of this Act 537 Plan Revision can be identified as follows:

- 1.1 Prepare an evaluation of the Township's existing sewage treatment system facilities under current conditions to establish an accurate baseline for future facilities planning.
- 1.2 Assess the Township's future wastewater needs and requirements up to the year 2020.
- 1.3 Conduct this study in accordance with the PADEP guidelines and requirements to ensure PADEP approval for any future permitting or financing phases of a selected plan.
- 1.4 Establish a septic management program within the Township.

## 2.0 SCOPE OF WORK

The scope of work has been divided into three separate phases of work:

- Phase I - Needs Analysis
- Phase II - Development of Septic Management Program
- Phase III - Sanitary Sewer System Analysis

The overall Plan Revision will comply with the requirements set forth in Title 25 PA Code Chapter 71. The report will meet the requirements set forth in section 71.21 and will be submitted by the Township per the requirements set forth in 71.31. The overall needs analysis will be completed following general PADEP guidelines contained in "Act 537, Sewage Disposal Needs Identification Guidance" (PADEP, March, 1996). The needs analysis will consist of three basic components:

Public Health Needs  
Water Pollution Needs  
Community Development Needs

Phase I of the project will develop the public health needs within the Township. Phase II will develop the necessary tools to allow the Township to establish a program for proper operation and maintenance of on-site systems. Phase III of the project will address the water pollution and community development needs of the Township. This scope of work is preliminary in nature and must be reviewed and approved by PADEP to ensure that the Township is eligible for Act 537 funding.

Wherever possible, information from the following documents will be used to complete this study:

- "Act 537 Official Sewage Facilities Plan Update – Phase I Report"(Draft), (O'Dell, January 1996)
- "Act 537 Official Sewage Facilities Plan Update", (Schoor DePalma, April 2000)

All mapping (except Township topographic map) will be completed on a Township base map outlining the property subdivisions as prepared for the Township by Keystone Consulting Engineers, Inc. The Township topographic map will utilize USGS topographic mapping of the area.

## **TASK ACTIVITY BREAKDOWN**

### **2.1 PHASE I - PUBLIC HEALTH NEEDS ANALYSIS**

#### **2.1.1 Task 1 - Planning Objectives and Needs**

We will review existing planning documents and relevant data regarding population, zoning, and development patterns to establish existing wastewater treatment needs to make projections of future growth and associated wastewater needs. Included in this task will be:

- A survey of all previous wastewater planning documents adopted pursuant to the Pennsylvania Municipalities Planning Code (Act 247).
- An examination of all relevant previous wastewater planning with regard to Upper Milford Township.
- A determination of the general consistency and compatibility between existing planning, existing land use, and environmentally sensitive areas as required by PADEP.

#### **2.1.2 Task 2 - Physical Description of the Planning Area**

We will identify and briefly describe the planning area, which will address only Upper Milford Township.

We will consult both the Lehigh Valley Planning Commission and U.S. Census Bureau for population information for the Township. A comparison of the data will be performed and factors that promote or discourage population growth will be noted.

We will update the following consistency issues as required by PADEP. These issues will include:

- Floodplains
- Wetlands
- Soils
- Prime Agricultural Soils
- Geology
- Zoning
- Public Water Supply
- Historical Commission Review
- PANDI Review

### 2.1.3 Task 3 - Evaluation of Needs

We will complete a needs analysis of the Township to reflect the current operational status of on-site systems. This study will update the needs analysis that was completed as part of *"Act 537 Official Sewage Facilities Plan Update - Phase I Report"(Draft)*, (O'Dell, January 1996). This needs analysis will concentrate on the unsewered areas of the Township with known or potential problems associated with operation of the on-site systems.

A preliminary analysis of potential needs areas was completed with input from the Township SEO. Once the needs area map has been finalized with the Township, the map outlining these designated areas should be forwarded to PADEP for review and concurrence prior to initiation of the study. Upon receipt of PADEP concurrence, the study will concentrate on these designated areas.

#### Update Onsite System Failure Analysis

The onsite system failure analysis will be completed to reflect current available Township data through 2001. The analysis will include a review of Township records and show the type of failures and necessary repairs used in correcting the system. All failure data will be correlated into the needs block database. This data will be used to identify the following information (if applicable):

- Confirmed malfunctions
- Wildcat sewers
- Borehole disposal
- Holding tanks
- Public Complaints
- Sanitation Related Illness

The base information regarding repairs and known malfunctions will be assembled by the Township SEO and transcribed on a Township base map.

#### Field Survey of On-site Systems

The Township SEO will conduct a field survey of all onsite systems in areas outlined in the needs area designation map. The purpose of this survey will be to update data collected and presented as part of *"Act 537 Official Sewage Facilities Plan Update - Phase I Report"(Draft)*, (O'Dell, January 1996). It is estimated that the Township SEO will be required to inspect between **600-700** onsite systems as part of this scope of work. The remaining properties are located in areas with low densities that will not be considered for sanitary sewers due to the low density of existing housing units.

This survey will be used to identify suspected and potential malfunctions in these areas. This inspection will only include visual observations of surface conditions. These conditions may include presence of lush green grass, marshy areas in the yard at

drainfields, evidence of system surfacing, and subsequent runoff. This inspection will be used to identify potential surface failures. This data will be added to the overall needs block database. The inspection will be completed during the fall of 2001. This will ensure that the groundwater table will be at a high level.

A review of Township records will be made to determine if there are any other significant clusters of housing units or other types of on-sites systems in the Township that should also be inspected. These areas would be located in the less dense areas of the Township. As a result, sanitary sewers would not be extended to these areas unless a significant health threat or other mitigating circumstances were present. This data would be incorporated into the overall septic management plan for the Township.

### **Public Health Needs Evaluation**

Based on the data compiled as part of this task, each needs are will be evaluated to determine if the extension of central collection sewers should be considered. Based on the results of this evaluation, the Township will be divided into three wastewater service classifications:

- Existing central collection sewer service area
- Potential central collection sewer service area
- Septic management area

#### **2.1.4 Task 4 – Needs Study Report Preparation**

At the conclusion of this phase of the study, Schoor DePalma will prepare a draft report discussing the results of the needs survey. The Township will be responsible to forward a copy of the draft report to PADEP for review and comment. Upon receipt of comments from both PADEP and Upper Milford Township, Schoor DePalma will finalize the report for inclusion in the overall Act 537 Plan Revision report.

## **2.2 PHASE II - DEVELOPMENT OF SEPTIC MANAGEMENT PROGRAM**

Schoor DePalma will develop a septic management program to allow the Township to implement a program for the approval, operation, and maintenance of onsite systems within the Township. This management program will be administered by the Township's Sewage Enforcement Officer as a continuation of duties.

The septic management program will be developed to ensure that those areas not serviced by central collection sewage systems will have adequate facilities to meet the sewage treatment needs of the users in these areas. This plan will address the use of both conventional onsite systems along with non-conventional systems such as spray irrigation systems and individual lot stream discharge systems. Also, the plan will address the use of community type systems.

The plan will include the following:

- Outline of administrative procedures for reviewing onsite system permits for both new systems and existing system repairs.
- Development of an inspection program for onsite systems.
- Development of a septage management program.
- Review of existing Township ordinances associated with implementation of this program and develop additional controls to fully implement the program.
- Development of new Township ordinances to regulate the use of stream discharge systems, and other non-conventional type of on site systems.

This program will be developed in accordance with the PADEP guidelines. This work will also make recommendations regarding modifications required to Township database information. However, this scope does not include actual development of any database or associated modifications to existing Township databases.

### **2.3 PHASE III - SANITARY SEWER SYSTEM ANALYSIS**

The purpose of this phase of the analysis will be to develop a cost-effective solution to provide sewage treatment service to the existing service area within the Township. In addition, the analysis will determine if it is feasible to provide sewer service to those potential sewer service areas designated in the needs analysis.

#### **2.3.1 Task 1 - Evaluation of Existing Treatment Facilities**

Currently, the Township has limited sanitary sewage service within its municipal boundaries. This service is limited to high-density areas that are adjacent to the neighboring municipalities. The existing sewage service is provided by Lehigh County Authority. The purpose of this task will be to provide documentation of these service areas.

In addition, potential connection points will be identified for discharge of wastewater from Township sewer service areas identified in this study. We will coordinate capacity requirements with both Lehigh County Authority and the Borough of Emmaus. All work associated with any capacity analysis of the existing conveyance systems will be completed by others.

#### **2.3.2 Task 2 - Wastewater Flow Projections**

Schoor DePalma will formulate wastewater flow projections through the year 2020 based on the following:

- Total population and sewer population for the Township based on previous reports, billing, etc.
- Current approved PADEP subdivision modules.

Wastewater flow forecasts will be developed based on the results of the needs evaluation, future land use and demographic and economic projections. Future flow estimates will incorporate information for domestic use, infiltration/inflow, industrial/commercial use, and any other relevant flow components.

### **2.3.3 Task 3 - Alternative Analysis**

An analysis of various alternative methods of accommodating the projected facility loadings will be presented. Schoor DePalma will evaluate up to four alternatives to address the sewage system needs. A no-action alternative will be included as part of the analysis.

The alternative analysis will examine all funding sources, including PENNVEST, along with conventional municipal financing. It is anticipated that the conventional financing approach will be used in this project.

### **2.3.4 Task 4 - Select Plan**

Schoor DePalma will develop a selected plan for meeting the wastewater needs of the Township. Plan selection will be based on the most cost-effective alternative evaluated as part of this study and as directed by the Township supervisors.

### **2.3.5 Task 5 - Report Preparation**

At the conclusion of the study, Schoor DePalma will prepare a draft report discussing the results. It will be presented in the format required for submission to PADEP under recent Act 537 guideline revisions. The draft report will include a PADEP checklist. The Township will be responsible to forward a copy of the draft report to PADEP for review and comment. Upon receipt of comments from both PADEP and Upper Milford Township, Schoor DePalma will finalize the report and provide the required number of copies for use by the Township and State.

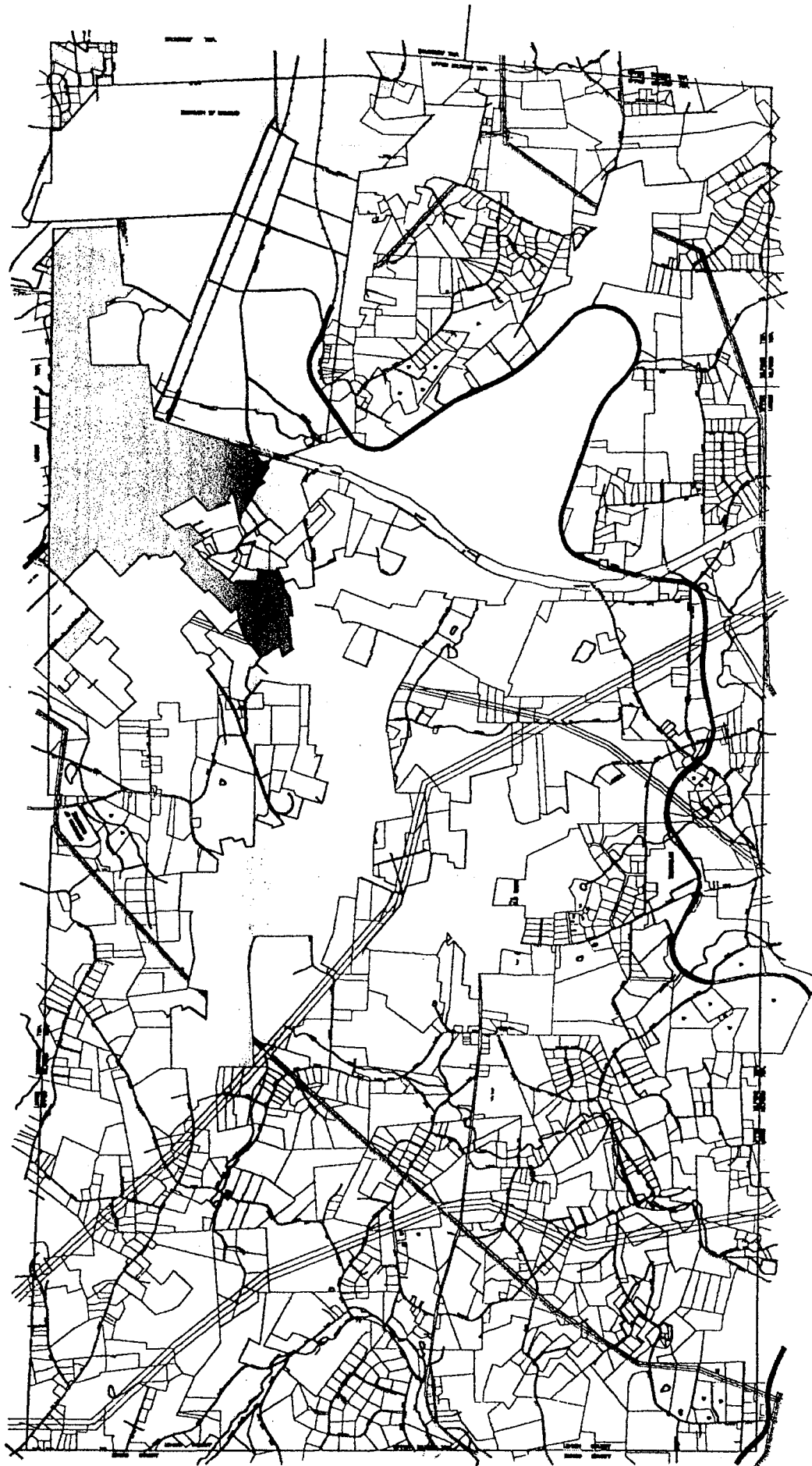
### **2.3.6 Task 6 - Meeting Attendance**

Schoor DePalma has budgeted attendance for up to four meetings with the Township to collect and verify information and to discuss findings. These meetings with the Township will include one kickoff meeting, one-status meetings, and one meeting to present the final report. Schoor DePalma staff members will



be available for attendance at additional meetings if authorized by the Township.  
All additional meeting attendance will be billed on a per diem basis.

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**UPPER MILFORD TOWNSHIP**  
LEHIGH COUNTY, PENNSYLVANIA

**A** **SCHOOR DEPALMA**  
Engineers and Design Professionals  
1000 W. 12th Street, Suite 100  
Allentown, PA 18103-1000  
TEL: 610-261-1111

1998 REVISED FROM  
1994 MAP OF  
UPPER MILFORD TOWNSHIP  
LEHIGH COUNTY, PENNSYLVANIA  
DATE: 01/12/98

**LEGEND**

-  AREAS TO BE STUDIED AND NEEDS ANALYSIS
-  SERVED AREAS

NOTE: THE BASE MAP WAS DERIVED FROM A PLAN ENTITLED "PORTAL MAP" PREPARED BY REYSTONE CONSULTING ENGINEERS, INC., DATED OCTOBER 1994.

BOARD OF SUPERVISORS  
**UPPER MILFORD TOWNSHIP**

LEHIGH COUNTY

5831 Kings Highway South

P.O. Box 210, Old Zionsville, PA 18068-0210

Phone (610) 966-3223

Fax (610) 966-5184

January 16, 2002

Pennsylvania Department of Environmental Protection  
Northeast Regional Office  
2 Public Square  
Wilkes-Barre, PA 18711-0790

Attn: Mr. Harleth W. Davis, Jr.  
Sanitarian Sewage Specialist  
Water Management Program

**RE: Upper Milford Township ACT 537 Update**

Dear Mr. Davis:

In response to your letter dated October 16, 2001, the following items are respectfully submitted for your review and consideration for the above reference project:

1. A completed cost matrix form (sheet 1 of 2) containing anticipated cost that will be incurred by the work performed by the Township's SEO and the Township for the task indicated.
2. A completed cost matrix form (sheet 2 of 2) containing anticipated cost that will be incurred by the work performed by the Consulting Engineer for the tasks indicated.
3. A project narrative and a Task Activity Breakdown providing a detailed explanation of the work to be performed corresponding to the cost matrix.

January 16, 2002  
Page 2

Please feel free to contact the Township's Engineer, Russell Benner, at 215-361-6050 if you wish to discuss this matter.

Sincerely,

A handwritten signature in cursive script that reads "Linden Miller".

Linden Miller  
Township Manager

LM:ck

cc: Board of Supervisors  
Russell Benner, P.E.  
Brian Miller, SEO



Pennsylvania Department of Environmental Protection

---

2 Public Square  
Wilkes-Barre, PA 18711-0790  
March 27, 2002

Northeast Regional Office

570-826-2511  
Fax 570-830-3016

Mr. Linden Miller, Township Manager  
Upper Milford Township  
5831 Kings Highway South  
P.O. Box 210  
Old Zionsville, PA 18068-0210

Re: Task and Activity Report  
Official Sewage Facilities Plan Update Revision  
Upper Milford Township, Lehigh County

Dear Mr. Miller:

The Department has reviewed the amended Task and Activity Report (TAR) submitted to complete the Act 537 Plan Update Revision for your Township. The Department is hereby granting its concurrence with this TAR submission.

If you have any questions regarding this matter, please contact me at the above address or telephone number.


Sincerely,

Harleth W. Davis, Jr.  
Sanitarian Sewage Specialist  
Water Management Program

cc: Lehigh Valley Planning Commission  
Schoor DePalma/Engineers and Design Professionals



# MEMO

**TO:** Board of Supervisors  
**FROM:** Linden L. Miller   
**DATE:** April 8, 2002  
**SUBJECT:** Sewage Facilities Planning

Harleth W. Davis Jr. has granted concurrence with our Act 537 Update Revision. Hanover Engineering is performing final numbers crunching regarding Borough of Emmaus capacity. I feel a meeting regarding the action and next steps in process is now important.

Today Russ Benner and I met to discuss billing and review current projects. Russ is in agreement a meeting is important; at this time. A Thursday Workshop Meeting is unfavorable since Karl Schreiter, Schoor DePalma representative for sewer planning, is unavailable due to teaching commitments.

Would the Board of Supervisors please consider a representative or representatives to attend a day meeting during the work week. At this juncture it becomes critical for Schoor DePalma, Brian Miller SEO, and myself to gain focus.

Thank you!

cc: Russell G. Benner, P.E.  
Brian Miller, SEO



**SCHREITER ENGINEERING ASSOCIATES, Inc.**  
7 Raleigh Drive  
Downingtown, PA 19335-1103

July 6, 2002

Dept of Conservation and Natural Resources  
Bureau of Forestry/ FAS  
PO Box 8552  
Harrisburg, PA 17105-8552

Subject: Upper Milford Township  
Act 537 Plan Revision  
SEA Project No: 0050-001

Gentlemen:

Upper Milford Township is in the process of completing an Act 537 Plan Revision. The purpose of this Revision to review wastewater needs within the Township and develop alternatives to meet these needs.

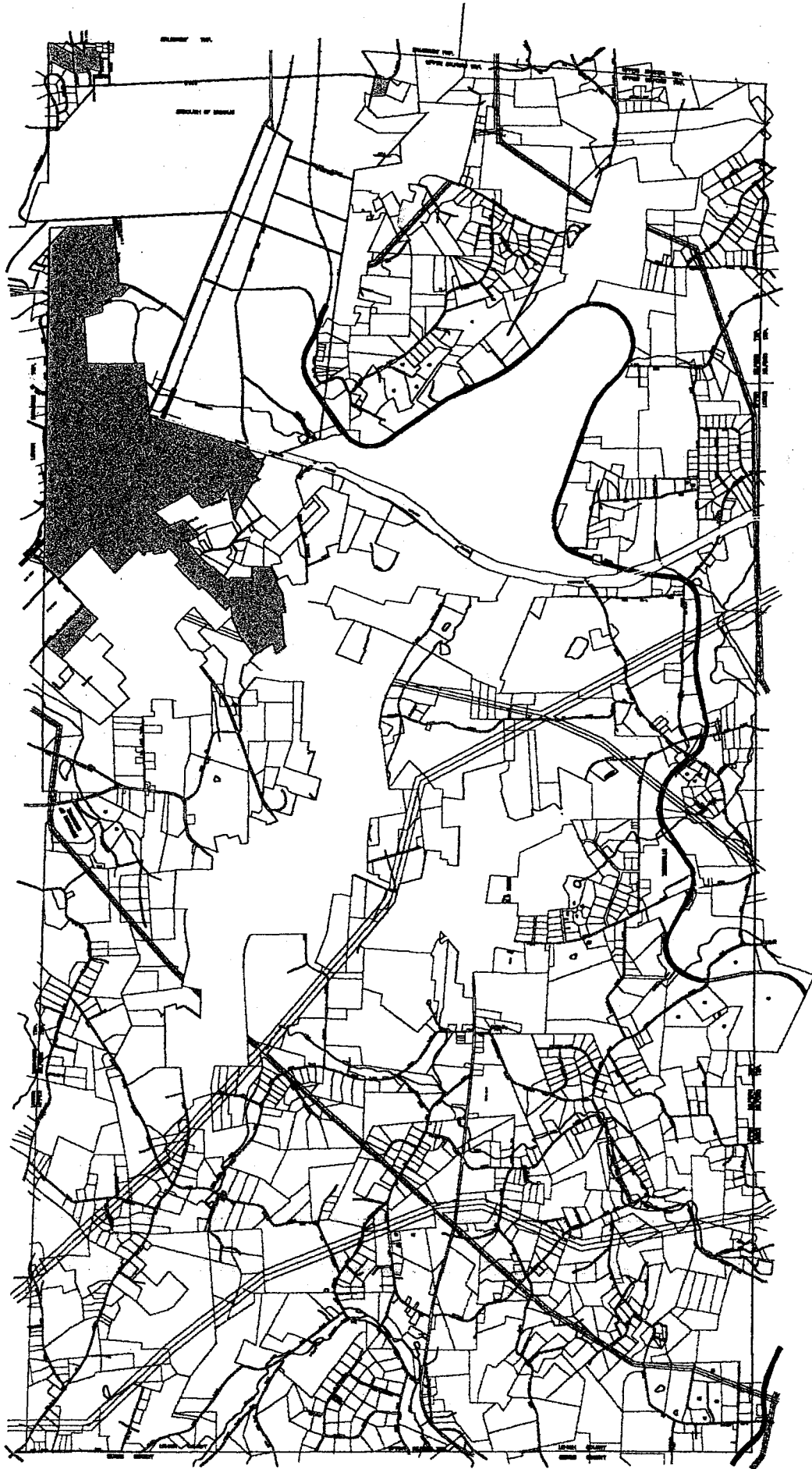
We have attached a drawing indicating those areas of the Township that will be evaluated for potential sanitary sewage systems as part of our needs analysis. The remaining areas of the Township don't have any known sewage needs and will most likely not be further evaluated in this Study.

If you should have any questions or require additional information, please feel free to contact us by way of telephone or email.

Very truly yours,

Karl E. Schreiter, Jr., PE, DEE  
President

cc: L. Miller, UMT  
R. Benner, Schoor DePalma  
J. Boldaz, Schoor DePalma



**UPPER MILFORD TOWNSHIP**  
LEHIGH COUNTY, PENNSYLVANIA

**SCHOOR DEPALMA**  
Engineers and Design Professionals  
1000 BANTON ROAD  
SUITE 207  
MARTINTON, PA 17043-2004  
PH: 717-261-1000  
FAX: 717-261-0170

- LEGEND**
- ▭ AREAS TO BE STUDIED AND NEEDS ANALYSIS
  - ▨ SEWERED AREAS

NOTE: THE BASE MAP WAS DERIVED FROM A PLAN ENTITLED "PORTAL MAP" PREPARED BY KEYSTONE CONSULTING ENGINEERS, INC., DATED OCTOBER 1996.





**SCHREITER ENGINEERING ASSOCIATES, Inc.**  
7 Raleigh Drive  
Downingtown, PA 19335-1103

July 6, 2002

Mr. Kurt Carr, Chief  
Pennsylvania Historical and Museum Commission  
Bureau of Historical Preservation  
Commonwealth Keystone Building, 2<sup>nd</sup> Floor  
400 North St.  
Harrisburg, PA 17108

Subject: Upper Milford Township  
Act 537 Plan Revision  
SEA Project No: 0050-001

Dear Mr. Carr;

Upper Milford Township is in the process of completing an Act 537 Plan Revision. The purpose of this Revision to review wastewater needs within the Township and develop alternatives to meet these needs.

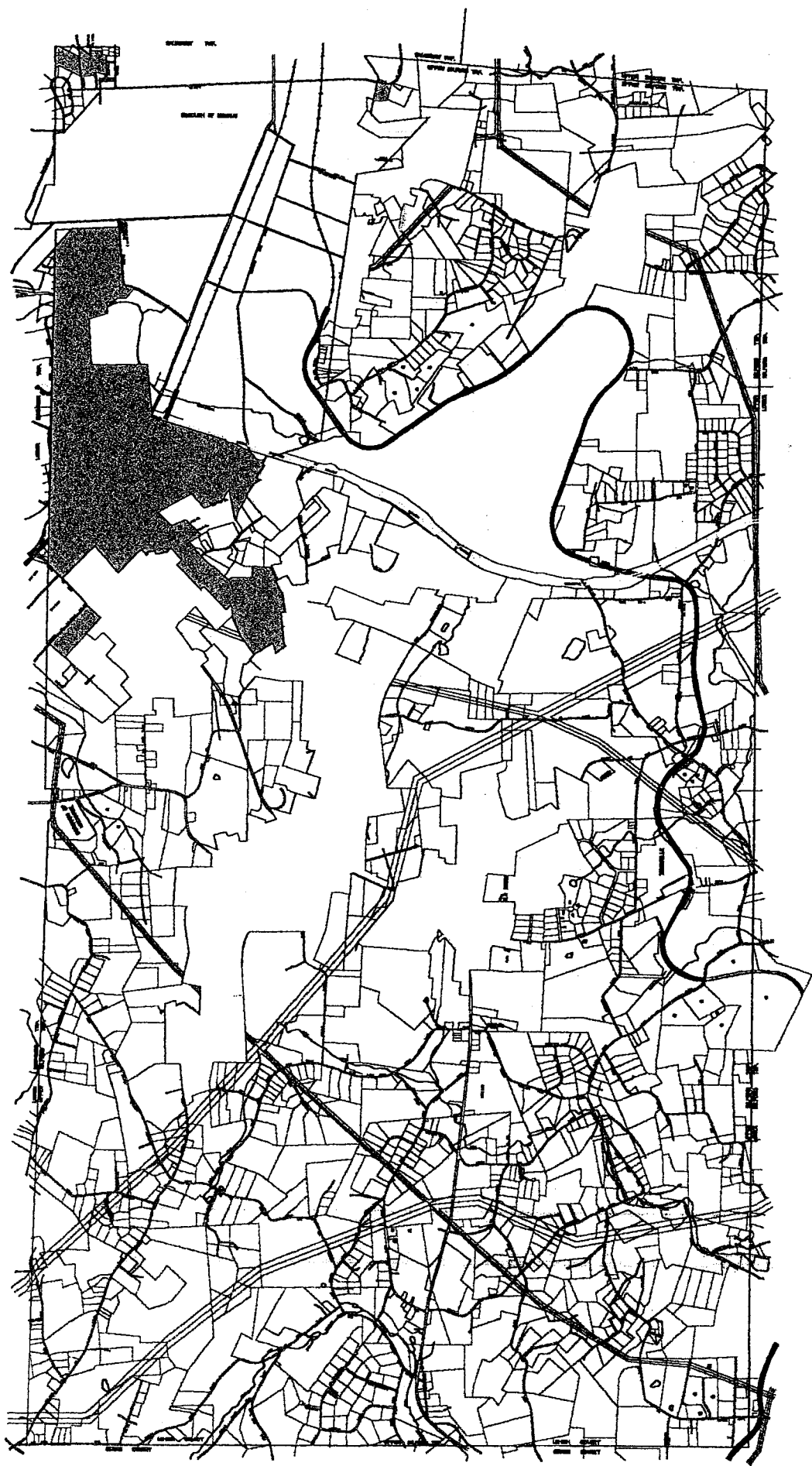
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If you should have any questions or require additional information, please feel free to contact us by way of telephone or email.

Very truly yours,

Karl E. Schreiter, Jr., PE, DEE  
President

cc: L. Miller, UMT  
R. Benner, Schoor DePalma  
J. Boldaz, Schoor DePalma

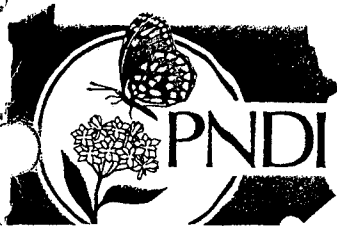


**UPPER MILFORD TOWNSHIP**  
LEHIGH COUNTY, PENNSYLVANIA

**SCHOOOR DEPALMA**  
ENGINEER AND DESIGN PROFESSIONAL  
1600 BARTON ROAD  
SUITE 204  
PA. 18433-0004  
MILFORD, PA. 18433-0004  
TEL. (717) 837-4100  
FAX (717) 837-4100

- LEGEND**
- ▭ AREAS TO BE STUDIED AND NEEDS ANALYSIS
  - ▨ SEWERED AREAS

NOTE: THE BASE MAP WAS DERIVED FROM A PLAN ENTITLED "POSTAL MAP" PREPARED BY KEYSTONE CONSULTING ENGINEERS, INC., DATED OCTOBER 1988.



# Pennsylvania Natural Diversity Inventory

Scientific information and expertise for the conservation of Pennsylvania's native biological diversity  
July 16, 2002

fax 717-772-0271  
717-772-0258

## Bureau of Forestry

Karl Schreiter  
Schreiter Engineering Associates, Inc.  
7 Raleigh Drive  
Downingtown, PA 19335-1103

Re: Pennsylvania Natural Diversity Inventory Review of Act 537 Plan Revision, Upper Milford Township,  
Lehigh County, PA.  
**PER NO:13301**

Dear Mr. Schreiter:

In response to your request on July 6, 2002 the Pennsylvania Natural Diversity Inventory (PNDD) information system was used to gather information regarding the presence of resources of special concern within the referenced site. PNDD records indicate potential impact to several species of special concern in the project vicinity.

*Cyperus retrorsus*, Retorse flatsedge, is an endangered plant in Pennsylvania.

*Erythronium albidum*, White trout-lily, is a tracked plant in Pennsylvania.

Please contact this office when the scope and boundaries of the project are more clearly defined. A more exact plan may reveal that these species will not be impacted and eliminate the need for a field examination of the site.

Because of the close proximity of the project to several species of special concern, our office recommends that you contact **Bonnie Dreshem** of US Fish & Wildlife Service at (814) 234-4090 and **Andy Shiels** of the Pennsylvania Fish & Boat Commission (814) 359-5113 for recommendations on potential impact on endangered animals in the area.

Pennsylvania Fish and Boat Commission  
Bureau of Fisheries and Engineering  
450 Robinson Lane  
Bellefonte, PA 16823

This response represents the most up-to-date summary of the PNDD data files and is applicable for one year. However, an absence of recorded information does not necessarily imply actual conditions on site. A field survey of any site may reveal previously unreported populations. Should project plans change or additional information on listed or proposed species become available this determination may be reconsidered.

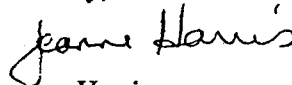
PNDD is a site specific information system that describes significant natural resources of Pennsylvania. This system includes data descriptive of plant and animal species of special concern, exemplary natural communities and unique geological features. PNDD is a cooperative project of the

Karl Schreiter

July 16, 2002

Department of Conservation and Natural Resources, The Nature Conservancy, and the Western Pennsylvania Conservancy. Please phone this office if you have questions concerning this response or the PNDI system.

Sincerely,

A handwritten signature in cursive script that reads "Jeanne Harris".

Jeanne Harris

Environmental Review Specialist



Commonwealth of Pennsylvania  
Pennsylvania Historical and Museum Commission  
Bureau for Historic Preservation  
Commonwealth Keystone Building, 2nd Floor  
400 North Street  
Harrisburg, PA 17120-0093  
www.phmc.state.pa.us

August 23, 2002

Schreiter Engineering Associates, Inc.  
Attn: Karl E. Schreiter, Jr.  
7 Raleigh Drive  
Downingtown, PA 19335-1103

TO EXPEDITE REVIEW USE  
BHP REFERENCE NUMBER

RE: ER# 00-1971-077-B  
DEP Act 537 Plan Revision  
Upper Milford Township, Lehigh County

Dear Mr. Schreiter:

The Bureau for Historic Preservation has reviewed the above named project under the authority of the Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988). This review includes comments on the project's potential effect on both historic and archaeological resources. Our comments are as follows:

There are several recorded archaeological and historical resources located within the large general study area that you have submitted for our review. This project would appear to be a planning study, therefore this office cannot assess the effects on specific historic and archaeological resources at this time. During the project planning stages, provisions should be made for the identification of historic and archaeological resources listed in or eligible for the National Register of Historic Places and for the assessment of the effects on these resources. The Bureau for Historic Preservation maintains records of National Register listed and eligible resources as well as archaeological surveys (P.A.S.S. files) and historic resource survey files. These surveys vary in their scope and methodology, therefore we recommend that you contact local historical societies and consult tax and deed records for additional information regarding your project area.

If you need further information concerning archaeological resources, please contact Mark Shaffer at (717) 783-9900. If you need further information concerning historic resources, please contact Ann Safley at (717) 787-9121.

Sincerely,

Kurt W. Carr, Chief  
Division of Archaeology & Protection

cc: DEP, Northeast Region Office



**SCHREITER ENGINEERING ASSOCIATES, Inc.**  
7 Raleigh Drive  
Downingtown, PA 19335-1103

*Rec'd  
5-21-03  
cc: BGS  
B. Munk*

May 21, 2003

Daniel A. DeLong, Township Manager  
Upper Milford Township  
PO Box 210  
Old Zionsville, PA 18068-0210

Subject: Upper Milford Township  
Act 537 Plan Revision  
SEA Project 050-001

Dear Dan:

As discussed at our meeting of May 20, 2003, we have concerns regarding the available capacity in the Borough of Emmaus sanitary sewer system. These concerns are based on our review of the capacity analysis completed by Hanover Engineering Associates, Inc dated January 16, 2002.

Based on our review of the data presented in the report, it appears that the sewer capacity calculations were made using average daily flow values for both dry and wet weather conditions. Based on current conditions stated in Title 25 PaCode Chapter 94, flow capacity must be a function of peak flow conditions, not average flow conditions. Furthermore, the available capacity must be based on a "worst case" scenario to assure that sufficient hydraulic capacity is available to transport peak contributions of inflow/infiltration during major wet weather events without creating surcharge conditions in the sewer system.

Based on the values presented in Figure 5, the existing capacity analysis was based on an average flow wet weather flow rate of 700 gpd/edu. Based on dry weather flow data presented in Figure 4, this wet weather unit flow rate is less than twice the dry weather average unit flow rate. Therefore, actual peak flow conditions could be significantly higher thus reducing or eliminating any available capacity in the Borough's collection system for use by Upper Milford Township. It is recommended that actual metering data be presented to document actual peak flow rates that were recorded at each metering point during any flow metering work completed by the Borough as part of this study.

Currently, we have developed two alternatives associated with the Leibert's creek drainage basin that utilize the Borough of Emmaus collection system. It is important that



Mr. DanDeLong  
May 21, 2003

2

this issue be addressed by the Borough to certify that capacity is available in their collection system for use by the Township. Without this certification, both alternatives involving the Borough's collection system cannot be further evaluated due to lack of available capacity. No further evaluation on these alternatives can be completed until this issue is resolved.

If you have any questions, do not hesitate to contact us.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Karl E. Schreiter Jr.', is written over the typed name below.

Karl E. Schreiter Jr., PE, DEE  
President

Cc: R. Benner, Shoor DePalma  
J. Boldaz, Shoor DePalmaoo

BOARD OF SUPERVISORS  
**UPPER MILFORD TOWNSHIP**  
LEHIGH COUNTY

5831 Kings Highway South  
P.O. Box 210, Old Zionsville, PA 18068-0210  
Phone (610) 966-3223 Fax (610) 966-5184

May 21, 2003

*Approved  
5/21/03  
Frank 12/27  
Copia  
Leibert*

Mr. J. Bradley Youst, P.E.  
Hanover Engineering Co.  
252 Brodhead Rd., Suite 100  
Bethlehem, PA 18017-8937

**RE: Upper Milford Township Sewage Flow**

Dear Brad:

Upper Milford Township is progressing with their Act 537 (Sewerage Facilities Planning) update. The preliminary existing EDU connection numbers appear to be coming in at slightly over 300 EDU's and this is without projecting or adding any reserve for future growth within the Leibert Creek Basin or accounting for the potential for the future of the area in the basin west of the PA Turnpike.

Coming to this realization and also in light of the concerns raised by Mr. Karl Schreiter, P.E. of Schreiter Engineering Associates, Inc. (Letter Dated 5/21/2003 attached) I am concerned if the Township should continue to pursue the Pennsylvania Avenue gravity connection at the risk of creating the potential for an overflow condition in Boroughs' system.

In reviewing the H.E.A. 1-16-02 Analysis Report and knowing proposed overflow regulations are on the horizon and NPDES Phase II, etc. I requests that you consider Mr. Schreiter's observation and offer a response so Upper Milford's consultants can continue to pursue the alternatives to the "Vera Cruz" project.

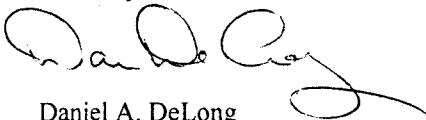
You should also know that as part of this update the Township is also looking at the areas of S. 7<sup>th</sup> St. Extension and Pike St. (off S. 6<sup>th</sup> St.) for the purpose of solving the existing malfunctioning septic systems. This area would have the potential for approximately 22 connections and the alternatives, other than flowing through the Emmaus System, are minimal.

In accordance with the Emmaus/L.C.A. Upper Milford Agreement the Township would need final approval by the Borough and enter into an amended flow agreement before proceeding with any extension activities.

Please consider this and respond at your earliest convenience.

If you have any questions you can call me at 610-966-3223.

Sincerely,



Daniel A. DeLong  
Township Manager

DAD:ck

Enclosures

- Cc: UMT Board of Supervisors  
K. Gorr  
J. Clapper  
K. Schreiter  
R. Benner  
Brian Miller





**LEHIGH COUNTY AUTHORITY**

1053 SPRUCE STREET • P.O. BOX 3348 • ALLENTOWN, PA 18106-0348  
610-398-2503 • FAX 610-398-8413  
email: service@lehighcountyauthority.org

August 28, 2003

Mr. Karl E. Schreiter Jr., P.E., D.E.E.  
Schreiter Engineering Associates  
7 Raleigh Drive  
Downingtown, PA 19335-1103

Re: Upper Milford Township  
Act 537 Plan Revisions

Dear Karl:

As requested in your July 3, 2003 letter to Frank Leist of this office, we have reviewed the flow projections that you provided for the existing and proposed sewer service areas of the Township and offer the following:

1. The existing LCA Route 29 Corridor collection system has sufficient conveyance capacity for the ultimate design flows from the existing and the potential sewer service areas within the Leibert's Creek basin (PSA-1 through PSA-6).
2. The existing LCA Western Lehigh Interceptor, when supplemented by the relief project that will be constructed in 2004, will have sufficient conveyance capacity for those same flows.

Also, please see the following attachments for the other information that you requested:

- *Annual Summary of Tapping, Connection and Customer Facilities Fees; Wastewater Fund; effective 7/1/03:* The following are the current capital recovery fees for a new dwelling unit in Upper Milford Township that is connecting to a donated collection system, but flows through the Rt. 29 Corridor system:

Treatment Capacity	\$ 1,012
Western Lehigh Interceptor Capacity	792
Rt. 29 Capacity	1,067
Connection	90
Total per EDU	\$ 2,961

- *Schedule of Wastewater Rates and Charges; updated July 14, 2003; Upper Milford Township:* These are the current user charges for all sewer customers in Upper Milford Township. A typical quarterly bill for a residential customer in Upper Milford Township without a water meter would be:

Fixed Charge (based on treatment allocation):	300 gpd x 91 days / 1,000 x \$2.55	\$ 69.62
Flow Charge (assumed flow of 220 gpd):	220 gpd x 91 days / 1,000 x \$2.15	43.04
	Total per qtr.	\$ 112.66

Mr. Karl E. Schreiter, P.E., D.E.E.

August 28, 2003

Page 2

- *2003 Budget; Operating Expenses; Wastewater - Heidelberg Heights;* – These are our operating costs for a collection system (33 years old, no pumping stations) and a new 60,000-gpd treatment plant serving approximately 145 residential customers.

I trust this information is helpful. If you have any questions, please feel free to call me.

Very truly yours,



Michael A. Barron, P.E.  
Senior Project Engineer

Cc: Frank Leist  
Dan De Long, Upper Milford Township

**LEHIGH COUNTY AUTHORITY**  
**ANNUAL SUMMARY OF TAPPING, CONNECTION AND CUSTOMER FACILITIES FEES**  
**WASTEWATER FUND**  
**Effective 7/1/03**

**INTERCEPTORS:**

Fee	Per EDU (A)			Per 1000 Gallons / Day			Costing Method
	Existing Charge	Maximum Charge	New Charge	Existing Charge	Maximum Charge	New Charge	
Treatment Capacity	\$ 759	\$ 1,012	\$ 1,012	\$ 2,760	\$ 3,680	\$ 3,680	RC
Western Lehigh Interceptor Capacity	869	792	792	3,160	2,880	2,880	RC
<b>Total</b>	<b>\$ 1,628</b>	<b>\$ 1,804</b>	<b>\$ 1,804</b>	<b>\$ 5,920</b>	<b>\$ 6,560</b>	<b>\$ 6,560</b>	

**UPPER MILFORD:**

Fee	Per EDU (A)			Per 1000 Gallons / Day			Costing Method
	Existing Charge	Maximum Charge	New Charge	Existing Charge	Maximum Charge	New Charge	
Collection	\$ 3,454	\$ 49,920	\$ 3,553	\$ 12,000	\$ 134,135	\$ 12,920	HC
Capacity: Rt 29 Service Area	1,034	1,765	1,067	3,600	5,905	3,880	HC
Other UMiT Areas	198	209	209	720	760	760	HC
Connection (B)	90	93	90	90	93	90	AC

**HEIDELBERG HEIGHTS:**

Fee	Per EDU (A)			Costing Method
	Existing Charge	Maximum Charge	New Charge	
Capacity	\$ 189	\$ 498	\$ 495	HC

**\* COSTING METHOD CODE:**

RC - Replacement cost (Based on new project cost estimate).

HC - Historical cost plus financing cost.

AC - Based on average cost for past inspections.

(A) Equivalent dwelling unit (EDU) is equivalent to 275 gallons per day.

(B) Charge per connection.

**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WASTEWATER RATES AND CHARGES**

---

**UPPER MILFORD TOWNSHIP, WEISENBERG TOWNSHIP,  
HEIDELBERG HEIGHTS & WYNNEWOOD SYSTEMS**

**I. Schedule of Wastewater Rates**

**A. Upper Milford Township System**

(adopted 12/16/96; effective 12/16/96)

<b>Quarterly Flow Charge</b>	<b><u>\$/1,000 gals</u></b>
Up to 220 gallons per day (gpd)	2.15
From 220 gpd to Daily Allocation	3.50
Greater than Daily Allocation	6.05

	<b><u>\$/1000 gals of Allocation</u></b>
<b>Quarterly Fixed Charge</b>	2.55

**B. Weisenberg Township System**

(adopted 12/18/00; effective 1/1/01)

	<b><u>\$/1,000 gals</u></b>
<b>Quarterly Flow Charge</b>	3.36

	<b><u>\$/1000 gals of Allocation</u></b>
<b>Quarterly Basic Service Charge</b>	0.19

**C. Heidelberg Heights System**

(adopted 3/21/00; effective 4/1/00)

	<b><u>\$/mo</u></b>
<b>Monthly Charge – All Customers</b>	55.00

**D. Wynnewood System**

(adopted 7/14/03; effective 7/1/03)

	<b><u>\$/mo</u></b>
<b>Monthly Charge – All Customers</b>	45.30

**2003 BUDGET**  
**OPERATING EXPENSES**  
**ALLOCATION UNIT: WASTEWATER - HEIDELBERG HEIGHTS**

	2001 Actual	2002 Budget	2002 Estimate	2003 Budget
<b>OPERATING EXPENSES:</b>				
<b>PERSONNEL:</b>				
Permanent	\$ 12,955	\$ 16,480	\$ 11,500	\$ 10,100
Overtime	715	985	850	1,280
Employee Benefits	3,510	4,880	2,905	3,100
<b>Total</b>	<b>17,180</b>	<b>22,345</b>	<b>15,255</b>	<b>14,480</b>
<b>PURCHASE OF SERVICES:</b>				
Internal Services - Direct Allocation	2,495	2,560	3,200	3,250
Internal Services - Overhead & Support	5,100	4,365	2,060	2,210
Utilities	9,075	8,600	8,395	8,725
Engineering & Consulting Services Services	12,375	500	-	500
External Lab Analysis	770	2,700	2,560	2,700
Maintenance Services	3,320	4,600	4,975	6,100
Miscellaneous Services	885	800	580	720
Rental Charges	320	845	170	510
<b>Total</b>	<b>34,340</b>	<b>24,970</b>	<b>21,940</b>	<b>24,715</b>
<b>MATERIALS AND SUPPLIES:</b>				
Misc. Materials & Supplies	1,545	1,650	1,475	1,950
Fuel & Mileage	195	175	150	350
<b>Total</b>	<b>1,740</b>	<b>1,825</b>	<b>1,625</b>	<b>2,300</b>
<b>EQUIPMENT</b>				
	<b>640</b>	<b>1,025</b>	<b>440</b>	<b>1,000</b>
<b>DEPRECIATION &amp; AMORTIZATION</b>				
	<b>51,040</b>	<b>51,895</b>	<b>51,040</b>	<b>20,585</b>
<b>TOTAL OPERATING EXPENSES</b>	<b>104,940</b>	<b>102,060</b>	<b>90,300</b>	<b>63,080</b>
<b>NONOPERATING EXPENSES:</b>				
<b>DEBT SERVICE:</b>				
Interest Expense	12,165	25,890	22,450	21,860
Principal Reduction	12,405	34,775	34,775	35,370
Coverage *	2,455	-	-	5,723
<b>TOTAL NONOPERATING EXPENSES</b>	<b>27,025</b>	<b>60,665</b>	<b>57,225</b>	<b>62,953</b>
<b>TOTAL EXPENSES</b>	<b>\$ 131,965</b>	<b>\$ 162,725</b>	<b>\$ 147,525</b>	<b>\$ 126,033</b>

Assumes coverage at 10% of interest expense and principal reduction.

# Memorandum



Rec'd  
9-05-03  
C. BOS  
MS

**To:** Russ Benner Schoor DePalma

Joe Boldaz Schoor DePalma

**From:** Karl E. Schreiter, Jr. 

**Date:** September 4, 2003

**Re:**

---

Russ:

As requested, I contacted Mr. Harleth Davis of PADEP's Wilkes Barre office on September 2, 2003 to discuss the South 7<sup>th</sup> Street Extension area of Upper Milford Township. Mr. Dave Walbert of PADEP's Bath field office was also involved in the conversation.

The purpose of the discussion was scheduling sewer service to the South 7<sup>th</sup> St Extension area of the Township. During the conversation, I expressed the Township's desire to provide sewer service to this area prior to adoption of the Act 537 Plan. I further explained that the results of the Needs Survey that was conducted as part of the 537 Plan documented that this area was a "High Risk" area in need of sewage service. However, the current Act 537 Plan does not include this area for sewage service at this time.

Harley stated that the Township could not extend sewer service to this area until the Township has approved their Act 537 Plan currently being developed. This Plan will recommend providing sewage service to this area. Furthermore, there are no special circumstances (i.e. road construction or other major projects) that would necessitate quick action on the Township's part.

In order to provide sewer service as soon as possible, the Township can begin design on sewers in this area. Since the sewers in this area will service less than 250 units, a PADEP Part II permit should not be required. Once the Plan has been adopted, the Township can immediately initiate construction.

If you should have any questions, please feel free to contact me.



SCHREITER ENGINEERING ASSOCIATES, Inc. *c. Bos*  
7 Raleigh Drive  
Downingtown, PA 19335-1103 *MS*

September 4, 2003

*Copied  
9/5/03*

Daniel A. DeLong, Township Manager  
Upper Milford Township  
PO Box 210  
Old Zionsville, PA 18068-0210

Subject: Upper Milford Township  
Act 537 Plan Revision  
SEA Project 050-001

Dear Dan:

We have reviewed your comments as presented in your letter dated July 25, 2003 and offer the following responses:

**1.0 Comment #1 – South 7<sup>th</sup> St. Extension Area**

This area was included as part of the “Needs Survey” that was prepared as part of this overall Act 537 Plan Revision. The area was designated as Needs Area LL-1. The results of the Needs Survey documented a “High Risk” for failing on-site systems.

Accordingly, the needs of this area were incorporated into an Alternative (Alternative #8) for evaluation. It is anticipated that the Act 537 Plan Revision will recommend that this alternative be implemented by the Township to provide sewer service to this area. The alternative analysis and implementation information are to be included in Chapters 3 and 4 of the report that will be forwarded to your office for review and comment within the next few weeks.

**2.0 Comment #2 – Water Supply Map**

We are currently preparing this map. Once a draft of the map has been completed, we will review it with you to confirm that all areas of the Township currently serviced by public water are properly illustrated.



Mr. DanDeLong  
September 4, 2003

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### **3.0 Comment #3 On-site System Information**

- 4.0 Figure 2-12 illustrating the location of repaired onsite systems will be modified per your request.
- 5.0 We are awaiting additional data from the Township SEO, Brian Miller, which will provide documentation regarding system repairs that were made using "Best technical Guidance" (BTG). In addition, Mr. Miller is identifying those systems that are located in a floodplain or other limiting areas. This data will be incorporated into the results shown in both the "Needs Survey" and main report.
- 6.0 The report will not specifically document those systems that had their problems totally resolved.

### **4.0 Water Use Table**

We were unable to obtain total water use data from LCA. Therefore, we could not add it to this table. We only included average water use as provided by LCA.

### **5.0 Residential Requests for Service**

This information was added to both the Needs Survey and main report.

### **6.0 Miscellaneous Corrections**

In addition, we made the remaining corrections as noted in your letter.

### **7.0 Project Schedule**

It is anticipated that the first draft of the remaining sections of the report will be forwarded to your office for review and comment by August 29, 2003. However, please note that this draft may still have some issues that will have to be resolved. Once your comments have been received and all updated data from the Township has been incorporated into the analysis, a draft of the report can be forwarded to PADEP for their review and preliminary comments.





Mr. DanDeLong  
September 4, 2003

3

The nature of any Township or PADEP comments will then dictate any future scheduling necessary to complete this project. Once PADEP comments have been received, the report can be finalized and presented to the Township at a Public Meeting. The Township will then be required to initiate a 30-day public comment period. In addition, the Township will be required to submit the Plan to the Lehigh Valley Planning Commission for their review and comment.

Once all of the comment periods have been addressed, the Township will be able to adopt the plan and forward it to PADEP for final approval.

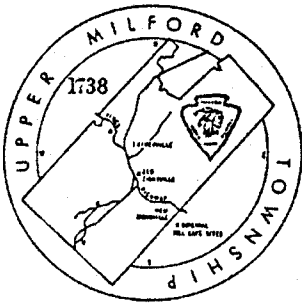
If you have any questions, do not hesitate to contact us.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Karl E. Schreiter Jr.', is written over the typed name and title.

Karl E. Schreiter Jr., PE, DEE  
President

Cc: R. Benner, Shoor DePalma  
J. Boldaz, Shoor DePalma



## UPPER MILFORD TOWNSHIP BOARD OF SUPERVISORS

PO Box 210 ~ 5831 King's Highway South  
Old Zionsville, PA 18068  
Phone: (610) 966 - 3223 ~ Fax: (610) 966 - 5184  
E-mail: [info@uppermilford.net](mailto:info@uppermilford.net)  
Web: <http://www.uppermilford.net>

Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Keith A. Huyett

September 23, 2003

Mr. Harleth Davis  
Pennsylvania Dept. of Environmental Protection  
Bureau of Water Quality Management  
2 Public Square  
Wilkes Barre, PA 18701

### RE: Upper Milford Township – Lehigh County Draft Act 537 Plan Revisions

Dear Mr. Davis:

Enclosed is a copy of the Preliminary Draft Plan Revisions for the Upper Milford Township Act 537 Plan dated September 2003. I am forwarding this Preliminary Draft document to you for cursory review and comment prior to us releasing the document as an official draft for official and public review and comment.

Kindly review and comment on the content of the document so we may incorporate any missing or inappropriate information in the final draft document which will be presented to the public.

The Plan was prepared by Schreiter Engineering Associates, Inc. as a consultant to the Township General Services Engineer Schoor DePalma, Inc.

This project has been underway by various consultants to Upper Milford Township since 1996. The Township is eager to complete this process and resolve some of the long standing problems associated with sewage disposal.

*Copied  
9/23/03  
CK MS*

Upper Milford Township – Lehigh County  
Draft Act 537 Plan Revisions  
September 23, 2003  
Page 2

If you have any questions, please contact me at 610-966-3223 or email [ddelong@uppermilford.net](mailto:ddelong@uppermilford.net).

Sincerely,



Daniel A. DeLong  
Township Manager

DAD:ck

Cc: Upper Milford Township Board of Supervisors  
Russell Benner, Schoor DePalma  
Karl Schreiter, S.E.A.



SCHREITER ENGINEERING ASSOCIATES, Inc.

7 Raleigh Drive  
Downingtown, PA 19335-1103

November 20, 2003

Justin Newell  
Dept of Conservation and Natural Resources  
Bureau of Forestry/ FAS  
PO Box 8552  
Harrisburg, PA 17105-8552

Subject: Upper Milford Township  
Act 537 Plan Revision  
PER No. 13301  
SEA Project No: 0050-001

*Rec'd Comment  
12-08-03 JN*

Dear Justin:

As discussed in our recent telephone conversation, Upper Milford Township is in the process of finalizing their Act 537 Plan Revision. The purpose of this Revision to review wastewater needs within the Township and develop alternatives to meet these needs.

As requested in July 16, 2002 letter, we have attached a drawing indicating additional information for those areas of the Township that will be provided sewage service as part of the Act 537 Plan recommendations. The Plan has recommended implementation of the following alternatives:

**Alternative #4 – Provide Sewer Service to the Liebert’s Creek Basin through Lehigh County Authority Route 29 Facilities using Pumping Stations** - Under this alternative, the areas within the Liebert’s Creek drainage basin including the Village of Vera Cruz and the Village of Shimersville will be provided sewage service. A combination gravity collection system and pumping station network would be constructed to provide sewer service to this area. A proposed pumping station would be located near the intersection of Vera Cruz and Mill Roads. The force main would extend from the pumping station along Mill Road to Shimersville Road, to Salem Drive. The force main would terminate on Salem Drive at the LCA MH #JS-1.



Justin Newell  
November 20, 2003

2

**Alternative #8 – Extending Sewer Service to the Seventh St. Area** - Under this alternative, gravity sewers would be extended along South 7th Street Extension. The sewers would connect to the Borough of Emmaus collection system at Borough MH #C-115B located on S. 7<sup>th</sup> St.

**Alternative #12 – Extending Sewer Service to the Golf Circle Area** - Under this alternative, sanitary sewer service would be extended to the area adjacent to Golf Circle in the northeastern section of the Township. A gravity sanitary sewer would be extended from existing sewers located in 2<sup>nd</sup> St. within the Borough of Emmaus.

The attached drawings illustrate the proposed locations for sewers in each alternative.

If you should have any questions or require additional information, please feel free to contact us by way of telephone or email.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Karl E. Schreiter, Jr.', written over a series of horizontal lines.

Karl E. Schreiter, Jr., PE, DEE  
President

cc: D. DeLong, UMT  
R. Benner, Schoor DePalma  
J. Boldaz, Schoor DePalma  
B. Dreshem, US Fish and Wildlife  
A. Shields, PA Fish and Boat Commission

RECEIVED 11/24/03  
UPPER MILFORD TOWNSHIP



Justin Newell  
November 20, 2003

2

**Alternative #8 – Extending Sewer Service to the Seventh St. Area** - Under this alternative, gravity sewers would be extended along South 7th Street Extension. The sewers would connect to the Borough of Emmaus collection system at Borough MH #C-115B located on S. 7<sup>th</sup> St.

**Alternative #12 – Extending Sewer Service to the Golf Circle Area** - Under this alternative, sanitary sewer service would be extended to the area adjacent to Golf Circle in the northeastern section of the Township. A gravity sanitary sewer would be extended from existing sewers located in 2<sup>nd</sup> St. within the Borough of Emmaus.

The attached drawings illustrate the proposed locations for sewers in each alternative.

If you should have any questions or require additional information, please feel free to contact us by way of telephone or email.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Karl E. Schreiter, Jr.', written over a series of horizontal lines.

Karl E. Schreiter, Jr., PE, DEE  
President

cc: D. DeLong, UMT  
R. Benner, Schoor DePalma  
J. Boldaz, Schoor DePalma  
B. Dreshem, US Fish and Wildlife  
A. Shields, PA Fish and Boat Commission

RECEIVED 11/24/03  
UPPER MILFORD TOWNSHIP



# LEHIGH VALLEY PLANNING COMMISSION

961 MARCON BOULEVARD, SUITE 310, ALLENTOWN, PENNSYLVANIA 18109-9397  
610-264-4544 FAX 610-264-2616  
TOLL FREE 888-627-8808

ELEANORE M. HAYDEN  
Chair

STEVEN L. GLICKMAN  
Vice Chair

NILS HOVIK  
Treasurer

MICHAEL N. KAISER  
Executive Director

November 21, 2003

*Reviewed  
12-03-03*

*Copy  
D. Bengler  
10-2-03  
Twp M.*

Mr. Karl Schreiter, Jr.  
Schreiter Engineering Associates, Inc.  
7 Raleigh Drive  
Downingtown, PA 19335-1103

**Re: Act 537 Review – Draft Official Sewage Facilities Plan  
for Upper Milford Township, Lehigh County**

Dear Mr. Schreiter:

The Lehigh Valley Planning Commission (LVPC), at its regular monthly meeting on November 20, 2003, reviewed the above-referenced plan. Our review was based on the adopted plans and policies of the LVPC and provisions of the Pennsylvania Sewage Facilities Act (Act 537). We offer the following comments.

The draft plan proposes the extension of public sewers to three areas of the Township: Vera Cruz, South 7<sup>th</sup> Street and Golf Circle areas. Based on an on-lot sewage disposal needs study of the Township, the Vera Cruz and South 7<sup>th</sup> Street were determined to be in high need for alternative sewage disposal options. The Golf Circle area has been included because of previous requests from homeowners to provide sewers to the area. The plan evaluates several alternatives to correct the identified problems in the Vera Cruz area including connecting to public sewers through LCA or Emmaus and construction of a new wastewater treatment plant with either stream discharge or land application. Connection to public sewers through LCA is the recommended option for the Vera Cruz area. The South 7<sup>th</sup> Street and Golf Circle areas would connect to public sewers through Emmaus. The plan also proposes the establishment of a sewage management district that includes all the on-lot system areas of the Township.

A portion of the Vera Cruz area is recommended for public sewer service in our *Water Supply and Sewage Facilities Plan*, December 1995. Providing public sewer service to this area would be consistent with the Plan. Providing sewer service to on-lot problem areas not recommended for service would be consistent provided that a detailed solution analysis is completed identifying this alternative as the most cost-effective, long-term option and that the system capacity is designed to serve only the areas of need. We believe the alternatives to sewers should be more thoroughly evaluated in the plan,

Mr. Karl Schreiter, Jr.  
Schreiter Engineering Associates, Inc.  
November 21, 2003  
Page Two

especially given the high connection fees associated with the chosen alternative. Further, the provision of sewers could lead to unintended additional development in the area. On-lot problems have existed in the area for over 20 years. The high cost of connecting to public sewers continues to be a problem in implementing this alternative. The draft plan identifies a new wastewater treatment plant with land application as an alternative but determines it is infeasible since there is the presence of limestone bedrock in the area. DEP regulations do not prohibit an absorption area or spray field in areas underlain by limestone. The plan also does not consider the possibility of a community on-lot system. The LVPC completed a study of needs for the Vera Cruz area in 1983. The study compares the costs of a community on-lot system and connection to the public sewer system. The study found that the cost of a community on-lot system was approximately 40% less than connection to the public system.

The Golf Circle area is located in an area recommended for sewer service in our 1995 Plan and the provision of sewers is consistent with the Plan. We previously reviewed the proposal for public sewers for the South 7<sup>th</sup> Street study area as a new project in the LCA Preliminary Capital Plan 2004-2008. This project is in an area recommended for on-lot sewage disposal in our Plan. According to our Plan, areas experiencing malfunctioning on-lot systems should undergo a complete alternatives analysis including on-lot alternatives. This project would be consistent with LVPC policies if the Township's Act 537 plan identifies public sewers for the area as the most cost-effective long-term option. The plan does not evaluate other alternatives and should be amended to evaluate other possible solutions. Establishment of a sewage management program is consistent with our Plan for all on-lot problem areas. A sewage management program would provide for the proper operation and maintenance of both existing and new systems through regular pumping and inspection in these areas.

Please call me if you have any questions.

Sincerely,



Susan L. Rockwell  
Senior Environmental Planner

cc: Daniel DeLong, Township Manager  
Kate Crowley, Water Management Program Manager,  
PA Department of Environmental Protection





# Pennsylvania Natural Diversity Inventory

Scientific information and expertise for the conservation of Pennsylvania's native biological diversity

December 2, 2003

Fax 717-772-0271  
717-772-0258

## Bureau of Forestry

Karl Schreiter  
Schreiter Engineering Associates, Inc.  
7 Raleigh Dr.  
Downingtown, PA 19335-1103

Re: Pennsylvania Natural Diversity Inventory Review of the Proposed ACT 537 Plan  
Revision, Upper Milford Township  
**PER NO: 15231**

Dear Mr. Schreiter:

In response to your request on October 4, 2003 the Pennsylvania Natural Diversity Inventory (PNDI) information system was used to gather information regarding the presence of resources of special concern within the referenced site. PNDI records indicate potential impact to species of special concern in the project vicinity.

Because of the close proximity of the project to species of special concern, our office recommends that you contact **Bonnie Dershem** of the US Fish & Wildlife Service at **(814) 234-4090** and contact the Pennsylvania Fish & Boat Commission **(814) 359-5113** for recommendations on potential impact on endangered animals in the area.

US Fish and Wildlife Service  
315 South Allen St., Suite 322  
State College, PA 16801

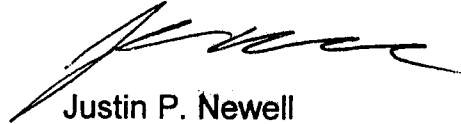
Pennsylvania Fish and Boat Commission  
Bureau of Fisheries and Engineering  
450 Robinson Lane  
Bellefonte, PA 16823

This response represents the most up-to-date summary of the PNDI data files and is applicable for one year. However, an absence of recorded information does not necessarily imply actual conditions on site. A field survey of any site may reveal previously unreported populations. Should project plans change or additional information on listed or proposed species become available this determination may be reconsidered.

PNDI is the natural heritage program of Pennsylvania and uses a site-specific information system that describes significant natural resources within the Commonwealth for environmental review. This system includes data descriptive of plant and animal species of special concern, exemplary natural communities and unique geological features. PNDI is a cooperative project of the Department of Conservation and Natural Resources, The Nature Conservancy, and the Western Pennsylvania Conservancy.

Please phone this office if you have questions concerning this response or the PNDI system.

Sincerely,

A handwritten signature in black ink, appearing to read "Justin P. Newell". The signature is stylized with a large initial "J" and a long horizontal stroke.

Justin P. Newell  
Environmental Review Specialist



Commonwealth of Pennsylvania  
Pennsylvania Fish and Boat Commission  
Division of Environmental Services  
450 Robinson Lane  
Bellefonte, PA 16823  
814-359-5147  
December 5, 2003

IN REPLY REFER TO  
SIR# 13917

SCHREITER ENGINEERING ASSOCIATES  
KARL SCHREITER, JR  
7 RALEIGH DRIVE  
DOWNTOWN, PA 19335-1103

RE: **Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species  
ACT 537 PLAN REVISION; SEA PROJECT NO. 0050-001  
UPPER MILFORD Township, LEHIGH County, Pennsylvania**

Dear Mr. Schreiter:

I have examined the map accompanying your recent correspondence, which shows the location for the above-referenced project. Based on records maintained in the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files, the state endangered and federally listed threatened bog turtle (*Clemmys muhlenbergii*) is known from the vicinity of the project site.

The bog turtle is a small (up to a 4 inch carapace) semi-aquatic, omnivorous turtle that prefers open marshy wetlands associated with springs and groundwater, specific vegetative communities and mucky soils for burrowing. This species is restricted to the southcentral and southeast portions of Pennsylvania. However, due to the lack of pristine habitat found in its range from disturbance and plant successional processes, the bog turtle has, in some cases, become accustomed to disturbed, low quality wetland complexes often with semi-closed canopies. Bog turtles are also known to be transients in forested habitat that are associated with springs and small streams leading to more open marshes. They use these habitats as dispersal corridors to other wetlands. The bog turtle is threatened by habitat destruction, poor water quality and poaching.

Based on the proximity of your proposed project to known bog turtle habitat, there may also be suitable bog turtle habitat on the proposed project site. **Therefore, if there will be any direct (e.g., filling; earth disturbance) or indirect (e.g., runoff) impacts to any wetlands within or adjacent to the project area, we request that a habitat suitability assessment (Phase 1 survey) for bog turtles be conducted by a qualified herpetologist or wetland scientist.** A list of qualified surveyors is enclosed for your convenience. Bog turtle habitat surveys are to be conducted in accordance with the methods outlined in the enclosed "*Guidelines for Bog Turtle Surveys*."

Upon completion of the Phase 1 survey, the surveyor is to send a report documenting the survey results to this office (Natural Diversity Section) for our review and comment. The report should include the following information: descriptions of the wetland vegetation, soils, and hydrology on the site; color photographs and maps of suitable habitat; and a list of all herpetofauna observed during the survey. If any bog turtles are



*Copied  
12/23/03  
ck*

*Rec'd  
12-23-03  
[Signature]*

*C. B. Hunkel  
BOS  
Henry K.  
M.S.*

**SCHREITER ENGINEERING ASSOCIATES, Inc.**  
7 Raleigh Drive  
Downingtown, PA 19335-1103

December 18, 2003

Daniel A. DeLong, Township Manager  
Upper Milford Township  
PO Box 210  
Old Zionsville, PA 18068-0210

Subject: Upper Milford Township  
Act 537 Plan Revision  
Response to LVPC Comments  
SEA Project 050-001

Dear Dan:

As requested, we have reviewed the comments prepared by the Lehigh Valley Planning Commission as outlined in their letter dated November 21, 2003. Based on our review of the comments and subsequent discussions with Ms. Susan Rockwell of the LVPC, we understand that the Planning Commission has the following major issues with the Act 537 Plan:

- Require further analysis of Land Application Alternative (Alternative #6 of draft Plan)
- Require development of an alternative using community systems to service Vera Cruz Area
- Require development of an alternative using community systems to service South 7<sup>th</sup> St. Extension Area

**1.0 Require Further Analysis of Land Application Alternative (Alternative #6 of draft Plan)**

As outlined in the draft report, the land application alternative was not further evaluated due to geological conditions in the area. This conclusion was reached based on past work completed by our firm regarding installation of a spray irrigation system at the Mount Trexler Nursing Home in Upper Saucon Township. This proposed spray irrigation system was to be located in an area that was relatively close to the Vera Cruz area.



Mr. DanDeLong  
December 18, 2003

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The construction of this spray irrigation system was opposed by Upper Saucon Township due to potential environmental impacts. Although the area directly under the proposed spray irrigation site was not in the area mapped with carbonate rock, data obtained from private landowners in the area indicated that carbonate rock and associated caverns were present within the bedrock area. This issue was appealed to the Pennsylvania Environmental Hearing Board (EHB).

This issue was resolved by requiring Upper Saucon Township to revise the Act 537 Plan and extend the North Branch Interceptor to provide sewer service to the Mount Trexler Nursing home. As a result of this decision of the EHB, use of spray irrigation in the Vera Cruz area of Lower Milford Township was not feasible due to similar geological conditions as found in the area of the Mount Trexler Nursing Home.

In addition, the Act 537 Plan has shown that use of a treatment plant with stream discharge is not cost effective. Therefore, the costs associated with a land application system would be greater. Additional capital costs would include:

- Pumping station to transfer treated wastewater to spray field
- Construction of treated effluent lagoon
- Acquisition of spray field and construction of effluent spray distribution system

Also, these systems would dramatically increase the operating costs of any land application treatment alternative.

Based on these cost factors and considerations associated with potential impact of geological conditions, no further analysis on a land application alternative was completed.

## **2.0 Require Development of an Alternative Using Community Systems to Service Vera Cruz Area**

Use of a community system in this area of the Township was not feasible due to the size and capacity requirements associated with providing sewer service to the Liebert's Creek drainage basin. As shown on Table 2-21, the projected wastewater flows from the immediate Vera Cruz area alone are 0.041 mgd. As outlined in Appendix L, a community system to provide sewer service with this capacity requirement would include use of a packaged type treatment plant.

In addition, the Act 537 Plan has shown that use of a treatment plant with stream discharge is not cost effective. Therefore, the costs associated with a land application system would be greater. Additional capital costs would include:



- Pumping station to transfer treated wastewater to disposal field
- Acquisition of disposal field and construction of effluent distribution system

Also, these systems would dramatically increase the operating costs of any land application treatment alternative. Furthermore, this type of alternative using drip irrigation subsurface disposal was found to be not cost effective in previous studies completed by the Township.

In addition, implementation of a community system would require the Township or another operating Authority to operate and maintain a community system in a similar manner to any other wastewater treatment plant. This operation would include a central pumping station, community treatment system and septic drain field. Although there are no major operating systems associated with this system, it still must be checked on a daily basis to assure that all systems are functioning properly. Also, the pumping station must be equipped with alarms and backup services to assure operation during emergency conditions such as power failures. It is our understanding that Upper Milford Township does not wish to incur this additional burden unless there are no other alternatives available for providing sewer service.

Therefore, implementation of this type of alternative would not be practical or cost effective.

### **3.0 Require Development of an Alternative Using Community Systems to Service South 7<sup>th</sup> St. Extension Area**

Use of a community system in this area of the Township was not feasible due to the proximity of the Borough of Emmaus collection system. As outlined in Alternative #8, a gravity manhole is located at the boundary of the proposed sewer service area. Therefore, sewer service is readily available to this area simply by extending existing gravity sewers.

Use of community type treatment systems is normally implemented in areas where central collection sewer service is not practical due to its proximity to the existing collection/interceptor system. The costs for extending the existing collection system would not be practical due to cost or other impacts. Since the South 7<sup>th</sup> Extension area is adjacent to the existing sewer service area, these types of considerations would not be applicable.

In addition, implementation of a community system would require the Township or another operating Authority to operate and maintain a community system in a similar manner to any other wastewater treatment plant. This operation would include a central pumping station, community treatment system and septic drain field. Although there are no major operating systems associated with this system, it still must be checked on a daily



Mr. DanDeLong  
December 18, 2003

4

basis to assure that all systems are functioning properly. Also, the pumping station must be equipped with alarms and backup services to assure operation during emergency conditions such as power failures. It is our understanding that Upper Milford Township does not wish to incur this additional burden unless there are no other alternatives available for providing sewer service.

Since gravity sewer service is readily available for this area, implementation of a community system is not warranted. Such a system would place an undue burden on the Township to assure proper operation of this type of system.

If you have any questions, do not hesitate to contact us.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Karl E. Schreiter Jr.', is written over the typed name and title.

Karl E. Schreiter Jr., PE, DEE  
President

Cc: R. Benner, Shoor DePalma  
J. Boldaz, Shoor DePalma



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Pennsylvania Field Office  
315 South Allen Street, Suite 322  
State College, Pennsylvania 16801-4850



December 24, 2003

Karl E. Schreiter, Jr.  
President  
Schreiter Engineering Associates, Inc.  
7 Raleigh Drive  
Downingtown, PA 19335

Dear Mr. Schreiter:

This responds to your letter of November 20, 2003, requesting information about federally listed and proposed endangered and threatened species within the area affected by the proposed sewer service alternatives (Act 537 Plan revision) located in Upper Milford Township, Lehigh County, Pennsylvania. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species.

The proposed project is within the known range of the bog turtle (*Clemmys muhlenbergii*), a species that is federally listed as threatened. Bog turtles inhabit shallow, spring-fed fens, sphagnum bogs, swamps, marshy meadows, and pastures characterized by soft, muddy bottoms; clear, cool, slow-flowing water, often forming a network of rivulets; high humidity; and an open canopy. Bog turtles usually occur in small, discrete populations occupying suitable wetland habitat dispersed along a watershed. The occupied "intermediate successional stage" wetland habitat is usually a mosaic of micro-habitats ranging from dry pockets, to areas that are saturated with water, to areas that are periodically flooded. Some wetlands occupied by bog turtles are located in agricultural areas and are subject to grazing by livestock.


If any wetlands occur within or near the project area, their potential suitability as bog turtle habitat should be assessed, as described under "*Bog Turtle Habitat Survey*" (Phase 1 survey) of the enclosed *Guidelines for Bog Turtle Surveys*. This habitat survey could easily be conducted by a wetland biologist concurrent with a routine wetland identification and delineation. If any wetlands are identified as potential bog turtle habitat, efforts should be made to avoid any direct or indirect impacts to those wetlands. If adverse effects to these wetlands cannot be avoided, a more detailed and thorough survey will be necessary, as described under "*Bog Turtle Survey*" (Phase 2 survey) of the *Guidelines for Bog Turtle Surveys*. The Phase 2 survey should be conducted by a qualified biologist with bog turtle field survey experience (see enclosed list of qualified surveyors). Survey results should be submitted to the Fish and Wildlife Service for review and concurrence. If project activities might adversely affect bog turtles, additional consultation with the Service will be required, pursuant to the Endangered Species Act.



This response relates only to endangered and threatened species under our jurisdiction based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Consequently, this letter is not to be construed as addressing potential Service concerns under the Fish and Wildlife Coordination Act or other authorities. A compilation of certain federal status species in Pennsylvania is enclosed for your information.

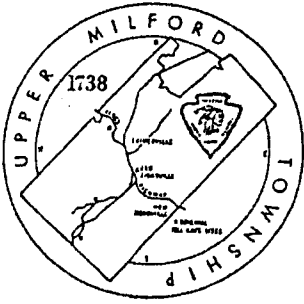
Please contact Michael Schmaus of my staff at 814-234-4090 if you have any questions or require further assistance regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "David Densmore", followed by a long horizontal line extending to the right.

David Densmore  
Supervisor

Enclosures



## UPPER MILFORD TOWNSHIP BOARD OF SUPERVISORS

PO Box 210 ~ 5831 King's Highway South  
Old Zionsville, PA 18068  
Phone: (610) 966 - 3223 ~ Fax: (610) 966 - 5184  
E-mail: [info@uppermilford.net](mailto:info@uppermilford.net)  
Web: <http://www.uppermilford.net>

Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

February 12, 2004

### ACT 537 PLAN COMMENTS

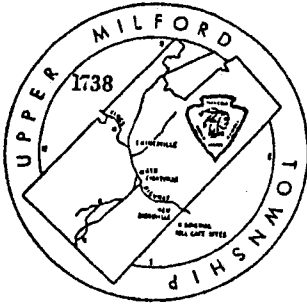
BY: Daniel A. DeLong

*DO*

- Pg. 1-3 Ph 1 ... transportation to the City of Allentown's WWTP  
Spelling: Shimersville is wrong. Should be Shimerville in all instances.
- Pg. 1-5 Spelling: Schwartz is wrong. Should be Schantz in all instances.  
Spelling: Swadia is wrong. Should be Swabia in all instances.
- Pg. 1-6 Alt. No. 12  
Add ... in 2<sup>nd</sup> St. or Cherokee St. ...
- Pg. 1-9 "Service area" should be filled in. *& SHOULD INCLUDE NO. OF UNITS SERVED.*
- Pg. 1-10 Ph 1 Wording should be changed as there probably will be a fee or cost associated with a septic management program.
- Pg. 2-1 "Shimerville" is mentioned in Alt. No. 1-5 but never mentioned in 2.1.1
- Pg. 2-3 Spelling: Ph 2 Bowlin should be Bow Ln.
- Pg. 2-10 Ph 1 The Hosensack Creek is a HQ-CWF stream designation from Rte. 100 North.
- Pg. 2-25 Add: Red Hill Water Authority. The Red Hill Water Authority serves several properties in the area adjacent to their water distribution main in the area of Sigmund Rd., Yeakel's Mill Rd., and Chestnut St. in the southern portion of the Township.
- Figure 2-9 Show Red Hill Water Authority customer service area.

- Pg. 2-28 Ph 2 Add ... Salisbury Township to Emmaus' Interceptor.  
 Add: \* David Drive...  
 \_ Little Lehigh Acres West...  
 \* Borough Heights  
\* Emmaus Borough connects to the L.C.A. Western Lehigh Interceptor.
- Table 2-4 Add: Red Hill
- Pg. 2-30 2.3.1.2 ...Keystone Ave. and...
- Pg. 2-32 Add: ...Moyer Subdivision (near Brunner Rd. and Limeport Rd.)  
 Spelling: Zionville is wrong. Should be Zionsville.
- Pg. 2-41 2.4.2.5 Add: ...by August 2002, which was at the end of a two year drought.
- Pg. 2-61 Swabria should be Swabia.
- Pg. 3-4; 3-6; 3-8 Spelling: Shimersville should be Shimerville.
- Pg. 3-15 3.1.1.8 Add... and would be dependant on Emmaus Borough being able to accept the flow. Based on information from Emmaus this area may be at maximum capacity.  
 Spelling: Schwartz should be Schantz.
- Fig. 3-6 Label on Plan Alt. 7, Alt 8
- Fig. 3-7 The area proposed for the "community system" is predominantly wooded and contains wetlands and high water table.  
 Slopes on several of the proposed "gravity lines" are reverse.
- Fig. 3-8 To be consistent with the Townships PROSEP color shade the lot south of the park.  
 The Proposed community system near Zionsville is shown on preserved agricultural land and probably can't go there.

- Pg. 3-20 Spelling: Swadia should be Swabia.  
3.1.1.13 Add: ...2<sup>nd</sup> St. or Cherokee St. ...
- Fig. 3-9 Spelling: Swabia
- Pg. 3-25 Ph 2 delete ...existing SEO
- Pg. 3-28 There is no mention of capacity at 2<sup>nd</sup> & Cherokee
- Pg. 3-35 3.2.2.2 Delete ...existing Township Staff  
Change fulltime to part-time  
Add ...another part-time back up SEO...
- Pg. 3-40 Conclusion is that a septic management program will increase the Township's expenses and an appropriate fee schedule will offset the increased costs.
- Pg. 3-41 General Env. Impacts: Add statement about Leibert Creek basin being source water for Emmaus P.W.S. well No. 6. (Also add in Alt No. 4)
- Pg. 3-52 Emmaus already has a maximum hydraulic limit on their system in this area.
- Fig. 3-17 Does not capture the area of the proposed service area.
- Pg. 4-2 Spelling: Brunner;  
Spelling: Shimerville;  
Main Road West not East
- Pg. 4-3 Add: Wording waiting until vacant land is planned for development.
- Pg. 4-5 Comment: I don't believe this can be accomplished with a 3 month period.
- Pg. 4-8 Comment: I don't think that the Township will be using Township General Funds.



**UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS**

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Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

August 12, 2004

*Copied  
8/12/04  
dk*

Mr. Michael Brunimonti  
PA DEP  
Bureau of Water Quality Management  
2 Public Square  
Wilkes-Barre, PA 18701

**RE: Upper Milford Township, Lehigh County  
Act 537 Plan Revision**

Dear Mr. Brunimonti:

Enclosed for your and your staff's review is Upper Milford Township's proposed Act 537 Plan revision.

Upper Milford Township has been working on this revision for several years in an attempt to develop an acceptable Act 537 Plan and there after solve some historic on lot septic system problems. The plan was prepared under PA DEP guidelines by the Township's Consultants, Schreiter Engineering Associates and Schoor DePalma, Inc., with assistance from the Township's Sewerage Enforcement Officer.

The process of the Act 537 Plan revision looked at the Township as a whole then at individual, more densely populated areas. The Plan recommends two major public sewer system alternatives in two major areas of concern where there have been documented malfunctioning on lot septic systems and request for public sewers. They are the area of South Seventh Street/Pike Road immediately South of and adjacent to Emmaus Borough and the second area being the vicinity of the Village of Vera Cruz.

The plan recommends public sewer service be installed in a small area of Upper Milford Township that is sandwiched between existing public system service areas owned and operated by Emmaus Borough and Salisbury Township. The initial extension will be a developer sponsored 2 lot extension toward the area known as Golf Circle where there have been some past requests for public sewers.

The other major component of the plan and also the component that is likely to provide the soundest step toward managing future problems and assuring the long term function and repair of the existing on lot system is the proposal to implement a "sewage management program".

The Township in the past and more recently has held public meetings and urged the residents to attend the meetings for the purpose of the Act 537 Plan revision public input.

The Township did receive public comment, of which copies and a summary are attached to this submission. The comments offered ranged from support of the plan and its proposals, to strongly against the plan and proposals. The primary objectors comments were cost related or associated. The majority of the comments were from residents who were concerned that they would be required to subsidize a public sewer project that would not serve their property or from residents who already paid for another public sewer service project. There is some concern about the location of pumping stations and the potential to negatively impact the property value(s) in the vicinity of the location of the pump stations. One resident conducted a private post card survey (copies included), whereby the family and friends distributed approximately 120 surveys of which 110 were returned. A review of the private survey responses revealed similar issues and concern as other individual comments.

The Township's consultants, as part of the Act 537 Plan alternative analysis, looked at six different alternatives for providing sewer service to the Vera Cruz area. The plan recommends the most cost effective long term alternative for implementation. It must be noted that the proposed recommendation for the South Seventh Street/Pike Road area is a few hundred feet extension of existing public sewer facilities from within the Borough of Emmaus in accord with an existing agreement in place between Upper Milford Township, Emmaus Borough and the Lehigh County Authority.

The cost presented in the Act 537 Plan revision are preliminary estimates and will be refined once a system design is finalized. Factors that impact the high cost of a public sanitary system include the following issues:

- Much of the system will be constructed in and around Penn DOT highway rights-of-ways.
- There will be substantial lengths of piping necessary to connect to the existing public facility collection systems where there will be few existing or future customer connections.
- The project area is close to environmentally sensitive areas.

Furthermore, the actual costs for construction can vary significantly from those presented in the Act 537 Plan revision based on economic conditions at the time

of bidding a project. Actual construction costs will not be finalized until the Act 537 Plan revisions are approved, the project design is completed and approved by the Board of Supervisors and the project is bid.

Former Township Officials have petitioned the Federal Government for a financial subsidy toward a public sewer project for the Vera Cruz problem area. The Township has received a \$970,000 grant from the USEPA toward a public sewer project. This grant appropriation is valid through June of 2007 at which point the Township will lose the offer. Lehigh County Authority on behalf of the Township has made application to the County of Lehigh through the economic development grant program for funding assistance for the South Seventh Street/Pike Road area, and it is believed that this funding source will be a reality if the Act 537 Plan revision is approved. Current Township Officials will, after receiving approval of the Act 537 Plan revisions, pursue additional funding sources upon completion of a more detailed project design.

The Township does not anticipate using general funds as a significant contribution to any public sewer project at this point.

In reviewing the plan it should be noted that there is very little documentation of repair or best technical guidance "BTG" activity in the areas being proposed for public sewer service around Vera Cruz and South Seventh Street/Pike Road. This is primarily due to the inability to meet minimum guidelines and regulation relative to on lot system "BTG" repairs.

The Township is of the opinion that this plan as presented will meet its near term future sewage disposal needs and gives the Township a sound basis to provide for future sewage management.

If you or your staff has any questions or would like to arrange for a meeting with the Township and our Consultants, please feel free to contact me at 610-966-3223, and I will coordinate a meeting.

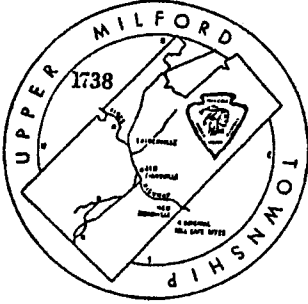
Sincerely,

  
Daniel A. DeLong  
Township Manager

DAD:ck

Cc: Board of Supervisors  
Russell Benner, Schoor DePalma  
Karl Schreiter, SEA  
Lehigh County Authority  
Emmaus Borough  
Lehigh Valley Planning Commission  
Dave Walbert, DEP  
US Senator Arlen Specter  
PA Senator Robert Wonderling  
PA Representative Pat Browne  
PA Representative Douglas Reichley  
Brian Miller, Township SEO  
Alan Brokate, Zoning/Codes Enforcement Officer





**UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS**

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Web: <http://www.uppermilford.net>

Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

(Date)

Mr. Charles Ballard  
3348 Hope Drive  
Emmaus, PA 18049

**RE: Upper Milford Township Act 537 Sewage Plan Revision**

Dear Mr. Ballard:

Upper Milford Township after attempting to address the concerns and questions in regard to the proposed Act 537 Sewage Plan revisions has officially submitted the plan document to the Pennsylvania Department of Environmental Protection (PA DEP) for their review and comment.

The Township is aware that you provided written comment on the proposed plan and wants you to know that copies of your comments and or concerns were also submitted to PA DEP as a supplemental attachment to the plan.

I am attaching a copy of the Township's response to the written public comment for your information, which was also submitted to PA DEP.

The Township will continue to work with the PA DEP and the Township's Consultants to obtain approval of the Act 537 Plan revisions. We expect that there are some issues that will require additional information, clarification or further investigation on the Townships behalf.

The Township will schedule additional public meetings when significant or meaningful information becomes available in regards to this process. Residents will be notified when meetings are scheduled.

Please be aware that a public project cannot proceed until such time as the Act 537 Plan is approved.

Thank you for your input and concerns on this lengthy process and long standing project. If you have any additional questions or concerns, feel free to contact the Township Office at 610-966-3223.

Sincerely,

Daniel A. DeLong  
Township Manager



COMMONWEALTH OF PENNSYLVANIA  
**PENNSYLVANIA GAME COMMISSION**  
2001 ELMERTON AVENUE, HARRISBURG, PA 17110-9797

October 6, 2004

*Rec'd  
10-12-04  
AQ*

Mr. Karl E. Schreiter, Jr.  
Schreiter Engineering Associates, Inc.  
7 Raleigh Drive  
Downingtown, PA 19335-1103

Re: Act 537 Sewer Run Revision  
Project #0050-001  
Upper Milford, Lehigh County, PA

Dear Mr. Schreiter:

This is in response to your letter of September 14, 2004, requesting information concerning endangered and threatened species of birds and mammals and impacts to State Game Lands as related to the proposed project.

Our office review has determined that no state listed endangered or threatened species of birds or mammals are known to occur within the proposed project area. Except for occasional transient individuals, this project should not impact any endangered or threatened species of birds or mammals recognized by the Pennsylvania Game Commission. Also, no State Game Lands are located close enough that any impacts to them are anticipated by the proposed project. However, should project plans change or if additional information on endangered or threatened species or State Game Lands becomes available, this determination may be reconsidered.

The proposed project may impact wetlands which this agency considers as critical and unique habitat. You should be aware that any impacts to wetlands or other bodies of water will require permits from the Department of Environmental Protection under Chapter 105 and the U.S Army Corps of Engineers under Section 404 of the Clean Water Act.

**ADMINISTRATIVE BUREAUS:**

PERSONNEL: 717-787-7836 ADMINISTRATION: 717-787-5670 AUTOMOTIVE AND PROCUREMENT DIVISION: 717-787-6594  
LICENSE DIVISION: 717-787-2084 WILDLIFE MANAGEMENT: 717-787-5529 INFORMATION & EDUCATION: 717-787-6286 LAW ENFORCEMENT: 717-787-5740  
LAND MANAGEMENT: 717-787-6818 REAL ESTATE DIVISION: 717-787-6568 AUTOMATED TECHNOLOGY SYSTEMS: 717-787-4076 FAX: 717-772-2411

[WWW.PGC.STATE.PA.US](http://WWW.PGC.STATE.PA.US)

AN EQUAL OPPORTUNITY EMPLOYER

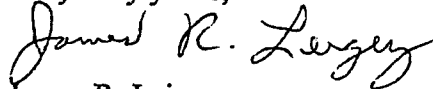
Mr. Karl E. Schreiter, Jr.

-2-

October 6, 2004

If you have any questions, please contact me at (717) 783-5957.

Very truly yours,



James R. Leigey  
Wildlife Impact Review Coordinator  
Division of Environmental Planning  
And Habitat Protection  
Bureau of Land Management

JRL/pfb

Cc: File



Pennsylvania Department of Environmental Protection

2 Public Square  
Wilkes-Barre, PA 18711-0790  
October 29, 2004

*Act 537 Plan  
file*

Northeast Regional Office

570-826-2511  
Fax 570-830-3016

Mr. Daniel DeLong, Township Manager  
Upper Milford Township  
5831 Kings Highway South  
P.O. Box 210  
Old Zionsville, PA 18068

*Copied  
11/14  
CK*

*Rec'd  
11-01-04  
C. BOS  
B. M. W.*

Re: Act 537 Plan Revision  
Upper Milford Township, Lehigh County

*MS  
File  
PC*

Ladies and Gentlemen:

This letter is to inform you that the Department received, on August 13, 2004, one set of the Act 537 Plan Revision (Plan) for Upper Milford Township, dated January 2004, and the Supplemental Attachments Binder, dated August 12, 2004. The Plan was prepared by Schreiter Engineering Associates, Inc. (SEA) in conjunction with Schoor DePalma Engineers and Consultants.

Questions or comments pertaining to the Department's review of your submittal follows. Prior to drafting the letter, I had a joint telephone conversation with you and with Mr. Karl Schreiter, Jr. of SEA to get some background information on the Plan's submission. On September 10, 2004, I discussed the Plan with Mr. Schreiter. On October 7, 2004, a meeting was held at the Upper Milford Township Municipal Building to review the Plan. A list of the Meeting Attendees is attached. Our questions/comments are arranged according to the order specified in the Act 537 Plan Content and Environmental Assessment Checklist (Checklist) that you had submitted.

**Administrative Completeness**

- Item 2 C – Plan Summary/Cost – User Fees – Proposed Funding Method:

*Pg 1-8*

*1*

This item needs to be addressed in more detail. The Department needs the estimated upfront fees and the estimated monthly/yearly user fees for Alternative No. 4 and for Alternative No. 8.

- Item 4 – On September 28, 2004, the Department received the Upper Milford Township Planning Commission's letter of March 3, 2004. The Planning Commission had no objections to the Plan.

*2*

- Item 5 – The Public Notice needs to be revised to indicate: that a Sewage Management Program has been proposed for areas within the Township without central sanitary sewer service, and what are the upfront fees and the monthly/yearly user fees for Alternative No. 4 and Alternative No. 8. The anticipated funding agency and the loan term should also be

*3*



included.

- ④ • Page 28 of the Checklist, Additional Requirements for PENNVEST Projects, needs to be completed.

### General Plan Content

#### III. Existing Sewage Facilities

##### B. Individual On-Lot Disposal Systems

- ⑤ Item 2 – Sanitary Survey and Item 4-Well Water Survey may need to be broadened if PENNVEST Funding is sought. For PENNVEST Project Rating purposes, a letter from your Sewage Enforcement Officer (SEO) indicating the number of confirmed on-lot sewage disposal system malfunctions may be necessary for Alternative No. 4 and No. 8. Refer to Review of Plan Appendices/Appendix G for additional information.

#### VI. Evaluation of Alternatives

##### A. Major Alternatives

The Department found Table 3-1, Summary of Alternative Service Areas, quite informative as it listed the 12 Alternatives; the Proposed Sewer Service Areas (PSA); and the impacted needs areas. No response necessary.

- ⑦ Item 2 – Wasteload Management Report

This item is applicable as the Lehigh County Authority (LCA) provides information to the City of Allentown for their Chapter 94 Report. Are Alternative Nos. 4, 8, and 12 consistent with the City of Allentown’s Chapter 94 Report?

- ⑧ Item 5 – Antidegradation Requirements

The Service Area for Alternative No. 4 (the Village of Vera Cruz) is located on Leiberts Creek, a high quality stream. The recommended alternative is to pump/convey the wastewater out of the high quality watershed. The wastewater will enter an existing sewer system with treatment at the City of Allentown’s Sewage Treatment Plant (STP).

The Department requests that the Environmental Review compare the benefits of eliminating the discharge to the high quality water to the potential environmental consequences of development and construction along the sewer line connection and any hydrologic impacts which might result from the transfer of groundwater baseflow out of the high quality watershed. Refer to Chapter 7, Nondischarge Alternatives, 4. Wastewater Disposal, b. Environmentally-Sound Nondischarge Alternatives, Alternative Discharge Locations in the Department’s Water Quality Antidegradation Implementation Guidance, dated November 29, 2003.

9

Item 11 – On August 23, 2002, the PA Historical and Museum Commission (PHMC) reviewed the Township's Plan on the proposed projects' potential effects on both historical and archaeological resources. PHMC was not able to assess the effects on specific resources since mapping of a large general study area was submitted for their review.

It will be necessary for the Township to submit location maps to PHMC showing where the proposed construction areas are. PHMC will need to sign off on the project before construction begins.

10

#### C. Description of/Evaluation of Alternatives

Section 3.1 described the 12 alternatives and the Sewage Management Program for the unsewered areas. Section 3.2 analyzed the capacities of the existing facilities; performed a financial analysis of the sewer system alternatives; discussed costs associated with the sewage management program; and analyzed the environmental impacts for the various alternatives.

On Table 3-4, the Vera Cruz Wastewater Treatment Plant Construction Cost was listed as \$2,300,000, which seems high. What was the plant capacity that this cost was based upon?

On Table 3-5, please confirm that the LCA Connection Fee Costs for Alternative 4 are correct. About a dozen homes may not use the Route 29 Capacity.

11

#### D. Cost Estimates

Project Costs Estimates for the various alternatives were provided in Section 3. LCA connection fees associated with capital recovery, transportation and treatment of the wastewater using existing facilities, and the sewer connection inspection fee were all presented. This is indicated on Table 4-1. Capital contributions were included on Table 4-2.

During our October 7, 2004 Meeting, the LCA presented Preliminary Contributions for both the Vera Cruz and the South 7<sup>th</sup> Street Projects.

The Plan and the LCA's Project Financing Alternatives Table show a total project net cost per user (copy enclosed). Additional information pertaining to project financing and what the customers upfront fees and monthly/yearly user fees are estimated to be will have to be provided.

It was learned that the Township wishes to meet with Mr. Michael Gallagher of PENNVEST to learn more about that agency's funding capabilities.

12

E. Analysis of Funding and Methods

This item will need to be addressed. The Township will need to establish a financial alternative of choice and a contingency financial plan to be used if the preferred method of financing is not able to be implemented.

13

VII. Institutional Evaluation

This item will need to be addressed.

14

VIII. Selected Alternative

This item will need to be addressed.

**Review of Plan Appendices**

15

- Appendix A – The resolution may need to be revised since Alternative 12 may be implemented via a Planning Module and the Sewage Management Program will include those areas of the Township without central sewers.

16

- Appendix B – You may wish to incorporate Mr. DeLong’s comments into the Plan. Refer to Mr. DeLong’s February 12, 2004 comment letter.

17

- Appendix D – The Public Notice needs to be revised. Refer to Item 5/Administrative Completeness for additional information.

18

- Appendix G – On-Site System Needs Survey, dated September 2003.

- Section 1.3.2 1996 Act 537 Plan Revision

a. The needs survey associated with the Plan Revision indicated a significant number of contaminated well water samples. The results were shown on Table 2.6/Summary of 1996 Well Water Survey Results, located in the main body of the Plan.

b. Sampling was conducted for the homes associated with Alternative No. 4, but not for the homes associated with Alternative No. 8. The table does not state what constitutes a contaminated sample. Were the samples analyzed for Total Coliform and Fecal Coliform? For the samples that tested positive for Total Coliform, were Fecal Coliforms found in 20% of the samples?

c. It is not necessary for the Township to update the well water survey for Plan approval purposes. For PENNVEST Project Rating purposes, results of the well water survey will need to be updated if the Township seeks a higher rating. The survey will need to be done in accordance with the Act 537 Sewage Disposal Needs Identification Guidance Manual.

It may not be necessary, however, for the Township to perform another well water survey for the areas included in Alternative Nos. 4 and 8. The Township may have a sufficient PENNVEST priority rating to obtain PENNVEST funds without performing another well water survey.

- Section 4.0/Review of Historical Records

The material presented in this section was very informative. Table 4.3/Summary of Systems Repaired Using Best Technical Guidance may show the number and percentage of systems with confirmed malfunctions. For Alternative Nos. 4 and 8, this information can be used for PENNVEST rating purposes.

- Section 5.0/Field Survey of On-Site Systems

19

The Survey should state when the Township SEO conducted a field survey of the on-site systems. I discussed this with Mr. Karl Schreiter of SEA, on September 8, 2004, and he informed me that the survey was conducted in the fall of 2002.

Table 5-1/Summary of On-Site System Survey was informative as it shows the number/percentage of homes with confirmed malfunctions. The information presented here can be used for PENNVEST rating purposes.

20

For Alternative Nos. 4 and 8, what percentage of homes were inspected and had confirmed malfunctions? To determine the percentage of homes with confirmed malfunctions, is the information presented in Table 4-3 and Table 5-1 additive?

There may be a need for the Township's SEO to state what percentage of homes included in the Study Areas for Alternative Nos. 4 and 8 have confirmed malfunctions. This determination will need to be done in accordance with the guidelines as specified in the Act 537 Sewage Disposal Needs Identification Guidance Manual.

21

- Appendix H – On-Lot Management District Ordinance.

I made suggested changes to the draft Ordinance (copy enclosed).

**General Comments**

22

The Department requests that the Task/Activity Report (TAR) be amended if additional Plan Preparation costs are likely. The Township should state what additional work, not considered in this submittal, are necessary.

Given the scope of the above comments, the Department recommends that the Township should consider withdrawing the Plan at this time. A letter requesting withdrawal would need to be sent to the Department. If the Township elects not to withdraw the Plan, the Department requests a response to the above comments by no later than December 1, 2004.

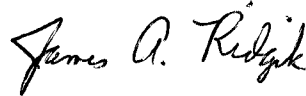


It will take time for the project financing details to be worked out. After this has been done, the Public Notice needs to be republished followed by a 30-day comment period.

When the Plan gets resubmitted, the Department requests that two complete copies of the Plan be sent to us.

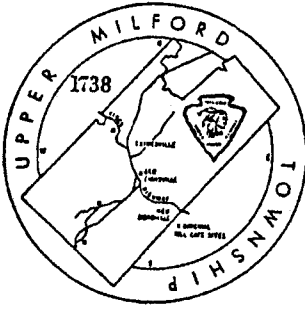
If you should have any questions, please call me at 570-826-2335.

Sincerely,



James A. Ridgik, P.E.  
Sanitary Engineer  
Water Management Program

cc: R. Benner/Schoor DePalma  
J. Boldaz/Schoor DePalma  
M. Gallagher/PENNVEST  
F. Leist/Lehigh County Authority  
B. Miller/Upper Milford Township  
D. Mohr/Upper Milford Township  
S. Rockwell/Lehigh Valley Planning Commission  
K. Schreiter/Schreiter Engineering Associates, Inc.



**UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS**

PO Box 210 ~ 5831 King's Highway South  
Old Zionsville, PA 18068  
Phone: (610) 966 - 3223 ~ Fax: (610) 966 - 5184  
E-mail: [info@uppermilford.net](mailto:info@uppermilford.net)  
Web: <http://www.uppermilford.net>

Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

November 2, 2004

Mr. Russell Benner  
Schoor DePalma  
155 Bustard Rd., Ste. 50T  
P.O. Box 304  
Kulpsville, PA 19443-0304

*Copied  
11/2/04  
ck*

**RE: Act 537 Review / Comment: DEP letter dated October 29, 2004**

Dear Russ:

As you are aware DEP has submitted comments on the Township's Act 537 Plan submission by letter dated October 29, 2004.

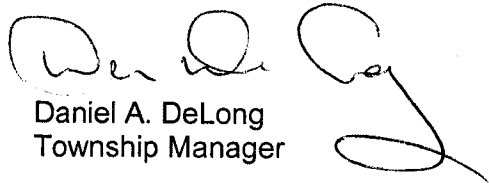
It appears that it will be necessary to gather and or provide additional or clarify existing information in order to revise the plan content to meet DEP's requirements.

The initial proposal for the Act 537 Plan revision by Schoor DePalma had a built in provision for DEP's review of a draft plan, which as we know never was facilitated. In so much as it is difficult for me to determine which if any of the requested revisions or additional information was or is part of the original scope of work I believe it important to sort out how to proceed as quickly as possible, who will be responsible for obtaining or completing the requested tasks and also what to expect the costs for the anticipated work to be.

Please provide the Township with a brief overview of your anticipated course of action and approximate costs to continue on a reasonable "fast track" schedule. (If possible by November 12, 2004)

If you have any questions feel free to call me at 610-966-3223.

Sincerely,

  
Daniel A. DeLong  
Township Manager

DAD:ck

Cc: Board of Supervisors  
Brian Miller, SEO  
Kim Shaak, Secretary / Treasurer

**ACT 537 PLAN REVIEW BY DEP  
OCTOBER 29,2004**

**SUMMARY AND COMMENT BY DAN DELONG**

- Item 2C – Plan Summary / Cost – User fees...

This task will be very difficult to complete within an acceptable level of accuracy without doing a greater detailed plan and design.

- Item 4 – Ok
- Item 5 – Public Notice needs to include costs and septic management, funding and loan.

This task is related to item 2C and will fall into place when 2c is addressed.

- Page 28 of the check list. Penn Vest

By complying with the Penn Vest criteria the project(s) would be in line for future Penn Vest funding. By not complying with Penn Vest criteria the Penn Vest option is not available at a future time.

- III B - Well water and malfunction survey: The total impacts of these items needs to be determined to make a decision on what is necessary to go forward.
- VI Item 2 – Chapter 94 information can be supplied.
- Item 5 – Antidegradation requirements needs to be done by Karl or Russ per the requirements.
- Item II – PA Historic and Museum Commission review will be contingent upon developing detailed project plans. This item may wait until after the 537 Plan is approved, but prior to construction.
- C – Description of / evaluation of alternatives.

Table 3-4 WWTP costs – Karl must answer

Table 3-5 Needs to be clarified to reflect accurate costs.

- D – Cost Estimates

This information must be detailed - LCA & Karl?  
Meet with Penn Vest – LCA & Township & Karl?

- E – Analysis of funding will sort out after the above information is available.
- VII – Institutional Evaluation – Can be achieved through LCA
- VIII – Selected Alternative – Needs to be done by Karl and LCA with input from Upper Milford Township.
- Appendix A. – Ok
- Appendix B. – Ok
- Appendix D. – Redo public notice and advertise.
- Appendix G.

Well water testing requirement. May need to do additional testing. This needs to be addressed and sampling protocol must be followed.

- Section 4.0 – Ok
- Section 5.0 - Field survey of on-site systems Karl and Brian must reconcile
- Appendix 4 – On lot management – Ok

#### General comments

Task / Activity report – needs to be amended after finalizing additional work scope.

**Withdraw Plan** – Needs Board of Supervisors and Schoor DePalma recommendation

Comments are due by December 1, 2004 or plan must be withdrawn.

A handwritten signature in black ink, appearing to be 'Dan DeLong', written in a cursive style.

Rec'd  
11-15-04  
[Signature]



**SCHREITER ENGINEERING ASSOCIATES, Inc.**  
7 Raleigh Drive  
Downingtown, PA 19335-1103

November 10, 2004

Mr. Kurt Carr, Chief  
Pennsylvania Historical and Museum Commission  
Bureau of Historical Preservation  
Commonwealth Keystone Building, 2<sup>nd</sup> Floor  
400 North St.  
Harrisburg, PA 17120-0093

Subject: Upper Milford Township  
Act 537 Plan Revision  
ER#00-1971-077-B  
SEA Project No: 0050-001

Dear Mr. Carr:

Upper Milford Township is in the process of finalizing their Act 537 Plan Revision. The purpose of this Revision to review wastewater needs within the Township and develop alternatives to meet these needs. As outlined in your letter dated August 23, 2002, your office requested more detailed data regarding the project as it became available.

Therefore, we have attached updated drawings indicating information for those areas of the Township that will be provided sewage service as part of the Act 537 Plan recommendations. The Plan has recommended implementation of the following alternatives:

**Alternative #4 – Provide Sewer Service to the Liebert’s Creek Basin through Lehigh County Authority Route 29 Facilities using Pumping Stations** - Under this alternative, the areas within the Liebert’s Creek drainage basin including the Village of Vera Cruz and the Village of Shimersville will be provided sewage service. A combination gravity collection system and pumping station network would be constructed to provide sewer service to this area. A proposed pumping station would be located near the intersection of Vera Cruz and Mill Roads. The force main would extend from the pumping station along Mill Road to Shimersville Road, to Salem Drive. The force main would terminate on Salem Drive at the LCA MH #JS-1.



Mr. Kurt Carr  
November 10, 2004

**Alternative #8 – Extending Sewer Service to the Seventh St. Area** - Under this alternative, gravity sewers would be extended along South 7th Street Extension. The sewers would connect to the Borough of Emmaus collection system at Borough MH #C-115B located on S. 7<sup>th</sup> St.

**Alternative #12 – Extending Sewer Service to the Golf Circle Area** - Under this alternative, sanitary sewer service would be extended to the area adjacent to Golf Circle in the northeastern section of the Township. A gravity sanitary sewer would be extended from existing sewers located in 2<sup>nd</sup> St. within the Borough of Emmaus.

The attached drawings illustrate the proposed locations for sewers in each alternative

If you should have any questions or require additional information, please feel free to contact us by way of telephone or email.

Very truly yours,

Karl E. Schreiter, Jr., PE, DEE  
President

*No DRAWINGS  
ATTACHED.*

cc: D. DeLong, UMT  
R. Benner, Schoor DePalma  
J. Boldaz, Schoor DePalma  
J. Ridgik, PADEP



**LEHIGH COUNTY AUTHORITY**

1053 SPRUCE STREET • P.O. BOX 3348 • ALLENTOWN, PA 18106-0348

610-398-2503 • FAX 610-398-8413

email: [service@lehighcountyauthority.org](mailto:service@lehighcountyauthority.org)

12 November 2004

Mr. Michael Gallagher  
Pennsylvania Infrastructure Authority  
22 South 3rd Street  
Harrisburg, PA 17101

Copied  
11/16/04  
CK

Rec'd  
11-15-04  
C. BOS  
B. MILLER

Subject: Upper Milford Township,  
Proposed Vera Cruz Area  
Public Sanitary Sewer Project  
PennVest Financing

Dear Mr. Gallagher:

DEP is in the process of reviewing the Upper Milford Township ACT 537 Plan Update ("Plan"), as prepared by the Township's consultants, Schoor Depalma, Inc. and Schreiter Engineering Associates, Inc. Among other items, the Plan recommends public sewer service in the Vera Cruz area.

Lehigh County Authority, as the wastewater service provider for Upper Milford Township is interested in exploring the possibility of Penn Vest financing for the Vera Cruz project.

In preparation for our 18 November meeting, I thought the following information might be helpful.

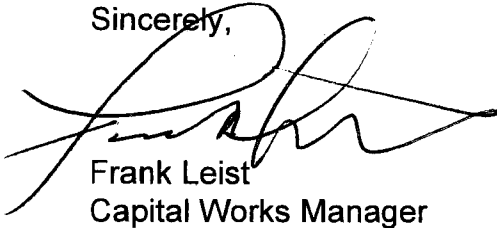
The Vera Cruz Area project (see attached maps) is the largest project in the proposed Plan and would provide public wastewater service to approximately existing 241 properties (251 existing edus and 267 ultimate). The project would solve long-standing documented on lot sewage disposal problems.

Infrastructure based upon the conceptual design in the Plan, would include 24,000 linear feet of 8" gravity main, 1,600 linear feet of 2" or 3" low pressure force main, 20 individual grinder pumps, 2 wastewater pumping stations and 3,000 linear feet of 6" force main.

The Plan indicates an estimated project cost of \$5 million dollars based upon the conceptual design; however, because of PADOT restoration requirements and other questionable factors we feel the conceptual project cost could be as high as \$5.4 million dollars. We are currently in the process of validating the Plan's conceptual estimate.

If you have any questions or require additional information prior to our meeting, please call me at (610) 398-2503.

Sincerely,

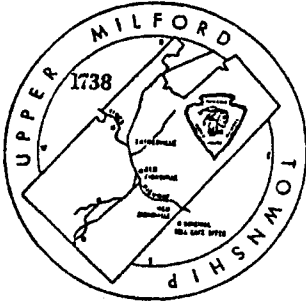
A handwritten signature in black ink, appearing to read 'Frank Leist', written over a horizontal line.

Frank Leist  
Capital Works Manager

enclosures.

cc: Daniel DeLong, Township Manager, UMiT





## UPPER MILFORD TOWNSHIP BOARD OF SUPERVISORS

PO Box 210 ~ 5831 King's Highway South  
Old Zionsville, PA 18068  
Phone: (610) 966 - 3223 ~ Fax: (610) 966 - 5184  
E-mail: [info@uppermilford.net](mailto:info@uppermilford.net)  
Web: <http://www.uppermilford.net>

Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

November 24, 2004

Ms. Kate Crowley, Program Manager  
Water Management Program  
PA Department of Environmental Protection  
Northeast Regional Office  
2 Public Square  
Wilkes-Bare, PA 18711-0790

**RE: Upper Milford Township, Lehigh County  
Act 537 Plan withdrawal request**

Dear Ms. Crowley:

This letter is to inform the department that Upper Milford Township requests that the Township's Act 537 Plan Revisions (Plan) received by your office, on August 13, 2004 be withdrawn at this time.

The Township is requesting plan withdrawal at this time to allow for the completion of additional components or revisions to existing components of the plan. We are in the process of finalizing financing details and detailing the deficiencies of certain other areas of the plan for the purpose of revising the plan document. The Township expects to readvertise the Public Notice for the revised plan upon completion of the revisions.

The Township understands that by withdrawing the plan the Township will not be jeopardizing future expedient review of the plan by the department upon resubmission by the Township. The Township believes it is important to submit a complete plan that addresses the Townships needs while also accounting for long time problem areas. This process must move forward in a reasonably timely manor in order to take advantage of some currently available funding options for physical projects.

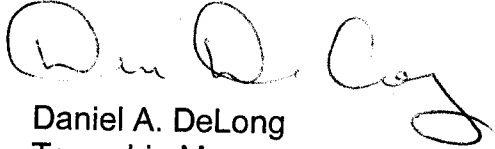
The Township expresses our thanks for the departments assistance in this matter and is grateful for your consideration of this request.

Copied  
11/24/04  
CK

**November 24, 2004**  
**Upper Milford Township, Lehigh County**  
**Act 537 Plan withdrawal request**  
**Page 2**

If you or your staff have any questions please call me at 610-966-3223.

Sincerely,



Daniel A. DeLong  
Township Manager

DAD:ck

Cc: Board of Supervisors  
Russell Benner, Schoor DePalma  
J. Boldar, Schoor DePalma  
Aural Arndt, LCA  
Frank Leist, LCA  
Karl Schreiter, SEA  
M. Gallager, Pennvest



Pennsylvania Department of Environmental Protection

2 Public Square  
Wilkes-Barre, PA 18711-0790  
December 3, 2004

*Revised  
12-07-04  
RD*

**Northeast Regional Office**

Mr. Daniel DeLong, Township Manager  
Upper Milford Township  
5831 Kings Highway South  
P.O. Box 210  
Old Zionsville, PA 18068

*Copied  
12/7/04  
ck*

570-826-2511  
Fax 570-830-3016

*c. BOS*

Re: Act 537 Plan Revision  
Plan Withdrawal  
Upper Milford Township, Lehigh County

Ladies and Gentlemen:

This letter is to inform Upper Milford Township that we received your letter of November 24, 2004 requesting that the Township's Act 537 Plan Revision (Plan) be withdrawn from the Department's Office. This letter acknowledges the Plan withdrawal.

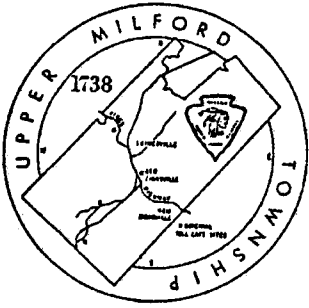
If you should have any questions, please call James Ridgik of my staff at 570-826-2335.

Sincerely,

Kate Crowley  
Program Manager  
Water Management Program

- cc: A. Arndt/Lehigh County Authority  
R. Benner/Schoor DePalma  
J. Boldaz/Schoor DePalma  
M. Gallagher/PENNVEST  
F. Leist/Lehigh County Authority  
B. Miller/Upper Milford Township  
D. Mohr/Upper Milford Township  
S. Rockwell/Lehigh Valley Planning Commission  
K. Schreiter/Schreiter Engineering Associates, Inc.





## UPPER MILFORD TOWNSHIP BOARD OF SUPERVISORS

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Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

March 16, 2005

Mr. Stephen R. Mac Lean, P.E.  
PA DOT District 5-0  
1713 Lehigh Street  
Allentown, PA 18103

*Copy  
to  
S.R. 2023*

**RE: S.R. 2023 POC Contract No. 72213**

Dear Mr. Mac Lean:

I am in receipt of your letter of notification that Eastern Industries, Inc. has been awarded a Paving Contract (superpave wearing course on superpave scratch course) for the area of S.R. 2023 in Upper Milford Township, Lehigh County. There will be a preconstruction conference for the project on March 31, 2005 at 9:00 A.M. at the Parkwood Office.

I am writing this communication on behalf of Upper Milford Township in order to inform you and the department of the Township's plans to pursue the installation of a public sewer system within a portion of the contract area. More exactly the area of "Vera Cruz" from S.R. 2023, segment 100 offset 937 (I-476) to S.R. 2023 segment 150 offset 00 (S. 5<sup>th</sup> St. / 2037) approximately a total distance of 9002 feet or 1.7 miles.

It is probably not often that anyone asks the department to delay doing much needed work, but in this instance I sincerely request that the work in this area be delayed or some type of alternate project or arrangement be considered to allow the sewer installation to take place prior to implementing this major roadway improvement.

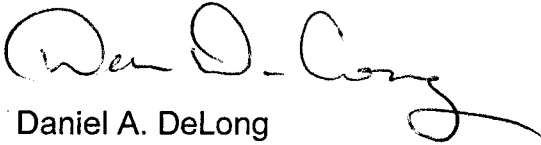
The Township is aware that it has been many years since any major work was done on this state route and also that the traveling public is eagerly awaiting these improvement. In so much as the public has the perception that the utility companies always wait until a road is newly paved and then tear it up we would like to avoid this situation if possible.

March 16, 2005  
S.R. 2023 POC Contract No. 72213  
Page 2

Please consider this request and inform me of any potential options. I additionally would like to request an appointment to meet with representatives of the department, our consultants and others to further discuss this issue.

Please contact me at your earliest convenience at 610-966-3223.

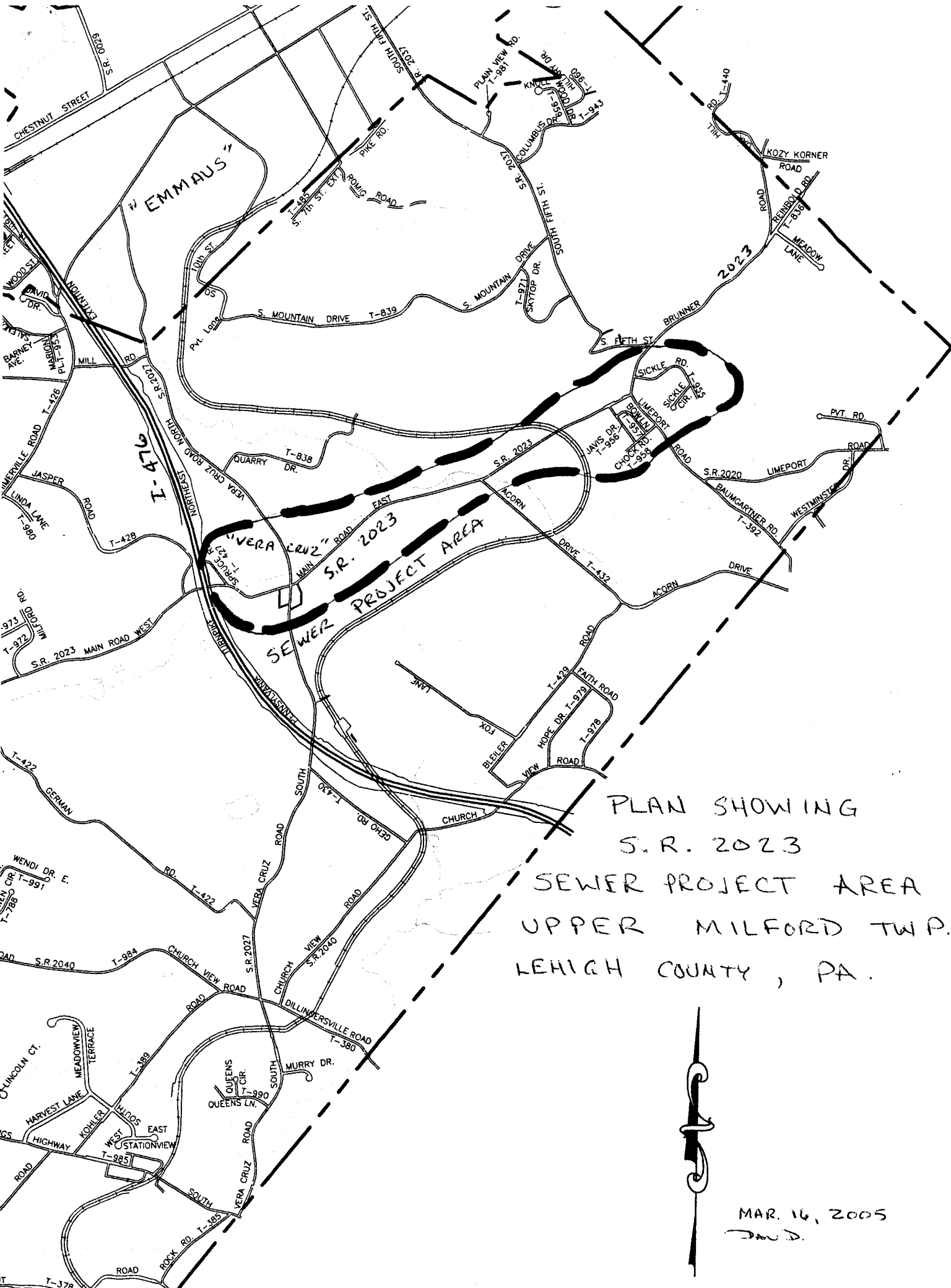
Sincerely,

A handwritten signature in black ink, appearing to read "Dan DeLong". The signature is fluid and cursive, with a long horizontal stroke at the end.

Daniel A. DeLong  
Township Manager

DAD:ck

Cc: Board of Supervisors  
Russell Benner, Schoor DePalma  
Frank Leist, LCA  
Representative Douglas C. Reichley  
Senator Robert Wonderling



PLAN SHOWING  
 S. R. 2023  
 SEWER PROJECT AREA  
 UPPER MILFORD TWP.  
 LEHIGH COUNTY, PA.



MAR. 16, 2005  
 Jm D.

Copied  
3/29/05  
ck

**SPECIAL BOARD OF SUPERVISORS MEETING RECORD**  
**MARCH 25, 2005**  
**10:00 A.M.**

The purpose of the meeting was to attempt to get a federal appropriation through the assistance of U.S. Senator Rick Santorum's Office for the purpose of assisting the residents in the Upper Milford Township sewer project area(s).

In Attendance:

<u>Name</u>	<u>Group</u>	<u>Phone No.</u>	<u>Fax No.</u>
Susan Smith	UMT Supervisor	610-966-3223	610-966-5184
Daniel Mohr	UMT Supervisor	610-966-3223	
Henry Kradjel	UMT Supervisor	610-966-3223	
Daniel DeLong	UMT Manager	600-966-3223	
Frank Leist	LCA	610-398-2503	
Aurel Arndt	LCA	610-398-2503	
Russell Benner	Schoor DePalma, Inc.	215-361-6050	
Jeff Haberkern	Senator Santorum's Office	610 770-0142	
Tom Pearson	Senator Santorum's Office	610-770-0142	

The group discussed the history of the "Vera Cruz", Upper Milford Township area, failing on-lot septic system, topography, wetlands, archeological resources, costs, etc.

The project and individual costs were discussed and the projection that the individual single family residential cost is estimated at near \$30,000 each and that with the existing \$1,000,000 appropriation and other concessions at this point amounts to approximately \$9,000 per lot, leaving a cost per household at approximately \$21,000.

Mr. Haberkern, of Senator Santorum's staff, indicated that the Township should pursue another appropriation for the amount of at minimum \$1,000,000 but try for \$1,500,000.

Since the appropriations procedure deadline has passed it is important to get this in progress as soon as possible.

We will await further information from Ms. Coblenz and Senator Santorum's staff.

Daniel A. DeLong  
Upper Milford Township Manager



DOUGLAS G. REICHLY, MEMBER  
134<sup>TH</sup> LEGISLATIVE DISTRICT

**HARRISBURG OFFICE**  
ROOM 5, EAST WING  
HOUSE BOX 202020  
HARRISBURG, PA 17120-2020  
PHONE: (717) 787-1000  
FAX: (717) 705-7012

**DISTRICT OFFICE**  
1245 CHESTNUT STREET, UNIT #5  
EMMAUS, PA 18049  
PHONE: (610) 965-9933  
FAX: (610) 965-9174

**SATELLITE OFFICE**  
BOROUGH HALL, 425  
CHESTNUT STREET  
BALLY, PA 19503

E-mail: dreichle@pahousegop.com

*F.Y.I.*



*House of Representatives*  
COMMONWEALTH OF PENNSYLVANIA  
HARRISBURG

*Rec'd  
5-02-05  
e. BOS  
F. Least  
A. Brunner*

**COMMITTEES**

APPROPRIATIONS, SECRETARY  
CONSUMER AFFAIRS  
HEALTH & HUMAN SERVICES  
JUDICIARY  
URBAN AFFAIRS

**CAUCUSES**

ALZHEIMERS  
AUTISM  
FIREFIGHTERS & EMERGENCY SERVICES  
IRISH  
SPORTSMEN

*Copied  
5/2/05  
ck*

April 29, 2005

**COPY**

Ms. Marcella B. Duld  
Area Director  
U. S. Department of Agriculture  
Rural Development – Lehigh Local Office  
2211 Mack Boulevard  
Allentown, PA 18103

Dear Ms. Duld:

Since our meeting a few weeks ago, my office has contacted Jeremy Wilson from your Harrisburg office on the question of USDA financing of the lateral connections to the proposed sewer system for a number of homes in Upper Milford Township, Lehigh County, PA. Apparently, USDA has informed my office that your department can only offer financing assistance to those homes on the southern side of Main Road East in the village of Vera Cruz in the township because of a boundary imposed by USDA between rural and urban areas.

Unfortunately, although this demarcation may seem reasonable from the Department's perspective, it also has the arbitrary effect of depriving residents who literally live less than forty feet apart from the financial aid potentially available for lateral connections. Mr. Wilson informed me that the Department determines the boundaries utilized for financial aid every few years, but that a re-evaluation may be undertaken if requested.

I am therefore formally requesting you and the Department of Agriculture to begin the process of review or reconsideration of the urban/rural boundary imposed in Upper Milford Township and moving the boundary to a point congruent with Mill Road approximately one and one-half miles north of the current border. Mr. Wilson told me that upon requesting this review through your office, U.S. Senator Specter, U.S. Senator Santorum, and Congressman Dent can begin discussions with your departmental colleagues in Washington, D.C. to approve this request.



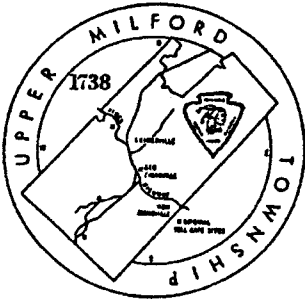
Thank you for your review of this inquiry for reconsideration of the rural/urban boundary identified by USDA for determining eligibility for lateral connections in Upper Milford Township. Please contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Douglas G. Reichley". The signature is written in a cursive style with a large initial "D".

DOUGLAS G. REICHLEY  
State Representative, 134<sup>th</sup> District

cc: Hon. Arlen Specter  
Hon. Rick Santorum  
Hon. Charles W. Dent  
Hon. Robert C. Wonderling  
Daniel DeLong, Township Manager, Upper Milford Township  
Jeremy Wilson, USDA



**UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS**

PO Box 210 ~ 5831 King's Highway South  
Old Zionsville, PA 18068  
Phone: (610) 966 - 3223 ~ Fax: (610) 966 - 5184  
E-mail: [info@uppermilford.net](mailto:info@uppermilford.net)  
Web: <http://www.uppermilford.net>

Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

# Memo

**To:** Board of Supervisors, Brian Miller  
**From:** Daniel A. DeLong, Township Manager  
**CC:** Representative Reichley  
**Date:** 5/10/2005  
**Re:** Sewer Project

*Copied  
5/10/05  
CK*

---

Attached for your review is the most recent information that has been forwarded to PA DEP for their review and comment prior to revision the Act 537 Plan for resubmission.

Some of the properties that are located at the perimeter of the project area may or may not be in the final scope of the project area, as those details will be addressed during the engineering design phase.

This cost information has been compiled by diligent research and costs projections by Frank Leist of LCA and represents what appears to be accurate costs. This information is still for discussion and is not official until the plan is resubmitted which will be accomplished after several more meetings.



**Lehigh County Authority**

1053 Spruce Road \* PO Box 3348 \* Allentown, PA 18106-0348  
(610)398-2503 \* FAX (610)398-8413

10 May 2005

James Ridgik, P.E.  
Sanitary Engineer  
Bureau of Water Quality Management  
Pennsylvania Department of Environmental Protection  
2 Public Square  
Wilkes-Barre, PA 18701

Subject: Vera Cruz Area Sanitary Sewer Project  
Upper Milford Township

Dear Mr. Ridgik:

Since Upper Milford Township (UMiT) withdrew their proposed ACT 537 Plan, we have been working with the Township to identify project issues and to address the financial impact of the project on the residents. It is our opinion that the information contained herein, satisfactorily addresses all your concerns regarding the financial aspects of the project.

**PROJECT OVERVIEW**

The proposed project will provide public wastewater service to approximately 281 Upper Milford Township properties located in the Vera Cruz area. Approximately 261 of these properties will be required to connect to the system; the remaining 20 properties are vacant. There are approximately 299 existing Equivalent Dwelling Units (Edus), and 11 future Edus. The Project Area is shown on Exhibit "A"

The units to be served are on small lots and have been plagued with failing on site septic systems for many years. There is no feasible method to resolve the existing failures without the installation of a public system. There is very limited opportunity for additional or future development in this area due to existing environmental and regulatory limitations such as jasper quarries, wetlands, high water table and floodplains. The stream receiving the contaminated water flow is a tributary to the Little Lehigh Creek, a drinking water supply for the City of Allentown, PA.

The proposed system will consist of the installation of approximately 28,000 feet of gravity sewer, 6,200 feet of force main, 500 feet of low-pressure main, 2 pumping stations, associated lateral piping, some individual low pressure pumps and related roadway restoration.

**SEWAGE DISPOSAL NEEDS IDENTIFICATION**

The Project Area is within the study area that has been identified for public sewers in the September 2003, Upper Milford Township ACT 537 Plan Revision. Data from a Sewage Disposal Needs Identification conducted by the Township Sewage Enforcement Officer of 266 of the 281 properties in the Project Area indicates that the on-lot sewage systems fall into the following DEP categories:

<b>Sewage Disposal Needs Identification Results</b>	<b>No. Properties</b>	<b>% (1)</b>
Confirmed Malfunctions	99	37.00%
Suspected Malfunctions	52	20.00%
Probable Malfunctions	78	29.00%
No Malfunctions	37	14.00%
Not Surveyed	15	6.00%

(1) Percentage of properties surveyed.

**ESTIMATED COSTS**

*Public Facility Project Cost*

Public facility project cost for a gravity system, including the purchase of wastewater allocation, is estimated at \$7,740,000. Exhibit "B" provides a detailed conceptual cost estimate that assumes PADOT will not require flow-able fill or borings.

There are numerous reasons why the cost is high:

- Project Area density.
- Topography.
- Presence of Vera Cruz Jasper Quarries (PA.S.S #36-Lh-12PA), which is an identified archaeological resource. As such, the PA Historical & Museum Commission strongly suggests that the proposed infrastructure stay in previously disturbed areas (i.e. typically road right-of-ways). If not, archeological survey(s) of varying degrees would be required.
- Road restoration requirements. Approximately 90% of the gravity and force mains are located within the road right-of-way, with 56% of those in PennDOT right-of-way.
- Current construction market and unprecedented increases in material costs.

Alternate Sewer System: We are also in the process investigating the utilization of a low-pressure sewer system in lieu of a gravity system. We believe the use of a low-pressure system may somewhat reduce the overall project cost, by minimizing restoration and constructability issues. If we determine that a low-pressure system is the best option and the estimated costs are lower than a gravity system, we want the flexibility to move forward without revisiting the Act 537 Issue with DEP.

Private Plumbing Costs: Each property owner will also hire a contractor to physically connect their structure to the public lateral, modify interior plumbing as necessary and pump out and fill in the existing septic tank. These costs are estimated between \$3,000 and \$5,000 per property.

### **PROJECT FUNDING / COST RECOVERY / SURVEYS**

Public facility project costs will be paid for with a combination of grant(s), municipal contributions, connection and/or assessment fees and financing. Exhibit "C" provides a financial summary.

#### Grant(s), Municipal Financial Contributions and Waivers:

At this time Upper Milford Township (UMiT) has secured an EPA grant in the net amount of \$960,000 for Township sewer projects, it is envisioned that approximately \$924,000 of this grant will be applied to the Vera Cruz Area Project, divided equally among the 261 properties that will be required to connect to the system. LCA will contribute \$310,000 to the project or \$1,000.00 per Edu, based upon an ultimate build-out of 310 Edus. LCA will also waive the standard UMiT fees on a per/Edu basis, an estimated value of \$664,700.

#### Up-front Project Tapping Fees

In order to make the project affordable, it is envisioned that up-front Tapping Fees for the public facility and allocation costs will be approximately \$4,000 per /Edu.

To simplify calculations at this time we have used the "Tapping Fee only" method where vacant properties will not pay anything until they are developed and connect to the system. However, we reserve the right, in lieu of the "Tapping Fee only" method, to utilize a combination of assessment and connection fees to recover a corresponding amount of the project costs from all properties within the Project Area.

#### Financing:

It is our intention to apply for PennVest financing for the remainder of public facility project costs, unless more favorable financing becomes available.

#### Other Sources of Funds

- UMiT has applied for a Federal Appropriation of \$1,000,000 dollars through Senator Santorum's office.
- Our request for Sewer Lateral / Tap-In Fee Assistance in the amount of \$200,000 has been included in Lehigh County's 2005 Community Development Block Grant (CDBG) application. The County's application has

been submitted to the PA Department of Community and Economic Development for approval. If approved, funds will be available for disbursement on 12 January 2006. We plan to apply for additional funding in 2006.

- We will provide information to the residents and/or coordinate a meeting place where representatives from the United States Department of Agriculture (USDA) can discuss their individual grant and loan programs with the property owners.

#### Property Owner Surveys

After ACT 537 approval by DEP, we plan to do the applicable surveys necessary to determine the eligibility and/or terms for any grants and/or financing that may be available from PennVest and CDBG.

#### USER RATES

Based upon the aforementioned assumptions, it is estimated that properties within the Project Area that connect to the system will pay an annual user charge per Edu composed of two parts, the current Common UMiT rate plus a Vera Cruz Project charge.

**TYPICAL PROPERTY OWNER COST SUMMARY (ONE EDU)**

<b>One-Time Out-of-Pocket Costs</b>	<b>Amount</b>
Project Tapping Fee (Per/Edu)	\$ 4,000
Private Plumbing Costs (average)	4,000
<b>Total Out-of-Pocket Costs</b>	<b>\$ 8,000</b>

<b>Annual On-going User Charges (Per/Edu)</b>	<b>Amount</b>
UMiT Common Rate Charge	\$ 452
Vera Cruz Project Charge (1)	902
<b>Total Annual User Charge</b>	<b>\$ 1,354</b>
<b>Total Monthly User Charge</b>	<b>\$ 113</b>

(1) Assumes 5% per annum, 20 years.

The Vera Cruz Project has been in the planning stages for many years, the need has been clearly identified and it is time to move forward. We request that you review the aforementioned information and be prepared to discuss any concerns that you may have at the meeting scheduled at the Upper Milford Township building, on Wednesday 18 May 2005 at 10:00 a.m. ~~2:00 PM~~.

If you have any questions or require additional information, please call me at (610) 398-2503.

Sincerely,

Frank Leist  
Capital Works Manager

enclosures

xc: Aurel Arndt, General Manager, LCA  
Michael Brunamonti, PADEP  
Upper Milford Township Board of Supervisors  
Daniel DeLong, Township Manager, UMiT  
Russell Benner, Schoor & DePalma  
Karl Schreiter, SEA, Inc.

03/22/05 Final

**Vera Cruz Area Project  
Conceptual Cost Estimate**

Type: Gravity w/ Pumping Stations

Item	Description	Unit	Quantity	Unit Price	Extension
<b>Construction</b>					
1.	8" Gravity Main (assume average depth 8')	L.F.	28,000	\$ 45	\$ 1,260,000
2.	6" Gravity Lateral	L.F.	5,000	45	225,000
3.	8" x 6" Wyes	EA.	282	150	42,300
4.	Manholes	L.F.	140	3,000	420,000
5.	6" DIP Force Main (average depth 5')	L.F.	6,200	50	310,000
6.	Low-Pressure System (includes public laterals) (average depth 5')	L.F.	500	45	22,500
7.	Low-Pressure System Terminal & Clean-out Manholes	EA.	3	1,500	4,500
8.	Low Pressure Grinder Pumps	EA.	30 (1)	3,200	96,000
9.	2A Stone Backfill Gravity Main-PADOT	CY.	10,741 *	30	322,222
10.	2A Stone Backfill Gravity Main-Twp	CY.	7,160 *	30	214,815
11.	2A Stone Backfill Gravity Laterals-PADOT	CY.	1,630 *	30	48,913
12.	2A Stone Backfill Gravity Laterals-TWP	CY.	1,594 *	30	47,818
13.	2A Stone Backfill Force Main-PADOT	CY.	1,164 *	30	34,907
14.	2A Stone Backfill Force Main-TWP	CY.	1,343 *	30	40,278
15.	2A Stone Backfill LP Force Main-TWP	CY.	224 *	30	6,713
16.	Stream Crossings (4 sewer, 1 forcemain)	L.F.	5	7,500	37,500
17.	Railroad Boring Complete, 16" Casing	L.F.	75	400	30,000
18.	Pump Stations (w/standby power?)	L.F.	2	300,000	600,000
19.	Rock Excavation (10% of total excavation)	CY.	2,500	75	187,500
<b>Restoration (2)</b>					
20.	PADOT Type 6I Shoulder Complete (average width 4') Main	SY.	6,667	33	220,000
21.	PADOT Residual Pavement Restoration - Main	SY.	5,000 *	27	135,000
22.	PADOT Mill - Traffic Lane Adjacent to the Main	SY.	18,333	4	73,333
23.	PADOT Overlay - Traffic Lane Adjacent to the Main	SY.	18,333	7	121,000
24.	PADOT Pavement Trench Restoration - Laterals	SY.	643 *	45	28,951
25.	PADOT Mill -Lateral Area Opposite lane	SY.	2,913	9	26,220
26.	PADOT Overlay - Lateral Area - Opposite lane	SY.	2,913	10	29,133
27.	PADOT Pavement Trench Restoration - Force Main	SY.	1,276 *	45	57,417
28.	Rolled Curb	L.F.	5,500	9	46,750
29.	TWP Pavement Restoration - Mains	SY.	4,907 *	22	107,963
30.	TWP Pavement Restoration - Laterals	SY.	624 *	35	21,848
31.	TWP Pavement Restoration - Force Mains	SY.	1,448 *	25	36,192
33.	Misc Restoration	EA	282	400	112,800
<b>Conceptual Construction Costs</b>					<b>\$ 4,967,573</b>
<b>Contingencies</b>			15.00% of Construction		745,136
<b>Total Conceptual Construction Costs</b>					<b>\$ 5,712,709</b>
Engineering, Permitting, Legal, CM, Inspection, Project Administration			15.00% of Construction		745,136
Land Purchase for Pump Stations (2 Sites, .25 Ac. Ea.)		AC.	0.50	\$ 50,000 Per/AC..	25,000
Easement Rights (20' wide permanent)		L.F.	3,200	\$ 10 Per/L.F.	32,000
<b>Total New Public Facility Cost</b>					<b>\$ 6,514,845</b>
Allocation Costs for Full EDU Tapping Fee only Method of Cost Recovery (3)		EA.	310	3,948 Per/Edu	1,223,880
<b>TOTAL CONCEPTUAL PROJECT COST</b>					<b>\$ 7,738,725</b>

(\*) Reflects Pay width quantities. Unit prices adjusted to reflect actual quantities encountered in construction

(1) Supplied by project to property owner for installation by property owner's plumber.

(2) Assumes PADOT will not require flow-able fill or borings

(3) WLI -\$792, Treatment- \$1,012, RT 29 Capacity- \$2,054, UMI Connection- \$90

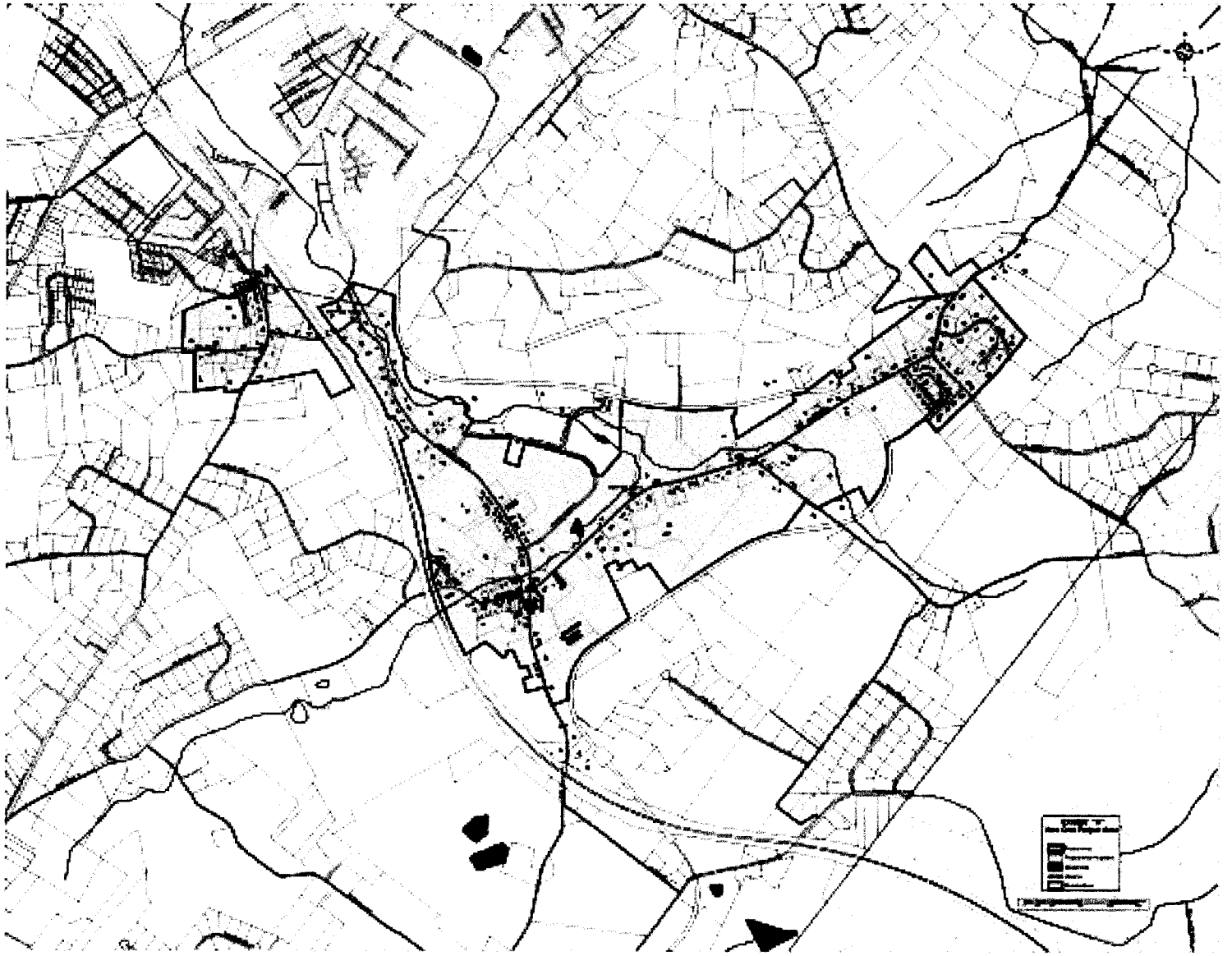


05-May-05

Vera Cruz Area Project  
Financial Summary

Item	Amount
<b><u>Conceptual Project Costs</u></b>	
New Public Facility Cost	\$ 6,515,000
Allocation Cost	1,225,000
<b>Total Conceptual Project Cost (1)</b>	<b>\$ 7,740,000</b>
<b><u>Less Estimated Credits</u></b>	
Vera Cruz Share of EPA Grant (2)	\$ (925,000)
LCA Reserves (3)	(310,000)
LCA Waiver of standard UMiT Fees (4)	(664,700)
Up-front Tapping Fees (5)	(1,240,000)
<b>Total Estimated Credits</b>	<b>\$ (3,139,700)</b>
<b><u>Financing</u></b>	
Amount apportioned to UMiT Common Rate Charge	\$ 1,240,000
Amount apportioned to Vera Cruz Project Charge	3,360,300
<b>Total Financing</b>	<b>\$ 4,600,300</b>
<b><u>Yearly Debt Service, 20 years, @</u></b>	
5% per-annum	\$ 369,140
3.5% per-annum	\$ 323,682

(1) Does not include Private Plumbing Costs which are estimated to \$3,000 - \$5,000 / per property.  
(2) \$3,540 / per property that must connect.  
(3) \$1000 / per Edu, (310 ultimate Edus).  
(4) \$2,144 / per-Edu, (310 ultimate Edus).  
(5) \$4,000 / per Edu, (310 ultimate Edus)





**LEHIGH COUNTY AUTHORITY** 1053 SPRUCE STREET • P.O. BOX 3348 • ALLENTOWN, PA 18106-0348  
 610-398-2503 • FAX 610-398-8413  
 email: service@lehighcountyauthority.org

*Review  
5-19-05  
[Signature]*

17 May 2005

*Copied  
5/19/05  
[Signature]*

*C. BOS  
B. MILLER  
A. BANERJEE*

Steve McDougal  
 Staff Archeologist  
 Bureau for Historic Preservation  
 Commonwealth Keystone Building, Second Floor  
 400 North Street  
 Harrisburg, PA 17120-0093

Subject: Vera Cruz Area Sewer Project  
 Upper Milford Township  
 Request to Identify Impacted Areas

Dear Mr. McDougal

Pursuant our conversations a few weeks ago, to help us achieve the most cost effective design we request that you identify areas of the Project that would be impacted by Historical & Museums, Title 37 and other applicable laws, and if impacted, advise us of the type of Archeological Survey required.

To assist you in this task, last week, our GIS Technician forwarded GIS data files of the Project area to your Noel Strattan, Archeologist, GIS Program. The information delineates areas as detailed below where we may desire to install public sanitary sewer facilities. I believe we agree, that existing public right-of-ways are classified as "previously disturbed areas", how would the following "other areas" be classified.

- A 20-foot area immediately adjacent to the public right-of-way (both sides).
- Pump Station Locations 100' x 100'.
- Landlocked & low-pressure areas where the facilities would not be immediately adjacent to a public right-of-way 30-foot wide buffer.

In addition, for your use we have included aerial photography and 5-foot contours.

If you have any questions or require additional information, call me a (610) 398-2503.

Sincerely,

Frank Leist  
 Capital Works Manager

cc: Daniel DeLong, Township Manager, UMiT  
 Noel Strattan, Archeologist, GIS Program, PHMC

**SPECIAL MEETING AND DISCUSSION  
UPPER MILFORD TOWNSHIP  
MAY 18, 2005, 2:00 P.M., TOWNSHIP BUILDING**

**MINUTES**

**ATTENDANCE:** Supervisors' Smith, Mohr, and Kradjel, Manager DeLong, Solicitor Fisher, and Secretary Shaak

<b>NAME</b>	<b>PHONE #</b>	<b>E-MAIL</b>	<b>REPRESENTING</b>
Dan DeLong	(610) 966-3223	<a href="mailto:ddelong@uppermilford.net">ddelong@uppermilford.net</a>	Upper Milford Township
Brian Boyer	(610) 798-4172	<a href="mailto:briboyer@state.pa.us">briboyer@state.pa.us</a>	PennDOT – Permits Manager
Karl E. Schreiter, Jr.	(610) 873-0520	<a href="mailto:kes1@schreiterengineering.com">kes1@schreiterengineering.com</a>	SEA
Sean McElroy	(610) 791 - 9810 Ext. 115	<a href="mailto:sean.mcelroy@pa.usda.gov">sean.mcelroy@pa.usda.gov</a>	USDA - Rural Development
Jack Kauffman	(610) 791 - 9810 Ext. 123	<a href="mailto:jack.kauffman@pa.usda.gov">jack.kauffman@pa.usda.gov</a>	USDA - Rural Development
Carol Halper	(610) 861-9734	<a href="mailto:carol.halper@mail.house.gov">carol.halper@mail.house.gov</a>	Congressman Dent
Dan Mohr	(610) 967-5726		Upper Milford Township
Henry H. Kradjel	(610) 967-1536	<a href="mailto:panma86@aol.com">panma86@aol.com</a>	Upper Milford Township
Susan J. Smith	(610) 966-2915		Upper Milford Township
Kim Shaak	(610) 966-3223	<a href="mailto:kshaak@uppermilford.net">kshaak@uppermilford.net</a>	Upper Milford Township
Frank Leist	(610) 398-2503	<a href="mailto:frankleist@lehighcountyauthority.org">frankleist@lehighcountyauthority.org</a>	Lehigh County Authority
Aurel Arndt	(610) 398-2503	<a href="mailto:aurelarndt@lehighcountyauthority.org">aurelarndt@lehighcountyauthority.org</a>	Lehigh County Authority
Marc Fisher	(610) 437-4896	<a href="mailto:mfisher@fast.net">mfisher@fast.net</a>	Upper Milford Township
Adrienne Baker-Green	(610) 434-1444	<a href="mailto:adrienne_baker@specter.senate.gov">adrienne_baker@specter.senate.gov</a>	Senator Specter
Mary Ensslin	(610) 770-0142	<a href="mailto:Mary_ensslin@santorum.gov">Mary_ensslin@santorum.gov</a>	Senator Santorum
Jill Krause	(610) 791-6021	<a href="mailto:jikrause@state.pa.us">jikrause@state.pa.us</a>	PennDOT
Joe Tulio	(610) 798 - 4280 Ext. 107	<a href="mailto:jtulio@state.pa.us">jtulio@state.pa.us</a>	PennDOT
Russ Benner	(215) 361-6050	<a href="mailto:rbenner@schoordepalma.com">rbenner@schoordepalma.com</a>	Upper Milford Township
Mike Brunamonti	(570) 826-2333	<a href="mailto:mbrunamonti@pa.state.us">mbrunamonti@pa.state.us</a>	DEP
James Ridgik	(570) 826-2335	<a href="mailto:jridgik@state.pa.us">jridgik@state.pa.us</a>	DEP
Senator Robert Wonderling	(215) 368-1500	<a href="mailto:rwonderling@pasen.gov">rwonderling@pasen.gov</a>	Senator Robert Wonderling
Representative Doug Reichley	(610) 965-9933	<a href="mailto:dreichle@pahousegop.com">dreichle@pahousegop.com</a>	Representative Doug Reichley
Mike Gallagher	(717) 783 - 4488	<a href="mailto:mgallagher@state.pa.us">mgallagher@state.pa.us</a>	Pennvest
Priscilla Coblentz	(215) 545 - 4980	<a href="mailto:priscilla@greenleepartners.com">priscilla@greenleepartners.com</a>	Greenlee Partners, LLC

Call meeting to order at 2:15 pm. (32)

1. Welcome, opening remarks and thank you.

Upper Milford Township, Board of Supervisors Chairman, Susan J. Smith welcomed the group to the meeting and thanked everyone for participating in this meeting, that this was an opportunity to see intergovernmental agencies work together.

2. Introductions: Each individual introduced themselves to the group.

Special Meeting – May 18<sup>th</sup>, 2005

Page 2 of 5

The meeting was turned over to Representative Reichley.

Representative Reichley thanked the participants for taking time out of their schedule to discuss the Upper Milford Township Vera Cruz Sewer Project. There are three specific concerns that need to be addressed:

- a. Is the Township in a position to submit a proposed Act 537 Plan to DEP that would be approvable?
- b. Is the proposed plan an affordable plan for the residents?
- c. In coordinating this project with PennDOT, is PennDOT willing to compromise in order to help the Plan move forward.

Representative Reichley then turned the meeting over to Township Manager, Daniel DeLong.

3. The purpose of this meeting is to discuss some of the variable issues involved with the proposed Vera Cruz Sewer Project with the various officials of other agencies with the intent of arriving at some mutual agreeable conclusions or compromises that will provide sufficient direction to allow the Township to proceed with finalizing the Act 537 Plan for submission to DEP with the intent on proceeding with project design and construction thereafter.

4. Discussion topics:

- a. Project background and overview: Dan DeLong, Township Manager and Frank Leist, Lehigh County Authority

Township Manager, Daniel DeLong addressed the audience and gave a summary of the Township's history with the proposed sewer project. He explained how everything was started there have been several studies, and cost estimates have been completed and each time this plan has been stalled by the excessive cost, and therefore, it has not been done. The Township's Act 537 Plan update was begun in 1996. Part of the problem with the Act 537 Plan is with the fact that there will be major work done in PennDOT's right-of-ways, wetlands will be impacted and archaeological studies will have to be done because there are major archaeological resources in the Vera Cruz area. Manager DeLong reviewed the maps of the proposed areas for the benefit of the audience. Manager DeLong then turned the meeting over to Frank Leist, Capital Project Manager for Lehigh County Authority.

Frank Leist is working with the Township on the Act 537 Plan and is assisting the Township with the necessary funding revisions of the Plan and the development of plans for PennDOT's review. Mr. Leist reviewed the costs that will impact the residents and the costs of the entire project. Mr. Leist reviewed the number of confirmed, suspected, and probable and no malfunctions. Out of the residents

Special Meeting – May 18<sup>th</sup>, 2005

Page 3 of 5

surveyed there is a confirmed 37 % that do have malfunctions. Estimated costs of the project are 7.7 million dollars for the entire project. The LCA is trying to make this project as affordable as possible the costs are approximately \$4,000 per E.D.U., between \$3,000 – 5,000 for private plumbing costs and an annual user fee of \$1,354. Mr. Leist discussed the one million dollar appropriation for the project, which was provided to the Township with the assistance of Senator Specter. Ms. Adrienne Baker-Green confirmed that there is no deadline for the appropriation and the grant amount is \$970,000.

There were discussions by various participants about the appropriation and funding for the project.

b. PennDOT issues / requirements ref: April 8<sup>th</sup>, 2005 meeting.

Frank Leist and Jill Krause and Brian Boyer of PennDOT discussed the meeting with PennDOT on April 8th. Ms. Krause confirmed that PennDOT was willing to take the 1.7 mile paving scheduled for Main Road East and West out of their 2005 Schedule and come back to pave it at a later date. PennDOT would pave Churchview Road rather than Main Road. Mr. Leist said that the cost of the project was based on working in PennDOT's right – of – way. Mr. Boyer said that PennDOT was willing to work with the Township to minimize costs, it is difficult at this point to say what will work and what would be waived. Mr. Boyer would like more detailed plans prior to making any type of a decision. Several hundred thousand dollars can be saved for this project if PennDOT is willing to work with the Township on various items such as borings, flowable fill material and other issues.

At this point in time Solicitor Fisher asked how long would it take the Lehigh County Authority to get a plan to PennDOT? Frank Leist said a few days. Solicitor Fisher then asked Mr. Boyer how long it would take to review the plan. Mr. Boyer said a week or two.

Mr. Boyer said that PennDOT would work with the Township on backfill, which would be an approximate savings of \$250,000. Discussions about the roads and shoulders took place, of what condition they would be returned to PennDOT if the road area would be utilized to place the sewer pipes.

Senator Wonderling asked for responses from the involved parties so that the project does not lose momentum.

Mike Brunamonti of D.E.P. commented that they need the following things: a response to their letter dated October 29<sup>th</sup>, 2004; receive a revised plan; new advertisement publishing all of the facts; for the plan to go to the Planning Commission and to have the plan adopted by resolution of the Board of Supervisors. There will be a comment period of 30-days and this process will take approximately 120 days.

Special Meeting – May 18<sup>th</sup>, 2005

Page 4 of 5

A review of the process was done, and a narrowing of deadlines by all parties was done also.

- Frank Leist will submit to PennDOT a conceptual plan by June 1<sup>st</sup>, 2005.
- Brian Boyer will review the plan by June 15<sup>th</sup>, 2005.
- The Township will make comments to the October 29<sup>th</sup> letter, make the necessary revisions to the Act 537 Plan, run an advertisement, have the plan reviewed by the Planning Commission, have the 30-day waiting period and to adopt a resolution and submit all of this information by September 1<sup>st</sup>, 2005 to D.E.P.
- D.E.P. will review the submitted plan, contingent upon all questions being answered to their letter of October 29<sup>th</sup>, and then the plan will be processed within fifteen (15) days after they receive the plan (whether to be approved is based upon correct information).

Once that process is done then an R.F.P. (request for proposal) can be done for a design of the proposed sewer project.

Mike Brunamonti of D.E.P. reviewed some of the concerns that D.E.P. had with the initial submission by the Township regarding the cost and affordability of the project.

- c. DEP Bureau of Water Quality comments on letter from the Lehigh County Authority dated May 10<sup>th</sup>, 2005 and / or other issues.

- d. Funding

Mike Gallagher of Pennvest spoke regarding the project, the anticipated interest rates that would be available for project financing. He also suggested allocating costs to the entire existing and new user base to minimize costs to the proposed new users.

Mr. Jack Kauffman of the USDA also spoke about the financing of the project, what the agency would be able to do, interest rates, and grants available to the elderly and low-income households. The grants are for the most needy.

Mr. Kauffman also indicated that a waiver of the boundary line between rural area and urban area will be forthcoming within a few weeks.

Mr. Aurel Arndt of the LCA spoke about the CDBG – Community Development Block Grants available to the residents. There are more grants available through the CDBG than the USDA.

A survey of the resident's incomes will have to be done in order to process the grants funding.

Special Meeting – May 18<sup>th</sup>, 2005  
Page 5 of 5

5. Conclusions:

Everyone will try to meet the milestones and times as discussed.

6. Public Input: None given.

7. Adjournment: 3:56 p.m.

Respectfully Submitted,  
Upper Milford Township

Kimberly D. Shaak  
Secretary / Treasurer



Act 537 PLAN UPDATE  
MILESTONE 1 : SUBMISSION  
TO PENN DOT

Copied  
w/ 2/05  
OK

REC'D  
6-01-05  
E. BOS.  
2 SIDEN



**Lehigh County Authority**

1053 Spruce Road \* PO Box 3348 \* Allentown, PA 18106-0348  
(610)398-2503 \* FAX (610)398-8413

1 June 2005

Brian Boyer  
Permit Engineer  
Pennsylvania Department of Transportation, District 5-0  
1713 Lehigh Street  
Allentown, PA 18103

HAND DELIVERED

Subject: Vera Cruz Area Sewer Project  
Upper Milford Township  
S.R. 2027 & S.R 2023  
PADOT Construction and Roadway Restoration Issues

Dear Mr. Boyer:

To assist PADOT in providing a determination regarding the compromises to your current practices that were discussed at our 8 April 2005 meeting and again at the 18 May 2005 Township meeting, enclosed is a set of plans showing a conceptual horizontal layout, utilizing the limited base plan data currently available. By definition, the plan represents a "concept" based upon design location concepts and does not reflect the exact locations of the proposed sanitary and appurtenances. As an example, if, on the conceptual plan, the sanitary sewer main is shown in the shoulder on a specific side of the road, the main could be located on the opposite of the road in the shoulder on the plans submitted with the HOP Application providing the basic design location concept is met. The basic design location concepts are:

SANITARY SEWER MAINS & MANHOLES: Whenever possible, the facilities would be located in the shoulder of the road rather than in the travel lane, encroachment by the main and manholes into the travel lanes would be minimized.

FORCE MAINS: Whenever possible, would be located approximately 3-feet within the travel lane paralleling and immediately adjacent to the gravity main.

TRANSVERSE OPENINGS OF IMPROVED AREAS OF THE ROADWAY: Would be minimized.

As you are aware a significant portion of the project cost is PADOT roadway restoration. To help reduce project costs we ask that PADOT apply the provisions of Chapter 459 in a uniform and fair manner rather than asking the residents within the project area to bear the cost of unnecessary construction and roadway restoration requirements. We feel that the following compromises would be fair.

1. All transverse openings of improved roadway areas, by mains and/or laterals would be by trenching and backfilled with 2RC in accordance with PADOT standards.
  - Borings would not be required.
  - The use of flow-able fill would not be required.
2. Shoulders improved or unimproved would be replaced in like kind regardless of the proposed sanitary sewer trench location. In other words, construction of paved shoulders in areas where there were previously unimproved shoulders would not be required.
3. Restoration of transverse openings of improved roadway areas will be in accordance with the typical PADOT trench restoration standard, a 1-foot cut back. A 20-foot overlay centered on the trench (10-feet each side) would not be required.
4. When the wearing course is less than 5 years old; and if there are less than five (5) transverse openings of an improved roadway area within 100 linear-feet of pavement the entire length of the roadway between openings would not have to be overlaid.
5. There is no mention in Chapter 459 of pavement joints not being allowed in the "wheel rut" areas of a roadway, therefore, we would adhere to the following from 459;  
  
*"(5) If an opening is made in a bituminous concrete pavement within 3 feet from the edge of pavement or other longitudinal joint or opening, the surface restoration shall be extended to the edge of pavement or other longitudinal joint or opening".*
6. The repair or replacement of existing PADOT storm drainage infrastructure would not be required, unless it was damaged during the installation of the proposed sanitary sewer.

In another matter, we request that PADOT delay overlaying the portions of Main Road East & West that are within the Project area until the Mid-2007.

It is our desire to move this project forward and request a timely review and written response to the aforementioned issues.

If you have any questions or require additional information, please call me at (610) 398-2503 or e-mail me at [frankleist@lehighcountyauthority.org](mailto:frankleist@lehighcountyauthority.org).

Sincerely,

Frank Leist  
Capital Works Manager

cc: Upper Milford Township Board of Supervisors  
Daniel DeLong, Township Manager, UMiT



Pennsylvania Department of Environmental Protection

2 Public Square  
Wilkes-Barre, PA 18711-0790  
June 3, 2005

REC'D  
6-06-05

Northeast Regional Office

570-826-2511  
Fax 570-830-3016

CERTIFIED MAIL NO. 7003 3110 0005 5834 3812

Upper Milford Township Supervisors  
c/o Mr. Daniel DeLong, Township Manager  
5831 Kings Highway South  
P.O. Box 210  
Old Zionsville, PA 18068

copied  
6/6/05  
CK

C-BOS  
MS  
KIM

FAXED TO  
LUS BENNER  
6-06-05  
CK

Re: Act 537 Sewage Plan  
Upper Milford Township, Lehigh County

Dear Ladies and Gentlemen:

I am writing as a follow-up to the meeting that James Ridgik and I attended on May 18, 2005 concerning your proposed sewer project.

Before resubmitting your Act 537 Sewage Plan to the Department, all of the comments contained in our October 29, 2004 plan review letter need to be addressed. Also, please be sure to address the planning agency review, public notification and plan adoption requirements. Assuming the Department receives an administratively complete Plan, I made a commitment that the Department would review the Plan within two weeks of receipt.

The Department appreciates the information provided in the May 10, 2005 letter we received from Mr. Frank Leist at the Lehigh County Authority, especially with regards to the financial aspects of the project. After reviewing this information more closely, we believe the following comments will need to be addressed:

- Referring to Page 5 of the letter, details should be provided to show how the \$452 UmiT Common Rate Charge and the \$902 Vera Cruz Project Charge are derived.
- As indicated in the Vera Cruz Area Project/Conceptual Cost Estimate Table, the \$792 LCA Connection Fee for the Western Lehigh Interceptor, the \$1,012 Treatment Plant Capacity Fee, and the \$90 UmiT Connection Fee are in agreement with the amounts shown in the Plan we reviewed last year. However, the Route 29 Capacity Fee appears to have increased from \$1,067 to \$2,054. Was a fee increase recently enacted by LCA?
- The letter indicates that a low-pressure sewer system is being evaluated in order to determine if it would reduce the project cost; however, the Department was asked if completion of this evaluation could be deferred until the design phase of the project. In order to be eligible for Pennvest funding, the Plan must demonstrate that the selected alternative is cost-effective. The low-pressure alternative should be included in the Plan; otherwise, the Plan may need to be revised if the alternative were to change after the Plan was approved. This evaluation should include a present worth cost analysis of the gravity system versus the low-pressure alternative.



- When submitting the final Plan, the debt service should be calculated based upon the estimated interest rates and loan term provided to you from Pennvest.
- If necessary, the project cost estimates should be revised to reflect any input received from the Pennsylvania Department of Transportation regarding the requirements for flowable fill and borings.

Due to the high cost of the proposed project, everyone agrees that it is very important that all available avenues for reducing the financial impact be thoroughly evaluated. One suggestion put forth during the meeting was to consider spreading some of the project cost over the entire user base. The Department believes this suggestion should be considered as one of the financial alternatives in the Plan. Also, as discussed previously, if the income in the project service area is believed to be substantially less than the median income of the Township, an income survey might justify better financing. If an income survey is to be done, it should be completed as soon as possible, rather than waiting until completion of design. The Department would like the Plan to demonstrate the affordability of the proposed project in light of the above suggestions.

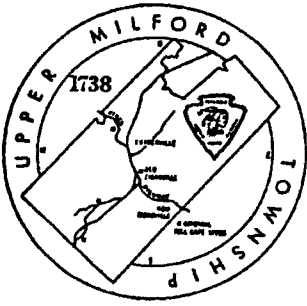
If there are any questions, please contact James Ridgik or me at 570-826-2511.

Sincerely,



Michael J. Brunamonti, P.E.  
Chief, Planning Section  
Water Management Program

cc: Frank Leist/Lehigh County Authority  
Karl Schreiter/Schreiter Engineering Associates  
Michael Gallagher/Pennvest  
The Honorable Robert C. Wonderling  
The Honorable Arlen Specter  
The Honorable Charles W. Dent  
The Honorable Rick Santorum  
The Honorable Douglas G. Reichley  
Jack Kauffman/USDA-Rural Development



## UPPER MILFORD TOWNSHIP BOARD OF SUPERVISORS

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Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

### SUMMARY OF REQUIRED TASKS ACT 537 PLAN REVISIONS MEETING OF JUNE 9, 2005

*Copied  
6/22/05  
CK*

In attendance: Daniel DeLong, Russell Benner, Karl Schreiter

- The Primary task of editing and updating the January 2004 Act 537 Plan will be done by SEA (Karl Schreiter) with overview and assistance from Schoor DePalma (Russell Benner, and staff)
  - Sub tasks are necessary to complete the revisions and will be accomplished by the parties as indicated and submitted to SEA for inclusion in the plan text.
- The comments and or requirements included in the October 29, 2004 DEP letter all need to be addressed; (Letter attached)
  - Item 2 C – Page 1-8 fees & funding details
    - Vera Cruz Area (To be addressed by LCA)
    - South 7<sup>th</sup> Street (To be addressed by LCA) Jim Ridgik indicated that he would like a statement in the Plan that explains that the South 7<sup>th</sup> Street area will be provided with public sewer through a 3M Module and financing through private fees and CDBG Grants.
  - Item 4 – Planning Commission letter is ok. (Unless they are looking for another comment on the revisions.)
  - Item 5 – Public notice requirement (UMT will prepare and submit to Jim Ridgik for comment then forward to SEA)
    - Include Sewage Management Program (UMT will prepare and forward to SEA)
  - Page 28 needs to be added which includes Pennvest requirements (Add to Chapter 2 & 3 of report) (SEA will do)
  - III. B. – Brian Miller needs to do letter and report for onlot sewer survey. The well water survey is not necessary at this time. (The numbers need to be consistent with LCA & SEA tables and or explanation of differences (i.e. study area not the same as project area.)
  - VI. A. – Ok.

*6-28-05  
SVA ROCKWELL  
WANTS TO SEE  
REVISED MAP*

- Item 2 – Provide communication that allocation is available, City of Allentown comment? (LCA) Ask Brad Youst for a letter from Emmaus on Shimerville Road hydraulic capacity, any reserve being retained for Borough use? (UMT)
- Item 5 – Paragraph on Antidegradation (Schoor DePalma)  
Item II – PA Historic & Museum Commission (PHMC) this is a statement and the PHMC requirements will be addressed as part of the project design. The project area was submitted to PHMC and they are currently evaluating the impact(s). Any communication will be forwarded to Karl for inclusion in report. Steven McDougal indicated that what was in first letter will hold true. (LCA will do)
- C. Description of / evaluation of alternatives  
Table 3-4 verify WWTP cost at \$2,300,000 and capacity of plant. (LCA & SEA)  
Table 3-5 Clarify LCA fees (LCA & SEA)
- D. Cost Estimates & Financing
  - Finalize and provide to Karl. (LCA) (Schoor DePalma will help on low pressure alternative)
  - Statement that South 7<sup>th</sup> Street project will be by 3M minor module. (SEA) Request a letter of no prejudice from Pennvest. Statement of finance alternatives (LCA?)
- Institutional evaluation  
This section of the checklist on Page 26 needs to be completed. (SEA)
- VIII. Justification for selected alternative. (SEA & UMiT)
- Appendix A. – Resolution needs to be revised to reflect selected alternatives, use of planning modules and include septic management areas (UMT do and submit to SEA)
- Appendix B. – Incorporate Daniel DeLong comment into plan (SEA)
- Appendix D. – Public notice (See item 5 above) Jim Ridgik wants to review and approve ahead of time)
- Appendix G. – Need letter from Brian Miller for Alternate 4 & 8 regarding confirmed malfunctions, state that in letter initial field survey, follow up dates, etc.
- Table 5-1, 4-3 – Verify and clarify with additional statement. Referencing the Act 537 Guidance Manual. (Brian Miller, SEA)
- TAR – Need to get together and submit revised task to DEP (Schoor DePalma, UMT)

### Other issues

- Verify viability of a 100% low pressure system. The contact at Site Specific Design, Inc. is Kevin Callahan at 215-857-3730 or 215-768-4135. They did a “Down & Dirty” analysis and say it will work but we need independent verification. If low pressure is a viable alternative it will become alternative no. 13 and will need full cost evaluation and mapping and may be the recommended choice. (Schoor DePalma, SEA, LCA)

SUE ROCKWELL  
WANTS TO LOOK  
• REVISION PLAN

- Golf Circle will be a recommended PSA but needs statement that service will be by developer extension.
- Assemble and attach all correspondence to plan submission – PHMC, Pandi, P.C. (UMT, SEA)
- Do we need another review by Lehigh Valley Planning Commission? By UMT Planning Commission (Dan DeLong will call DEP)
- Brian Miller should go through Section 4 and update or verify the tables re: SC-1, LC-1,2,&3; Table 2-7, 2-8, 2-9, & 2-10.
- Add W.B. property to P.S.A.-6 (Schoor DePalma)
- Have LCA verify table 2-12 (PSA 1,2,3,&4) (Current information from Frank Leist)
- Address property assessment issues (UMT Board of Supervisors, LCA)
- Address or not address the concept of spreading the overall costs for the project to all current users and new users. (LCA, UMT Board of Supervisors)

Submitted by: Daniel A. DeLong, Manager Upper Milford Township 

Cc: Board of Supervisors  
Brian Miller, SEO  
Russell Benner, Schoor DePalma  
Karl Schreiter, SEA  
Frank Leist, LCA



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF TRANSPORTATION  
www.dot.state.pa.us



Engineering District 5-0  
1713 Lehigh Street  
Allentown, Pennsylvania 18103

June 15, 2005

**LEHIGH COUNTY, UPPER MILFORD TOWNSHIP  
SR 2027 AND SR 2023  
VERA CRUZ AREA SEWER PROJECT  
PRE 5372  
PENNDOT CONSTRUCTION AND ROADWAY RESTORATION ISSUES**

Mr. Frank Leist  
Capital Works Manager  
Lehigh County Authority  
1053 Spruce St.  
P.O. Box 3348  
Allentown, PA 18106

Dear Mr. Leist:

The Department has reviewed the preliminary plans and your letter submitted on June 1, 2005. We again want to express our desire to work with the affected parties to minimize costs, but yet have a quality product.

After review of your letter, and based on the requests made at the meetings of April 8 and May 18, the Department has the following response to your suggestions:

1. The Department will waive the boring provided the proper restoration and re-surfacing are accomplished. Flowable fill will be waived, but 2A modified will be required for restoration and the trench will sit for ninety (90) days to allow for settlement.
2. Shoulder work can not be waived. If the line falls within three (3) ft. of the edge of the travel way and a shoulder is not provided, then roadway edges deteriorate rapidly causing failure of the pavement.
3. The one (1) ft. cut back is acceptable. However, a twenty (20) ft. overlay will be required to allow for a smooth transition.
4. The Department can not waive this request in SR 2027. However, in SR 2023, if the sewer work is completed in time for our overlay work in 2007, the Department will waive the requirement for the overlay work. We

**LEHIGH COUNTY, UPPER MILFORD TOWNSHIP  
SR 2027 AND SR 2023  
VERA CRUZ AREA SEWER PROJECT  
PRE 5372  
PENNDOT CONSTRUCTION AND ROADWAY RESTORATION ISSUES  
JUNE 15, 2005  
PAGE 2**

understand you may have some time restraints and we will schedule our work on SR 2023 as far as possible into the 2007 construction season.

5. The Department agrees.
6. The Department agrees that no repair of existing PennDOT storm drainage facilities will be required unless it is a direct result of your work.

The Department also agrees not to put any time restrictions on when work can be performed in the roadways. This will allow you some latitude for your work schedule.

At a future date when detailed plans become available for review, the Department is willing to once again look for cost savings that would allow savings and quality work to everyone.

If you have any questions or require additional information, please write or contact the District Permit Office at (610) 798-4172.

Very truly yours,



Brian J. Boyer  
District Permit Manager  
Engineering District 5-0

**LEHIGH COUNTY, UPPER MILFORD TOWNSHIP  
SR 2027 AND SR 2023  
VERA CRUZ AREA SEWER PROJECT  
PRE 5372  
PENNDOT CONSTRUCTION AND ROADWAY RESTORATION ISSUES  
JUNE 15, 2005  
PAGE 3**

cc: A.C. Bhajandas, P.E., District Executive  
G.L. Fry, P.E., ADE – Maintenance  
D.R. Toomey, P.E., District Traffic and Operations Engineer /TRF  
B.J. Boyer, District Permit Manager/PERMITS  
R.J. Young, Jr., District Press Officer  
F.E. Smith, Lehigh County Permit Supervisor

Honorable R.C. Wonderling, Pennsylvania Senate  
Honorable D.G. Reichley, Pennsylvania House of Representatives  
S. Smith, Upper Milford Chairperson  
D. DeLong, Township Manager, Upper Milford Township  
J.L. Gurinko, Lehigh Valley Planning Commission

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Project.doc



Commonwealth of Pennsylvania  
Pennsylvania Historical and Museum Commission  
Bureau for Historic Preservation  
Commonwealth Keystone Building, 2nd Floor  
400 North Street  
Harrisburg, PA 17120-0093  
www.phmc.state.pa.us

RECEIVED JUL 06 2005

1 July 2005

EXPEDITE REVIEW USE  
BHP REFERENCE NUMBER

Frank Leist  
Capital Works Manager  
Lehigh County Authority  
1053 Spruce Street  
P.O. Box 3348  
Allentown, PA 18106-0348

Re: ER# 00-1971-077-D  
Vera Cruz Area Sewer Project, Upper Milford  
Township, Pennsylvania

Dear Mr. Leist:

The Bureau for Historic Preservation (the State Historic Preservation Office) has reviewed the above named project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation as revised in 1999. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

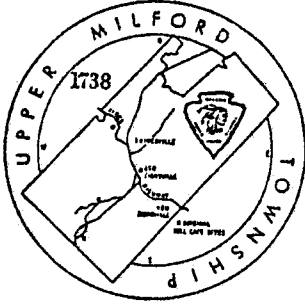
Pursuant to our ongoing coordination regarding the Vera Cruz Area Sewer Project, we have enclosed an aerial map outlining the Vera Cruz Jasper Quarry Site (36Lh12). Sections of the project area in which archaeological survey is necessary are highlighted in yellow and red.

If you need further information in this matter please consult Steven McDougal at (717) 772-0923.

Sincerely,

Douglas C. McLearn, Chief  
Division of Archaeology &  
Protection

DCM/srm



## UPPER MILFORD TOWNSHIP BOARD OF SUPERVISORS

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Web: <http://www.uppermilford.net>

Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

July 6, 2005

Mr. Bruce Fosselman, Manager  
Borough of Emmaus  
28 S. 4<sup>th</sup> Street  
Emmaus, PA 18049

### **RE: Upper Milford Township Act 537 Plan**

Dear Bruce:

Upper Milford Township is in the lengthy process of developing revisions to the Township's Sewage Facilities Plan. (Act 537 Plan)

The primary focus, as determined by the sewerage needs assessment, and the likely public sewer project area for approximately the 290 existing units and potentially ten (10) future units will be the Leibert Creek Watershed area extending from the southeasterly boundary of the Borough toward and including the "Vera Cruz" area. (A plan of the general project area is attached.)

The Township is aware, from previous communications and discussions, that portions of the Emmaus system are near their hydraulic capacity and as such it would not be possible to connect a significant number of units to the Borough's system without the provision of increasing hydraulic capacity.

The Township is proposing a project that will require the use of several pumping stations in order to move the proposed sewage flow to an area south of the Borough thus avoiding the Borough's system. A series of pump stations or a low pressure system will connect and discharge to the existing LCA / Upper Milford gravity system at Salem Drive west of Shimerville Road.

The Township requests the Borough's comment on the Township's proposed selected solution in respect to the following:

1. Does the Borough have any new information or see any potential for the Borough's existing sewer system to be able to adequately handle the Township's anticipated flow from 300 units?
2. In so much as the geographic location of two existing dwelling units situated on the east side of Leibert Creek just south of the Pennsylvania

Avenue bridge would be less complicated connecting to the terminus of the Borough's system on Pennsylvania Avenue, does the Borough have sufficient capacity to receive additional flow from those two units in order to eliminate the need to make a stream crossing?

3. There are 14 units in Upper Milford Township that would appear to be able to connect to the Borough's system at the terminal manhole located on Shimerville Road via a gravity extension, the Township questions if the Borough's system has sufficient capacity to accept the anticipated flow from approximately 14 units in the area of Shimerville Road and Barney Avenue?

The Township eagerly awaits your or your consultant's comments in order to finalize the Act 537 Plan revisions for submission to the Pennsylvania Department of Environmental Protection for their approval.

Should you have any questions or require additional information, please contact me at 610-966-3223.

Sincerely,

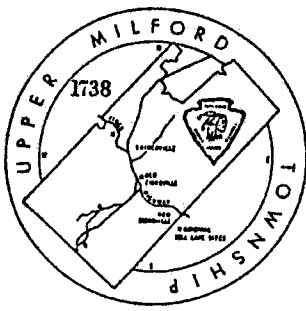


Daniel A. DeLong  
Township Manager

DAD:ck

Cc: Brian Miller, SEO  
Board of Supervisors  
Frank Leist, Lehigh County Authority  
Karl Schreiter, SEA  
Russell Benner, Schoor DePalma





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Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

July 15, 2005

Lehigh County Authority  
Frank Leist  
PO Box 3348  
Allentown, PA 18106

**Re: Upper Milford Township Sewer Project**

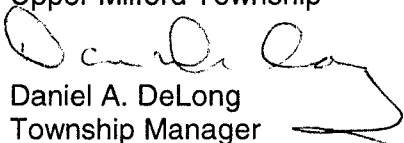
Dear Frank;

The Board of Supervisors at a Special Meeting held on July 13<sup>th</sup>, 2005 at 7:00 p.m. took action to allow me to provide you with the following direction in preparation of the calculations of the "Sewer Project" Cost Recovery:

1. The Board of Supervisors is in agreement that the three (3) Jasper Park tracts should be included in the project relative to Cost Recovery.
2. The Board of Supervisors, by split vote, approved the combination tapping fee and property assessment method of cost recovery for the purposes of developing the financial projections. The Board of Supervisors further request that for this purpose the tapping fee to be set at \$3,250 and the total sum of the tapping fees and land assessment equal a total of approximately \$1.32 million.
3. The Board of Supervisors is aware of the adjoining / abutting connection requirement and also knows that the final project authorization and cost recovery methods must be done through the adoption of an ordinance.

I trust that this information will allow you to complete the financial analysis requirement of the D.E.P. letter. If you have any questions or need additional information please contact me at (610) 966 - 3223.

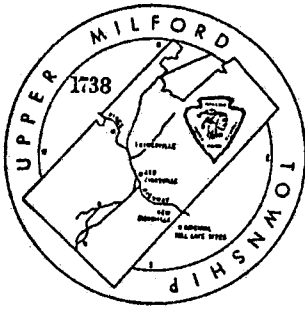
Sincerely,  
Upper Milford Township

  
Daniel A. DeLong  
Township Manager

DAD/kds

cc: Board of Supervisors  
Marc Fisher  
Kim Shaak





## UPPER MILFORD TOWNSHIP BOARD OF SUPERVISORS

PO Box 210 ~ 5831 King's Highway South  
Old Zionsville, PA 18068  
Phone: (610) 966 - 3223 ~ Fax: (610) 966 - 5184  
E-mail: [info@uppermilford.net](mailto:info@uppermilford.net)  
Web: <http://www.uppermilford.net>

Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

July 22, 2005

Ms. Sue Rockwell  
Lehigh Valley Planning Commission  
961 Marcon Boulevard, Suite 310  
Allentown, PA 18103-9397

### RE: Upper Milford Township Act 537 Plan Revisions

Dear Ms. Rockwell:

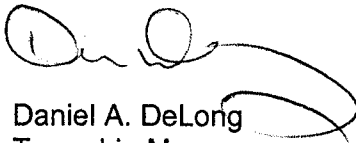
Attached for your information in determining your need for additional review of the Township's Act 537 Plan revisions is a copy of map figure 2-14 which illustrates the proposed sewer service areas as they relate to the "needs assessment areas".

It should be noted that the plan recommends providing public collection and transportation facilities to the majority of the areas of PSA-1, PSA-2, PSA-3 and PSA-4. (An additional "Vera Cruz" project area plan is also enclosed for your information, which indicates the general boundaries of the proposed project area.) The plan also recommends pursuing the installation of public sewage collection and transportation facilities to the area of PSA-13 (S. Seventh Street Extension area) using the minor planning module method of DEP approval.

The Township is anticipating that its consultants will have the entire document printed and available for view by Friday, July 29, 2005. I will have someone hand deliver a copy to you as soon as we have them in hand.

Please contact me at your earliest convenience to discuss any concerns you may have on this matter. I can be contacted at 610-966-3223.

Sincerely,



Daniel A. DeLong  
Township Manager

Attachment

Cc: Board of Supervisors  
Frank Leist, Lehigh County Authority  
Russell Benner, Schoor DePalma  
Karl Schreiter, Schreiter Engineering Associates

*Copied  
7/25/05  
OK*

# HANOVER ENGINEERING ASSOCIATES, INC.

5920 Hamilton Boulevard, Suite 108  
Allentown, Pennsylvania 18106-8942  
(610) 395-9222  
FAX (610) 395-9262

Rec'd  
7-27-05  
C. BOS

July 25, 2005

Mr. Bruce Fosselman  
Borough Manager  
Borough of Emmaus  
28 S. 4th Street  
Emmaus, PA 18049-3899

RE: Upper Milford Township  
Act 537 Plan Update  
HEA Project ES00-14

Dear Bruce:

Our office is in receipt of a letter dated July 6, 2005, from Dan DeLong, Upper Milford Township Manager, as forwarded by your office. The following comments are presented for your consideration:

Mr. DeLong's letter requests Borough evaluation and response regarding sewer system transportation capacity for three (3) specific groups of potential sewer customers:

- a) A total of 300 EDU's from a generally described service area;
- b) Two (2) EDU's which are east of Leibert Creek, near the end of the Borough's existing system at the Pennsylvania Avenue bridge; and
- c) Fourteen (14) EDU's in the vicinity of Shimerville Road and Barney Avenue.

In a phone call to Dan DeLong, I confirmed that the 300 EDU amount represents the current total projection of sewer system transportation capacity required by the Township's Act 537 Study, including the two (2) units along Pennsylvania Avenue and the fourteen (14) units near Barney Avenue.

In response to an earlier inquiry by the Township, our office prepared calculations dated June 12, 2003 to determine the peak flow rates and available hydraulic capacity in Borough sewer lines downstream of the potential Township point(s) of connection. Those calculations assumed the need to reserve capacity within the system for twenty-two (22) future EDU's within the Borough, and then determined the excess available capacity in the lines. Using those calculations, it was determined that the 8-inch sewer line C252-C286 has a remaining capacity of 0.143 MGD.

Assuming the average flow from the Township's new customers would be 250 GPD/EDU, and assuming a peak flow factor of three (3) times average flow, the required transportation capacity would be 0.225 MGD, which exceeds the available capacity in C252-C286 of 0.143 MDG. Accordingly, the Borough sewer system does not currently have capacity to transport the flows from the Township's proposed 300 EDU's.

Mr. Bruce Fosselman  
RE: Upper Milford Act 537

- 2 -

July 25, 2005

The limited expected flows to the Pennsylvania Avenue and Barney Avenue locations (2 EDU's and 14 EDU's, respectively) would not exceed the transportation capacity available in sewer line C252-C286. However, these flows would drain through the 10-inch sewer C293-C294 which has been identified as having no additional capacity. Accordingly, the Borough sewer system does not currently have capacity to transport the flows from these sixteen (16) EDU's.

It should be noted, however, that the computed limiting capacity of line C293-C294 is based on projected instantaneous peak flow and the assumption that any surcharge in the line is unacceptable (per PA DEP standards). This may be somewhat conservative because this line and the lines immediately upstream of this line have no low-lying customers and no basement services. Accordingly, an occasional short duration peak flow surcharge in the sewer main should not adversely affect the system. In fact, this has proven to be the case during recorded peak flow events. Nonetheless, unless the existing "background flow" in this section of the Borough system can be reduced, there is not sufficient capacity to connect these sixteen (16) EDU's and meet DEP peak flow capacity requirements.

Please be aware that the capacity shortfall to serve only the two (2) Pennsylvania Avenue units is approximately 0.031 MGD (peak flow requirement for future Borough EDU's plus the Township's two EDU's). Since the tributary area to C293-C294 includes two stream crossings and numerous sewer runs in areas of high groundwater, it is highly likely that a sewer testing and repair project in this area could reduce peak flows from infiltration and inflow, and make adequate capacity available. If Council plans to continue the current I&I Remediation Program in 2006, specifically investigating the southern portion of Emmaus Sewer System Area 4, capacity for the two (2) EDU's could possibly be made available at that time.

If you have any questions regarding this information, please contact the undersigned.

Respectfully,

HANOVER ENGINEERING ASSOCIATES, INC.



J. Bradley Youst, P.E.  
Borough Utility Engineer

JBY:msw

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Enclosure

cc: Dan DeLong, Upper Milford Township Manager  
Jeffrey Clapper, Public Works Director

Revised  
7-27-05  
DD



**LEHIGH COUNTY AUTHORITY**

1053 SPRUCE STREET • P.O. BOX 3348 • ALLENTOWN, PA 18106-0348  
610-398-2503 • FAX 610-398-8413  
email: [service@lehighcountyauthority.org](mailto:service@lehighcountyauthority.org)

27 July 2005

Daniel DeLong  
Township Manager  
5831 Kings Highway South  
PO Box 210  
Old Zionsville, PA 18068-0210

Re: Upper Milford Township, Act 537 Plan  
Vera Cruz Project Area, approximately 310 EDUs  
Western Lehigh Interceptor Capacity

Dear Mr. DeLong:

Lehigh County Authority certifies that the Western Lehigh Interceptor presently has the capacity to receive and convey the sewage flows from the aforementioned project and that the additional wasteload from the proposed new land development presently will not create a hydraulic or organic overload or an overload considering the five year projected flow for the WLI.

By this certification, the Authority is not granting allocations for this development. Allocations are made on a first-come, first-served basis and are only available after a user or developer receives final subdivision approval, pays the necessary fees and complies with municipal procedures for obtaining allocation.

Sincerely,

Aurel M. Arndt  
General Manager

cc: Karl Schreiter, P.E., SEA

Rec'd  
7-27-05  
AD.



**LEHIGH COUNTY AUTHORITY**

1053 SPRUCE STREET • P.O. BOX 3348 • ALLENTOWN, PA 18106-0348  
610-398-2503 • FAX 610-398-8413  
email: [service@lehighcountyauthority.org](mailto:service@lehighcountyauthority.org)

27 July 2005

Daniel DeLong  
Township Manager  
5831 Kings Highway South  
PO Box 210  
Old Zionsville, PA 18068-0210

Re: Upper Milford Township, Act 537 Plan  
Vera Cruz Project Area, approximately 310 EDUs  
Upper Milford Township Collector System Capacity

Dear Mr. DeLong:

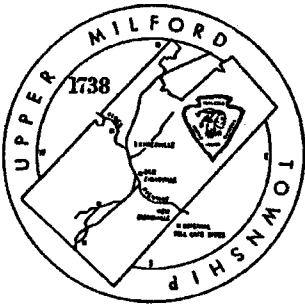
Lehigh County Authority certifies that the Upper Milford Township Collector System presently has the capacity to receive and convey the sewage flows from the aforementioned project and that the additional wasteload from the proposed new land development presently will not create a hydraulic or organic overload or an overload considering the five year projected flow for the system.

By this certification, the Authority is not granting allocations for this development. Allocations are made on a first-come, first-served basis and are only available after a user or developer receives final subdivision approval, pays the necessary fees and complies with municipal procedures for obtaining allocation.

Sincerely,

Aurel M. Arndt  
General Manager

cc: Karl Schreiter, P.E., SEA



**UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS**

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Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry Kradjel

7/28/05

James Ridgik, P.E.  
Sanitary Engineer  
Bureau of Water Quality Management  
PA DEP  
2 Public Square  
Wilkes-Barre, Pa. 18701

Re: Act 537 misc. information

Dear Mr. Ridgik,

Enclosed you will find a copy of a letter to the Upper Milford Township Supervisors related to the percentages of malfunctions being used in the act 537 plan. Also you will find a copy of my report as requested.

If you have any questions or would like more information please let me know.

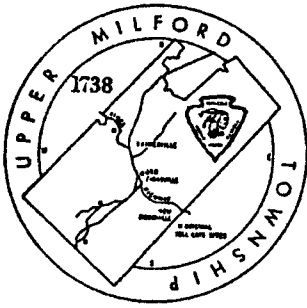
Thank you,

Brian Miller  
UMT Sewage Enforcement Officer #2350

Cc: Dan DeLong, Upper Milford Township Manager  
Twp. file

*Ridgik  
7-28-05  
[Signature]*

*C-605*



## UPPER MILFORD TOWNSHIP BOARD OF SUPERVISORS

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Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry Kradjel

7/28/05

Board of Supervisors  
Upper Milford Township

Re: Act 537 Needs Analysis Study Data.

Dear Chairperson Smith,

The final information from the needs analysis study for the Act 537 plan submission has been tabulated by Karl Schreiter of SEA, Inc. and Frank Leist at LCA, the percentages of Confirmed system malfunctions, Suspected malfunctions, Potential malfunctions and no malfunctions as defined in the Act 537 Sewage disposal needs identification guidelines from my calculations are as follows;

The S. Seventh St. area consists of approximately 23 properties with 2 of them being vacant, a total of 21 properties were surveyed, and this was 100% of the dwellings for this area.

- 47.62% were in the category of confirmed malfunctions.
- 9.52% were in the category of suspected malfunctions.
- 28.57% were in the category of confirmed malfunctions,
- 14.29% were in the category of no malfunctions.

The study for the proposed Vera Cruz proposed sewer service area as of 7/13/05 consists of approximately 318 properties with 33 of them being vacant a total of 266 properties were surveyed, this was over 93% of the dwellings in this area.

- 39.44% were in the category of confirmed malfunctions.
- 20.72% were in the category of suspected malfunctions.
- 31.08% were in the category of potential malfunctions.
- 14.74% were in the category of no malfunction.

Both Karl Schreiter and Frank Leist calculations appear to be approximately the same, minor variations occur between sewer service areas and study areas depending on the number of properties viewed as part of the calculations but for all intensive purposes I agree with the percentages being used by the Mr. Leist and Mr. Schreiter from the information I collected as part of the ACT 537 Plan.

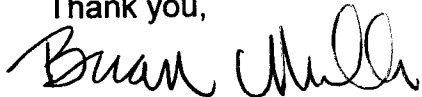
*Rec'd  
7-28-05  
C. B. B.*

More detailed information on the data collected during the study is available in the Act 537 study summary report, attached to the final submission to DEP.

The information from the survey represents the most accurate information I was able to compile from the data I collected during the study and to the best of my knowledge represents true and accurate information from the survey for the areas included in it.

If you have any questions or would like more information please let me know.

Thank you,

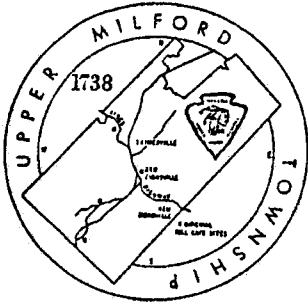
A handwritten signature in black ink that reads "Brian Miller". The signature is written in a cursive style with a large, looped "B" and "M".

Brian Miller

UMT Sewage Enforcement Officer #2350

Cc: James Ridgik, PADEP  
Daniel Delong, UMT Manager  
Frank Leist, LCA  
Karl Schreiter, SEA, Inc.  
Twp. file





## UPPER MILFORD TOWNSHIP BOARD OF SUPERVISORS

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Old Zionsville, PA 18068  
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Web: <http://www.uppermilford.net>

Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

August 24, 2005

Mr. Karl E. Schreiter, Jr., P.E.  
Schreiter Engineering Associates, Inc.  
7 Raleigh Drive  
Downingtown, PA 19335

*Copied  
8/24/05  
CK*

### **RE: Upper Milford Township Act 537 Plan**

Dear Karl:

The Board of Supervisors, at their meeting held on August 18, 2005, discussed the special meeting held on August 17, 2005 where the latest revision of the Township's Act 537 Plan was presented.

The Board of Supervisors discussion was mostly in regards to the perception of some of the speakers that the Township did not pursue some type of community system alternative and perhaps dismissed such a system without enough detailed consideration. The Board of Supervisors did acknowledge that they believe that the recommended alternative was the most viable long-term solution subject to continuing to look at the most economical solution as detailed plans and designs are developed.

The Board of Supervisors did ask that I request and solicit a brief response from you or the Townships' Sewage Enforcement Officer in regards to some of questions that were asked at the meeting, and also obtain some additional comments and verbage as to why alternatives were not chosen and why we chose the recommended alternative.

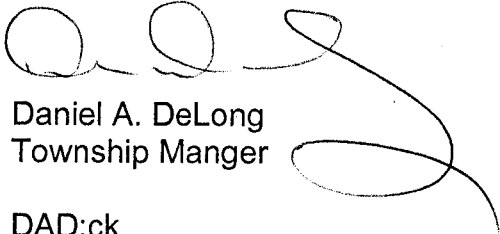
The Township specifically asks that you comment on the above and more directly on Mr. Haig's suggestion that alternative No. 5 or some other type of community system(s) be considered, and also Mr. Haig's statement that the report was not done in enough detail. If indeed it is your opinion that the Township should pursue in more detail the community system(s) concept(s), please feel free to express your opinions.

The Township would also welcome any other comment that you may have to clarify these conceptions.

Upper Milford Township  
Act 537 Plan  
August 24, 2005  
Page 2 of 2

If you have any questions you may call me at 610-966-3223.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. DeLong', with a large, stylized flourish extending from the end of the signature.

Daniel A. DeLong  
Township Manger

DAD:ck

Cc: Russell Benner, Township Engineer  
Board of Supervisors  
Kim Shaak, Secretary / Treasurer  
Brian Miller, SEO



**WHITTEMORE AND  
HAIGH ENGINEERING, INC.**  
200 BETHLEHEM DRIVE, SUITE 201  
MORGANTOWN, PA 19543

Review  
8-26-05  
C. BOS  
- R. Koval  
- F. L. WIST

(610) 910-4320  
(610) 238-1570  
(610) 898-7897

CIVIL  
ENVIRONMENTAL  
GEOTECHNICAL  
HYDROGEOLOGICAL  
STRUCTURAL  
WATER RESOURCE MANAGEMENT  
CONSULTING & ENGINEERING

August 25, 2005

Ms. Kate Crowley  
Waste Management Program Manager  
Northeast Regional Office  
2 Public Square  
Wilkes-Barre, Pennsylvania 18711-0790

RE: Act 537 Plan Revision  
Upper Milford Township  
Lehigh County

Dear Ms. Crowley:

Whittemore and Haigh Engineering, Inc. (WHEI) represents Mr. and Mrs. George DeVault, 3502 Main Road East, Upper Milford Township and numerous other residents of Upper Milford Township, regarding engineer matters concerning the proposed adoption of the Act 537 Plan Revision. I have been asked to review regulatory and technical issues associated with the Act 537 Plan Revision.

The Upper Milford Township Act 537 Plan Revision, which was advertised on July 29, 2005 for the required 30 day comment period, is essentially the same Plan Revision that was submitted to PADEP in late 2004. At that time PADEP reviewed the Act 537 Plan Revision and issued a review letter dated October 29, 2004, signed by James A. Ridgik, P.E.; Sanitary Engineer, Water Management Program. I quote from page 5, General Comments of the Departments review letter.

"Given the scope of the above comments, the Department **recommends** that the Township **should consider withdrawing** the Plan at this time. A letter requesting withdrawal would need to be sent to the Department. If the Township elects not to withdraw the Plan, the Department requests a response to the above comments no later than December 1, 2004.

I have reviewed the Act 537 Plan Revision, attended and commented at the public meeting on August 17, 2005, held discussions with Schreiter



Engineering Associates (Plan Revision Engineer) and spent almost two hours one on one with Mr. Brian Miller, Upper Milford Township SEO, going over in detail the "Need Identifications" survey. I wish to offer you some comments on the process of completing the Act 537 revision by the Township and the Department.

The Township Supervisors are required by law to base their decision to adopt or not adopt the Act 537 Plan Revision based upon the public record, which consists of the Plan Revision as presented at the August 17, 2005 public hearing, comments and answers at the public hearing and written correspondence. I will refrain from hearsay, rumors, innuendos, campaign promises and back room politics/conversation, since these are not part of the public record. Believe me when I tell you that the citizens of Upper Milford are irate concerning the manner in which they perceive the Township and the Department has handled this matter. I am convinced that they are justified in their outrage.

Alternative 4; Vera Cruz Service Area consists of 318 properties in the Village of Vera Cruz, Vera Cruz Road, Main Road West (All Rural-Suburban Residential) as well as Main Road East and the Moyer Subdivision Phase I and II (both Rural Agricultural). Two Hundred and Sixty Six (266) of these properties were surveyed.

1. The Needs Identification survey as presented in the report identified 99 confirmed malfunctions however the same survey only identifies 9 properties utilizing either a "best technical guidance" (BTG) or a holding tank. In discussions with the Township SEO, he indicated that he can, when required, document additional BTG, particularly in the Village of Vera Cruz. The Plan Revision as presented does not demonstrate a "public health" issue warranting a community sewage system.
2. The most recent individual water well sampling was performed in 1993-1996 (at least nine years old). I was informed by Mr. Karl E. Schreiter, Jr. P.E. DEE of Schreiter Engineering Associates, that the Department refused to fund individual water well testing as part of the scope of work. As such, the report fails to document a "pollution issue" warranting a community sewage system.
3. The most recent surface water sampling was performed in 1993. I was informed by Mr. Karl E. Schreiter, Jr. P.E. DEE that the Department refused to fund surface water sampling as part of the scope of work. As such the report fails to document a "pollution issue" warranting a community sewage system.
4. I asked the Township if they had any correspondence from downstream public water supply uses on Liebert Creek indicating a "pollution issue". The Township has none. I asked the Township if



they had any reports indicating degradation of surface water quality on Liebert Creek. The Township has none. As such the report fails to document a "pollution issue" warranting a community sewage system.

5. I asked the Township if the Department's "Technical Decision Making" matrix had been utilized on repairs to confirm malfunctions prior to proceeding with BTG repairs. The answer was basically NO. In all objectiveness, I will acknowledge that within the "Village of Vera Cruz" the TDM matrix will in most cases, lead you to BTG or a holding tank due to the small lot sizes, floodplain and isolation distances. In the Rural Agricultural District the TMD matrix will work.
6. I was informed that sometime after 2002 the Department visited the Township, performed a site walkover, waved the magic hand and deemed the on-lot systems were not a viable alternative. There is no record of the site visit and subsequent discussions. It is part of the decision making process and must be made part of the public record. Apparently the only thing the Department wanted was an update of confirmed malfunctions and thereby allowed the Township to proceed with BTG as an interim to a community sewage system. The Department therefore predetermined the outcome of the Act 537 Plan Revision. The outcome being a community sewage system.
7. The Plan Revision lumps the R-SR and the RA zoning districts into one Vera Cruz Study Area. It then characterizes this study area as a high priority due to density, isolation distances and floodplain. This is true of the Village of Vera Cruz (R-SR) but not necessarily true of the RA zoning district. The two zoning districts should have been broken out into a two-study area. The only reason I can determine they were not is because they are both in the same drainage basin and this is how the previous studies had been done. That is not an acceptable answer.
8. The report as written, fails to even consider or analyze Alternative System Guidance (ASG) in determining if individual on-lot sewage systems are acceptable as part of the Alternative Analysis.
9. PADEP Policy No. 362-2206-007, "Policy Establishing New Program Direction For Act 537 Comprehensive Planning", dated April 15, 1997 clearly states that:

"Both municipalities and the Department must realize that it may be impossible for some *rural communities* to correct sewage problems using conventional collection, conveyance and treatment systems, due to low development densities and lack of available funding.



Mr. Frank Leist, Lehigh County Authority, took a real drag them down, bare knuckle beating at the August 17, 2005 public meeting from irate citizens over the individual costs to the residents for the "Vera Cruz Area" project. He indicated that Alternative 4 has the highest individual costs of any project LCA has undertaken. There most likely exists a real problem in the Village of Vera Cruz (R-SR), yet the larger rural landowners in the RA district, many of whom do not have confirmed malfunctions, have alternative sites and/or could employ ASG are being asked to bear the burden of the costs of up to \$24,750.00 for a single family residence. This includes an average private plumbing fee of \$3,500.00. Many residents on large lots will be higher and some individual residents who have to bore under a stream could be considerably higher. One of my clients has a written estimate from an Allentown plumbing contractor that his actual plumbing fee would be \$31,812.50 not \$3,500.00. Another client has an estimate of \$58,000.00 since he must bore under a stream.

The published Township cost estimates do not include the cost of abandoning the on-lot system (\$1,500.00) and a monthly service charge of \$115.00/month for the next 20 years. These costs are the costs the Township and LCA provided. It takes a real stretch of the imagination or Donald Trump type money to consider this affordable.

The issues involving Alternative 4, "Vera Cruz Study Area" are not strictly technical. They are policy and politics. Your own Department Engineer recommended that the Township *consider withdrawing* the Plan Revision. The proposed Plan Revision fails to meet the smell test on affordability. When the Township is allowed to perform a full, complete and properly defined "Needs Identification for the Village of Vera Cruz (R-SR zoning district) there is a high probability that a proper and complete alternative analysis will document a requirement for a community sewage system in the Rural-Suburban Residential (R-SR) zoning district. This problem in the Village of Vera Cruz has been smelling and festering like a cesspool for the last 30(+) years. The issue remaining then would be affordability.

The Township has taken action to redefine Zoning Districts and SALDO requirements to allow for acceptable on-lot systems by requiring minimum lot sizes, requiring primary and alternate absorption beds, maintaining 50' buffers on wetlands, considering soils, high groundwater table and steep slopes, etc. If we all had 20/20 hindsight then the problems of the Village of Vera Cruz and Moyer Subdivision Phase I would not exist.

**On behalf of my clients and the residents of Upper Milford Township, I am asking that you and representatives of your regulatory/policy making and engineering staff attend the August 30, 2005 Township Supervisors meeting. The Township is being torn apart because of the**



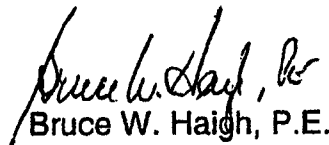
preverbal not in my back yard (NIMBY) mentality. It is neighbor against neighbor. The haves against the have nots. The needs identified against the needs identified nots. Reasonable people can disagree in a reasonable manner. Alternative 4 is causing people to go beyond reason. People are being forced to consider selling their farm land to developers because they can not afford to pay the unrealistic, unjustified and unaffordable costs of this proposed community sewage system (Alternative 4).

There may well be a valid need for community sewers in the Village of Vera Cruz. Alternative 4 is not the answer. A lot of good conscientious people to include the Township Supervisors, Mr. Dan DeLong, Township Manager; Mr. Brian Miller, Township SEO and two highly respected engineering firms put their best effort into trying to find a viable, environmentally acceptable and affordable solution. Alternative 4 is not the answer.

The Township elected officials and the Township residents need the help of your Department in finding a viable, environmentally acceptable and affordable solution. There is an old saying that I was taught many years ago when I was a raw young lieutenant in the U.S. Army. If you are not part of the solution, then you are part of the problem. The Department cannot stand on the sideline. I implore you, your policy/regulatory staff and your engineer, to attend the August 30, 2005 meeting and become part of the solution.

WHEI thanks you in advance for your cooperation in this matter. I can be reached at my office at (610) 913-6820.

Sincerely

  
Bruce W. Haigh, P.E.  
President

cc: Enviro/DevaultAct537082505.doc  
G. DeVault  
Upper Milford Township  
Schoor Depalma  
Schreiter Engineering Assoc.  
J. Ridgik, P.E., PADEP  
M. Brunamonti, P.E., PADEP

# Whittemore and Haigh Engineering, Incorporated

200 Bethlehem Drive - Suite 201  
Morgantown, PA 19543

Tel. (610) 913-6820 or  
Tel. (610) 286-1622 ext. 110  
Fax (610) 286-1679

Date: 8/26/05

To: Ms. Kate Crowley

Company: Waste Management Program Manager, PA DEP, Northeast

Fax No.: (570) 830-3016

From: Bruce Haigh, PE

Number of pages being transmitted (including this page): 6

## Special Instructions/Comments:

Ms. Crowley:

This is an important issue which requires your  
immediate attention.

Regards

Bruce W. Haigh, PE  
President

If there is an error in this transmission, please contact sender at (610) 913-6820

Hard copy to be mailed:

Charge Code:



# Whittemore and Haigh Engineering, Incorporated

200 Bethlehem Drive - Suite 201  
Morgantown, PA 19543

Tel. (610) 913-6820 or  
Tel. (610) 286-1622 ext. 110  
Fax (610) 286-1679

Date: 8/26/05

To: Dan DeLong,  
Company: Township Manager, Upper Merion Township

Fax No.: (610) 966-5184

From: Bruce W. HAIGH

Number of pages being transmitted (including this page): 6

## Special Instructions/Comments:

Dan:

No Surprises.

Regards

Bruce

If there is an error in this transmission, please contact sender at (610) 913-6820

Hard copy to be mailed:

Charge Code:



SCHREITER ENGINEERING ASSOCIATES, Inc.  
7 Raleigh Drive  
Downingtown, PA 19335-1103

Rec'd  
8/29/05  
C. 805

August 29, 2005

Daniel A. DeLong, Township Manager  
Upper Milford Township  
PO Box 210  
Old Zionsville, PA 18068-0210

Subject: Upper Milford Township  
Act 537 Plan Revision  
Response to Haig Comments  
SEA Project 050-001

Dear Dan:

As requested, we have reviewed your letter dated August 24, 2005 regarding use of community systems to provide sewage service in lieu of the Alternative as currently recommended in the Township's Act 537 Plan. Previous versions of the Act 537 Plan (including the Year 2000 Plan as prepared by Schoor DePalma) included use of community systems. This issue was also addressed during the review process with the Lehigh Valley Planning Commission (LVPC) as part of the 2003 Act 537 Plan. In response to comments provided by the LVPC in their letter November 21, 2003, use of community type facilities for the designated Project Area was not considered feasible and no further analysis was required or pursued.

As part of the 2003 Act 537 Plan, we did present alternative treatment systems for the outer areas of the Township including Old Zionsville/ Churchview area, Zionsville area, and the Indian Creek drainage area. Details on these types of systems were presented in Appendix L of the Act 537 Plan. In each of these cases, an alternative type treatment system was proposed to address a limited wastewater need in each area. Each of the outlining area's location and proximity to existing central collection sewage facilities was to far from any existing facilities to transfer wastewater from these outlying areas.



Mr. Dan DeLong  
August 29, 2005

As part of the Act 537 Planning process, area soils were evaluated to determine if any were suitable for some form of land application of treated effluent. The evaluation criteria was based on guidelines outlined in USEPA's *Process Design Manual – land Treatment of Municipal Wastewater*:

Permeability Rate	>0.06 in/hr
High Ground water Table	>4.0 ft
Depth to Bedrock	>4.0 ft
Slope	<12.0%

Using the information shown on Table 2-1 of the Plan, the following soils meet the minimum criteria:

Soil Type	High Ground Water Table (ft)	Depth to Bedrock (ft)	Limiting Permeability (in/hr)
Edgemont	N/D	5	0.6 - 6
Gladstone (GeA-C)	N/D	5.7	0.2 - 0.6
Gladstone (GfB-C)	N/D	5.7 - 6.5	0.6 - 2
Washington	N/D	5.9	0.6 - 2

N/D – No available data

The soils map was then used to locate potential sites for land application type systems.

In addition, any land application system would be required to meet the following operational criteria:

- The soil must be able to transfer the treated effluent to the lower groundwater table without significant groundwater mounding in the area.
- The groundwater must meet potable drinking water standards at the sites property line. Under typical conditions, the nitrogen loading on the groundwater is a controlling design factor.

Essentially, we were required to find large well-drained tracts of land with suitable soils.

Based on additional information obtained from the Township's Sewage Enforcement Officer (SEO), Mr. Brian Miller, the larger tracts of suitable soils are located west of the Pennsylvania Turnpike and south of the railroad right of way near the lower Milford/Upper Milford municipal boundary. Although the soil maps indicate potentially suitable soils closer to the Project area, field testing conducted by the Township SEO as part of



Mr. Dan DeLong  
August 29, 2005

normal permitting of on-site system has shown limited available soils for individual on-site systems. Based on this limited soil testing, it was determined that large tracts of suitable soils within the immediate vicinity of the Village of Vera Cruz were not available.

Based on the distribution of potential users within the Designated Project Area (Vera Cruz and Moyer Subdivision Areas) as shown in the 2005 Act 537 Plan, we anticipated that three community systems would be required to service the clustered areas of the Designated Project Area as shown in the 2005 Act 537 Plan:

<b>Location</b>	<b>Proposed Sewer Service Areas</b>	<b>Estimated Flow</b>
		(mgd)
Moyer Subdivision	PSA1 and PSA 4	0.017
Village of Vera Cruz Area	PSA 3	0.052
Shimerville Road /Mill Road Area	PSA 2	0.009

A sewage collection system would be required for each community system. The collection system would include a gravity sewer discharging to a central pumping station. The pumping station would then discharge to a package type treatment system followed by a disposal field. To minimize total nitrogen loadings on the disposal fields and thus minimize disposal field size, the package treatment plants would be required to produce a consistently high quality effluent with total nitrogen concentrations of 10 mg/l or less. Also, the community systems should have two potential full size disposal fields. This would allow for backup service if the primary disposal field failed in the future.

Based on this limited analysis, pumping stations would be required for both the Vera Cruz and Moyer subdivision areas to transport wastewater to an area where land application is potentially feasible. In addition, treatment plants would be required at both sites. These plants would require daily maintenance and operational monitoring along with removal of any sludges generated at each facility.



Mr. Dan DeLong  
August 29, 2005

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### **Shimerville Road/ Mill Road Area**

This area is located adjacent to the proposed LCA connection point on Salem Drive. Since the LCA facilities are readily available, use of a community system would not be practical. Any collection system built in this area could be discharged into the LCA system.

### **Village of Vera Cruz Area**

This area would require the largest of the proposed community systems. The closest available sites with adequate size and soil conditions would be located on the western side of the Pennsylvania Turnpike (Seem Farm). Therefore, all wastewater from this area would have to be collected and transported to the site.

In addition, one potential site was identified for use as a land disposal site in the area of Quarry Road. Further investigation of this area indicated that the area is subject to significant historic impacts and would require an extensive archeological study prior to any facility being constructed on the site. In addition, the tract of property was deeded to the Township for use as open space. It is questionable whether the proposed use as a wastewater disposal system would be allowed under this deed agreement.

Other larger tracts of land adjacent to the Village are part of the Township's Agricultural Preservation Program. It is our understanding that this designation prohibited their use for wastewater disposal.

Based on all of these factors, it was determined that land disposal for the wastewater from the Village of Vera Cruz would not be cost-effective.

### **Moyer Subdivision Area**

This area would utilize a smaller type community system. Based on a review of available soils, the closest site appeared to be located east of the railroad and north of acorn Drive. Therefore, all wastewater from this area would have to be collected and transported to the site.

Based on the information provided by the Township SEO, soil conditions within any given area of the Township can vary from site to site. Detailed hydrologic studies would be required to evaluate any potential land disposal sites to assure that the soils would have adequate hydrologic capacity to treat and transfer the treated wastewater effluent to the groundwater without impacting groundwater quality or groundwater elevations in the



Mr. Dan DeLong  
August 29, 2005

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area. Since a community system would require large contiguous tracts, significant testing must be completed to confirm soil type and conditions to assure that the required areas are available for use as a disposal site.

### Summary

Based on this information, use of all land application systems was eliminated for the following major reasons:

- Areas adjacent to or within the Village of Vera Cruz have significant historical impacts that limit their use for a wastewater disposal system.
- All of the larger land tracts with suitable soils for land disposal systems are located away from the Designated Project Area thus requiring a pumping station and long force main to transfer the sewage to any treatment plant and associated disposal area.
- Any land disposal alternative would require a treatment plant to produce a high quality effluent to protect groundwater quality. In addition, these treatment plants would require staff for on-going operations and maintenance activities to maintain proper effluent quality.

Based on this further review of the available information obtained to date, it is still our Professional Engineering opinion that land application of municipal wastewater, including use of community type systems, would not be cost effective and provide a long-term solution to meet the needs of the Township.

If requested and authorized by the Board of Supervisors, a more detailed analysis could be completed to locate potential sites for any community systems. This work would include preliminary sizing of disposal fields, and estimating treatment requirements and associated requirements such as pumping stations and force main locations. In addition, soils work should be completed at any potential disposal site to verify soil conditions and confirm that available soils information is accurate. This work would be completed in conjunction with the Township SEO.



Mr. Dan DeLong  
August 29, 2005

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If you should have any further questions concerning this matter, please feel free to contact us.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Karl E. Schreiter Jr.', written over a large, loopy flourish that extends upwards and to the right.

Karl E. Schreiter Jr., PE, DEE  
President

Cc: R. Benner, Shoor DePalma  
J. Boldaz, Shoor DePalma



Pennsylvania Department of Environmental Protection

2 Public Square  
Wilkes-Barre, PA 18711-0790  
August 31, 2005

Northeast Regional Office

Mr. James J. Kellar  
5401 Acorn Drive  
Emmaus, PA 18049

CC: BOS

D. DeLong  
Appendix B

570-826-2511  
Fax 570-830-3016

Re: Act 537 Sewage Planning  
Upper Milford Township, Lehigh County

Dear Mr. Kellar:

Thank you for your undated letter which I received on August 29, 2005, regarding the proposed Act 537 Plan for Upper Milford Township.

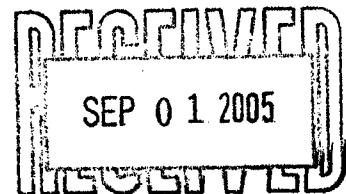
As I stated during our recent telephone conversation, you should provide your comments regarding the proposed Act 537 Plan directly to the Upper Milford Township Board of Supervisors for their consideration.

If you have any further questions, please contact me at the above telephone number.

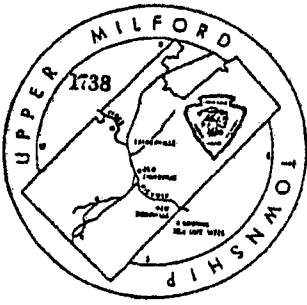
Sincerely,

Michael J. Brunamonti, P.E.  
Chief, Planning Section  
Water Management Program

cc: Upper Milford Township







UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS

PO Box 210 - 5831 King's Highway South  
Old Zionsville, PA 18068  
Phone: (610) 966 - 3223 - Fax: (610) 966 - 5184  
E-mail: [info@uppermilford.net](mailto:info@uppermilford.net)  
Web: <http://www.uppermilford.net>

ACT 537 PLAN

Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

PROJECT CORR.

APX - B.

# Fax

To: JIM RIDGIK PA DEP From: DAN DELONG

Fax: 570-830-3017 Pages: 3

Phone: Date: 9-01-05

Re: UMT ACT 537 PLAN CC:

Urgent  For Review  Please Comment  Please Reply  Please Recycle

• Comments:

JIM, ATTACHED FOR YOUR REVIEW AND COMMENT IS THE LEIBERT CREEK BASIN ALTERNATIVES AS PREPARED FOR THE ACT 537 PLAN SUBMISSION. PLEASE READ AND LET ME KNOW IF THE TEXT IS ADEQUATE SO AS TO ALLOW THE TOWNSHIP TO PURSUE THE LOW PRESSURE ALTERNATIVE SHOULD IT BE DETERMINED TO BE A VIABLE SOLUTION AFTER FURTHER "DESIGN DETAIL" INVESTIGATION. I.E. IS THIS WORDING FLEXIBLE ENOUGH TO ALLOW THE TOWNSHIP TO CHANGE ITS CHOICE FROM ACT. No. 4 (COMBINATION GRAVITY & PUMP STATIONS) TO ACT. No. 7 (COMPLETE LOW PRESSURE SYSTEM) IF IT IS DETERMINED TO BE A FUNCTIONAL SYSTEM?

THANKS  
DAN DELONG.



## Summary of Sewer Alternative Analysis

**No Action Alternative** - Based on the results of the alternative analysis, implementation of the No Action Alternative will not meet the future needs of the Township. Existing wastewater needs in the unsewered areas of the Township will continue to exist and the Township will not have the necessary resource to address them.

**Leibert Creek Basin Alternatives** - Based on the results of this analysis, both alternatives #3, #4 and #7 were found to be feasible alternatives. Based on the cost analysis, Alternative #7, (Low-pressure sewer collection system) appeared to be the least cost alternative presented. The second least costly alternative was Alternative #4 (Gravity Collection System with pumping stations).

A further comparison of these alternatives was made to evaluate the Alternatives:

The advantages of Alternative #7 versus Alternative #4 are as follows:

- Low-pressure sewer systems have been used extensively throughout the USA and Europe for about 30 years and have provided significant capital cost savings in areas where there is widely varying topography, the need for conventional pumping stations, bedrock close to the surface, high water tables, low density housing, and a variety of environmental issues. The capital construction cost of a low-pressure sanitary sewer system (Alternative #7) is estimated to be approximately 1.3 million dollars less when compared to the installation of a gravity sanitary sewer collection system with regional pump stations (Alternative #4).
- Alternative #7 will consist of small diameter force mains (2"-5") and, because of its shallow installation depth can be installed with fewer disturbances to existing lawns, sidewalks, pavement, and utilities when compared to Alternative #4 that consists of larger pipe diameters and deeper excavations.
- Alternative #7 will consist of low-pressure force mains and therefore, the overall regular maintenance of the low-pressure sanitary sewer system will be less when compared to Alternative #4, which includes regional pump stations that require daily maintenance.
- Typically in areas that are served exclusively by low-pressure sewers infiltration/inflow is significantly reduced.

The disadvantages of Alternative #7 Versus Alternative #4 are as follows:

- The design of a low-pressure sanitary sewer system (Alternative #7) must consider all potential future sanitary sewer connections, since the low-pressure



sanitary sewer system consists mainly of force mains, which have limiting velocities that can preclude future sanitary sewer connections. The gravity sanitary sewer system that is proposed under Alternative #4 will be capable of accepting a larger quantity of future sanitary sewer connections that may have not been anticipated during the initial planning phases. Additionally, the regional pump stations that are proposed under Alternative #4 can also be upgraded, if needed, to accommodate unanticipated future sanitary sewer connections.

- Grease in smaller diameter force mains, which are proposed under Alternative #7, may become a problem, which without proper maintenance could result in blockages.
- Public education is necessary so the user knows how to deal with emergencies or other maintenance problems.
- Property owners typically do not support the ownership, operation, and maintenance responsibilities associated with the individual pump stations that will be installed for the low pressure sanitary sewer system (Alternative #7). However, by township ordinance the owner's will be required to enter in to an annual Maintenance Agreement with a private company that has been given special training by the manufacture of the grinder pump.
- Power outages can result in overflows or the inability to discharge wastewater from the home, assuming there is an operating water supply during the the power outage

The main advantages of Alternative #7 are lower capital and potentially lower operating costs. However, the major disadvantage with Alternative #7 is its limited capacity compared to that of a gravity system to accept a larger quantity of long-term future sanitary sewer connections that may have not been anticipated during the initial planning phases.

Therefore, it is recommended that Alternative #4 be selected. However, during the design phase of the project, the use of a low-pressure sewer system for the Project Area in it's entirety or in part will be examined in greater detail.

**Remaining Areas of Township** - The remaining Alternatives should be implemented once a wastewater need in a given area is determined as part of the proposed septic management program. The Township should reserve capacity in the regional LCA interceptors and Allentown WWTP to address any needs in these areas once the systems begin showing signs of failure. The Township will be able to monitor system operational activity and need repairs and/ or replacement through the proposed sewage management district.

MEMORY TRANSMISSION REPORT

TIME : 09-01-'05 12:26  
TEL NO. 1 :  
NAME :

FILE NO. : 192  
DATE : 09.01 12:25  
TO : 15708303017  
DOCUMENT PAGES : 3  
START TIME : 09.01 12:25  
END TIME : 09.01 12:26  
PAGES SENT : 3  
STATUS : OK

TX ORIGINAL



UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS

PO Box 210 - 5631 King's Highway South  
Old Zionville, PA 15068  
Phone: (610) 966 - 3223 - Fax: (610) 966 - 5184  
E-mail: [info@uppermilford.net](mailto:info@uppermilford.net)  
Web: <http://www.uppermilford.net>

Chairman  
Susan J. Smith  
Vice-Chairman  
Daniel J. Mohr  
Supervisor  
Henry H. Kradjel

# Fax

To: JIM RIDGIK PA DEP From: DAN DELONG  
Fax: 570-830-3017 Pages: 3  
Phone: Date: 9-01-05  
Re: UMT Act 537 Plan CC:

Urgent  For Review  Please Comment  Please Reply  Please Recycle

• Comments:

JIM, ATTACHED FOR YOUR REVIEW AND COMMENT IS THE LEIBERT CREEK BASIN ALTERNATIVES AS PREPARED FOR THE ACT 537 PLAN SUBMISSION. PLEASE READ AND LET ME KNOW IF THE TEXT IS ADEQUATE SO AS TO ALLOW THE TOWNSHIP TO PURSUE THE LOW PRESSURE ALTERNATIVE SHOULD IT BE DETERMINED TO BE A VIABLE SOLUTION AFTER FURTHER "DESIGN DETAIL" INVESTIGATION. I.E. IS THIS WORTH FLEXIBLE ENOUGH TO ALLOW THE TOWNSHIP TO CHANGE ITS CHARGE FROM ACT. NO. 4 (CONVENTION CHARGE & AIRS SYSTEMS) TO ACT. NO. 7 (COMPLETE LOW PRESSURE SYSTEM) IF IT IS DETERMINED TO BE A FUNDAMENTAL SYSTEM?

Document2

THANKS  
DAN DELONG.

9-01-05

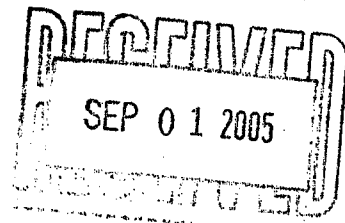
PHONE RESPONSE FROM MR. RIGGIE, PADEP.

PLAN AS WRITTEN ALLOWS UNIT TO PURSUE  
ACT. NO. 4, ACT. NO. 7 OR A COMBINATION OF A  
GRAVITY & LOW PRESSURE SYSTEM AS PER THE  
THE BEST AVAILABLE DESIGN BASED ON FIELD  
CONDITIONS.

DAN DeLONG

CC: BOS

Appendix B





2 Public Square  
Wilkes-Barre, PA 18711-0790  
August 31, 2005

**Northeast Regional Office**

Mr. James J. Kellar  
5401 Acorn Drive  
Emmaus, PA 18049

CC: BOS  
D. DeLong  
Appendix B

570-826-2511  
Fax 570-830-3016

Re: Act 537 Sewage Planning  
Upper Milford Township, Lehigh County

Dear Mr. Kellar:

Thank you for your undated letter which I received on August 29, 2005, regarding the proposed Act 537 Plan for Upper Milford Township.

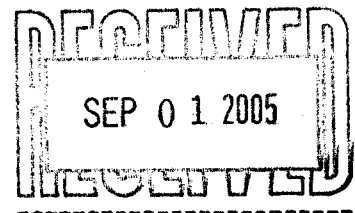
As I stated during our recent telephone conversation, you should provide your comments regarding the proposed Act 537 Plan directly to the Upper Milford Township Board of Supervisors for their consideration.

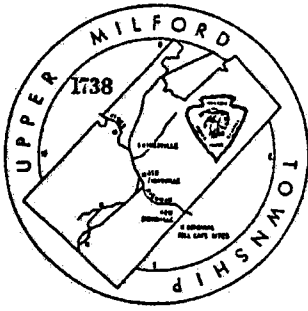
If you have any further questions, please contact me at the above telephone number.

Sincerely,

Michael J. Brunamonti, P.E.  
Chief, Planning Section  
Water Management Program

cc: Upper Milford Township





**UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS**


PO Box 210 ~ 5831 King's Highway South  
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Web: <http://www.uppermilford.net>

Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

# Memo

**To:** Karl Schreiter, Frank Leist, Brian Miller, Russ Benner  
**From:** Dan DeLong   
**CC:** UMIT BOS  
**Date:** 9/2/2005  
**Re:** Comment Response Schedule

Attached is a summary of the Act 537 Plan written public comment for the most recent draft (July 2005) along with copies of the written responses. The summary table indicates my opinion as to who would best respond to the question(s) asked by that individual as indicated in bold.

Please note that it is not necessary to respond to each and every question and references to similar questions is okay.

Brian Miller and UMT Staff will respond to Mr. Haigh's letter dated 08/16/05.

The following person(s) will respond in reference to Mr. Haigh's letter dated 08/26/05 (Letter No. 20).

Responder	Haigh's Letter dated 08/26/05			Haigh's Letter dated 08/29/05 (Letter No. 24)
	Question - 08/26/05	Question - 2 (which references letter dated 08/25/05 - questions 1 through 9)	Question - 4 (which references various other letters)	
Brian Miller	1			
Dan DeLong	15, 16, 25			8,11
Frank Leist	8, 12, 13, 14, 17, 19 - 24			5, 6, 7, 9

Memorandum to Responders

09/02/05

Page 2 of 2

Haigh's Letter dated 08/26/05				
Responder	Question – 08/26/05	Question – 2 (which references letter dated 08/25/05 – questions 1 through 9)	Question – 4 (which references various other letters)	Haigh's Letter dated 08/29/05 (Letter No. 24)
Joe Boldaz		① 6 – look for notes		
Karl Schreiter	5, 6, 7, 9, 10, 11, 18	5, 6, 8		2, last paragraph
Russ Benner		6, 7, 8		
No Response	3	1, 2, 3, 4, 9		1, 10
			(a – c) (e) Will be put in	3 – Included as Alt. No. 7
			① ✓ (d) Russ will check w/Joe	4 – Will be included

NOTES:

① THERE WERE NO NOTES. KARL & RUSS EXPLAINED IN THEIR RESPONSES.





**WHITTEMORE AND  
WHIGH ENGINEERING, INC.**  
200 BETHLEHEM DRIVE, SUITE 201  
MORGANTOWN, PA 19543

(610) 913-6820

Fax  
(610) 286-1679

Cell  
(610) 698-7697

Ms. Kate Crowley  
Waste Management Program Manager  
Northeast Regional Office  
PADEP  
2 Public Square  
Wilkes-Barre, Pennsylvania 18711-0790

*Faxed  
at 19105  
ck*  
September 12, 2005  
*cc: BOS  
D. DeLong  
B. Miller*  
*FAX CC.  
R. BENNETT  
F. LEIST  
K. SCHULTZ*

RE: Act 537 Plan Revision  
Upper Milford Township  
Lehigh County

**CIVIL**

Dear Ms. Crowley:

**ENVIRONMENTAL**

This is a follow-up to my August 25, 2005 letter and two separate voice mail messages I left to you, for which I still have not received either a written response or the professional courtesy of a telephone call from either you or a member of your staff. Whittemore and Haigh Engineering, Inc. (WHEI) represents Mr. and Mrs. George DeVault, 3502 Main Road East, Upper Milford Township and numerous other residents of Upper Milford Township, regarding both engineer matters and proposed financing, of the proposed adoption of the Upper Milford Township Act 537 Plan Revision.

**GEOTECHNICAL**

**HYDROGEOLOGICAL**

**STRUCTURAL**

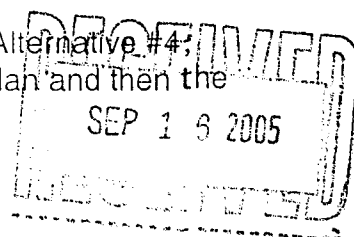
**WATER  
RESOURCE  
MANAGEMENT**

There are two questions which I have asked the Department; the Township Supervisors; the Township's engineering consultant, Schreiter Engineering Associates and the Lehigh County Municipal Authority, for which I have yet to receive a either complete or satisfactory answer. The answer to these two questions will have an impact on the Upper Milford Township Supervisors decision regarding adoption of the proposed Act 537 Plan.

**CONSULTING  
&  
ENGINEERING**

The Act 537 Plan's "recommended alternative" is Alternative #4 - Gravity Sewers. There has been much discussion on possibly accepting instead, Alternative #7 Low-pressure Sewers for the exact same proposed sewer service area (PSA).

Question #1: If the Township approved the Act 537 Plan for Alternative #4; Gravity Sewers; the Department then approves the Act 537 Plan and then the





Township decides after Departmental approval to peruse Alternative #7, what are the consequences on the following actions?

1. Additional Department funding for any revisions to the approved Act 537 Plan to include engineering fees, additional individual water well sampling, revisions to cost estimates, environmental assessments, etc.
2. PADEP permitting issues.
3. PENNDOT permits.
4. PENNVEST grants and low interest loans.
5. Community Development Block Grant funding.
6. Lehigh County Municipal Authority reimbursements and charges to the Township.
7. Any additional requirements for Consistency coordination.
8. Any additional requirements for re-advertising for public notice and public comment period.

PADEP Policy No. 362-2206-007, "Policy Establishing New Program Direction For Act 537 Comprehensive Planning", dated April 15, 1997 addressed the policy issue of "affordability" and clearly states that:

"Both municipalities and the Department must realize that it may be impossible for some **rural communities** to correct sewage problems using conventional collection, conveyance and treatment systems, due to low development densities and lack of available funding."

Affordability is an "economics" issue not a "financing" issue. I have researched PADEP regulations, PADEP technical guidance documents, talked to your staff, researched PA Act 537 and PA Act 57, the Second Class Township Code, searched the web extensively, contacted the Lehigh County Assessment Office, the Governors Center for Local Government Services, the Center for Rural Pennsylvania and followed leads to Penn State University and the Pennsylvania Municipal Authority Association. No one can provide me a single economic study or model that measures "affordability" in economic terms. Since the Department's Policy No. 362-2206-007, "Policy Establishing New Program Direction For Act 537 Comprehensive Planning" requires community sewers in rural areas to be "affordable" please answer the second question.

Question #2: What economic model or means test does the Department use to evaluate "affordability"?

In my August 25, 2005 letter to you, I implored you, on behalf of the taxpayers of Upper Milford Township, to attend and bring representatives of your regulatory/policy making and engineering staff to the August 30, 2005



Township Supervisors meeting. It is indeed unfortunate that this did not happen.

The Township elected officials and the Township residents need the help of the Department in finding a viable, environmentally acceptable and affordable solution. The Township Supervisors cannot evaluate "affordability" if there is no economic guidance that defines and measures it. The Township Supervisors have scheduled another Special Meeting for September 27, 2005 at 7:30 PM at the Vera Cruz Fire Department Social Hall. I will say once again, the Department cannot stand on the sideline. I implore you, your policy/regulatory staff and your engineer, to attend the September 27, 2005 meeting and become part of the solution.

WHEI thanks you in advance for your cooperation in this matter. I respectfully request a written response to this letter no later than September 22, 2005. I can be reached at my office at (610) 913-6820.

Sincerely,

Bruce W. Haigh, P.E.  
President

CERTIFIED MAIL and First Class Mail

cc: Enviro/DevaultAct537090905.doc  
Honorable Rob Wonderling, PA Senate  
Honorable Douglas G. Reichley, PA Assembly  
Kathleen A. McGinty, Secretary PADEP  
G. DeVault  
Supervisors, Upper Milford Township  
M. Brunamonti, P.E., PADEP



2 Public Square  
Wilkes-Barre, PA 18711-0790  
September 23, 2005

*REARD  
9-26-05  
C. BOS  
A. MILLER  
K. STAPPE  
R. BROWN*

**Northeast Regional Office**

570-826-2511  
Fax 570-830-3016

*Copy  
9/26/05  
OK*

Mr. Bruce W. Haigh, P.E., President  
Whittemore and Haigh Engineering, Incorporated  
200 Bethlehem Drive, Suite 201  
Morgantown, PA 19543

Re: Sewage Planning  
Upper Milford Township, Lehigh County

Dear Mr. Haigh:

I am in receipt of your correspondence dated August 25, 2005 (received August 31, 2005) and September 12, 2005 (received September 16, 2005) concerning sewage planning in Upper Milford Township, Lehigh County.

Let me begin by saying that the Department's role in the Act 537 sewage planning process is largely that of oversight. The sewage planning regulations require a formal public comment period. Written comments received during the comment period and the municipality's response must be submitted to the Department with the adopted, final Sewage Plan (Plan). Ideally, you should have provided your comments regarding the Plan directly to Upper Milford Township. I do note that it appears you sent a copy of your letters to the Township. As of the date of this letter, the Department has not yet received an adopted, final Plan from the Township.

It is the Department's understanding that sewage disposal has been acknowledged to be a serious problem in the Village of Vera Cruz for over three decades. In recent discussions, the Township Manager and the Township Sewage Enforcement Officer have assured the Department that the percentage of confirmed sewage malfunctions identified in the needs survey is not exaggerated. Due to the number of problems, and constraints such as small lots, floodplains and isolation distances, a community solution appears necessary in the Village area. Contrary to what you were told, the Department did not refuse to fund well sampling and surface water sampling. Given the above circumstances, the sampling was considered unnecessary to confirm that there are problems in the Village. For the areas outside the immediate Village, the Township may wish to take a closer look to see if there are other viable alternatives.

While the Department's role is that of oversight, we have not assumed a back seat during the Township's efforts to develop a Plan. My staff has attended meetings and discussed the plan many times with Township officials and their consultants. We haven't "waived the magic hand" nor "predetermined the outcome" of anything. The goal is to find the most cost-effective alternative that is technically, environmentally and administratively acceptable. To achieve this, the Township needs to make sure, within reason, that all technically feasible alternatives have been thoroughly considered.



You are correct that the Department's sewage planning regulations do not define affordability. Normally, municipalities seek financial assistance from agencies such as the Pennsylvania Infrastructure Investment Authority (PENNVEST) or the U. S. Department of Agriculture's Rural Utilities Service (RUS). These agencies take into account economic and demographic characteristics of the community to reduce the financial impact of the project. Affordability ultimately becomes a value judgment that must be made at the local level. If there is a valid need for a project and the selected alternative is reasonably justified, the local government needs to find a way to get the job done. In some cases, in addition to seeking funding from agencies such as Pennvest, the local government may need to pursue other avenues at its disposal for reducing the financial impact of the project.

I am enclosing a copy of a letter the Department sent to the Township dated June 3, 2005 for your reference. Among other things, this letter provided the Township with our opinion regarding the selection of a low-pressure sewer system versus a gravity sewer system. In subsequent discussions, we have advised the Township that perhaps the Plan can include both alternatives with the condition that the type of system will be finalized during the preliminary design stage of the project.

I would like to assure your client that once the Department receives a final, adopted Plan we will review it carefully to insure that it complies with the Department's sewage planning requirements. The Department's sewage planning grant program allows for fifty percent grant reimbursement for eligible planning costs, after a Plan has been municipally adopted and approved by the Department.

If you have any questions, please contact Michael Brunamonti of my staff at the above telephone number.

Sincerely,



Kate Crowley  
Program Manager  
Water Management Program

Enclosure

cc: Upper Milford Township/Mr. Daniel DeLong  
Schreiter Engineering Associates, Inc./Mr. Kurt Schreiter, Jr., P.E.  
PENNVEST/Mr. Michael Gallagher



**WHITTEMORE AND  
HAIGH ENGINEERING, INC.**  
200 BETHLEHEM DRIVE, SUITE 201  
MORGANTOWN, PA 19543

*cc: D. DeLoz  
BOS  
B. Miller  
F. Lust  
R. Bunker  
K. Seymour  
WR P.C.*

September 23, 2005

**RECEIVED**  
SEP 26 2005  
MORGANTOWN PA

RE: Act 537 Plan Update  
Upper Milford Township  
Township Resolution

Chairperson and Members  
Board of Supervisors  
Upper Milford Township  
Box 210  
Old Zionsville, Pennsylvania 18068

Dear Members Board of Supervisors:

Whittemore and Haigh Engineering, Inc. (WHEI) represents Mr. and Mrs. George DeVault, 3502 Main Road East, Upper Milford Township and numerous other residents of the Township regarding matters concerning the adoption of the Act 537 Plan Update.

WHEI has performed a through review as practically as possible considering the magnitude of the material contained in the Act 537 Plan Update, as well as information not contained in the Act 537 Plan Update. In order to move the process forward WHEI on behalf of my clients and the citizens of the Township offers the following comments for consideration by the Board of Supervisors. I recognize that the official comment period has expired; however, I feel that it is in the best interest of all parties concerned to seriously consider my request.

It is inevitable that public sewers will eventually come to the Vera Cruz Service area. Likewise, it is also inevitable that public sewers will come to "the area adjacent to South 5<sup>th</sup> Street (PSA-13); Indian Creek Area adjacent to St. Peters Road west of Chestnut Street (PSA-7); Hosensack Creek Area including Church View Road area (PSA-8); Old Zionsville area (PSA-9); Zionsville Area (PSA-10); and Swabia Creek basin area adjacent to Chestnut Street, Mill Road, Tank Farm Road and Rose Road (PSA-11). Page 4-3, Shreiter Engineering Associates (SEA) Act 537 Plan Update.

I will not go into the excruciating details of my reasoning of my proposed request in any greater detail that to say that on two separate occasions I personally offered my services on a pro-bono basis to the Chairperson of the Board of Supervisors to become part of a stakeholder group which would advise the Township Supervisors on how to try to make public sewers engineering sound, environmentally acceptable and affordable to the citizens of Upper Milford Township. To date there has been no response to my professional offer. It still remains on the table.

CIVIL  
ENVIRONMENTAL  
GEOTECHNICAL  
HYDROLOGICAL  
STRUCTURAL  
WATER RESOURCE MANAGEMENT  
CONSULTING & ENGINEERING



WHEI requests that the Board of Supervisors take the following two actions:

Action 1: That the Final Draft, as of July 28, 2005 of the Resolution adopting a revision to the Official Sewage Facilities Plan be modified on page 4, paragraph 3, to read...."The Board of Supervisors agree to implement Alternative No. 7 (delete Alternative No. 4).....continued as is.

Rational: Alternative No. 7, low-pressure sewers has been determined by Lehigh County Authority (LCA) to be less expensive (\$5,334,000) versus Alternative No. 4 gravity (\$6,515,000) for Total New Public Facility Cost. There will be less environmental damage due to construction, less susceptibility to cost growth due to energy costs, and a greater ability to control sustainable development.

Low-pressure systems are a proven technology and have been extensively used in localities where natural resource features; i.e., terrain, hills, long flat stretches, high water table, shallow bedrock, etc. works against gravity systems. Major portions of the Village of Vera Cruz and the properties along the north side of Main Road East lie within the 100-year flood plain and within areas of a high water table. Installation of gravity sewers in these area will cause the construction cost to escalate due to environmental concerns and needs to dewater and discharge to Liebert Creek, an exceptional value stream. Gravity systems require deeper excavations, which will dictate additional shoring and bracing. Fuel costs will increase due both to deeper excavations and cost of transportation

The Board of Supervisors in the September 21-22, 2005 East Penn legal notice has offered as an option...."using a low-pressure system or a combination of Alternative No. 4 and Alternative No. 7 will continue to be explored and possibly implemented during the detail design process". There are three phases in the standard design process. These are concept design, preliminary design and final design. The Board of Supervisors must make their decision at the completion of the concept design phase.

Action 2: That the Board of Supervisors adopt a second resolution which would be considered as reflecting "***The Intent of the Supervisors***" and would contain the following items:

1. The Township Board of Supervisors will establish a community "Stakeholders Group" consisting of representatives of the Planning Commission, Zoning Hearing Board, one Township Supervisors, citizens of the Township, agricultural interests, business interests, community groups, engineers, environmentalist, real estate interests, etc.

Rational: The purpose of this steering group will be to provide "public input and facilitate communication between the Township and the citizens of Upper Milford Township.



2. The Township Board of Supervisors will not assign “property benefit assessments” based upon acreage. Instead the Township will charge a flat rate connection fee of \$4,000.00 per EDU as recommended by Lehigh County Authority in their May 5, 2005 Financial Summary.

Rational: Property benefits assessments based upon acreage have been consistently overturned by designed “Board of View.” If the Township insists in assigning “property benefit assessments” based upon acreage, then you are inviting all property owners whose property is greater than 1 acre to appeal the assessment to the “Board of View, Court of Common Pleas”

3. The Township Board of Supervisors will engage the services of a “professional engineering consulting firm” with experience with low-pressure systems (minimum 225 EDU) to act as a consultant to the Township Supervisors in performing the concept design analysis and establishing “Scope of Work” for the public sewer system design be it gravity, low-pressure, low-pressure with forced mains or some combination there of.

Rational: Schreiter Engineering Associates as late as their letter of September 22, 2005 still supports Alternative No. 4, gravity system as the preferred alternative. This professional engineering opinion is biased based upon demonstrated system reliability and past experience. The Lehigh County Authority has indicated that they have limited design experience (15-20 EDU) in low-pressure system design. Alternative No. 7 was not fully evaluated during the Act 537 Plan Update. In order for a low-pressure option to be fairly and properly evaluated the Township must seek independent and unbiased expertise. Based upon LCA’s own cost estimates a low-pressure system represents an 18.2% cost savings on “Total New Public Facility Costs.” The citizens of Upper Milford Township who will be personally bearing this cost need a voice in what system is chosen.

4. The Township Board of Supervisors will reimburse all property owners for private plumbing fees in excess of \$5,000.00 per EDU.

Rational: The Act 537 Plan Update estimated private plumbing fees at \$3,000.00 to \$5,000.00 per EDU. Some private property owners have obtained estimates of private plumbing fees ranging from \$20,000.00 to \$58,000.00. Public sewers can not be considered affordable when your private plumbing fees are at as much or more than your fair share of the public sewer system costs.

5. The Township Board of Supervisors will task the Planning Commission with the assistance of the engineering firm selected in item 3 above and the Township Engineer to determine the maximum build-out of the Vera Cruz Service area for design purposes.

Rational: The low pressure design “scope of work” capacity numbers needs to be developed by the Township and not rely on “overall Township population projections” as provided by the Lehigh County Planning Commission. The





capacity numbers need to consider zoning requirements such as density, wetlands, lot size, etc. The Comprehensive Plan has stated that the Village of Vera Cruz is projected long term to have public sewers. It has been designated as an "Urban Development" area. If we are going to do low-pressure public sewers we need to do it right the first time.

6. The Township will task the Planning Commission in conjunction with the "Stakeholders Group" to completely review the Township Zoning Ordinance (ZO) and Subdivision and Land Development Ordinance (SALDO) to accommodate all anticipated issues that may arise from installing public sewers. Particular attention should be assigned to establishing requirements for the "Village Overlay Districts" and the "Urban Development District-Vera Cruz) as outlined in the Comprehensive Plan.

Rational: The Comprehensive Plan was adopted on April 21, 2005. The current Township Zoning ordinance and SALDO do not include any reference to either the "Village Overlay" or the "Urban Development District."

7. The Township Board of Supervisors will engage the services of a professional "financing firm" to assist the Township in obtaining available grants and loans.

Rational: The Township has only considered PENNVEST funding at a 5% interest rate. The USDA-Rural Utility Service has informed me that they would finance the project at a 4.25% interest rate over 39 years. All financing packages need to be evaluated. The Township lacks the expertise in this area and LCA has no vested interest in obtaining the best financing package.

8. The Township Board of Supervisors will investigate the feasibility of establishing sewer districts under the Second Class Township Code for planning and financing of future public sewers.

Rational: The Act 537 Plan Update identified five additional public sewer service areas (PSA-7, 8, 9, 10 and 11) where a need has been identified, conceptual engineering networks laid out, engineering costs established and environmental assessments performed. The Township's plan is to wait, monitor the failing systems and hope a developer will come in and rescue the Township. If you want a developer to install public sewers for failing existing on-lot residential systems, then you must entice a developer to come to your rescue.

9. The Township Board of Supervisors will make connection mandatory for all on-lot systems on holding tanks or BTG. But the Township will provide a grace period of up to five years after completion of construction of the public sewer system for any property owner with a fully functional system meeting current PADEP requirements to choose to hook up. Property owners who have fully functioning systems will still be required to pay the connection fee at the time of construction

Rational: Some property owners have fully functioning systems. Other property owners replaced confirmed malfunctioning systems with conventional elevated



sand mound systems. These property owners should not be penalized and forced to pay a monthly rental and operation fee to LCA when they are in full compliance with state law and PADEP regulations. If your car fails inspection you are required by State Law to fix the car so it passes inspection. You are not forced to sell your car and start taking public transportation.

10. The Township Board of Supervisors will establish a 60-day “Open Window Connection Period” after the completion and approval of the concept design. During this 60-day window any property owner who desires additional connections to the system must request them in writing. The property owner will be required to pay for connection fees at the time of construction. Once this 60-day open window connection period has passed the capacity of the system will be locked shut for future development. If a property owner obtains additional connections this does not relieve him of the requirement of obtaining subdivision and land development approval. It only grants him assurance of the availability of public sewers.

Rational: Low-pressure systems allow less flexibility for future additional connections. The issue should be resolved before preliminary design begins.

11. The Township Board of Supervisors will investigate and determine if phased construction has any advantage in obtaining loans and grants.

Rational: PENNVEST normally does not consider providing grants to systems greater than 250 EDU. The Act 537 Plan and the correspondence have pegged the number of EDU between 270 and 333 EDU. Since the Village of Vera Cruz has been designated a “Future Urban Development” area in the Comprehensive Plan, the build-out may be higher than 333 EDU.

12. The Township Board of Supervisors in conjunction with their elected local State representatives will demand that PADEP define “affordability” as referenced in the PADEP Policy No. 362-2206-007, “Policy Establishing New Program Direction For Act 537 Comprehensive Planning”, dated April 15, 1997.

Rational: Pennsylvania employees work for the taxpayers and citizens of the Commonwealth. If PADEP feels compelled to establish a policy, then the Department needs to provide more than lip service and must establish both an economic model and means test guidance on affordability.

13. The Township Board of Supervisors will request that their elected local State representatives in conjunction with other elected officials from rural areas host a “Workshop Summit on Rural Public Sewers”. Invitees should include Pennsylvania Department of Environmental Protection, Pennsylvania Department of Community and Economic Development, Governors Center for Local Governmental Services, Pennsylvania Department of Revenue, Center for Rural Pennsylvania, Pennsylvania Municipal Authority Association, engineers, economists, public policy groups, environmental groups, etc. The sole topic of

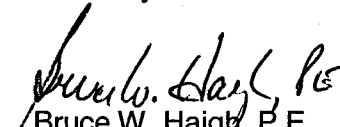


discussion would be to define affordability and figure out how to make public sewers in rural areas affordable to the regulated community.

Rational: All the easily affordable public sewers systems have been installed. What is left is either new developments or unaffordable public systems for rural Pennsylvania. The problem will not go away. There is an old saying that defines "Stupidity as doing the same thing over and over again, knowing full well the predetermined outcome, yet expected a different result." We can either bury our head in the sand or try to solve the problem.

WHEI thanks you in advance for your cooperation in this matter. Once again I extend my pro bono offer to work with the Township and try to obtain affordable public sewers. I can be reached at my office at (610) 913-6820.

Sincerely

  
Bruce W. Haigh, P.E.  
President

CERTIFIED MAIL 7005 0390 0005 3297 1650 AND FIRST CLASS MAIL

cc: Enviro/Act537TownshipSupervisors092205.doc  
Member Board of supervisors  
D. DeLong, Township Manager  
R. Brenner, P.E. Township Engineer  
G. DeVault



**UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS**

PO Box 210 - 5831 King's Highway South  
Old Zionsville, PA 18068  
Phone: (610) 966 - 3223 ~ Fax: (610) 966 - 5184  
E-mail: [info@uppermilford.net](mailto:info@uppermilford.net)  
Web: <http://www.uppermilford.net>

Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

September 30, 2005

Mr. Michael J. Brunamonti, P.E.  
PA DEP  
Water Management Program  
2 Public Square  
Wilkes-Barre, PA 18711-0790

**RE: Act 537 Sewage Planning  
Upper Milford Township, Lehigh County**

Dear Mr. Brunamonti:

Attached for your and your staff's review is Upper Milford Township's Proposed Act 537 Plan Revision dated July 2005, along with supplemental information.

This plan submission is a resubmission with revisions of the Township's plan and supplemental information that was received by your office on August 13, 2004 and subsequently withdrawn by the Township by letter dated November 24, 2004.

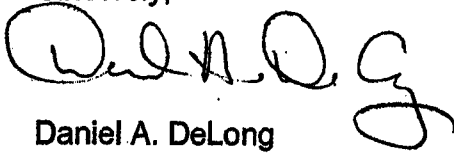
The plan recommends that public sewerage service be provided to the area generally known as the "Vera Cruz" area. The plan also recommends that the Township adopt a septic management district or program for all areas of the Township not served with or by public facilities.

The Township is of the opinion that the plan as presented will meet its wastewater disposal needs, and also if approved allow the Township to administer and comply with the illicit discharge detection and elimination as required by the Township's MS4 Permit.

**September 30, 2005**  
**Act 537 Sewage Planning**  
**Upper Milford Township, Lehigh County**  
**Page 2 of 2**

If you or your staff has any questions or would like to schedule a meeting with the Township or its consultants, please contact me at 610-966-3223.

Sincerely,



**Daniel A. DeLong**  
**Township Manager**

DAD:ck

Attachment

**Cc: Board of Supervisors**  
**Russell Benner, Schoor DePalma**  
**Karl Schreiter, Schreiter Engineering Associates, Inc.**  
**Brian Miller, SEO**  
**Representative Douglas Reichley**  
**Senator Robert Wonderling**  
**Ms. Kate Crowley, DEP**

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 PA DEP  
 Mike Brunamonti  
 2 Public Square  
 Wilkes-Barre, PA  
 18711-0790

2. Article Number  
 (Transfer from service label)

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  
 X  Agent  
 Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

**RECEIVED**  
 OCT 05 2005  
 DEPARTMENT OF

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

7004 0750 0002 0923 8245

BOOK 2 OFFICIAL SUBMISSION

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 PA DEP  
 Mike Brunamonti  
 2 Public Square  
 Wilkes-Barre - PA  
 18711-0790

2. Article Number  
 (Transfer from service label)

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  
 X  Agent  
 Addressee

B. Received by (Printed Name) Date of Delivery

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

**RECEIVED**  
 OCT 3 - 2005  
 DEPARTMENT OF  
 ENVIRONMENTAL PROTECTION

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

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Copied  
11/30/05 CK

Pennsylvania Department of Environmental Protection

2 Public Square  
Wilkes-Barre, PA 18711-0790  
November 23, 2005

Rec'd  
11-22-05  
C. BOS  
B. MILLER

Northeast Regional Office

570-826-2511  
Fax 570-830-3016

Mr. Daniel DeLong, Township Manager  
c/o Upper Milford Township  
5831 Kings Highway South  
P. O. Box 210  
Old Zionsville, PA 18068

Re: Act 537 Plan Revision  
Upper Milford Township, Lehigh County

Ladies and Gentlemen:

On October 3, 2005, the Department received the Act 537 Plan Revision (Plan) for Upper Milford Township (Township), dated July 2005, and the Supplemental Attachments Binder, dated September 30, 2005. The Plan was prepared by Schreiter Engineering Associates, Incorporated, in conjunction with Schoor DePalma Engineers and Consultants.

As you know, the Plan is a resubmission of the Plan, dated January 2004, that the Township requested withdrawn from the Department on November 24, 2004. The Department acknowledged the Plan withdrawal on December 3, 2004. We commented on the first Plan submission in our letter dated October 29, 2004. Furthermore, we made additional comments concerning the Plan in our June 3, 2005 letter to the Township.

The Department's review questions/comments regarding the Plan are provided below. Our questions/comments are arranged according to the order specified in the Act 537 Plan Content and Environmental Assessment Checklist that you submitted with the Plan.

General Plan Content

VI. Evaluation of Alternatives

Item A.5 – Antidegradation Requirements

The Service Area for both alternative No. 4 and No. 7 (the Village of Vera Cruz) is located on Leibert's Creek, a high quality stream. Both of these alternatives recommend pumping/conveying the wastewater out of the high quality watershed. The wastewater will enter an existing sewer system with treatment at the City of Allentown's Sewage Treatment Plant (STP).



The Department requests a comparison of the benefits of eliminating the discharge to the high quality water to the potential environmental consequences of development and construction along the sewer line connection. Refer to page 51 in the Department's Water Quality Antidegradation Implementation Guidance, dated November 29, 2003, under the subsection, Alternative Discharge Locations.

Item A.11 – Historical and Archaeological Resource Protection

Mr. DeLong informed the Department that he discussed the PA Historical and Museum Commission's (PHMC's) comments with Mr. Steven McDougal of PHMC in October 2005. Upper Milford Township will need to submit a Phase I Scope of Work to PHMC and have it approved before the Department can consider approving the Plan.

Item C. Description of / Evaluation of Alternatives

On Table 3-4, the estimated \$2,300,000 Vera Cruz Wastewater Treatment Plant Construction Cost seems high. What was the plant capacity that the cost was based upon? Also, please provide some details regarding the basis of the cost estimate.

Item D. Cost Estimates

Please explain the increase in estimated costs from the January 2004 Plan to the July 2005 Plan. Table 3-6, Summary of Sewer Alternative Capital Costs increased from \$4.7 to \$7.2 million.

Section 4.5.1, Ownership, Owners Responsibilities, and Associated Costs (page 4-12) indicates the estimated cost of the annual maintenance agreement to be approximately \$125. Please describe how this figure was derived.

In addition to the above, I am enclosing for your reference a copy of the Department's June 3, 2005 letter that contains comments/suggestions regarding the estimated project cost and user fees for the proposed project. In order to complete our review, the Department is requesting a brief written summary of how these comments were considered by the Township; especially with regard to the comments/suggestions about the low-pressure sewer system, the assumed PennVest loan term and interest rate, the income survey, and the possibility of spreading some of the project cost over the existing user base.



November 23, 2005

Please provide a written reply to the above comments by no later than December 19, 2005. If you have any questions, feel free to call James Ridgik or Michael Brunamonti at 570-826-2335 or 570-826-2333, respectively.

Sincerely,



Kate Crowley  
Program Manager  
Water Management Program

Enclosure

cc: R. Benner/School DePalma  
J. Boldaz/Schoor DePalma  
M. Gallagher/PENNVEST  
J. Kauffman/USDA – Rural Development  
F. Leist/Lehigh County Authority  
B. Miller/Upper Milford Township  
D. Mohr/Upper Milford Township  
S. Rockwell/Lehigh Valley Planning Commission  
K. Schreiter/Schreiter Engineering Associates, Inc.



Pennsylvania Department of Environmental Protection

---

2 Public Square  
Wilkes-Barre, PA 18711-0790  
June 3, 2005

Northeast Regional Office

570-826-2511  
Fax 570-830-3016

**CERTIFIED MAIL NO. 7003 3110 0005 5834 3812**

Upper Milford Township Supervisors  
c/o Mr. Daniel DeLong, Township Manager  
5831 Kings Highway South  
P.O. Box 210  
Old Zionsville, PA 18068

Re: Act 537 Sewage Plan  
Upper Milford Township, Lehigh County

Dear Ladies and Gentlemen:

I am writing as a follow-up to the meeting that James Ridgik and I attended on May 18, 2005 concerning your proposed sewer project.

Before resubmitting your Act 537 Sewage Plan to the Department, all of the comments contained in our October 29, 2004 plan review letter need to be addressed. Also, please be sure to address the planning agency review, public notification and plan adoption requirements. Assuming the Department receives an administratively complete Plan, I made a commitment that the Department would review the Plan within two weeks of receipt.

The Department appreciates the information provided in the May 10, 2005 letter we received from Mr. Frank Leist at the Lehigh County Authority, especially with regards to the financial aspects of the project. After reviewing this information more closely, we believe the following comments will need to be addressed:

- Referring to Page 5 of the letter, details should be provided to show how the \$452 UmiT Common Rate Charge and the \$902 Vera Cruz Project Charge are derived.
- As indicated in the Vera Cruz Area Project/Conceptual Cost Estimate Table, the \$792 LCA Connection Fee for the Western Lehigh Interceptor, the \$1,012 Treatment Plant Capacity Fee, and the \$90 UmiT Connection Fee are in agreement with the amounts shown in the Plan we reviewed last year. However, the Route 29 Capacity Fee appears to have increased from \$1,067 to \$2,054. Was a fee increase recently enacted by LCA?
- The letter indicates that a low-pressure sewer system is being evaluated in order to determine if it would reduce the project cost; however, the Department was asked if completion of this evaluation could be deferred until the design phase of the project. In order to be eligible for Pennvest funding, the Plan must demonstrate that the selected alternative is cost-effective. The low-pressure alternative should be included in the Plan; otherwise, the Plan may need to be revised if the alternative were to change after the Plan was approved. This evaluation should include a present worth cost analysis of the gravity system versus the low-pressure alternative.



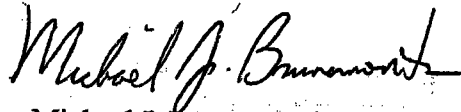
June 3, 2005

- When submitting the final Plan, the debt service should be calculated based upon the estimated interest rates and loan term provided to you from Pennvest.
- If necessary, the project cost estimates should be revised to reflect any input received from the Pennsylvania Department of Transportation regarding the requirements for flowable fill and borings.

Due to the high cost of the proposed project, everyone agrees that it is very important that all available avenues for reducing the financial impact be thoroughly evaluated. One suggestion put forth during the meeting was to consider spreading some of the project cost over the entire user base. The Department believes this suggestion should be considered as one of the financial alternatives in the Plan. Also, as discussed previously, if the income in the project service area is believed to be substantially less than the median income of the Township, an income survey might justify better financing. If an income survey is to be done, it should be completed as soon as possible, rather than waiting until completion of design. The Department would like the Plan to demonstrate the affordability of the proposed project in light of the above suggestions.

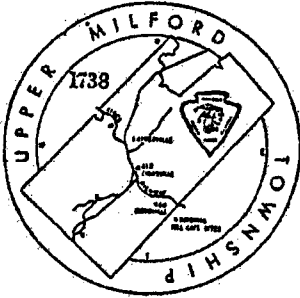
If there are any questions, please contact James Ridgik or me at 570-826-2511.

Sincerely,



Michael J. Brunamonti, P.E.  
Chief, Planning Section  
Water Management Program

cc: Frank Leist/Lehigh County Authority  
Karl Schreiter/Schreiter Engineering Associates  
Michael Gallagher/Pennvest  
The Honorable Robert C. Wonderling  
The Honorable Arlen Specter  
The Honorable Charles W. Dent  
The Honorable Rick Santorum  
The Honorable Douglas G. Reichley  
Jack Kauffman/USDA-Rural Development



**UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS**

PO Box 210 ~ 5831 King's Highway South  
Old Zionsville, PA 18068  
Phone: (610) 966 - 3223 ~ Fax: (610) 966 - 5184  
E-mail: [info@uppermilford.net](mailto:info@uppermilford.net)  
Web: <http://www.uppermilford.net>

**Chairman**  
Susan J. Smith

**Vice-Chairman**  
Daniel J. Mohr

**Supervisor**  
Henry H. Kradjel

November 30, 2005

Mr. Steven McDougal  
PA Historical and Museum Commission  
Commonwealth Keystone Building, 2<sup>nd</sup> Floor  
400 North Street  
Harrisburg, PA 17120-0093

**RE: ER #00-1971-077-D  
Vera Cruz Area Sewer Project  
Upper Milford Township, Lehigh County, PA**

Dear Mr. McDougal:

As you already know Upper Milford Township is in the process of revising its Official Act 537 Sewage Facilities Plan.

The Pennsylvania Department of Environmental Protection, by letter dated November 23, 2005, has indicated that the Township must have PHMC approval of a "Phase I scope of work" before PA DEP can consider approving the Act 537 Plan.

I am attaching for your review and approval or comment a proposed Phase I Archaeological Survey and scope of work for Phase II Archaeological investigation for this project.

It should be noted that should this Act 537 Plan be approved by the PA DEP the Township would then engage the services of consultants for the purpose of developing detailed engineering design drawings and plans. The Township and its consultants will then select the most feasible option(s) and prior to any construction activity would perform any and all necessary permitting activities.

The Township anticipates that its cultural resource consultants would only begin the archaeological survey work at a time when the project's final routing is selected and then would follow the attached proposal.

In so much as the PA DEP has requested that the Township respond to their comment letter by December 19, 2005 I ask that you consider approving this proposal as soon as possible.

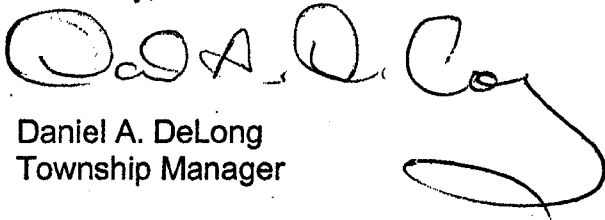
*Copied  
11/30/05  
CK*

*12-29-05  
PER STEVE MCDUGAL  
LOGGERS IN DEC. 2  
NOT REVENUES YET MEASURE  
30 DAYS UP. WILL TRY TO  
MOVE UP.  
DD*

November 30, 2005  
ER #00-1971-077-D  
Vera Cruz Area Sewer Project  
Upper Milford Township, Lehigh County, PA  
Page 2 of 2

If you have any questions, please call me at 610-966-3223 or email  
[ddelong@uppermilford.net](mailto:ddelong@uppermilford.net).

Sincerely,

A handwritten signature in black ink, appearing to read "D.A. DeLong", with a large, sweeping flourish extending from the end of the signature.

Daniel A. DeLong  
Township Manager

DAD:ck

Attachment

Cc: Karl Schreiter, Schreiter Engineering Associates, Inc.  
Frank Leist, Lehigh County Authority  
Russell Benner, Schoor DePalma

**TECHNICAL PROPOSAL**

**PHASE I ARCHAEOLOGICAL SURVEY  
AND SCOPE OF WORK FOR  
PHASE II ARCHAEOLOGICAL INVESTIGATION**

**VERA CRUZ AREA SEWER PROJECT**

**Upper Milford Township  
Lehigh County, Pennsylvania**

**DATE: NOVEMBER 30, 2005**

## PHASE I ARCHAEOLOGICAL SURVEY

The Phase I archaeological survey will identify any potentially significant archaeological resources within the Area of Potential Effects (APE) for the proposed Vera Cruz Area Sewer Project in the Upper Milford Township, Lehigh County, Pennsylvania. The survey will be conducted in those areas possessing a high probability for undocumented archaeological resources and for intact deposits associated with a previously documented prehistoric site (P.A.S.S. # 36-Lh-12). The Phase I survey will be conducted in accordance with the requirements set forth by the Pennsylvania Historical and Museum Commission (PHMC) in *Cultural Resource Management in Pennsylvania: Guidelines for Archaeological Investigations*, July 1991.

The APE for the proposed sewer project traverses mixed residential and agricultural land. Portions of the proposed sewer corridor and the proposed ~~treatment plant~~ sites are situated within close proximity to Leibert Creek and unnamed tributaries of this waterway. Soils throughout the APE are not classified as alluvial and a geomorphological investigation will not be required.

PUMP STATION

Portions of the APE have been previously impacted by grading and filling activities associated with the previous construction of Vera Cruz Road and several secondary roadways and access drives, alleviating the need for Phase I testing in these areas. Other portions of the APE remain relatively undisturbed and possess a high potential for undocumented archaeological resources. Undisturbed areas of the APE possess a high probability for archaeological resources associated with 36-Lh-12, or for previously undocumented prehistoric sites which may be associated with this resource. Nineteenth century cartographic evidence depict several residences along Main Road within close proximity to portions of the proposed sewer corridor. Undisturbed portions of the APE at these locations possess a high potential for historic archaeological resources.

### P.A.S.S. # 36-Lh-12, the Vera Cruz Jasper Quarry

The PHMC has indicated that the APE for the proposed project is situated within and near a previously documented archaeological site: Pennsylvania Archaeological Site Survey (P.A.S.S.) # 36-Lh-12. This is the Vera Cruz Jasper Quarry, the second largest quarry utilized by Native Americans in Pennsylvania and a contributing Element of the Hardyston Jasper Prehistoric District. The jasper quarries associated with this district were identified in 1892 by Henry Chapman Mercer and have been the focus of considerable archaeological research for over a century. These quarries are part of the Hardyston Formation of the Reading Prong and were utilized from the Paleoindian through Late Woodland periods. The Vera Cruz Jasper Quarry once possessed at least 100 craters, though many have been filled in during the historic occupation of the area.

The APE possesses potential for a variety of archaeological resources associated with this prehistoric site. Quarry pits may have been silted in and plowed over during several hundred years of historic settlement and may exist buried beneath current yard areas. Also, lithic workshops or habitation sites may be present within undisturbed portions of the APE. Subsurface archaeological testing will confirm whether archaeological deposits associated with the site are present, or if the APE remains

beyond the boundaries of any deposits associated with this archaeological resource.

### **Methods**

The Phase I archaeological survey will consist of the following components: documentary research, archaeological fieldwork, artifact analysis, and the preparation of a report.

The first part of the survey will be the documentary research which will aid in the determination of whether there are potentially significant archaeological resources in the APE. Background research will be conducted at the appropriate local, county and state repositories and record centers. In addition, local people and professionals who are knowledgeable about the prehistory and history of the APE and vicinity will be consulted.

The second part of the survey will consist of archaeological fieldwork. In a review letter dated July 1, 2005, the PHMC outlined several off-road areas in which Phase I archaeological testing would be necessary. Fieldwork will consist of a program of shovel test pit excavation within these areas. Shovel tests will be excavated at 50 foot (15 meter) intervals along these portions of the proposed sewer corridor and at 50 foot (15 meter) intervals on a grid at the two pump station locations. A total of approximately 92 shovel tests will be excavated to test these high probability areas.

TO UNDISTURBED SOIL

Excavated soils from all tests will be screened through one quarter inch hardware cloth. The recording of all tests will be made using Munsell designations, and soil texture, wetness, composition, and other pertinent information will be given. The tests will be backfilled and restored to their original contours.

Photographs of all field activities will be taken and will be developed in a 4x6 format. They will consist of general site views.

The third part of the survey will be the artifact analysis which will be performed after completion of the fieldwork. Any artifacts recovered will be cleaned, catalogued, and analyzed.

### **PHASE II ARCHAEOLOGICAL INVESTIGATION**

A Phase II investigation is recommended on archaeological sites identified during the Phase I survey which cannot be avoided during the proposed construction. A generalized scope of work for a Phase II investigation is outlined below, which may be modified as necessary to adapt to the specifications of any sites identified.

In areas which may be plowed a systematic walkover, controlled surface collection, and mechanical removal of the topsoil is recommended. A systematic surface collection will be conducted within the newly plowed, disked, and rainwashed site area. A grid will be established across the site area and artifact provenience will be recorded for each five meter grid square. Following the collection of



an adequate sample from the plowzone through this methodology, a portion of the site area will be mechanically stripped to identify the presence of any subsurface features. The plowzone will be removed from an area approximately 3 meters wide (10 feet) within the center of the easement for the proposed sewer. The length of the strip block will depend upon the site boundaries as defined through shovel testing and the controlled surface collection.

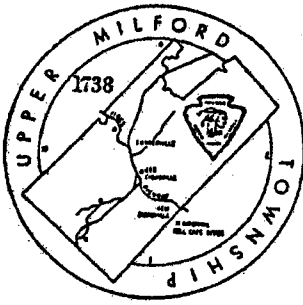
In forested areas or yard areas which will not accommodate the use of heavy machinery the excavation of one-meter square units is recommended. Units will be placed at approximately 15 meter (50 foot) intervals throughout the portion of the site which will be impacted by the proposed construction. This program of unit excavation will provide information regarding the horizontal artifact patterning and site stratigraphy. Units will be placed to determine further investigate any possible cultural feature identified during Phase I testing.

Any subsurface features identified will be photographed, mapped in plan view and profile, and excavated. A minimum of 50% or three liters of each feature will be collected for flotation and the remainder will be passed through quarter-inch mesh hardware cloth.

The Phase II archaeological investigation will also include background research, analysis, and the presentation of the results in a report. Background research will aid in the formulation of an appropriate prehistoric context for the evaluation of the significance of the sites. Artifact analysis will include the tabulation of raw material type by artifact type and the overall percentages of debitage types. Radiocarbon dating and botanical analysis will be conducted upon any samples obtained from prehistoric cultural features. The combined research, fieldwork, and analysis will allow for an evaluation of the eligibility of the sites for the National Register of Historic Places.

## **REPORT**

The results of the Phase I survey and Phase II investigation will be presented in a combined Phase I/II report which will adhere to the requirements set forth by the PHMC in *Cultural Resource Management in Pennsylvania: Guidelines for Archaeological Investigations* (1991).



**UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS**

PO Box 210 ~ 5831 King's Highway South  
Old Zionsville, PA 18068  
Phone: (610) 966 - 3223 ~ Fax: (610) 966 - 5184  
E-mail: [info@uppermilford.net](mailto:info@uppermilford.net)  
Web: <http://www.uppermilford.net>


Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

Copied  
12/1/05  
ck

# Memo

**To:** Karl Schreiter, SEA; Russell Benner, Schoor DePalma; Frank Leist, LCA  
**From:** Daniel A. DeLong, Township Manager   
**CC:** Board of Supervisors; Brian Miller, SEO  
**Date:** 12/1/2005  
**Re:** Response to DEP Act 537 Plan comment letter dated November 23, 2005

---

Per our phone conversations for the purpose of determining assignment for response to the November 23, 2005 DEP comment on the Township's Act 537 Plan revisions I offer the following:

1. Attached for your view is a copy of my annotated copy of the DEP comment letter dated November 23, 2005.
2. SEA & Schoor DePalma will coordinate a response to the department's water quality antidegradation comment.
3. I have submitted a generic scope of work for the PHMC review and approval or comment. Said information was submitted to PHMC on November 11, 2005.
4. Karl Schreiter will respond to item c. description of / evaluation of alternatives comment.
5. Frank Leist and LCA will respond to the item d. cost estimates comments including the response to the June 3, 2005 DEP letter.



EXTRA COPY FOR  
UPPER MILFORD TWP

Pennsylvania Department of Environmental Protection

2 Public Square  
Wilkes-Barre, PA 18711-0790  
November 23, 2005

Northeast Regional Office

570-826-2511  
Fax 570-830-3016

Mr. Daniel DeLong, Township Manager  
c/o Upper Milford Township  
5831 Kings Highway South  
P. O. Box 210  
Old Zionsville, PA 18068

*WORK SHEET  
Dan DeLong*

Re: Act 537 Plan Revision  
Upper Milford Township, Lehigh County

Ladies and Gentlemen:

On October 3, 2005, the Department received the Act 537 Plan Revision (Plan) for Upper Milford Township (Township), dated July 2005, and the Supplemental Attachments Binder, dated September 30, 2005. The Plan was prepared by Schreiter Engineering Associates, Incorporated, in conjunction with Schoor DePalma Engineers and Consultants.

As you know, the Plan is a resubmission of the Plan, dated January 2004, that the Township requested withdrawn from the Department on November 24, 2004. The Department acknowledged the Plan withdrawal on December 3, 2004. We commented on the first Plan submission in our letter dated October 29, 2004. Furthermore, we made additional comments concerning the Plan in our June 3, 2005 letter to the Township.

The Department's review questions/comments regarding the Plan are provided below. Our questions/comments are arranged according to the order specified in the Act 537 Plan Content and Environmental Assessment Checklist that you submitted with the Plan.

General Plan Content

VI. Evaluation of Alternatives

Item A.5 – Antidegradation Requirements

The Service Area for both alternative No. 4 and No. 7 (the Village of Vera Cruz) is located on Leibert's Creek, a high quality stream. Both of these alternatives recommend pumping/conveying the wastewater out of the high quality watershed. The wastewater will enter an existing sewer system with treatment at the City of Allentown's Sewage Treatment Plant (STP).



The Department requests a comparison of the benefits of eliminating the discharge to the high quality water to the potential environmental consequences of development and construction along the sewer line connection. Refer to page 51 in the Department's Water Quality Antidegradation Implementation Guidance, dated November 29, 2003, under the subsection, Alternative Discharge Locations.

SUMMARY E.A. & SCOPE DEANMO

Item A.11 – Historical and Archaeological Resource Protection

Mr. DeLong informed the Department that he discussed the PA Historical and Museum Commission's (PHMC's) comments with Mr. Steven McDougal of PHMC in October 2005. Upper Milford Township will need to submit a Phase I Scope of Work to PHMC and have it approved before the Department can consider approving the Plan.

UMT TO SUBMIT TO SCOPE TO PHMC.

Item C. Description of / Evaluation of Alternatives

On Table 3-4, the estimated \$2,300,000 Vera Cruz Wastewater Treatment Plant Construction Cost seems high. What was the plant capacity that the cost was based upon? Also, please provide some details regarding the basis of the cost estimate.

SIZE FOR VERA CRUZ PLANT

Item D. Cost Estimates

Please explain the increase in estimated costs from the January 2004 Plan to the July 2005 Plan. Table 3-6, Summary of Sewer Alternative Capital Costs increased from \$4.7 to \$7.2 million.

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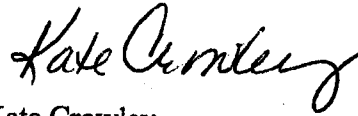
Section 4.5.1, Ownership, Owners Responsibilities, and Associated Costs (page 4-12) indicates the estimated cost of the annual maintenance agreement to be approximately \$125. Please describe how this figure was derived.

In addition to the above, I am enclosing for your reference a copy of the Department's June 3, 2005 letter that contains comments/suggestions regarding the estimated project cost and user fees for the proposed project. In order to complete our review, the Department is requesting a brief written summary of how these comments were considered by the Township; especially with regard to the comments/suggestions about the low-pressure sewer system, the assumed PennVest loan term and interest rate, the income survey, and the possibility of spreading some of the project cost over the existing user base.

FRAME L.

Please provide a written reply to the above comments by no later than December 19, 2005. If you have any questions, feel free to call James Ridgik or Michael Brunamonti at 570-826-2335 or 570-826-2333, respectively.

Sincerely,



Kate Crowley  
Program Manager  
Water Management Program

Enclosure

- cc: R. Benner/School DePalma  
J. Boldaz/Schoor DePalma  
M. Gallagher/PENNVEST  
J. Kauffman/USDA – Rural Development  
F. Leist/Lehigh County Authority  
B. Miller/Upper Milford Township  
D. Mohr/Upper Milford Township  
S. Rockwell/Lehigh Valley Planning Commission  
K. Schreiter/Schreiter Engineering Associates, Inc.



Pennsylvania Department of Environmental Protection

2 Public Square  
Wilkes-Barre, PA 18711-0790  
June 3, 2005

Northeast Regional Office

570-826-2511  
Fax 570-830-3016

**CERTIFIED MAIL NO. 7003 3110 0005 5834 3812**

Upper Milford Township Supervisors  
c/o Mr. Daniel DeLong, Township Manager  
5831 Kings Highway South  
P.O. Box 210  
Old Zionsville, PA 18068

Re: Act 537 Sewage Plan  
Upper Milford Township, Lehigh County

Dear Ladies and Gentlemen:

I am writing as a follow-up to the meeting that James Ridgik and I attended on May 18, 2005 concerning your proposed sewer project.

Before resubmitting your Act 537 Sewage Plan to the Department, all of the comments contained in our October 29, 2004 plan review letter need to be addressed. Also, please be sure to address the planning agency review, public notification and plan adoption requirements. Assuming the Department receives an administratively complete Plan, I made a commitment that the Department would review the Plan within two weeks of receipt.

The Department appreciates the information provided in the May 10, 2005 letter we received from Mr. Frank Leist at the Lehigh County Authority, especially with regards to the financial aspects of the project. After reviewing this information more closely, we believe the following comments will need to be addressed:

- Referring to Page 5 of the letter, details should be provided to show how the \$452 UmiT Common Rate Charge and the \$902 Vera Cruz Project Charge are derived.
- As indicated in the Vera Cruz Area Project/Conceptual Cost Estimate Table, the \$792 LCA Connection Fee for the Western Lehigh Interceptor, the \$1,012 Treatment Plant Capacity Fee, and the \$90 UmiT Connection Fee are in agreement with the amounts shown in the Plan we reviewed last year. However, the Route 29 Capacity Fee appears to have increased from \$1,067 to \$2,054. Was a fee increase recently enacted by LCA?
- The letter indicates that a low-pressure sewer system is being evaluated in order to determine if it would reduce the project cost; however, the Department was asked if completion of this evaluation could be deferred until the design phase of the project. In order to be eligible for Pennvest funding, the Plan must demonstrate that the selected alternative is cost-effective. The low-pressure alternative should be included in the Plan; otherwise, the Plan may need to be revised if the alternative were to change after the Plan was approved. This evaluation should include a present worth cost analysis of the gravity system versus the low-pressure alternative.



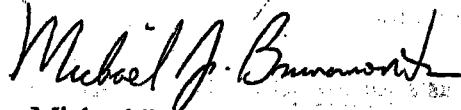
June 3, 2005

- When submitting the final Plan, the debt service should be calculated based upon the estimated interest rates and loan term provided to you from Pennvest.
- If necessary, the project cost estimates should be revised to reflect any input received from the Pennsylvania Department of Transportation regarding the requirements for flowable fill and borings.

Due to the high cost of the proposed project, everyone agrees that it is very important that all available avenues for reducing the financial impact be thoroughly evaluated. One suggestion put forth during the meeting was to consider spreading some of the project cost over the entire user base. The Department believes this suggestion should be considered as one of the financial alternatives in the Plan. Also, as discussed previously, if the income in the project service area is believed to be substantially less than the median income of the Township, an income survey might justify better financing. If an income survey is to be done, it should be completed as soon as possible, rather than waiting until completion of design. The Department would like the Plan to demonstrate the affordability of the proposed project in light of the above suggestions.

If there are any questions, please contact James Ridgik or me at 570-826-2511.

Sincerely,



Michael J. Brunamonti, P.E.  
Chief, Planning Section  
Water Management Program

cc: Frank Leist/Lehigh County Authority  
Karl Schreiter/Schreiter Engineering Associates  
Michael Gallagher/Pennvest  
The Honorable Robert C. Wonderling  
The Honorable Arlen Specter  
The Honorable Charles W. Dent  
The Honorable Rick Santorum  
The Honorable Douglas G. Reichley  
Jack Kauffman/USDA-Rural Development



**Lehigh County Authority**

1053 Spruce Road \* PO Box 3348 \* Allentown, PA 18106-0348  
(610)398-2503 \* FAX (610)398-8413

6 December 2005

Daniel DeLong, Township Manager  
Upper Milford Township  
PO Box 210  
Old Zionsville, PA 18068-0210

Subject: Upper Milford Township  
Act 537 Plan Revision  
Response to DEP Letter of 23 November 2005

Dear Dan:

As requested, the following are my responses to the 23 November 2005 DEP letter:

Item Cost Estimates:

1. Table 3-6, the increase in cost estimates for Alternate #4, from the January 2004 Plan, 4.7 million to the July 2005 Plan, 7.2 million.

The Township consultant using very high-level conceptual all-inclusive unit costs calculated the original cost estimate of 4.7 million. There was approximately 3,000 linear feet of force main and some gravity main excluded from the estimate. In addition, the impact of PennDOT Chapter 459 on road restoration was not considered.

After Lehigh County Authority (LCA) became involved and because of the public concern regarding the Vera Cruz Project we felt that it was necessary to calculate a more detailed cost estimate, somewhere between conceptual and pre-design. The cost estimate presented in the plan was determined by discussing the project concepts with utility contractors, paving contractors, discussing material costs with suppliers for large cost items such as stone, manholes, ductile iron pipe, grinder pump units and the 2-main pump stations, reviewing costs from similar projects. Calculating PADOT restoration quantities in accordance with PennDOT Chapter 459, confirming restoration assumptions with PennDOT. Validating PHMC requirements and restrictions. In addition, construction prices in general have increased dramatically from January 2004 to July 2005.



2. Section 4.5.1 Grinder pump annual maintenance costs.

The annual \$125.00 maintenance contract fee was based upon a conversation LCA had with a representative of E-One Sewer Systems. The fee is for an individual contract with the property owner. E-One Sewer Systems also informed LCA, that an annual municipal contract for all the grinder pump units in the project would cost approximately \$60.00 per-pump. Obviously, there is room for negotiation, however the legalities of LCA entering into a municipal contract for maintenance of grinder pump units that LCA will not own needs to be investigated during the design phase.

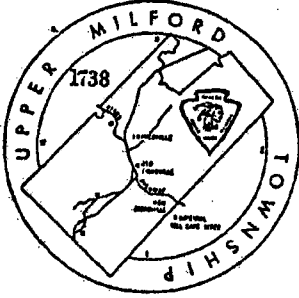
3. Summary of how comments of 3 June 2005 letter regarding low-pressure systems, assumed financing rate and term, the income survey and the possibility of spreading the cost over the entire user base were addressed.

- A cost estimate for the low-pressure system (Alternate #7) is included in the 537 Plan. Secondly, the use of low-pressure system will be examined in greater detail during the design phase for use in the Vera Cruz Area Project. A narrative to that effect is clearly presented on pages 3-63 and 3-64 of the Plan.
- As clearly indicated in the Plan, a conservative interest rate of 5%, with a 20-year term has been assumed, as it is impossible to determine with any degree of accuracy what the interest rate will be when it is time to finance the project. To assume the current Penn Vest rate at this juncture would be misleading to the public, and if the actual rate is higher will cause additional public outcry because the cost to the residents has increased. As stated time and time again, it is our intention to seek the most cost effective financing available, whether it is conventional, Penn Vest, USDA or a bond issue. LCA, the Township's wastewater service provider is a reputable well-respected organization and is exceptionally knowledgeable in financial matters.
- As stated in the Plan, an income survey will be undertaken after DEP Plan approval, if determined that the survey will be beneficial to the project. Secondly, expenditure of additional funds for the survey before Plan approval is not prudent use of public monies.
- As stated in the Plan, the residents of the Vera Cruz Project Area will be paying the majority of the costs associated with the project. Our reasoning is that it would be unfair to the existing Township (LCA) wastewater customers who have paid or are paying the cost of the infrastructure that serves them to subsidize the Vera Cruz Area Project. In short, the Vera Cruz Area Project is envisioned to be self-supporting.

If you have any questions or require additional information, please call me at (610) 398-2503.

Sincerely,

Frank Leist  
Capital Works Manager



**UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS**

PO Box 210 ~ 5831 King's Highway South  
Old Zionsville, PA 18068  
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Web: <http://www.uppermilford.net>

Chairman  
Susan J. Smith

Vice-Chairman  
Daniel J. Mohr

Supervisor  
Henry H. Kradjel

December 16, 2005

Ms. Kate Crowley, Program Manager  
Water Management Program  
PA Department of Environmental Protection  
2 Public Square  
Wilkes-Barre, PA 18711-0790

**RE: Act 537 Plan Revision  
Upper Milford Township, Lehigh County**

Dear Ms. Crowley:

This communication is Upper Milford Township's response to the Department's questions or comments by letter dated November 23, 2005 from yourself in regards to the Township's Act 537 Plan revision that the department received on October 3, 2005.

The information contained in this communication is a composite of the responses that the Township solicited from its consultants including; Mr. Karl Schreiter, Schreiter Engineering Associates Inc.; Mr. Russell Benner, Schoor DePalma; and Mr. Frank Leist, Lehigh County Authority.

The responses are in the order of your letter as follows:

Item A.5 - Antidegradation requirements:

The following section is in response to the potential environmental consequences of development and construction along the sewer line connection. Relative to the water quality antidegradation implementation guidance;

The sewer project area is proposed to service 299 existing equivalent dwelling units (edu's) and 11 future (edu's). The proposed sewer line extension will service the existing properties with on-lot sewage disposal systems, many of which are confirmed or suspected to be malfunctioning. Future connections are based on a build-out, according to the current zoning requirements, of the existing developable properties adjacent to the proposed sewer route. The benefits of this sewer project will be to improve the water quality in the proposed project area. The wastewater from these older individual systems is often

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&  
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insufficiently treated and has elevated levels of nitrates and pathogens that either leach or runoff directly into Leibert Creek, a tributary to the Little Lehigh Creek, which is a source water for the city of Allentown. Removing this insufficiently treated wastewater will improve the water quality of Leibert Creek.

There will be minimal consequences from development and construction along the sewer line corridor. According to Township Records, Upper Milford Township owns approximately thirty-five (35) acres of land that has deed restrictions dictating that the land remain as open space. The owners of two other large tracts of land along the sewer line have sold their development rights to Lehigh County. Many of the remaining areas along the sewer line route have substantial areas of wetlands, which make them unsuitable for further development. The area available for additional development is greatly reduced because of these factors. Table 2-19 of the Act 537 Plan revision summarizes the future projected sewage users. The selected project area has a projection of only 11 additional edu's that are anticipated to be constructed along the sewer line corridor. This equates to a potential growth in the watershed, due to the sewer line installation, of only 3.7% more edu's. This small potential growth from development and construction along the sewer line should not adversely affect water quality of Leibert Creek.

Item A.11 – Historical and Archaeological Resource Protection:

The Township and its consultants are aware that the majority of the project area is within an area (P.A.S.S. #36-Lh-12) that has been documented as having significant archaeological resources. The area is more commonly known as the "Vera Cruz Jasper Quarries" and there is no doubt that any existing undisturbed soil areas have the potential to yield undocumented archeological resources. The Township has taken steps to preserve the remaining "mining" pits by the creation of the Township's "Jasper Park". Additionally, a gracious landowner, Mr. Harold Fulmer, has recently donated an additional 35 acres, adjacent to the documented quarries, to the Township in order to preserve the property as open space.

The Township and its consultants have had numerous communications with PHMC for the purpose of determining the best way to implement a project while complying with the need to document potential archaeological resources.

The Township and its consultants fully expect to comply with the PHMC requirements and at this time a general scope of work for the archeological surveys has been submitted to PHMC for their review and comment.

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The Township and its consultants fully expect to comply with the PHMC requirements and at this time a general scope of work for the archeological surveys has been submitted to PHMC for their review and comment.

(PHMC has indicated that their comments will be provided before Christmas and those comments will be forwarded to the Department and addressed as soon as they become available.)

In so much as the exact routing of the piping for the project is the defining factor as to where the project may be disturbing currently undisturbed soils we are not in a position to discuss site specific measures at this time.

The Township and its consultants are of the opinion that the Act 537 Plan revision must be approved and exact detailed pipe routing must be configured and only will the site specific areas be identifiable.

The Township and its consultants fully expect to meet all the requirements of PHMC when the final route is selected.

Item C. Description of/Evaluation of Alternatives:

The estimated costs for the WWTP as depicted in the plan, were based on providing a WWTP with capacity to provide service to the entire drainage basin. The costs were based on estimates obtained from other area Engineers who completed construction of similar sized facilities. Furthermore, typical WWTP's in this capacity range cost between \$10 to \$15 per gallon of hydraulic capacity. Based on a design capacity of 0.124 mgd, the estimated construction cost would be between \$1.2 – \$1.9 million dollars. Since a proposed WWTP in this drainage basin would be located on a high quality stream with stringent discharge standards, it would be anticipated that costs would be in the upper range of this cost estimate. The estimated cost, although conservative in nature, is within a reasonable standard for a facility of this type. Furthermore, the cost for wastewater facilities has been escalating in the past several years due to material and labor cost increases and the volume of work currently available to existing contractors.

Although the cost of a smaller WWTP would be less than a larger plant, several facilities associated with any size WWTP would have to be constructed:

1. Control Building –A similar control building would be required for any WWTP
2. Influent Pump Station – This facility would include pumps sized for the initial capacity requirements. However, the wet well structure and the electrical components would be sized to allow for any upgrade to the total design capacity.
3. Preliminary Treatment - Any grit removal, bar screen, or other preliminary treatment facility would be sized for the ultimate flow capacity.

4. Secondary Treatment – These facilities would be sized for the initial design flow. However, any WWTP design would include connections for future tankage and provisions in the electrical design to accommodate any future expansion. In addition, the small capacity requirements would result in a treatment plant with several small units that would increase the operational costs.
5. Disinfection System – The disinfection system would be designed for the ultimate capacity. Although the initial construction would only include sufficient disinfection capacity (i.e. number ultraviolet lights, or similar type equipment), the structures would be sized to have additional units installed when required. The electrical system would also be sized for the ultimate flows.

The operation and maintenance costs of a smaller plant would not be significantly different if a smaller plant was constructed. A large portion of these costs is associated with labor and laboratory testing. These costs are fixed and are not related to the design flow of the WWTP. Since this is a high quality (HQ) stream discharge, the WWTP will include similar monitoring requirements of both initial and design flow conditions.

The variable operations and maintenance costs associated with the plant would include electrical usage and sludge removal. Both items would be relatively the same for both sized treatment plants. With a larger facility, tankage could be removed from service to lower initial operating costs. Also, sludge production is a function of incoming wastewater strength.

The total Present Worth of Alternative #5 was <sup>4,675,600</sup> \$4,400,000 over the cost for the Selected Alternative # 4. Therefore, it is acknowledged that a smaller plant constructed to meet only the initial needs of the Vera Cruz area could be less expensive. However, it is our opinion that the overall present worth of such a facility would not be low enough to make the overall WWTP Alternative #5 cost effective.

Item D. Cost Estimates;

1. Table 3-6, the increase in cost estimates for Alternate #4, from the January 2004 Plan, 4.7 million to the July 2005 Plan, 7.2 million.

The Township consultant using very high-level conceptual all-inclusive unit costs calculated the original cost estimate of 4.7 million. There was approximately 3,000 linear feet of force main and some gravity main excluded from the estimate. In addition, the impact of PennDOT Chapter 459 on road restoration was not considered.

After Lehigh County Authority (LCA) became involved and because of the public concern regarding the Vera Cruz Project we felt that it was necessary to calculate a more detailed cost estimate, somewhere between conceptual and pre-design. The cost estimate presented in the plan was determined by discussing the project concepts with utility contractors, paving contractors, discussing material costs with suppliers for large cost items such as stone, manholes, ductile iron pipe, grinder pump units and the 2-main pump stations, reviewing costs from similar projects. Calculating PADOT restoration quantities in accordance with PennDOT Chapter 459, confirming restoration assumptions with PennDOT. Validating PHMC requirements and restrictions. In addition, construction prices in general have increased dramatically from January 2004 to July 2005.

2. Section 4.5.1 Grinder pump annual maintenance costs.

The annual \$125.00 maintenance contract fee was based upon a conversation LCA had with a representative of E-One Sewer Systems. The fee is for an individual contract with the property owner. E-One Sewer Systems also informed LCA, that an annual municipal contract for all the grinder pump units in the project would cost approximately \$60.00 per-pump. Obviously, there is room for negotiation, however the legalities of LCA entering into a municipal contract for maintenance of grinder pump units that LCA will not own needs to be investigated during the design phase.

3. Summary of how comments of 3 June 2005 letter regarding low-pressure systems, assumed financing rate and term, the income survey and the possibility of spreading the cost over the entire user base were addressed.

- A cost estimate for the low-pressure system (Alternate #7) is included in the 537 Plan. Secondly, the use of low-pressure system will be examined in greater detail during the design phase for use in the Vera Cruz Area Project. A narrative to that effect is clearly presented on pages 3-63 and 3-64 of the Plan.
- As clearly indicated in the Plan, a conservative interest rate of 5%, with a 20-year term has been assumed, as it is impossible to



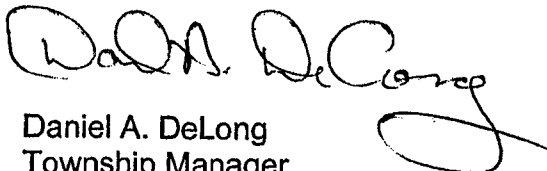
determine with any degree of accuracy what the interest rate will be when it is time to finance the project. To assume the current Penn Vest rate at this juncture would be misleading to the public, and if the actual rate is higher will cause additional public outcry because the cost to the residents has increased. As stated time and time again, it is our intention to seek the most cost effective financing available, whether it is conventional, Penn Vest, USDA or a bond issue. LCA, the Township's wastewater service provider is a reputable well-respected organization and is exceptionally knowledgeable in financial matters.

- As stated in the Plan, an income survey will be undertaken after DEP Plan approval, if determined that the survey will be beneficial to the project. Secondly, expenditure of additional funds for the survey before Plan approval is not prudent use of public monies.
- As stated in the Plan, the residents of the Vera Cruz Project Area will be paying the majority of the costs associated with the project. Our reasoning is that it would be unfair to the existing Township (LCA) wastewater customers who have paid or are paying the cost of the infrastructure that serves them to subsidize the Vera Cruz Area Project. In short, the Vera Cruz Area Project is envisioned to be self-supporting.

The Upper Milford Township Board of Supervisors is of the opinion that it is imperative to have an approved Act 537 Plan prior to the Township spending additional public funds. Approval of the plan will put the Township in a position to authorize its consultants to prepare detailed engineering analysis of the proposed project area. This analysis will include the determination of the most economical long term collection system based on topographic, hydraulic and physical routing. Upon final determination of the above, extremely accurate estimates can be attained and the most suitable financial options can be explored and finalized at which time the Township would be in a position to authorize the project to be constructed.

On behalf of the Township Board of Supervisors and its consultants I wish to thank the Department and its personnel who helped and continue to be of help in the pursuit of the Act 537 Plan revision approval. If you or the department have any questions I may be contact at 610-966-3223.

Sincerely,

  
Daniel A. DeLong  
Township Manager

December 16, 2005  
Act 537 Plan Revision  
Upper Milford Township, Lehigh County  
Page 7 of 7

DAD:ck

Cc: R. Benner / Schoor DePalma  
M. Gallagher / PENNVEST  
J. Kauffman / USDA – Rural Development  
F. Leist / Lehigh County Authority  
B. Miller / Upper Milford Township SEO  
S. Rockwell / Lehigh Valley Planning Commission  
K. Schreiter / Schreiter Engineering Associates, Inc.  
Upper Milford Township Board of Supervisors  
The Honorable Douglas G. Reichley  
The Honorable Robert C. Wonderling  
Mr. James Ridgik – PA DEP  
Mr. Michael J. Brunamonti – PA DEP  
Mr. Dave Walbert – PA DEP



Commonwealth of Pennsylvania  
 Pennsylvania Historical and Museum Commission  
 Bureau for Historic Preservation  
 Commonwealth Keystone Building, 2nd Floor  
 400 North Street  
 Harrisburg, PA 17120-0093  
 www.phmc.state.pa.us

Rec'd  
 01-12-06  
 PA DEP  
 BOS  
 R. Binnick  
 K. Seydewitz  
 Rep. Pennington  
 Sen. Womack

10 January 2006

Daniel A DeLong  
 Township Manager  
 Upper Milford Township  
 P.O. Box 210  
 5821 King's Highway South  
 Old Zionsville, PA 18068

TO EXPEDITE REVIEW USE  
 BHP REFERENCE NUMBER

Re: ER# 00-1971-077-E  
 Phase I/II Technical Proposal, Vera Cruz Area  
 Sewer Project, Upper Milford Township,  
 Pennsylvania

Dear Mr. DeLong:

The Bureau for Historic Preservation (the State Historic Preservation Office) has reviewed the above named project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation as revised in 1999. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

The Phase I/II technical proposal submitted for this project is consistent with the Bureau for Historic Preservation *Guidelines for Archaeological Investigations* (1991). We look forward to reviewing the archaeological report when it is completed.

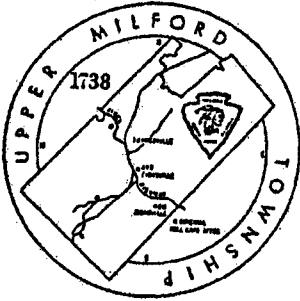
If you need further information in this matter please consult Steven McDougal at (717) 772-0923.

Sincerely,

Douglas C. McLearn, Chief  
 Division of Archaeology &  
 Protection

cc: Frank Leist, Lehigh County Authority

DCM/srm



**UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS**

PO Box 210 ~ 5831 King's Highway South  
Old Zionsville, PA 18068  
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E-mail: [info@uppermilford.net](mailto:info@uppermilford.net)  
Web: <http://www.uppermilford.net>

Chairman  
Daniel J. Mohr

Vice-Chairman  
Henry H. Kradjel

Supervisor  
Steven E. Ackerman

January 12, 2006

Ms. Kate Crowley, Program Manager  
Water Management Program  
PA DEP  
2 Public Square  
Wilkes-Barre, PA 18711-0790

**RE: Act 537 Plan Revision  
PHMC Comment  
Upper Milford Township, Lehigh Co.**

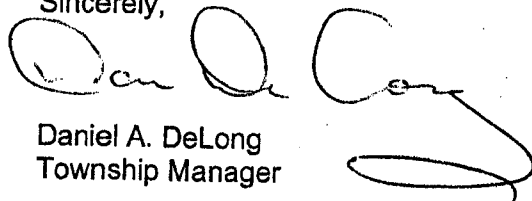
Dear Ms. Crowley:

Attached for inclusion with the Upper Milford Township Act 537 Plan Revision submission received by the department on October 3, 2005, and in accord with the request for additional information by department letter dated November 23, 2005, and not yet available by the Township's response letter dated December 16, 2005, please find a copy of the material submitted to PHMC by letter dated November 30, 2005 and PHMC's subsequent response dated January 10, 2006.

This response letter will finalize the Township's response to the department's letter dated November 23, 2005.

We eagerly await the department's comment. If you or your staff have any additional questions, I may be contacted at 610-966-3223.

Sincerely,

  
Daniel A. DeLong  
Township Manager

DAD:ck

Cc: Board of Supervisors  
Karl Schreiter, Schreiter Engineering Associates  
Frank Leist, Lehigh County Authority  
Russell Benner, Schoor DePalma  
The Honorable Representative Douglas Reichley  
The Honorable Senator Robert Wonderling  
Jim Ridgik, DEP

*Copied  
M. Brunimonti  
1/12/06  
ck*

*Copied  
1/12/06  
ck*

MEMORY TRANSMISSION REPORT

TIME : 01-18-'06 14:47  
TEL NO.1 :  
NAME :

FILE NO. : 252  
DATE : 01.18 14:46  
TO : 15708303017  
DOCUMENT PAGES : 2  
START TIME : 01.18 14:46  
END TIME : 01.18 14:47  
PAGES SENT : 2  
STATUS : OK

TX ORIGINAL



UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS

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Chairman  
Daniel J. Mohr  
Vice-Chairman  
Henry H. Kradjel  
Supervisor  
Steven E. Ackerman

# Fax

To: Mr. Jim Ridgik, PA DEP From: Daniel A. DeLong, Township Manager  
Fax: 1-670-830-3017 Pages: 1  
Phone: Date: 1/18/2006  
Re: Summary of Costs for Phillip Casey CC:  
property at 3284 Main Road East,  
Emmaus, PA 18049

Urgent  For Review  Please Comment  Please Reply  Please Recycle

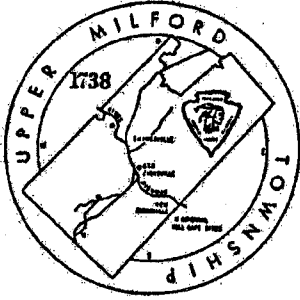
• Comments:

Per your request I have attached a summary of costs based on the information provided to you by Mr. Phillip Casey by his letter dated January 13, 2006.

It should be noted that the costs are obtained from the Township's "fact sheet" for the September 29, 2005 meeting.

The Township does not represent that there are 4 EDU's on this property, nor that there will be a single lateral connection to serve the EDU's on this property.

1-18-06



**UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS**

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Chairman  
Daniel J. Mohr

Vice-Chairman  
Henry H. Kradjel

Supervisor  
Steven E. Ackerman

*Copied  
BUS  
1/18/06  
ck*

**Fax**

<b>To:</b> Mr. Jim Ridgik, PA DEP	<b>From:</b> Daniel A. DeLong, Township Manager
<b>Fax:</b> 1-570-830-3017	<b>Pages:</b> 1
<b>Phone:</b>	<b>Date:</b> 1/18/2006
<b>Re:</b> Summary of Costs for Phillip Casey property at 3284 Main Road East, Emmaus, PA 18049	<b>CC:</b>

Urgent  For Review  Please Comment  Please Reply  Please Recycle

● **Comments:**

Per your request I have attached a summary of costs based on the information provided to you by Mr. Phillip Casey by his letter dated January 13, 2006.

It should be noted that the costs are obtained from the Township's "fact sheet" for the September 29, 2005 meeting.

The Township does not represent that there are 4 EDU's on this property, nor that there will be a single lateral connection to serve the EDU's on this property.

*[Handwritten Signature]*  
1-18-06



Copied  
1/18/06  
ck

WATER QUALITY

COUNTY: \_\_\_\_\_

JAN 17 2006

MUNIC: \_\_\_\_\_

FACILITY: \_\_\_\_\_

FILE CODE: \_\_\_\_\_

FROM RECORD  
1-18-06  
C. 205

1-13-06

DEP - TOWNSHIP - ST. REP.

AGAIN MY TOWNSHIP HAD A MEETING DURING THE DAYTIME WITHOUT NOTIFYING ANY OF THE PEOPLE IN THE VERA CRUZ SEWER AREA. I HAD TO FIND OUT ABOUT IT IN THE NEWSPAPER

I HAVE WORKED AND LIVED IN VERA CRUZ FOR 30+ YEARS. I BELIEVE I AM HEALTHY AND NONE OF MY NEIGHBORS HAVE DIED EXCEPT FOR OLD AGE. SOME ARE 95 YEARS OLD. I THINK THAT IS A TESTAMONIAL TO A QUALITY ENVIRONMENT NOW THE MATH

I WILL ROUND DOWN EVERY NUMBER BECAUSE IT IS EASIER TO WORK WITH. KEEP IN MIND THAT I NOT THE HIGHEST COST SO I CONSIDER MYSELF AVERAGE IN THIS PROJECT:

ACCORDING TO MY TOWNSHIP

MY ASSESSMENT IS \$5000.00

4 EDUS MY PLUMBING COST IS 13,000.00 + MORE FROM "CURTIS PLUMBING"

MY TAPPING FEE IS 28,000.00

THAT IS \$46,000.00 WHEN THE BACKHOC COMES

THEN MY 20 YR. COST IS AT LEAST \$104,000.00

TOTAL \$150,000.00

ONE HUNDRED FIFTY THOUSAND DOLLARS  
AT MINIMUM NUMBERS

THESE ARE ROUNDED DOWN SO, IT WILL DEFINITELY BE MORE

IN MY 53 YRS I HAVE NEVER SEEN A PUBLIC PROJECT COME IN ON BUDGET



more than likely it will be more, so  
\$200,000<sup>00</sup> or more is what this will cost me.

I don't want to mope but this is 2X what  
I paid for this property. Since I've been  
flushing the toilet and none of my neighbors  
are sick, what is the benefit???

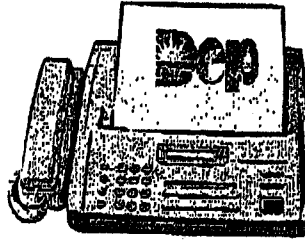
most houses today have 3 to 4 toilets and  
2 or 3 (bath-rooms) who would spend 150 to 200K  
to go to the bathroom.

in the last couple years I have talked to so  
many people about this and not one person has  
ever heard of such costs. most say \$3000 to \$4000  
to hook up and \$30/mo or \$100/yr.

Whats up?

Phillip Casey  
3284 MAIN RD EAST  
EMMAUS, PA. 18049  
610 967 5754

GP-11



# FAX Cover Sheet

Date 01/18/06

Number of pages including cover sheet: 3

<b>TO:</b> DAN DELONG TOWNSHIP MANAGER	<b>FROM:</b> JAMES RIDGICK DEP, WMP, PLANNING SECTION, W-B
Fax Phone #: <u>610-966-5184</u>	Department of Environmental Protection Northeast Regional Office Water Supply Management Program Two Public Square Wilkes-Barre, PA 18711-0790  Phone #: 570-826-2017 Fax Phone #: 570-830-3017

RE: UPPER MILFORD TWP  
LETTER ON PROJECT COSTS

REMARKS:  As requested  For your review  Reply ASAP  Please Comment



**Vera Cruz Project Area:** This project will include the construction of gravity collector systems, low-pressure systems in areas where gravity service is not feasible, two pumping stations and associated force mains to provide public sewer service to the ~284 properties within the project area. The sanitary sewer infrastructure will be constructed as necessary to meet the estimated future wastewater needs in their specific service area.

The implementation schedule for construction of the public sanitary sewer infrastructure to provide service to Vera Cruz Project area is as follows:

Phase of Project	Months from Start
Approval of Act 537 Plan Revision	0
Conduct & Complete Project Area Resident Surveys	4
Complete Phase I Archaeological Survey	4
Complete Phase II Archaeological Survey	7
Submit Plans and Specifications of the selected collection system alternative and routing for PADEP Review	11
Submit PADEP GP-5 Permit Application(s) regarding stream crossings and wetland encroachment	11
Obtain PADEP Part II Construction Permits	14
Submit Project for Bids	16
Award Contract	18
Start Construction	20
Complete Construction	32

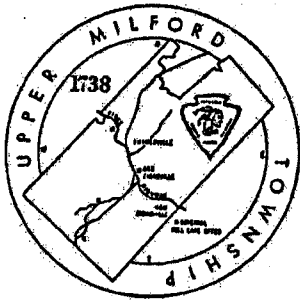
We have assumed that PADEP, PennDOT and Lehigh County Conservation District will provide a timely review and issuance of necessary permits and that PHMC archaeological survey requirements can be accomplished in a reasonable time frame. Also, construction may be delayed due to unforeseen issues associated with the environmental permitting.

It should be noted, that each of the collection systems within this project area would service less than 250 units. Therefore, PADEP Part II Water Quality permits will not be required for the overall collection system. However, a PADEP Part II permit may be required for certain portion of the collection system that utilizes a low-pressure collection system with more than five (5) grinder pump units.

**The Remaining Leibert Creek Basin Areas:** The following ~~non~~-collection system service areas in the Leibert Creek Basin will continue utilizing on-site systems for the near future:

- The remaining areas of the PSA-3 and PSA-4 that are not part of the Vera Cruz Project Area.
- Saucon Creek Basin area bounded by Bunner and Limeport Roads (PSA-1)
- The area adjacent to Jasper Road between Main Road East and Shimerville Road (PSA-5)
- The area adjacent to Main St. East and Shimerville road between Chestnut St. (PA Route 29) and Milford and Beck Roads (PSA-6)

This Page Revised 01-17-06



**UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS**

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Web: <http://www.uppermilford.net>

**Chairman**  
Daniel J. Mohr

**Vice-Chairman**  
Henry H. Kradjel

**Supervisor**  
Steven E. Ackerman

# Fax

**To:** Mr. Jim Ridgik, PA DEP

**From:** Daniel A. DeLong, Township Manager 

**Fax:** 570-830-3017

**Pages:** 2

**Phone:**

**Date:** 1/17/2006

**Re:** Act 537 Plan

**CC:**

Urgent   x  For Review    Please Comment    Please Reply    Please Recycle

● **Comments:**

Please review this proposed revision to Upper Milford Township's Act 537 Plan implementation schedule; page 4-2.

Thank You

Daniel A. DeLong  
Upper Milford Township Manager

MEMORY TRANSMISSION REPORT

TIME : 01-17-'06 14:57  
TEL NO. 1 :  
NAME :

FILE NO. : 237  
DATE : 01.17 14:56  
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END TIME : 01.17 14:57  
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STATUS : OK

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Chairman  
Daniel J. Mohr  
Vice-Chairman  
Henry H. Kradjel  
Supervisor  
Steven E. Ackerman

# Fax

To: Mr. Jim Riddik, PA DEP  
From: Daniel A. DeLong, Township Manager *DD*  
Fax: 570-830-3017  
Pages: 2  
Phone:  
Date: 1/17/2006  
Ref: Act 537 Plan  
CC:

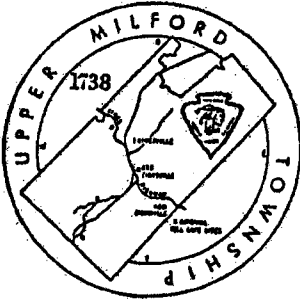
Urgent  For Review  Please Comment  Please Reply  Please Recycle

• Comments:

~~Please review this proposed revision to Upper Milford Township's Act 537 Plan implementation schedule; page 4-2.~~

Thank You

Daniel A. DeLong  
Upper Milford Township Manager



**UPPER MILFORD TOWNSHIP  
BOARD OF SUPERVISORS**

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Web: <http://www.uppermilford.net>

Chairman  
Daniel J. Mohr

Vice-Chairman  
Henry H. Kradjel

Supervisor  
Steven E. Ackerman

January 25, 2006

Mr. James Ridgik  
PA Department of Environmental Protection  
2 Public Square  
Wilkes-Barre, PA 18711-0790

Copied  
1/25/06  
OK

**RE: Upper Milford Township; Lehigh County  
Act 537 Plan Revisions**

Dear Mr. Ridgik:

Attached please find the following revised pages of the Township's Act 537 Plan:

Page 1-10 showing a correction to Alternative No. 8 PSA No.

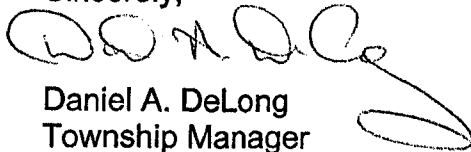
Page 3-3 showing a correction to Alternate No. 8 description, PSA No.  
and Needs Area No.

Page 4-2 showing the implementation schedule including archaeological  
survey work

Kindly void the current pages and insert the revised pages dated January 17,  
2006.

If you have any questions please contact me at 610-966-3223.

Sincerely,

  
Daniel A. DeLong  
Township Manager

DAD:ck

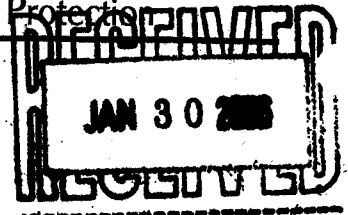
Attachment

Cc: Kim Shaak, Secretary / Treasurer  
Board of Supervisors  
Brian Miller, SEO



Pennsylvania Department of Environmental Protection

2 Public Square  
Wilkes-Barre, PA 18711-0790  
January 27, 2006



570-826-2511  
Fax 570-830-3016

Northeast Regional Office

CERTIFIED MAIL NO. 7005 0390 0001 3227 2720

Upper Milford Township  
c/o Mr. Daniel DeLong, Township Manager  
5831 Kings Highway South  
P. O. Box 210  
Old Zionsville, PA 18068

Copy:  
B.O.S.  
D. DeLong  
Staff  
B. Miller  
File

Rec'd  
1-30-06  
DD

Re: Act 537 Official Plan Revision (Plan)  
Upper Milford Township, Lehigh County

Ladies and Gentlemen:

The Department has reviewed the Act 537 Plan Revision for Upper Milford Township, Lehigh County, dated July 2005 (received October 3, 2005), including the Act 537 Sewerage Facilities Plan Supplement, dated September 30, 2005 (received October 3, 2005); and additional supporting documentation dated October 25, 2005 (received October 26, 2005), December 16, 2005 (received December 21, 2005), January 12, 2006 (received January 13, 2006), and January 17, 2006 (received January 26, 2006). The Plan, prepared by Schreiter Engineering Associates, Inc., in conjunction with Schoor DePalma Engineers and Consultants, is consistent with the planning requirements given in Chapter 71 of the Rules and Regulations of the Department.

The Plan provides for:

1. Centralized sewer service for the Village of Vera Cruz, located in the Leibert Creek drainage basin.

The proposed sewer system will serve the majority of the proposed sewer service areas PSA-1, PSA-2, PSA-3, and PSA-4, as indicated in the Plan. Wastewater from the Village of Vera Cruz will be conveyed to the existing Lehigh County Authority's (LCA's) Route 29 collection system at Manhole #JS-1, located on Salem Drive. The wastewater will be treated at the City of Allentown's Sewage Treatment Plant (STP).

2. The creation of a sewage management program through the formation of a sewage management district to serve all lots utilizing on-site sewage disposal systems. An ordinance establishing the program will be adopted by the Township within 12 months of this Plan approval.



The Plan is approved with the following conditions:

1. The approved project will require a Water Quality Management (WQM) Permit for the construction and operation of the proposed sewage facilities. The permit application must be submitted in the name of the municipality or authority, as appropriate. Issuance of a WQM Permit will be based upon a technical evaluation of the permit application and supporting documentation. Starting construction prior to obtaining a WQM Permit is a violation of The Clean Streams Law.
2. Other Departmental permits may be required for construction if encroachment to streams or wetlands will result. Information regarding the requirements for such permits or approvals can be obtained from the Department's Soils and Waterways Section at the letterhead address or telephone.
3. Following final municipal adoption, copies of the Sewage Management Program Ordinance must be submitted to this office and the Department's Bethlehem District Office.

The Department's review of the Plan has not identified any significant environmental impacts from the proposal. It is now your responsibility to implement the Plan in accordance with the schedule contained within the Plan.

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Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa. C.S., Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717-787-3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800-654-5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in Braille or on audiotape from the Secretary to the Board at 717-787-3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

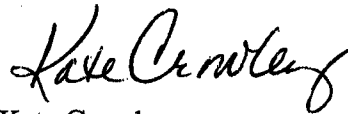


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If you have any questions, please call James Ridgik or Michael Brunamonti at 570-826-2335 or 570-826-2333, respectively.

Sincerely,



Kate Crowley  
Program Manager  
Water Management Program

Enclosure

cc: State Senator Robert C. Wonderling  
State Representative Douglas G. Reichley  
R. Benner/Schoor DePalma  
J. Boldaz/Schoor DePalma  
M. Gallagher/PENNVEST  
J. Kauffman/USDA – Rural Development  
F. Leist/Lehigh County Authority  
S. Rockwell/Lehigh Valley Planning Commission  
K. Schreiter/Schreiter Engineering Associates, Inc.



DATE SUBMITTED: \_\_\_\_\_

**APPLICATION FOR ACT 537 SEWAGE FACILITIES PLANNING ASSISTANCE**

APPLICANT		TELEPHONE	FEDERAL E.I.N. No.
2. ADDRESS	CITY	ZIP	COUNTY
3. OFFICIAL OF APPLICANT			TITLE
PLANNING BOARD OR COMMISSION			DEPARTMENT USE ONLY
1. NAME OF PLANNING AGENCY			TELEPHONE
2. ADDRESS			CITY
			ZIP
			COUNTY
3. CHAIRMAN OF AGENCY		POLITICAL SUBDIVISION SERVED:	

IF THE PLAN SUBMITTED IS A JOINT EFFORT LIST THE POLITICAL SUBDIVISIONS AND PLANNING AREAS		FOR APPLICANT USE
4. NAME OF POLITICAL SUBDIVISION	PLANNING AREA	5. THE OFFICIAL PLAN IS:
		<input type="checkbox"/> A new plan
		<input type="checkbox"/> A revision of existing plan
		<input type="checkbox"/> A part of a comprehensive plan
		6. DATE PLANNING STARTED:
		7. DATE OFFICIAL PLAN COMPLETE:
10. NAME OF PLANNING CONSULTANT SUBDIVISION	11. ADDRESS OF PLANNING CONSULTANT	8. DATE OFFICIAL PLAN ADOPTED:
TELEPHONE:		9. DATE OFFICIAL PLAN APPROVED BY DEP:

PLANNING ASSISTANCE INFORMATION	
COST OF OFFICIAL PLAN ATTACH INVOICES	\$
FUNDS PREVIOUSLY RECEIVED FROM THIS DEPARTMENT OR OTHER AGENCIES	
AGENCY:	\$
DATE:	
AGENCY:	\$
DATE:	
AGENCY:	\$
DATE:	
TOTAL RECEIVED	\$
APPLICANT'S SHARE OF COST	\$
AMOUNT REQUESTED - EQUAL TO 1/2 OF APPLICANT'S SHARE	\$

<b>AFFIDAVIT</b>	
COMMONWEALTH OF PENNSYLVANIA	
COUNTY OF: _____	
I, _____ being duly sworn according to law depose and say that I am an official of the applicant and that the information included in this application and documents attached as a part of the application are true and correct to the best of my knowledge and belief.	
Sworn to and subscribed before me this _____ day of _____ 20__.	
_____ Signature of Notary Public	_____ Signature of Applicant's Official
MY COMMISSION EXPIRES: _____	TITLE _____
SEAL	



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

**APPLICATION FOR ACT 537 SEWAGE FACILITIES PLANNING ASSISTANCE**

A completed application for sewage facilities planning assistance consists of:

- A. Two (2) copies of this form completed by the lead agency or municipality.
- B. One (1) copy of the following administrative action documents:
  - 1. Resolutions adopting the Plan by all participating municipalities.
  - 2. Comments by the Planning Commission with areawide jurisdiction of the Plan.
  - 3. DEP's letter approving the Plan.
  - 4. When the applicant for a planning grant is not a municipality, written proof that the municipality has authorized the applicant to receive the grant shall be submitted with the application.
- C. One (1) copy of:
  - 1. The Official Plan.
  - 2. DEP's approved Task Activity Report (T/AR) or Plan or Study (POS).
  - 3. Invoices documenting the cost of the Plan.
  - 4. Proof of payment in the form of cancelled checks.

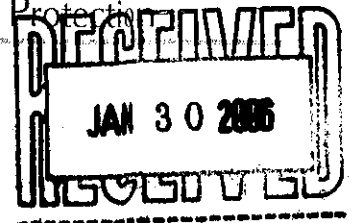
**The completed application must be submitted to:**

**Department of Environmental Protection  
Bureau of Water Supply and Wastewater Management  
Division of Wastewater Management  
11<sup>th</sup> Floor, Rachel Carson State Office Building  
P.O. Box 8774  
Harrisburg, PA 17105-8774**



Pennsylvania Department of Environmental Protection

2 Public Square  
Wilkes-Barre, PA 18711-0790  
January 27, 2006



570-826-2511  
Fax 570-830-3016

Northeast Regional Office

CERTIFIED MAIL NO. 7005 0390 0001 3227 2720

Upper Milford Township  
c/o Mr. Daniel DeLong, Township Manager  
5831 Kings Highway South  
P. O. Box 210  
Old Zionsville, PA 18068

Copy:  
B.O.S.  
D. DeLong  
Staff  
B. Miller  
File

Rec'd  
1-30-06  
DD

Re: Act 537 Official Plan Revision (Plan)  
Upper Milford Township, Lehigh County

Ladies and Gentlemen:

The Department has reviewed the Act 537 Plan Revision for Upper Milford Township, Lehigh County, dated July 2005 (received October 3, 2005), including the Act 537 Sewerage Facilities Plan Supplement, dated September 30, 2005 (received October 3, 2005); and additional supporting documentation dated October 25, 2005 (received October 26, 2005), December 16, 2005 (received December 21, 2005), January 12, 2006 (received January 13, 2006), and January 17, 2006 (received January 26, 2006). The Plan, prepared by Schreiter Engineering Associates, Inc., in conjunction with Schoor DePalma Engineers and Consultants, is consistent with the planning requirements given in Chapter 71 of the Rules and Regulations of the Department.

The Plan provides for:

1. Centralized sewer service for the Village of Vera Cruz, located in the Leibert Creek drainage basin.

The proposed sewer system will serve the majority of the proposed sewer service areas PSA-1, PSA-2, PSA-3, and PSA-4, as indicated in the Plan. Wastewater from the Village of Vera Cruz will be conveyed to the existing Lehigh County Authority's (LCA's) Route 29 collection system at Manhole #JS-1, located on Salem Drive. The wastewater will be treated at the City of Allentown's Sewage Treatment Plant (STP).

2. The creation of a sewage management program through the formation of a sewage management district to serve all lots utilizing on-site sewage disposal systems. An ordinance establishing the program will be adopted by the Township within 12 months of this Plan approval.



The Plan is approved with the following conditions:

1. The approved project will require a Water Quality Management (WQM) Permit for the construction and operation of the proposed sewage facilities. The permit application must be submitted in the name of the municipality or authority, as appropriate. Issuance of a WQM Permit will be based upon a technical evaluation of the permit application and supporting documentation. Starting construction prior to obtaining a WQM Permit is a violation of The Clean Streams Law.
2. Other Departmental permits may be required for construction if encroachment to streams or wetlands will result. Information regarding the requirements for such permits or approvals can be obtained from the Department's Soils and Waterways Section at the letterhead address or telephone.
3. Following final municipal adoption, copies of the Sewage Management Program Ordinance must be submitted to this office and the Department's Bethlehem District Office.

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