

# **ACT 537 SEWAGE FACILITIES PLAN**

## **FOR THE SERVICE AREAS OF MARKLEYSBURG BOROUGH AND HENRY CLAY TOWNSHIP**

**(Near SR 281)**

Fayette County, Pennsylvania

**Updated June 2002**

**Final Preparation July 2002**

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**MARKLEYSBURG BORO & HENRY CLAY TOWNSHIP  
ACT 537 SEWAGE FACILITIES PLAN**

**TABLE OF CONTENTS**

<b>Section I. Executive Summary .....</b>	<b>1</b>
<b>Section II. Plan Summary .....</b>	<b>2</b>
A. Final Plan Recommendation	
1. Plan Purpose	
2. Proposed Service Area	
3. Sewage Disposal Problems Evaluated	
4. Alternatives Chosen	
B. Implementation	
1. Costs of Implementing the Chosen Alternatives	
2. Potential Funding Methods	
3. Implementation Actions to Occur	
Table 1 - Plan Implementation Schedule	
4. Commitment / Implementation Documents	
Figure 1: Resolution for Plan Adoption - Markleysburg Borough	
Figure 2: Resolution for Plan Adoption - Henry Clay Township	
<b>Section III. Background Information .....</b>	<b>9</b>
A. Previous Wastewater Planning	
1. Previous Planning	
2. Planning Documents Summary	
3. Flood Plain and Stormwater Management	
4. Environmentally Sensitive Areas	
a. Prime Agricultural Land and Farm Land	
b. Wetland Impact	
c. PNDI	
d. Pennsylvania Historic Preservation Act	
5. Comprehensive Facility Plan Consistency Requirements Summary	
Table 2 - Facility Plan Consistency Requirements Summary	
B. Physical and Demographic Analysis of the Planning Area	
1. Service Area and Municipal Boundaries	
2. Drainage Basin and Streams	
3. Soils, Geologic Features and Topography	
4. Potable Water Supplies	
5. Population	
Table 3 - Markleysburg Borough Population	
Table 4 - Henry Clay Township Population	
Table 5 - Fayette County Population	
Table 6 - Field Audit Population	
C. Existing Sewage Facilities in the Planning Area	
D. Future Growth and Development	

## TABLE OF CONTENTS

<b>Section IV. Alternative Evaluation</b> .....	22
A. Planning and Facilities Alternatives	
1. Alternatives for On-lot Sewage Disposal Systems	
a. On-lot Sewage Alternative No.1: Continued use of existing on-lot sewage	
b. On-lot Sewage Alternative No.2: Continued use of the existing on-lot sewage disposal systems until public sewers are available	
2. Alternative for Community On-lot Sewage Disposal Systems	
a. Community on-lot Alternative No.1: Capture all regulatory discharges in holding structures	
b. Community on-lot Alternative No. 2: Residents unable to gravity discharge to public sewage treatment plant	
3. Alternatives for Overall Sewage Disposal System	
a. Sewage Disposal System Alternative No.1: Convey all sewage flows to a new public sewage treatment facility (gravity flows)	
b. Sewage Disposal System Alternative No.2: Convey forced sewage collections to new public sewage treatment facility	
B. Wastewater Treatment Alternatives	
<b>Section V. Implementation Evaluation</b> .....	27
A. General	
B. Institutional Evaluation	
C. Municipal On-lot Facilities Program	
D. Future Administration of Sewage Facilities	
<b>Section VI. Attachments</b> .....	29
▶ Subdivision and Land Development Ordinance of Henry Clay Township, Fayette County, Pennsylvania (partial)	
▶ Subdivision and Land Development Ordinance of Fayette County, Pennsylvania (partial)	
▶ Text of Zoning Plan - Zoning Ordinance of Fayette County, Pennsylvania (partial)	
▶ Act 537 Plan Content and Environmental Assessment Checklist	
▶ Permit Application - General Information Form	
▶ Proof of Publication of Public Notice (Markleysburg Borough)	
▶ Proof of Publication of Public Notice (Henry Clay Township)	
▶ Municipal Adoption Resolutions (originals signed and sealed)	

- ▶ Project Narrative - Markleysburg Borough (January 3, 2002) - As submitted with Environmental Requests
- ▶ "Agreement for Engineering Services" for Act 537 Plan Preparation - November 9, 2000
- ▶ Effluent Limitations for Sewage Treatment Plant Discharge to an Unnamed Tributary of Pinkham Run
- ▶ Wastewater Treatment Plant Specifications and Cost Estimate

**Section VII. Correspondence ..... 36**

- ▶ Letter to Fayette County Department of Planning & Community Development
- ▶ Letter to Markleysburg Borough Secretary
- ▶ Letter to Henry Clay Township Supervisors
- ▶ PADEP Letter to Markleysburg Borough
- ▶ Markleysburg Borough Planning Comments and Municipal Responses
- ▶ Henry Clay Township Planning Comments and Municipal Responses
- ▶ All Public Comments and Responses
- ▶ Fayette County Conservation District (PNDI plus Farm Land and Range Land)
- ▶ Supplement No.1 -Pennsylvania Natural Diversity Inventory (PNDI) Search Form
- ▶ PA Fish & Boat Commission (PNDI)
- ▶ Non-game & Endangered Species Unit PNDI Form
- ▶ Pennsylvania Historic and Museum Commission (PHMC; Historic and Archaeologic)
- ▶ Cultural Resource Notice and Checklist
- ▶ Department of Conservation & Natural Resources (Federal Lands Environmental Mitigation; PNDI)
- ▶ PA Game Commission (Approval and Lands Environmental Mitigation)
- ▶ Letter to PADEP for Request of STP Effluent Limitation

## TABLE OF CONTENTS

<b>Section VIII. Report Mapping</b> .....	36
Figure 1	USGS (Location) Map
Figure 2	USDA Soils Map
Figure 3	Farmland Soils Map
Figure 4	NWI (National Wetlands Inventory) Map
Figure 5	Zoning Map
Figure 6	Hydric Soils Map
Figure 7	Service Area Map
Figure 8	Tax Map(s)
Figure 9	Geologic Map
Figure 10	Conceptual Sewer System Layout (Borough of Markleysburg)
Figure 11	Conceptual Sewer System Layout (Henry Clay Township)
<b>Section IX. Estimated Construction Costs</b> .....	37
Estimate of Other Alternative Evaluations	
Estimate of Selected Alternatives - Markleysburg Borough	
Estimate of Optional Selected Alternatives (plant flow reduction)	
- Markleysburg Borough	
Estimate of Selected Alternatives - Henry Clay Township	
RUS Financing Scenarios	(50% option at 40 years)
PennVEST Financing Scenarios	(75% option at 20 years)
PennVEST Financing Scenarios	(75% option at 30 years)
Summary of Financing Opportunities	

## **SECTION I EXECUTIVE SUMMARY**

The purpose of this Act 537 Sewage Facilities Plan is to establish the feasibility of establishing a municipal run sewage collection and treatment system, identify the existing sewage disposal problems in the anticipated service area (Markleysburg Borough and the area in and around the State Route 281 corridor of Henry Clay Township), analyze problems and proposed treatments, select alternatives for solving sewage disposal problems, and determine the costs and actions needed to implement the chosen alternatives.

Act 537 enacted by the Pennsylvania Legislature in 1966, requires that every municipality in the Commonwealth develop and maintain an up-to-date Sewage Facilities Plan. This document is the first Sewage Facilities Plan authorized by Markleysburg Borough. Markleysburg Borough has initiated this plan preparation because of the administrations opinion that the Borough has a critical need for an improved public sewage treatment facilities other than the individual on-lot disposal, now utilized. The main purpose of the municipality's Sewage Facilities Plan is to protect the health, safety, and welfare of the community. The municipality understands that this Plan properly implemented shall correct malfunctioning on-lot septic systems and eliminate wildcat sewers, prevent future sewage disposal problems from occurring, and provide protections for both the groundwater, and surface water receiving streams.

The service area for this Act 537 Sewage Facilities Plan cover the entire area of Markleysburg Borough (approximately 193 acres) and the Henry Clay Township corridor (approximately 5,365 feet) along State Route 281.

The activities proposed to address the sewage disposal problems are as follows:

- ▶ Implementation of a structured on-lot sewage disposal program until public sewers are available for interconnection.
- ▶ Implementation, design, permitting and construction of a municipal owned and operated sewage treatment facilities with sewage facilities collection appurtenances feasible for gravity collection and specific force system areas.
- ▶ Design and construction of an expanded sewerage system(s) to service the designated future phases of the Markleysburg and Henry Clay Development Areas.

PennVest, DCED and other financing alternatives shall be immediately investigated for grants and low-interest loans for collection, conveyance and treatment facilities fundings, design, permitting and construction. The preliminary cost estimate for the initial service area constructions (Phase IA, II, IIIA and Phase IV in Markleysburg), design and permitting is \$1,751,830.00. If PADEP allows a user flow rate of 275 gpd in lieu of 400 gpd a plant size and cost savings would be realized reducing Phase I and II costs to \$343,020.00. Implementation is anticipated within two years and construction within five years. The addition of the most immediate feasible area of Henry Clay Township would cost a total estimate of \$1,930,585.00. Henry Clay Township Supervisors have elected not to be involved in a joint public sewage system for this area.

## **SECTION II PLAN SUMMARY**

### **A. Final Plan Recommendation**

#### **1. Plan Purpose**

The purpose of this Act 537 Sewage Facilities Plan is to analyze the feasibility of creating a municipal sewage system for identification and elimination of malfunctioning sewage systems (on-lot and wildcat sewers) by examining existing problems, analyzing alternatives to protect all waters and land resources in the service vicinity, and to implement facilities upon evaluation of options.

This report preparation has been undertaken as a needs assessment by the legislative body of Markleysburg Borough. This report has been developed for general compliance with "A Guidance for Preparing Act 537 Update Revisions" - February 1998. Markleysburg Borough municipal representatives have identified a need for a municipal sewage disposal or, at least, a better sewage disposal option for the borough. At this time, water service is provided by individual well systems and public health becomes compromised with malfunctioning sewer systems. The borough has pursued this plan preparation so that their implementation, along with the National Pike Water Authority public water service construction, will relieve any environmental contamination to the Borough specifically for public health, water pollution and potential community development problems.

Specifically, this report shall:

1. Establish the boundary of the feasible study and potential service areas for a community-type sewage disposal system.
2. Identify, known or suspected, existing sewage disposal problems of the service area.
3. Identify, analyze, and select alternatives for solving the sewage disposal problems.
4. Determine the costs and actions needed to implement the chosen alternatives and manage the municipality wastewater needs.

#### **2. Proposed Service Area**

The service area for this Act 537 Sewage Facilities Plan is shown on the attached report mapping and specifically in the Conceptual Sewer System Layout Mappings. The service area is comprised of the Borough of Markleysburg and Henry Clay Township specific to the developments along or near State Route 281, southward from U.S. Route 40 (the National Pike). It covers a service area of approximately 195 acres with a potential collection and conveyance length for a public sewage system of 18,610 linear feet (3.52 miles).

Two municipalities have the option to participate in the planning of a joint municipal sewage treatment facilities as discussed herein. Those municipalities are:

1. Markleysburg Borough (established/incorporated in 1893)
2. Henry Clay Township (established June 9, 1824)

However, as further analyzed herein, immediate feasibility (financially) is to

collection and service treatment system. An intent to expand the sewage treatment plant is requested as service needs mandate in Henry Clay Township and as funding sources are pursued and obtained.

### **3. Sewage Disposal Problems Evaluated**

The only sewage disposal problem in the service area evaluated in this report is on-lot sewage disposal problems. On-lot sewage disposal problems limit future development, are contaminating land resources and water quality, and create health and welfare issues for the community.

### **4. Alternatives Chosen**

The alternatives chosen for solving the sewage disposal problems in the service area are listed and summarized in the reasonable order of implementation that they should occur. The overall solution to sewage disposal problems elimination will occur only when complete implementation of the listed alternatives are undertaken.

1. Continued use of existing on-lot sewage disposal systems until public sewers are constructed. Coordination and a pro-active municipal administration must be established to monitor and regulate the systems to limit degradation of land and water resources created from malfunctioning systems. Limiting of new on-lot disposal systems in accordance with the Pennsylvania Code - Title 25, Chapter 73 standards shall be applied.
2. Design, permitting and construction of a municipal owned sewage treatment and collection system. Gravity fed areas will be constructed during initial phases so that implementation of the general sewage system remains cost effective. Two force main service extension (Brownhill Road & Friendsville Road) may be chosen if Labor & Management issues are accepted by a full-time operator and the intended authority. Design, permitting and construction of a municipal owned and maintained sanitary force systems(s) for servicing the Markleysburg users along State Route 2013 and further along Brownhill Road towards Friendsville, Maryland. Six residents would be serviced along SR 2013 and additional residents along Brownhill Road. (Note: Based upon preliminary land availability, use and environmental conditions, no on-lot system may not really be feasible or desired, therefore public collection systems are chosen.) Additionally, the first phase of servicing Henry Clay Township residents would be feasible if the township also accepts this plan (Henry Clay Township was elected not to accept this service option).
3. Analysis and design of a collection and conveyance systems along State Route 281 south to the intended sewage treatment plant as referenced for the Henry Clay Township Phase II near US Route 40. Extended financing must become available for this to occur.



**B. Implementation**

**1. Costs of Implementing the Chosen Alternatives**

The preliminary and summarized costs for implementing the chosen alternatives are as follows:

<b>Alternative</b>	<b>Estimated Cost</b>
1. Continued use of on-lot sewage disposal systems (administration)	\$5,000.00 Annually
2. Municipal collection and treatment system construction (gravity available areas)	\$1,389,155.00
3. Two force system collection systems for fourteen users of Markleysburg Borough	\$362,675.00 (additional)
4. Design and construction of a forced collection and conveyance system (along SR 281 South for Henry Clay Township)	\$550,590.00 (total additional)

**2. Potential Funding Methods**

Funding sources have been investigated for the alternatives chosen to service the Markleysburg Borough and partial Henry Clay Township public sewage service areas. Initial debt service shall be incurred by those areas of Markleysburg Borough (and Henry Clay Township if they accept) that can be serviced by the initial public service extension. Intended immediate funding for the project would be from PennVEST. The system users would pay for reimbursement of the payment funds for PennVEST debt service and the operation and maintenance and administration of the new sewage system. The ideal estimated cost/user/month for repayment and service is \$27.78 for thirty years, then a monthly payment estimated at \$20.10 thereafter assuming that a PennVEST grant will be received for 75% of the design, permitting and administrative costs. This scenario includes the entire Markleysburg Borough service area and Phase I of Henry Clay Township. User tap-in fees will be held for the municipal authority/operating agency as equity and potential foundation for capital expenditures plus specifically, land and right-of-way costs. If Henry Clay Township does not accept this plan, the monthly burden of \$31.44 per user of Markleysburg Borough for thirty years would prevail.

**3. Implementation Actions to Occur**

In order to facilitate the selected alternatives to establish the Municipal Sewage Authority (a governing/operating board), construct the sanitary infrastructure, and interconnect and manage the system users the following minimum actions have to be undertaken.

1. Markleysburg Borough adopt Act 537.
2. Henry Clay Township adopt Act 537 (action was taken to not adopt Act 537).
3. Financing investigated and applications made.
4. Sewage board developed.
5. Sewage board acts on proactive monitoring of existing facilities and establish S.E.O./monitoring guidelines in accordance with the PA Code - Title 25, Chapters 71 and 72.
6. Infrastructure final design is approved.

7. Contracts for construction are bid and awarded.
8. Infrastructure construction and taps made.
9. Continued planning, administration and operations.

The Pennsylvania Sewage Facilities Act requires complete and timely implementation of the activities described in this Sewage Facilities Plan. The following Plan Implementation Schedule, is developed which identifies the actions required to carry out the plan's recommendations and when these actions will be completed. Please note that there may be financial, legal or administrative barriers which would prevent this complete and timely implementation as listed.

<b>Table 1 PLAN IMPLEMENTATION SCHEDULE</b>			
<b>Task</b>	<b>Implementation by</b>	<b>Anticipated Task Schedule</b>	<b>Notes</b>
Adopt Act 537 Sewage Facilities Plan	<ul style="list-style-type: none"> <li>▸ Markleysburg Borough</li> <li>▸ Henry Clay Township</li> </ul>	July 2002	▸ Municipal & Public Comment review required
Investigate Financing and make applications	<ul style="list-style-type: none"> <li>▸ Markleysburg Borough</li> </ul>	January 2002 - August 2002	PennVEST, DCED, PADEP, RUS, etc.
Develop Sewage Board/Authority	<ul style="list-style-type: none"> <li>▸ Markleysburg Borough</li> <li>▸ Henry Clay Township</li> <li>▸ Fayette County</li> </ul>	October 2002	Intermunicipal agreements, Authority development, responsibilities, task schedule, guidelines, etc. To be determined
Rules and Regulations Development, Administration Resolutions, etc.	<ul style="list-style-type: none"> <li>▸ Sewage Board/Authority</li> </ul>	October 2002 - December 2002	▸ Primary functions, proactive monitoring of existing facilities and responsibilities to be determined and incorporated into use
Infrastructure Design & Permitting	<ul style="list-style-type: none"> <li>▸ Sewage Board/Authority Engineer</li> </ul>	December 2002 - February 2003	
Infrastructure (Phase I & II) Construction	<ul style="list-style-type: none"> <li>▸ Selected &amp; Contracted Utility Contractor</li> </ul>	March 2003- August 2003	

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#### **4 Commitment / Implementation Documents**

In order to implement the selected alternatives discussed herein this Act 537 Sewage Facilities Plan, Markleysburg Borough, Henry Clay Township, the Pennsylvania Department of Environmental Protection (PADEP) and an eventual Sewage Board/Authority all have to review and accept the proper planning mechanisms for creating a public sewage system. The first step in doing so is to review, accept and approve this document as the Municipality(s) Official Plan. Suggested copy of that document that has to be publically accepted by municipal resolution is attached hereafter as Figures 1 and 2.

RESOLUTION FOR ACT 537 PLAN ADOPTION

RESOLUTION OF THE COUNCIL OF MARKLEYSBURG BOROUGH, FAYETTE COUNTY, PENNSYLVANIA (hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, the Council of Markleysburg Borough has prepared an Act 537 SEWAGE FACILITIES PLAN which provides for sewage facilities in Markleysburg Borough and

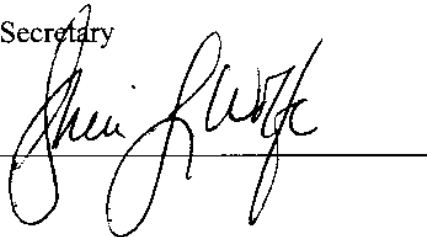
WHEREAS, Markleysburg Borough finds that the Facilities Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Council of the Borough of Markleysburg hereby adopts and submits to the Department of Environmental Protection for its approval as an "Official Plan" of the municipality, the above referenced Facilities Plan. The municipality hereby assures the Department of the complete and timely implementation of the said plan as required by law. (Section 5, Pennsylvania Sewage Facilities Act as amended).

I, Sheri L. Wolfe, Secretary, Markleysburg Borough Council, hereby certify that the foregoing is a true copy of the Borough's Resolution No. 03, adopted 2002.

BOROUGH SEAL

Secretary

A handwritten signature in black ink, appearing to read "Sheri L. Wolfe", is written over a horizontal line. The signature is cursive and somewhat stylized.

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RESOLUTION FOR ACT 537 PLAN ADOPTION

RESOLUTION OF THE COUNCIL OF MARKLEYSBURG BOROUGH, FAYETTE COUNTY, PENNSYLVANIA (hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, the Council of Markleysburg Borough has prepared an Act 537 SEWAGE FACILITIES PLAN which provides for sewage facilities in Markleysburg Borough and

WHEREAS, Markleysburg Borough finds that the Facilities Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Council of the Borough of Markleysburg hereby adopts and submits to the Department of Environmental Protection for its approval as an "Official Plan" of the municipality, the above referenced Facilities Plan. The municipality hereby assures the Department of the complete and timely implementation of the said plan as required by law. (Section 5, Pennsylvania Sewage Facilities Act as amended).

I, Sheri L. Wolfe, Secretary, Markleysburg Borough Council, hereby certify that the foregoing is a true copy of the Borough's Resolution No. \_\_\_\_\_, adopted 2002.

BOROUGH SEAL

Secretary

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**FIGURE I**

**RESOLUTION FOR PLAN ADOPTION**

**RESOLUTION OF THE COUNCIL OF MARKLEYSBURG BOROUGH, FAYETTE COUNTY, PENNSYLVANIA (hereinafter "the municipality").**

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, the Councilmen of Markleysburg Borough have prepared an Act 537 SEWAGE FACILITIES PLAN which provides for sewage facilities in Markleysburg Borough and

WHEREAS, Markleysburg Borough finds that the Facilities Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Councilmen of the Borough of Markleysburg hereby adopt and submit to the Department of Environmental Protection for its approval as an "Official Plan" of the municipality, the above referenced Facilities Plan. The municipality hereby assures the Department of the complete and timely implementation of the said plan as required by law. (Section 5, Pennsylvania Sewage Facilities Act as amended).

I, Linda Cuppet, Secretary, Markleysburg Borough Council, hereby certify that the foregoing is a true copy of the Borough's Resolution No. \_\_\_\_\_, adopted 2002.

**BOROUGH SEAL**

Secretary

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**FIGURE 2**

**RESOLUTION FOR PLAN ADOPTION**

RESOLUTION OF THE COUNCIL OF HENRY CLAY TOWNSHIP, FAYETTE COUNTY, PENNSYLVANIA (hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, the Supervisors of Henry Clay Township have had prepared an Act 537 SEWAGE FACILITIES PLAN which provides for sewage facilities for that serviceable area along SR 281 in Henry Clay Township, and

WHEREAS, Henry Clay Township finds that the Facilities Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Supervisors of the Township of Henry Clay hereby adopt and submit to the Department of Environmental Protection for its approval as an "Official Plan" of the municipality, the above referenced Facilities Plan. The municipality hereby assures the Department of the complete and timely implementation of the said plan as required by law. (Section 5, Pennsylvania Sewage Facilities Act as amended).

I, Margaret Rishel, Secretary, Henry Clay Township Board of Supervisors, hereby certify that the foregoing is a true copy of the ~~Township~~ Resolution No. 5 adopted 2002.

TOWNSHIP SEAL

Secretary



Adopted December 2, 2002

## **SECTION III BACKGROUND INFORMATION**

### **A. Previous Wastewater Planning**

#### **1. Previous Planning**

McMillen Engineering has contacted local municipality and county agencies relative to previous adopted and/or adhered to planning for wastewater disposals that may have regulatory control over the service areas included herein this plan. Summary of those documents as reviewed are discussed hereafter.

##### *a. Act 537 Plan (1972)*

The plan was prepared for the Fayette County Commissioners and the Fayette County Planning Commission by Fayette Engineering, Inc. The plan analyzed/discussed service options for all of Fayette County.

The plan recognized that the City of Uniontown Sewage Treatment Plant would be used as a regional sewage collection point for treatment of "Low Land" municipalities such as the City of Uniontown, Georges Township, Menallen Township, North Union Township, and South Union Township. The Mountain Municipalities (Henry Clay Township, Springhill Township, Stewart Township, Wharton Township, etc.) were to utilize on-lot sewage systems and potentially expand to joint municipal or privately operated sewage treatment plant(s).

##### *b. Official 1990 Plan Update- Act 537- Sewage Facilities Plan (Wharton Township)*

The plan was prepared for Wharton Township by McMillen Engineering. The plan analyzed service options primarily for Wharton Township, but made general discussions for a multi-municipality joint sewage operation.

The first alternative discussed the upgrading of privately owned sewage treatment plants to service areas of Wharton Township with an intent to potentially expand service to neighboring municipalities (Henry Clay Township).

The summary was that these options were not feasible (both administratively and financially).

#### **2. Planning Documents Summary**

Three regulatory ordinances are currently used for land development planning and zoning analysis for the service areas. Each of the ordinances, in effect for the two municipalities involved in the service area, are summarized below (as per sanitary sewage treatments/planning) and copy of the specific discussions to planning requirements for sewage are attached in this document. Also, the tax mapping parcels and zoning of the properties as obtained from the chief clerk of Fayette County, Tax Assessment of Fayette County, and available zoning information from Henry Clay Township are attached in the "Report Mapping" section of this document.



a. *Subdivision and Land Development Ordinance of Fayette County, Pennsylvania.*

Section 414 regulates sewage disposal of regulated areas of Fayette County (specific to Markleysburg Borough in the discussed service area). The section generally summarizes that sewage planning must be regulated for all land developments. Sewage facilities planning modules or a sewage disposal report are required for submittal with all land developments. Administration is to be by the municipal sewage enforcement officer, Department of Environmental Resources (now Protection) and/or the county or municipal solicitor.

b. *Zoning Ordinance of Fayette County (1992)*

This zoning ordinance regulates residential, commercial, and industrial land usage in Fayette County except for any city, borough, or township, which has a zoning ordinance in effect. The municipalities in the service area of this Act 537 Plan covered by this ordinance is Markleysburg Borough.

Specific to these ordinances, anyone applying for a zoning certificate must provide to the County a copy of his sewage disposal permit, which has been issued by a sewage enforcement officer or by a sewage authority or management agency.

Sections 401 and 402 of the Zoning Ordinance contain the requirements for minimum lot sizes based on the sewage disposal method utilized. For a single-family residential lot, a minimum area of one-half acre is required when an on-lot sewage disposal system is used. In Markleysburg Borough, the developed lots along the State Route 281 corridor, mostly, are not one-half acre in size. The developed lots in Markleysburg Borough are far smaller than one-half acre. Non-compliance with these ordinances contribute to the ground and surface water contamination (believed to be current health hazards).

c. *Subdivision and Land Development Ordinance of Henry Clay Township, Fayette County, Pennsylvania.*

Section 513 regulates sewage disposal systems for intended developments in Henry Clay Township. Sewage planning is to comply with "Act 537 - The Pennsylvania Sewage Facilities Act and current rules and regulations of the Department of Environmental Resources (now Protection)".

No statement as to administration or procedure for permitting is noted.

### **3. Floodplain and Stormwater Management**

The Storm Water Management Act states that inadequate management of stormwater resulting from development throughout a watershed increases flood flows and velocities, contributes to erosion and sedimentation, overtaxes the carrying capacity of streams and storm sewers, greatly increases the cost of public facilities to carry and control storm water, undermines flood plain management and flood control efforts in downstream communities, reduces ground-water recharge, and threatens public health and safety. The act requires that each county in the Commonwealth prepare and adopt a stormwater management plan for each

watershed located in that county in consultation with the municipalities located in each watershed area.

Fayette County nor Henry Clay Township have adopted any floodplain or stormwater management plans. The new municipal sewage system rules and regulations to be adopted shall specifically prohibit the discharge of stormwater into the sanitary facilities. The current Henry Clay Township ordinances, in effect, state "public sanitary sewers shall not be used to carry storm water". Design of municipal systems as described in this Act 537 Sewage Facilities Plan shall be designed to protect the water resources specifically along the unnamed tributary to Pickham Run.

#### **4. Environmentally Sensitive Areas**

No plans regarding the protection of environmentally sensitive areas have been adopted by either municipality or the County of Fayette; specific to the area of study. Attached herein this Act 537 Sewage Facilities Plan are requests to environmental agencies to review records and data bases for any potential impact that a public sewage system would have on the environment. Responses to their investigations, proof of submittal and request, and accompanying data as discussed hereafter are included in Section VII - Correspondence, and Section VIII - Report Mapping, of this Act 537 Sewage Facilities Plan.

##### *a. Prime Agricultural Land and Farm Land*

Included in Section VIII - Report Mapping, are the following map's relative soils designations and delineations of soil classifications.

- ▶ Figure 2 - USDA Soils Map
- ▶ Figure 3 - Farmland Soils Map
- ▶ Figure 4 - Geologic Map

It can be seen from the mapping that no specific areas of use are within the proposed corridor of the public sewage system. The prime farmland areas shown consist of sporadic lands not used for farm services. Township Road 357 (Mud Pike) includes a large parcel used for agricultural animal grazing that has more recently been converted to a church property.

Figure 2 shows that the primary lands in the service area corridor which would be impacted with any construction consist of Gilpin channery silt loam, Ernest silt loam and Wharton silt loam. These soils, in general, do not have too extreme design limitations, but over use for sewage disposal (specific to how Markleysburg Borough is concentrated in development along the State Route 281 corridor) can lend to degradation of natural resources (water, land and minerals). The Markleysburg Borough governing body feels that this has occurred.

Figure 3 shows county and state prime farmland areas defined by soil classifications. Field audits have been performed to view these lands. The lands on either side of SR 281 in Henry Clay Township are wooded and more

extreme sloped. Though a pretty large percent of these lands are designated farmland areas, there is and has been no use of farm or agricultural production in this area. No known development plans of agricultural use is intended. The areas of Markleysburg are highly developed with residential properties and those areas leading primarily southward are the only lands previously or currently used for agricultural purposes. The Mud Pike Run and State Route 281 southward roadways leaving the Borough of Markleysburg are used and designated as prime agricultural farmland. The sanitary sewer constructions will be primarily undertaken along roadways, previously built upon, and the sewer construction will not impact any prime agricultural farmland.

The Fayette County Conservation District has been contacted to investigate the impact of the sewage system on farmland and range land. No adverse, expected impact shall occur on the known lands in accordance with the regulatory review response received. Additionally, we have been informed that no lands enrolled in the Pennsylvania Farmland Forest Land Assessment Act, Act 319 of 1974 (clean and green) are included in the service areas described herein this Act 537 Sewage Facilities Plan.

In summary, there will be no impact from proposed intergovernmental sewage facilities infrastructure construction on any prime agricultural farmlands. The on-lot sewage disposal systems shall be eliminated with the municipal system construction. Therefore, no evaluation of adverse impacts are additionally needed.

*b. Wetland Impact*

Wetlands are described as areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes and bogs. Wetlands provide for natural flood control, flow stabilization of streams and rivers, improved water quality and aquifer recharge. Because of the value of wetlands to the Commonwealth, the DEP has established an intensified effort to protect these natural resources.

Figure 4 - National Wetlands Inventory Map, and Figure 6 - Hydric Soils Map, along with field audits have been utilized to establish any impacts that the inter-municipal sewage system would have on wetlands or suspected wetlands. No areas have been observed or delineated in the service area. Discharge of effluent (treated) from the proposed sewage treatment plant and stream crossings will be required with construction activities. State (and Army Corp of Engineers, if needed) permitting will take place with final system designs.

*c. PNDI*

Local, state and federal government agencies have set up standards for notification and protection of plant and animal species of special concern

through programs specifically designated as the "Pennsylvania Natural Diversity Inventory - PNDI."

Through correspondence through regulatory agencies, we have asked for verification that the sanitary sewer construction activities will not have any impact on the species of special concern, copy of the requests and response documents are attached herein Section VIII - Correspondence. No response of adverse impacts were obtained from any of these agencies. Those agencies contacted (with the items to check) are listed below.

- ▶ Fayette County Conservation District - PNDI
- ▶ Pennsylvania Fish and Boat Commission - PNDI; Animal Species
- ▶ Pennsylvania Department of Conservation and Natural Resources - PNDI; Plant Species
- ▶ Pennsylvania Game Commission - Animal Species and Outstanding Geologic Features and Significant Natural Communities

*d. Pennsylvania Historic Preservation Act - PHMC*

The Pennsylvania Historical Preservation Act of 1978 requires that Commonwealth agencies and political subdivisions (municipalities) cooperate fully with the Pennsylvania Historical and Museum Commission in the preservation, protection and investigation of archaeological resources. A completed copy of the "Historical and Museum Commission - Cultural Resources Notice" is included in Section VII - correspondence along with the request for the PHMC to determine if any impacts to historical or archaeological resources are within the activities service area of construction.

Response to the request has determined that there is a "probability" but no known resources are located in the development area. The municipality shall have inspectors available during all phases of construction, if any potential artifacts are found/uncovered then the PHMC will be immediately notified.

**5. Comprehensive Facility Plan Consistency Requirements Summary**

This document provides for the basis of decisions to implement a (inter-) municipal sewage collection and treatment system for Markleysburg Borough and ( a portion of) Henry Clay Township. This document analyzes and summarizes municipal goals and objectives of adequate sewage facilities which will serve existing problems and address planned growth (specific to Henry Clay Township along State Route 281). Consistency determinations with local, state and federal planning & environmental items must be verified. Parts 1 through 4 of this "Previous Wastewater Planning" Section analyze specifically the government agency plans and show that this planned environmental infrastructure program (as discussed throughout this Act 537 Sewage Facilities Plan) is consistent with the ultimate intent to protect and better the environment while complying with governmental controls.

The accompanying table summarizes these programs and the agency reviews requested. This intended sewage facilities program for Markleysburg Borough and (part of) Henry Clay Township is in compliance of all (known) consistency requirements.

TABLE 2				
FACILITY PLAN CONSISTENCY REQUIREMENTS SUMMARY				
Consistency Element	What you Need	Source of Information	Contact Agency	Notes
A. Comprehensive Planning	Access to the content of the Comprehensive Water Quality Management Plan for the Area of Service included in the official plan update.	Planning agency with area wide jurisdiction.	Fayette County Dept. of Economic and Community Development	N/A
	Access to other plans completed under Act 537 for the municipalities and Areas of Service.	Adjacent municipalities, local and area wide planning agencies, river basin commissions, county health departments or the appropriate PA DEP Regional Office.	Fayette County Department of Economic and Community Development	1972 Act 537
	Access to the text of the Act 247 Comprehensive Plans of the appropriate municipalities.	Local municipal office, planning commission office, or county/regional planning agency	Wharton Township	1990 Act 537
B. Wasteload Management	Access to the most recent Chapter 94 Annual Report or Correction Action Plan and Schedule	The permittee of the sewerage facilities proposed to be used by the proposed alternative.	Not Applicable	N/A
C. Plans developed under the federal Water Quality Act or Clean Water Act	Access to a copy of any "201" Sewage Facility Plan previously proposed for this planning area.	PENNVEST Staff	Not Applicable	N/A
D. Anti-degradation Requirements	Effluent limitations for the point of discharge of the proposed wastewater facilities	PADEP Bureau of Water Quality Protection Regional Office serving your municipality-Southwest Regional Office	Dave Baumba - Pittsburgh PADEP	See Attached

**TABLE 2 (Continued)**

<b>FACILITY PLAN CONSISTENCY REQUIREMENTS SUMMARY</b>				
<b>Consistency Element</b>	<b>What you Need</b>	<b>Source of Information</b>	<b>Contact Agency</b>	<b>Notes</b>
E. Prime Agriculture Land Policy	Mapping of prime agriculture land as defined by Pennsylvania's Prime Agriculture Land Policy	Local office of the Natural Resources Conservation Service	Fayette County (Soil) Conservation District	
F. Stormwater Management	The Stormwater Management Plan for the area being studied	The County Government Department of Economic and Community Development	Fayette County	
G. Wetland Protection	1. National Wetland Inventory Maps 2. Soil Survey as published by the form USDA Soil Conservation Service Field Audit		Not Applicable	N/A
H. Protection of Plant and animal Species	Documentation that a PNDI search was requested and a response was received. If an impact was identified, documentation that the impact was resolved with the appropriate agency	The Pennsylvania Natural Diversity Inventory, Fayette County Conservation District	<ul style="list-style-type: none"> <li>▸ Fayette County Conservation District</li> <li>▸ PA Fish &amp; Boat Commission</li> <li>▸ Dept of Conservation and Natural Resources</li> <li>▸ PA Game Commission</li> </ul>	
I. The Pennsylvania Historic Preservation Act	Historical and Museum Commission review of the information on the Cultural Resource Notice and determination of any potential impact the sewage facilities plan may have on archaeological resources		Pennsylvania Historical and Museum Commission Bureau of Historic Preservation	

Summarizing of the Chosen Alternatives Consistency Impact Follows:

- a. All of the alternatives are consistent with the provisions of the Clean Streams Law.
- b. All of the alternatives are consistent with the Municipal Wasteload Management Plans developed under PA Code, Title 25, Chapter 94.
- c. All of the alternatives are consistent with the Clean Water Act and the Water Quality Act of 1987 because they will provide for acceptable quality of effluent to be discharged.
- d. All of the alternatives identified are consistent with the comprehensive planning under the Municipalities Planning Code. Selected alternatives provide sufficient treatment capacity to meet the loads imposed by future additional development in the Service Area.
- e. All of the alternatives identified are consistent with the anti-degradation requirements contained in Chapter 93, Water Quality Standards, in Chapter 95 Wastewater Treatment Requirements, and in Chapter 102, Soil Erosion and Sedimentation Control. All construction sites will be vegetated upon construction completion and while disturbed will have all required and adequate measures in place and maintained to prevent pollution of the watercourses from the site.
- f. To the best of our knowledge, each of the alternatives is consistent with the State Water Plans developed under the Water Resources Planning Act.
- g. No prime agricultural land is affected by this plan.
- h. No Stormwater Management Plan is affected by this plan.
- i. None of the alternatives will affect wetlands.
- j. To the best of our knowledge, no rare, endangered, or threatened plant and animal species as identified in the Pennsylvania Natural Diversity Inventory (PNDI) are affected by this plan.
- k. All alternatives are consistent with Section 507 of Title 37 of Pennsylvania Consolidated Statutes.

We can state that no inconsistencies were identified above.

## **B. Physical and Demographic Analysis of the Service Area**

### *1. Service Area and Municipal Boundaries*

The service area for this Act 537 Sewage Facilities Plan is a 195-acre densely populated area (Markleysburg Borough) and the corridor service area of about two miles from Markleysburg Borough westward to US Route 40 (The National Pike) in Henry Clay Township, Fayette County, Pennsylvania.

Figure 7 in Section VIII - Report Mapping shows municipal boundaries of Markleysburg Borough and the remaining service area corridor through Henry Clay Township.

### *2. Drainage Basin and Streams*

The service area is completely within the Youghiogheny River drainage basin. Markleysburg Borough and that area of Henry Clay Township are generally around elevation 2200 and include Pinkham Run and its tributaries which drain and flow northeast towards the Youghiogheny River Dam (in Somerset County).

Anticipated sewage treatment plant effluent discharge is to be to this drainage area, specifically, to an unnamed tributary to Pinkham Run; a cold water fishery (CWF) Chapter 94 classified waterway. A request for sewage treatment effluent limitations has been made to the Pennsylvania Department of Environmental Protection and the limitations are attached in Section VI of this Act 537 Sewage Facilities Plan, ultimate design of a Sewage Treatment Plant will comply with these discharge limitations.

Only one other sewage treatment plant discharge is presently operating in this specific drainage path to the Youghiogheny River, the Marclay School sewage treatment plant. Disbandment and interconnection of this sewage treatment plant to the inter-municipal system is an ultimate goal of the alternatives provided herein.

### *3. Soils, Geological Features, and Topography*

Soils mapping is shown on Figure 2 as obtained from the "Soil Survey of Fayette County Pennsylvania" prepared by the United States Department of Agriculture. A large percentage of the service area soils are Gilpin Channery Silt Loam, Ernest Silt Loam, and Wharton Silt Loam. The limitations of use for on-site sewage disposal is severe. In general the majority soils have high ground water table and shallow depth to bedrock, which restricts use for on-site disposal of sewage. A detailed description of each soil type is listed on Figure 2. These soils, may not be sufficient to support the current density throughout the municipality, but will be a continued limiting factor in development of the municipal population growth.

The service area is a mountainous inter-municipal area comprised primarily of rural population with denser population of residential homes and necessity community or business services in Markleysburg Borough. No heavy industry is within the service area. The general site area is comprised of slow permeability, steeper sloped,



shallow subsurface, limiting zone soils. Seasonally high water tables exist in the service area contributing to sewage disposal system failures.

Figure 9 - Geological Map depicts geological units of Glenshaw Formations and Allegheny Groups. Water well production is modest but iron and manganese limits exceeding state drinking standards is around 75 percent.

Slopes in the service area range from 3-5 percent in Markleysburg but up to 20 percent in other more rural developed areas.

#### 4. *Potable Water Supplies*

Potable water service is not yet available in the service area. However, positive strides have occurred with the development of the National Pike Water Authority (formerly part of HCSW Water Authority). Final development plans are being prepared and infrastructure construction is anticipated to begin in the fall of 2002. Thus, public water service will be available to the service area described herein.

#### 5. *Population*

In order to analyze the need for a public sewage system the Environmental Impact, (which has been believed and documented to have soil capabilities exhausted along with pollution discharges) along with users must be examined. Population data has been obtained and is discussed hereafter.

Figures from the Uniontown Public Assistance Office and the United States Census Bureau reveal that on a state wide basis, Fayette County ranks only to Philadelphia County in terms of public assistance (based on a population percentage).

Twenty-eight percent of the County's population receives medical or cash assistance, and these numbers translate directly to Markleysburg Borough. One-fourth of the County population is at or near the poverty level.

Summary of the data obtained is now presented, then analyzed.

<b>TABLE 3 MARKLEYSBURG BOROUGH POPULATION</b>		
<b>Year</b>	<b>Population</b>	<b>Percentage of Growth</b>
1960	172	-
1970	204	+15.7 percent
1980	200	-1.9 percent
1990	261	+23.4 percent
2000	282	+7.4 percent
2010 (estimated)	297	+5.0 percent

<b>TABLE 4 HENRY CLAY TOWNSHIP POPULATION</b>		
<b>Year</b>	<b>Population</b>	<b>Percentage of Growth</b>
1960	1,628	-
1970	1,792	+9.2 percent
1980	1,821	+1.6 percent
1990	1,781	-2.2 percent
2000	1,984	+10.2 percent
2010 (estimated)	2,024	+2.0 percent

<b>TABLE 5 FAYETTE COUNTY POPULATION</b>		
<b>Year</b>	<b>Population</b>	<b>Percentage of Growth</b>
1960	169,340	-
1970	154,660	-8.7 percent
1980	159,417	+3.1 percent
1990	145,351	-8.8 percent
2000	148,644	+2.2 percent
2010 (estimated)	136,752	-8.0 percent

The comparison of the county statistics to the municipal statistics reflect that while Fayette County, as a whole, consistently experiences a rolling population decrease, the land available mountain communities of Henry Clay Township and Markleysburg Borough have enjoyed a continuous increase in growth. Note, however, that while these values reflect a modest increase in Henry Clay Township's population, the feasible portions of service for this sewage option are concentrated along the State Route 281 corridor. Markleysburg, likewise, has very little available lands for development and growth would come by residents births and migration of established families. This is very important in analyzing the growth treatment needs of the land established community; specifically relative to a community sewerage treatment system.

The following table is representative of the actual potential service population which could be reasonably serviced by the intended intercommunity sewage treatment plant. In November 2001 and again in January 2002 and May 2002 field audits of the Markleysburg service area and the State Route 281 corridor in Henry Clay Township were examined in order to establish the potential use and design flow of such system. The results follow in the Tables. Additionally, a February 2002 meeting with PADEP asked that an analysis of residential users equating to 275 gpd/residential home be analyzed. That scenario is also listed in the chart (\*\*gpd).

<b>TABLE 6 Field Audit Population</b>		
<b>Markleysburg Borough</b>		
<b>Users</b>	<b>User Flow Rate*</b>	<b>Normal Sewage Flow</b>
101 Residential Homes	101 homes @ 400 gpd/home	40,400 gpd
Post Office	1 restroom @ 400 gpd	400 gpd
Community Center	2 restrooms @ 400 gpd each	800 gpd
Repair Garage	1 restroom @ 400 gpd	400 gpd
Funeral Home	2 public restrooms @ 400 gpd ea	800 gpd
Nursing Home	97 beds @ 75 gpd each	7,275 gpd
Six churches	360 seats @ 6 gpd/seat	2,160 gpd
Grocery Store	4 restrooms @ 400 gpd	1,100 gpd
	<b>Total Estimated Sewage Flow</b>	<b>53,335 gpd</b> (41,210gpd)
<b>Henry Clay Township (SR 281 Corridor)</b>		
<b>Users</b>	<b>User Flow Rate *</b>	<b>Normal Sewage Flow</b>
44 Residential Homes	44 homes @ 400 gpd/home	17,600 gpd
Petroleum Storage Co.	2 restrooms @ 400 gpd each	800 gpd
Convenience Store	2 restrooms @ 400 gpd each	800 gpd
Repair Garage	1 restroom @ 400 gpd	400 gpd
Marclay School	200 students/other @ 20 gpd each	4,000 gpd
	<b>Total Estimated Sewage Flow</b>	<b>23,600 gpd</b> (18,100gpd)
<b>Total Estimated Flows @ SR 281 Corridor = 77,435 gpd</b> (59,310gpd)		

\*Estimate of user flow rates obtained from Pennsylvania Code, Title 25, Chapter 73, Section 73.17 Sewage flow figures sections (a) and (b).

### C. Existing Sewage Facilities in the Planning Area

There are no public, municipal sewage treatment facilities in the service area.

A small flow sewage treatment facility services the Marclay School located at the southeast intersection of US Route 40 (the National Pike) and State Route 281 southward in Henry Clay Township. No known violations or malfunctions of this plant have been publically reported (as per our investigation of the reported NPDES or Clean Streams Law Violation with the Environmental Protection Agency).

All other developed areas in the public service area consist of on-lot sewage disposal systems. Those types of systems include the following:

- ▶ Septic tanks with (suspected) absorption beds
- ▶ Septic tanks with (suspected) absorption trenches
- ▶ Septic tanks with elevated sand mounds.

As stated, there are not community sewage treatment systems in the direct service area; specifically Markleysburg Borough's present time wastewater is being treated entirely by individual on-lot systems. It is believed that the density of dwellings and on-lot sewage systems exceed the capacity of the area soils. There have been sporadic reports of systems malfunctions and lots which have failed on-lot testing. The lots are relatively small. An obvious concern as density increases will be protection of individual water wells and the very high probability of pollution.

On-lot disposal areas throughout the municipalities have had sporadic notifications regarding malfunctioning systems. These system's malfunctions have been addressed on an individual basis. No known local ordinance violations or fees have been issued for any malfunctioning system. On-lot systems include both sand mound systems and (mostly) private septic tanks.

The type of on-lot system permitted for use is the system which is appropriate for that specific area according to soil, geologic conditions, topographic limitations, and maximum anticipated sewage flows. Poor soil conditions and increased density of development in specific service areas does limit the use of on-lot systems, thus eliminating additional construction and development in the service area. The municipalities sewage enforcement officer performs testing and soil probing on an individual basis and oversee the sewage permitting process. No identified un-permitted collection or disposal systems ("wildcat" sewers) are known to be in the service area. Through the HCSW (Henry Clay, Stewart, and Wharton Township) Joint Water Authority now the National Pike Water Authority, and in conjunction with the PADEP, (partly) random water sampling activities of the service area were conducted by local PADEP representative Gene Wolbert. Regarding the Act 537 Sewage Facilities Plan, and the Clean Streams Law, the small well water survey performed cannot be used to identify possible contaminants from malfunctioning on-lot sewage disposal systems.

#### **D. Future Growth and Development**

The undeveloped areas of the service area can be observed by examining the "Conceptual Sewer System Layout" Plans in Section VIII - Report Mapping. All areas of Markleysburg Borough located along roadways are developed, primarily with residential homes. Henry Clay Township is developed, primarily with residential homes, along the State Route 281 corridor from U.S. Route 40 to Markleysburg Borough. Residential housing spurs/road extensions occur westward from State Route 201 specifically in Henry Clay Township. Future counts and planning should include these areas provided that the authority created or inter-municipal agreements account for additional, future service extensions in Henry Clay Township

Future growth is limited to those vacant areas primarily along State Route 281. Growth is limited to soil conditions, at this time. Excessive slopes, high water tables and slow permeability limits the development of any of these vacant areas. The Markleysburg Borough area is most likely maximized for use and development growth is not anticipated, specifically without having another means for sewage disposal and environmental and water quality protection.

## SECTION IV ALTERNATIVE EVALUATION

The Sewage issues evaluated in the service area by this Act 537 Plan are summarized as follows:

- ▶ On-lot sewage problems of malfunctioning for existing systems and limitations of soils for future development such as general limitations and environmental degradation and pollution.
- ▶ Community sewage system infrastructure developments (feasibility).

The problems evaluated are summarized as follows:

- ▶ Malfunctioning on-lot sewage systems.
- ▶ Soils limitations for on-lot (proposed) sewage systems.
- ▶ Resources degradation and pollution (specifically water) from malfunctioning on-lot sewage systems and over burden development of the service area soils.
- ▶ Service problems (financial) for the entire service area specific to elevations and locations of existing facilities.

### **A. Planning and Facilities Alternatives**

For convenience and clarity, alternatives for solving the sewage disposal issues are discussed hereafter and implementation scenarios and problems are listed. Each possible solution may have effects on more than just the sewage issue that it is intended to solve. Overall alternatives chosen will be further analyzed for plan clarity.

#### **1. Alternatives for On-lot Sewage Disposal Systems**

- a. *On-lot Sewage Alternative No. 1: Continued use of existing on-lot sewage disposal systems.*

Under this alternative the existing on-lot sewage disposal systems will continue to be used indefinitely. The repair of the malfunctioning on-lot systems would be the responsibility of the individual property owners.

On-lot sewage disposal systems are not interim facilities. The majority of these systems are used in the first place because of the isolation of the property they serve or because of the lack of municipal sewerage. The use of these systems in many cases has become permanent. This would be the case herein this service area alternative.

On-lot sewage systems are practical for many rural areas. If properly designed, installed, operated, and maintained, these systems will function well for many years. While the potential life of these systems makes them good choices for these isolated areas, each technology has specific operation and maintenance requirements. If these requirements are not met, the system will either fail completely or function well below its capabilities. In either case, public health hazards or pollution problems will be the result. This has occurred specifically in Markleysburg Borough.

When public health hazards or pollution occurs, the municipal government is legally responsible for finding solutions. These solutions may range from individual enforcement actions against the owners of malfunctioning on-lot systems; to planning, designing and constructing municipal facilities to replace malfunctioning on-lot systems or private treatment systems.

This alternative cannot be selected specifically to the non-action against malfunctioning system owners. Markleysburg Borough does not currently have the resources in place (sewage administration group and/or financing) to monitor and regulate these systems indefinitely.

- b. *On-lot Sewage Alternative No.2: Continued use of the existing on-lot sewage disposal systems until public sewers are available.*

The existing on-lot sewage disposal systems will continue to be used until public sewers are designed, permitted and constructed so that individual sewage disposal systems can be disbanded and public sewage taps can be made. The public sewer extension/service is intended to occur within the next two years.

Administrative sewage planning for establishing legal, administrative and financial mechanisms for short-term on-lot management must be undertaken with this targeted, selected alternative.

The municipalities must take pro-active measures toward monitoring and administering this short-term program.

A management program should be designed to:

- a. Actively identify malfunctions.
- b. Take enforcement action to abate nuisances.
- c. Provide technical assistance to help correct malfunctions.
- d. Have system owners update old systems to present disposal technology.
- e. Require property owners to pump septage from septic tanks and provide proof to help with monitoring.
- f. Conduct operation inspections.
- g. Require financial assurances of system operation and maintenance.

Much of the management program success will be dependent upon the bodies directed to administer this. Each municipality shall rely upon their designated Sewage Enforcement Officers (SEOs). The minimum guidelines of the Pennsylvania Code, Title 25, Chapter 72 will be followed in carrying out this management program administration.

The minimum planning elements to be established for this management program shall include:

- a. An evaluation of the types of periodic inspections, operation or maintenance activities (such as the pumping of septic tanks) needed to assure environment compliant use of on-lot systems.

- 
- b. An identification of the legal authority the municipality intends to use to carry out these activities, including enforcement and restraint of violations of the program.
  - c. Standards for operation, maintenance, repair and replacement of sewage facilities consistent with any state standards.
  - d. Establishment of a fee schedule for the services provided by the municipality or management agency or S.E.O.
  - e. An ordinance which implements the program.

We suggest that a municipal inspection program is specifically adopted to allow the primary municipal Sewage Enforcement Officer to conduct periodic septic system inspections to monitor this alternative but also keep administrative costs low. We have estimated that a \$5,000.00 per annual expenditure is created to enforce this program until public sewage is available.

## **2. Alternatives for Community On-lot Sewage Disposal Systems**

- a. *Community On-lot Alternative No. 1:*  
*Capture all regulatory discharges in holding structures*

This alternative would eliminate discharges from the public drainage basin and eliminate/ reduce ground pollution by capturing all disposal waste and holding until a regulated waste hauler could transport and dispose of wastes at regulated and permitted facilities.

A public sanitary sewer collection system would still have to be designed and permitted to collect individual wastes to holding facilities.

Two holding facilities options are presented:

1. Surface ponds were considered first as the simplest, lowest cost alternative. The design of the ponds would comply with PADEP regulations for treatment ponds, including requirements for side slopes, liners, freeboard, and overflow structures.

After comparing the estimated areas needed for the ponds to the lands available at the regulators, we find that at most locations, there is simply not enough land available to build the ponds. At locations where land is available, it is not possible to maintain a 250' buffer zone between the ponds and occupied buildings and streams. While buffer zones may be reduced with the consent of the PADEP, odors from the ponds would be a serious concern, especially since the ponds may have to hold the sewage for more than one day before it can be pumped from the facilities.

2. Alternative holding structures; deep, covered tanks, would meet the constraints posed by the urban setting. Setting the depth of these tanks at 30 feet would reduce the required surface area to less than 1 acre for all of the structures. Installation costs would greatly increase, since most of the excavation for the tanks would be in rock. The reinforced concrete construction of the tanks would also be considerably more costly than an earth pond with a liner.

Additional costs for waste removals estimated at \$0.10 per gallon for removal, transportation and disposal would create an additional operation cost of more than two million dollars annually (based upon 75,000 gpd flows). The capital and operation costs make these options (this alternative) financially not feasible.

*b. Community On-lot Alternative No.2:*

*To service residents unable to gravity discharge to public sewage treatment plant.*

This alternative would be directed specifically to those areas unable to gravity flow to a public sewage treatment plant, while eliminating the cost of a pumping facility. Not having to construct a sewage pumping station and force main would reduce costs (capital) by about \$40,000.00 (for the Friendsville Road specific area). The areas of malfunctioning on-lot sewage disposal systems could be eliminated by development of an on-lot, community disposal system. The system option would service six residents east of State Route 281, near State Route 2013 (Friendsville Road).

Administrative action would initially consist of the identification and testing of a potential area available for the use of a community on-lot sewage system. Then, sewage facilities planning, design and permitting would be initiated.

Potential sites for the use of community on-lot systems must be tested for soils suitability. In addition to the normally required soils probes and percolation tests, large community system proposals must meet additional soil permeability testing and hydrogeologic evaluations to assure that the hydraulic and organic load on the system will be able to be treated and disposed. Groundwater monitoring to protect drinking water supplies must also be evaluated. System sizing and configuration relative to terrain become factors which impact site selection.

Operation and maintenance of community on-lot systems are low cost and not technically difficult, but a lack of adequate maintenance will cause irreversible system and land damage. The municipality is ultimately responsible for failed systems. The best approach for management of community on-lot systems is for the municipality to own, operate and maintain the treatment system and collection and conveyance lines. This provides assurances for continued operation and maintenance needed. This is a selected alternative for service to these six residents of Markleysburg Borough. Cost reductions compared to a sewage pumping station makes this option feasible financially. This is further referenced as Phase IIIA in the "Estimate of Selected Alternatives" for Markleysburg Borough. The primary concern is that the initial observation of this area includes some soils inclusions that are known to be hydric and could become flooded with ground water. This concerns the use of said on-lot facilities due to specific primary and secondary site systems.



### **3. Alternatives for Overall Sewage Disposal System**

- a. *Sewage Disposal System Alternative No.1: Convey all sewage flows to a new public sewage treatment facility (gravity flows)*

This Act 537 Sewage Facilities Plan chosen alternative is to be used in combination with the on-lot sewage alternative No.2. A municipal sewage treatment plant and collection infrastructure are to be developed. The primary service corridor is along State Route 281 with other service to Markleysburg Borough from Church Street and Brown Hill Road. These areas are the Phase I and Phase II service areas and can be interconnected such that gravity sewer service to an intended sewage treatment plant on the east side of State Route 281 will immediately service 105 residences/taps (94% of all of the Markleysburg Borough intended service area).

A controlled sewage treatment and collection system will eliminate groundwater and land resources pollution and cost effectively provide an environmentally positive solution to sewage issues.

- b. *Sewage Disposal System Alternative No.2: Convey forced sewage connections to new public sewage treatment facility*

Long-term, guaranteed sewage issue resolution can be accomplished by construction of four small flow pumping stations, two to service Henry Clay Township users along State Route 281 and two in Markleysburg Borough to service six residents along Friendsville Road and eight residents southward along Brownhill Road.

This is an environmentally satisfying alternative. However, costs are prohibitive (when analyzed as separate force extensions and not included in the initial construction) without majority grants and the addition of future/current users to help undertake the financial cost. These alternatives, at this time, (individually) are not feasible. The cost for the complete Henry Clay Township Sewage Conveyance Alternatives (alone) is \$37.21 per month for forty years without accounting for operation and maintenance costs and any capital debt service, or approximately \$90/per month with these accrued costs. We recommend that the Brownhill Road and Phase I Henry Clay force extensions are included in initial inclusion and construction.

### **B. Wastewater Treatment Alternatives**

Selection 3.a - Municipal/Public Sewage Treatment Plant is the key alternative chosen herein.

A 120,000 gpd (2.0 X daily sewage flow of 60,000 gpd) sewage treatment plant is anticipated for construction to discharge to an unnamed tributary to Pinkham Run. Effluent discharge limitations have been obtained from PADEP relative to this alternative. Final plant design and permitting will comply with this limitation for discharge. Also, a 75,000 gpd (flow reduction and peak of 62.5 % (275 gpd in lieu of 400gpd)) sewage treatment plant option may be allowed by PADEP.

## **SECTION V IMPLEMENTATION EVALUATION**

### **A. General**

The user fees for the community constructed and operated sewage treatment plant (with public collection service for Phase I and Phase II Construction) is an obtainable user fee (monthly). Which can be deemed feasible in the foreseeable future and certainly within two to three years based upon financing projections.

Implementation of facilities will be completed in accordance with the Pennsylvania Code, Title 25, Chapter 71 administrative standards and as further described.

### **B. Institutional Evaluation**

As described herein, there is a need for the establishment of a municipal wastewater authority. The function of the proposed organization is to regulate and mandate the future workings of a municipal sewage system. Costs of administration, implementation and the capability of the authority to react to future needs shall vary according to the estimated construction and capital costs for the alternatives meeting the Act 537 Sewage Facilities Plan discussed herein.

Necessary administrative and legal activities that need to be completed and adopted to insure the implementation of the selected alternatives, include the following:

- ▶ Establishment of a legal authority of incorporation.
- ▶ Addition of ordinances, regulations, standards, and inter-municipal agreements to the governing ordinances so that a sewage facility permitted by PADEP and owned and operated by the created authority can properly regulate connections, tap-ins, and requirements under all applicable technical governing laws and standards.
- ▶ Necessary actions to purchase, be granted or legally acquire construction and maintenance right-of-ways, easements, and land transfers.
- ▶ Scheduling of implementation of the Act 537 Sewage Facilities Plan alternatives for both short-term and long-term management plans.

### **C. Municipal On-Lot Facilities Program**

When sewage facilities are permitted in the municipality, the municipality is responsible for taking actions necessary to assure continued compliance of these sewage facilities with Act 537, the Clean Stream Law, and regulations promulgated thereunder. The Sewage Enforcement Officer (SEO) evaluates the design and installation of all on-lot systems and orders the repair or replacement of malfunctioning systems which are brought to his attention. At present, there is not control exercised over operation and maintenance of existing systems (in the service area described). Responsibility of the system rests with the individual owner and user. Many of the existing systems were installed prior to present standards and therefore may produce a high rate of failure over their lifetime. Administration and implementation as discussed in Section IV.A.1.b, herein shall be under taken as per the implementation schedule.

The short term proposed management program will include both the previously existing systems and new systems to be constructed. The present program will be structured and carried out in terms of the state guidelines. The homeowner will own, operate and maintain their system without direct township supervision on a routine basis. The municipal responsibility is limited to issuance of permits, through the SEO, for design, construction and operation of new systems, and to respond to complaints of malfunctioning system by ordering repairs to be performed by the homeowner. Permits will be issued in accordance with Chapter 72 and 73 of the PADEP rules and regulations.

It is anticipated that the short term management plan may be in effect for the next two to three years. The municipality will enact an ordinance which requires all sewage waste haulers serving residence to submit annual reports indicating pumping volumes and frequency. These reports assist the municipalities in monitoring the adequacy of existing systems.

**D. Future Administration of Sewage Facilities.**

When a new land development revision to the official plan is submitted to the municipalities for construction, the revision shall evaluate the options available to assure the long-term proper operation and maintenance of the sewage facilities. The municipality, prior to adoption of the revision, shall require one or more of the following in accordance with the requirements of the Pennsylvania Code, Title 25, Chapter 71 regulations.

1. A bond or other security sufficient to cover the costs of improvements/sewage appurtenances which may be required, either prior to final plan approval or thereafter under Section 509 of the Pennsylvania Municipalities Planning Code.
2. A bond or escrow account sufficient to cover the costs of future operation and maintenance of the sewage facilities under local ordinances.
3. Municipal ownership of the sewage facilities extension upon completion.
4. Inclusion of, the sewage facilities constructed under a management agency through existing municipal codes, including but not limited to, municipal authorities, sanitary boards and boards of health as may be established in the future.
5. Establishment of, or inclusion of, the sewage facilities under the management agency through the adoption of local ordinances under municipal codes.
6. One or a combination of the requirements in paragraphs (1)-(5) or other actions permitted by and consistent with Act 537 and the Clean Stream Law found necessary by the Department to insure proper installation, maintenance and operation of the proposed sewage facilities appurtenances.

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**SECTION VI**  
**ATTACHMENTS**

**HENRY CLAY TOWNSHIP  
FAYETTE COUNTY, PENNSYLVANIA**

**SUBDIVISION AND  
LAND DEVELOPMENT  
ORDINANCE**

56-81-5  
5-17-75

**PRICE:**



**LOCAL GOVERNMENT RESEARCH CORPORATION**

1315 S. ALLEN ST. STATE COLLEGE, PA. 16801

TEL. (814) 238-3066

- Provide and install at his expense, in accordance with Township requirements, all drainage and erosion control improvements (temporary and permanent).

#### Section 513 - Sewage Disposal System

(a) Each property shall connect with an approved public sewer system, if accessible. Where the sewer is not yet accessible but is planned for extension to the vicinity of the subdivision, the subdivider shall install the sewer lines, including lateral connections as may be necessary to provide adequate service to each lot when connection with the sewer system is made. The sewer lines shall be suitably capped at the limits of the subdivision and the laterals shall be capped at the street right-of-way line. When capped sewers are provided, on-site disposal facilities shall also be provided. All such facilities shall be subject to requirements of Act 537 - the Pennsylvania Sewage Facilities Act and Current Rules and Regulations of the Department of Environmental Resources.

(b) Public sanitary sewers installed by the developer shall conform to the requirements of any Authority having jurisdiction over sanitary sewers in the subdivision and Pennsylvania Department of Environmental Resources requirements in that agency's "sewage manual."

(c) Public sanitary sewers shall not be used to carry storm water and shall be guarded against infiltration.

(d) Where an approved public sanitary sewerage system is not accessible or planned, an approved on-site sewage disposal system shall be provided, which system shall comply with the requirements of the Township Sanitation Ordinance, the requirements of the Pennsylvania Department of Environmental Resources Rules and Regulations and Act 537 - the Pennsylvania Sewage Facilities Act.

#### Section 514 - Water Supply

(a) Where a public or an approved community or piped common water supply system is accessible or provided, all properties in subdivisions shall be connected to such system.

(b) Where a public or an approved community or piped common water supply system is not accessible or provided, an approved individual on-site water supply facility shall be provided.

(c) Where wells are provided, such wells should be drilled at least 50' deep, cased, and grout sealed into bed rock, and should have a production capacity of at least five gallons per minute of safe, potable drinking water, as certified by the Pennsylvania Department of Environmental Resources.

#### Section 515 - Alleys, Driveways and Easements

(a) Alleys are prohibited in developments of single family detached residences.

(b) The Preliminary Plan shall include or be accompanied by the following:

1. The subdivider unless excused by the Board of Supervisors, shall submit a Sewer and Water Feasibility Report concerning the availability and/or adaptability of sewer and water facilities in or near the proposed subdivision. Said report shall be prepared by a registered professional engineer and be submitted with the Preliminary Plan for review and recommendations by the local office of the Pennsylvania Department of Environmental Resources.

The Sewer and Water Feasibility Report shall contain engineering and cost data, evaluations, and recommendations sufficient to enable the Planning Commission to evaluate the reasons for or against providing the subdivision with various means of waste disposal and water supply. The requirements of this preceding paragraph will be met, if as a minimum, the following material is provided in the Sewer and Water Feasibility Report:

- A map of the area to be subdivided or land developed locating elements of existing community sewer and water systems, including fire hydrants, water mains, water towers; collector, interceptor and trunk sewers; and pumping stations.
- An evaluation of costs and public interest factors in providing waste disposal and water supply by three different means:
  - Connection to an existing public sewer and/or water system.
  - Reliance on a private community sewer and/or water system.
  - Reliance on on-lot sewer and/or water system.
- The results of soil percolation tests
  - Soil percolations tests shall be performed pursuant to Act 537 - The Pennsylvania Sewage Facilities Act - and current Rules and Regulations of the Department of Environmental Resources for each lot in subdivisions where buildings at the time of construction will not be connected to any active public sewage disposal system.
- Recommendations stating the engineers professional opinion as to the means of disposal and water supply that will be preferable in the short and long-term interest of the community in which the subdivision is located.

Fees:  
Approval  
\$27 + 2/lot  
Review  
\$25 + 2/lot  
Recording  
\$25

Z.H. BOARD - SPECIAL  
EXCEPTION  
\$200

# SUBDIVISION AND LAND DEVELOPMENT ORDINANCE OF FAYETTE COUNTY, PENNSYLVANIA





414. Sewage Disposal

A. In all cases, sewage disposal shall be approved by the certified Municipal Sewage Enforcement Officer and/or the Pennsylvania Department of Environmental Resources after submission of the appropriate Sewage Disposal Report (see Appendix No. 4) by the Applicant and recommendation by the affected Municipality and/or local sewer entity.

B. Whenever connection to public sewerage is feasible, sanitary sewers shall be installed and connected to such sewerage system. In those areas presently served by on-lot sewage disposal but which are proposed to be served by municipal sewerage within two (2) years, capped sewers may be required if recommended by the Municipality, or other local responsible agency and/or the Pennsylvania Department of Environmental Resources.

C. Plans for off-lot community sanitary sewer systems (public or private) must be designed by an Engineer and approved by the Engineer of the local sewer authority, the Municipal Engineer, and/or the Fayette County Planning Commission Engineer, the Municipality and the Pennsylvania Department of Environmental Resources.

D. Where sewage treatment is proposed as a community sewage system using package treatment or sub-surface disposal, the design must be completed by an Engineer in compliance with the Pennsylvania Sewage Facilities Act, No 537 of 1966, as amended, and be approved by the Municipal Engineer and/or the Fayette County Planning Commission Engineer and the Department of Environmental Resources. In addition, the Applicant must submit such agreements or covenants as deemed necessary by the County and/or Municipal Solicitor and the Pennsylvania Department of Environmental Resources to guarantee maintenance of said systems. This agreement or covenant must be referred to on the approved Subdivision or Land Development Final Plan in all Deeds for lots, parcels or tracts within said Subdivisions or Land Development.

E. Where on-lot sewage disposal is proposed, the Sewage Disposal Report, when required, must include a complete description of all soil log test pits performed on the property completed by a soil scientist, certified sewage enforcement officer, or other equivalent professional deemed acceptable by the Commission. Soil tests must be performed on all lots, parcels or tracts within the Subdivision and Land Development, where appropriate. Percolation tests may be required to establish or verify a site's suitability for on-lot sewage disposal.

F. The Final Plan for all Subdivision or Land Developments shall note the type of sewage disposal to be utilized and in the case of on-lot disposal shall state and identify:

1. All soil log test pits which are generally suitable for sub-surface sewage disposal;
2. All soil log test pits which are not suitable for any type of sub-surface sewage disposal;

Note: All soil log probes tested shall be indicated on the Plan.

3. In the case where only a small portion or portions of an entire lot, parcel or tract is found generally suitable for sub-surface sewage disposal, notations to that effect will be required.

4. The Sewage Disposal Review Block must be delineated on the Final Plan and completed by the local Municipal Sewage Enforcement Officer.

#### 415. Stream Encroachments

A. Anyone who desires to do work in the waters of the United States and/or in adjacent wetlands may have to obtain permits from the U.S. Army Corps of Engineers (Baltimore District) before beginning work.

The U.S. Army Corps of Engineers is responsible for the administration and enforcement of certain Federal Laws, such as Section 404 of the Clean Water Act and Section 10 of the River and Harbor Act of 1899. Activities such as construction of piers and bulkheads, dredging operations, deposition of fill material, channelization, and similar work require evaluation and approval of plans by the Corps of Engineers. Note: For further information, consult the Regulatory Functions Branch, U.S. Army Corps of Engineers, Baltimore District.

3. The Pennsylvania Department of Environmental Resources (DER) has similar regulations defined in the Dam Safety and Encroachments Act (25 Pa. Code, Section 105.1) primarily dealing with bridges and culverts. These regulations pertain to various dams and to water obstructions, including but not limited to any dike, bridge, culvert, wingwall, fill, pier, wharf, embankment, abutment or other structure located in, along or across, any water course, floodway or body of water.

Similar to the above, anyone who desires to do work in, along or across, any watercourse, floodway or body of water located in the Commonwealth of Pennsylvania, may have to obtain permits from Pennsylvania Department of Environmental Resources prior to beginning work.

C. The Applicant shall ensure compliance with the appropriate specifications of the above regulations, as evidenced by submission to the staff of written notification from the applicable regulatory body and a copy of the required permit, where applicable.

#### 416. Water Supply

A. The Applicant shall submit all necessary plans and specifications which shall accurately portray the entire water supply system, including the facilities related to the sources, storage and distribution.

B. The Applicant shall provide public water service to all lots in all areas where public water is available and where the responsible

APPENDIX NO. 4

Sewage Disposal Report

A. General Provisions:

Provide, as supplementary data, the Pennsylvania Department of Environmental Resources' "Planning Module for Land Development":

1. Attach, as part of the Sewage Disposal Report, the completed applicable Components and include the completed Transmittal Letter and (where applicable) the completed Resolution for Plan Revision;
2. Attach, as part of the Sewage Disposal Report, applicable soil log test probes and corresponding percolation test results, as performed by a certified sewage enforcement officer or consulting soil scientist;
3. Attach, as part of the Sewage Disposal Report, a map showing all soil log test probes and corresponding percolation test sites, including soil boundary delineation and type.

Note: A sample copy of the Planning Module for Land Development is available in the office of the Fayette County Planning Commission.

B. Sewage Disposal Review Block Format:

Sewage Disposal Review

Based on the results of soil log profiles performed on this property in compliance with the Pa. Sewage Facilities Act, No. 537, as amended by Act 208, Chapter 73-- the areas around test pit numbers \_\_\_\_\_ are generally suitable for on-lot subsurface sewage disposal; and/or the areas around test pit numbers \_\_\_\_\_ are generally unsuitable for any type of on-lot subsurface sewage disposal.

This is not a guarantee that a permit will or will not be issued for any lot or parcel. The Municipal Sewage Enforcement Officer (S.E.O.) must be contacted to conduct further tests, as necessary, to determine permit issuance.

\_\_\_\_\_  
Date

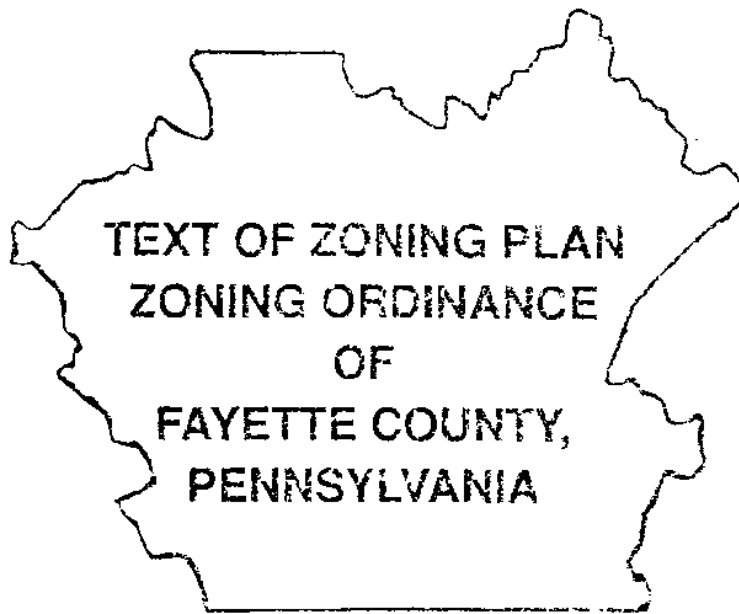
\_\_\_\_\_  
Municipal Sewage Enforcement Officer 14-19

3. Subdivision that occur in municipalities where a sewage disposal permit is not required due to large lot size (ten \_\_\_\_\_ or more) or where the proposed lots are generally not accessible. the Commission will reserve the right to waive on-lot soils analysis and in its place will require similar notation based on U.S.D.A. Soil Mapping as referenced in the Soil Survey of Fayette County, issued August, 1981.

Sewage Disposal Notation

No soils testing was performed on this site; however, based on U.S.D.A. soils mapping, as referenced in the Soil Survey of Fayette County, issued August, 1981 -- lots \_\_\_\_\_ may be generally suitable for on-site subsurface sewage disposal, and/or lots \_\_\_\_\_ may be generally unsuitable for on-site subsurface sewage disposal.

This is not a guarantee that a permit will or will not be issued for any lot. Contact the Municipal Sewage Enforcement Officer (S.E.O.) to determine site suitability and applicable permitting procedure.



**TEXT OF ZONING PLAN  
ZONING ORDINANCE  
OF  
FAYETTE COUNTY,  
PENNSYLVANIA**

**SECTION 401. Basic Yard Area and Height Requirements for Dwellings**

401.1 The following schedule establishes minimum yard, area and height requirements for dwellings and structures accessory to dwellings by district:

District	Minimum Depth (in feet)		Minimum Side Yard Widths (In feet)		Minimum Lot Width (in feet)	Minimum Lot Area per family	Maximum of Buildings Stories	Height Feet
	Front Yard	Rear Yard	Either Side	Sum of Side Yards				
A-1	30	60	20	50	100	1/2 acre	2 1/2	35
C-1	30	60	20	50	100	1/2 acre	2 1/2	35
R-A	<u>Off-Site Combined Sewage Disposal Systems</u>							
One-Family	30	30	15	30	100	20,000 sq. ft.	2 1/2	35
Two-Family	30	30	15	30	150	15,000 sq. ft.	2 1/2	35
	<u>Individual Sewage Disposal Systems</u>							
One-Family	30	30	20	50	100	1/2 acre	2 1/2	35
Two-Family	30	30	20	50	200	1/2 acre	2 1/2	35
R-1	<u>Off-Site Combined Sewage Disposal Systems</u>							
One-Family	30	30	10	20	75	11,250 sq. ft.	2 1/2	35
Two-Family	30	30	10	20	125	9,000 sq. ft.	2 1/2	35
Multiple dwellings	30	30	30	60	-----See Section 402.1-----			
	<u>Individual Sewage Disposal Systems</u>							
One-Family	30	30	20	50	100	1/2 acre	2 1/2	35
Two-Family	30	30	20	50	200	1/2 acre	2 1/2	35
R-2	<u>Off-Site Combined Sewage Disposal System</u>							
One-Family	30	30	6	15	60	7,200 sq. ft.	2 1/2	35
Two-Family	30	30	6	15	100	5,000 sq. ft.	2 1/2	35
Multiple dwellings	30	30	30	60	-----See Section 402.1-----			
	<u>Individual Sewage Disposal Systems</u>							
One-Family	30	30	10	20	100	1/2 acre	2 1/2	35
Two-Family	30	30	10	20	200	1/2 acre	2 1/2	35
B-1	<u>Individual Sewage Disposal Systems</u>							
Multiple dwellings	30	30	30	60	-----See Section 402.1-----			

401.1

**SECTION 402. Special Provisions for Multiple Dwellings and Multiple Dwelling Use.**

402.1 Minimum Lot Size: The following minimum requirements shall apply to multiple-dwelling uses and to the erection of multiple dwellings or apartment buildings.

Number of Units	Minimum Lot Area
3-6	5,000 sq. ft. per unit
7-12	30,000 sq. ft. plus 4,000 sq. ft. for each unit over 12
13 or more	54,000 sq. ft. plus 3,000 sq. ft. for each unit over 12

402.2 Multiple-dwelling use may be permitted on a single site only upon approval of the site plan by the Board.

402.3 Multiple-dwellings and multiple-dwelling uses shall utilize collection sewers connecting with a state approved community disposal system.

402.4 Height limitations shall be established by the Board based upon fire fighting capabilities in the neighborhood, subsurface bearing capacities and similar criteria.

**SECTION 403. Exemption For Existing Lots of Record**

403. Any lot of record existing at the effective date of this ordinance in a district where single-family dwellings are permitted may be used for the erection of a single-family dwelling, residential garages, car ports, additions and accessory buildings, even though its area and width is less than the minimum requirements established by this ordinance. The front, rear and side yards for existing lots of record shall not be less than the established yards prevailing in the immediate area, but in no case shall side, rear or front yards be less than three (3) feet or rear yards less than five (5) feet. Where two adjacent lots of record with less than the required area and width are held by one owner, the zoning hearing board may require that the two lots be combined and used for a single dwelling. When three or more lots of record with less than the required area and width are held by one owner the Board may require replatting to fewer lots to provide compliance with minimum yard requirements.

**SECTION 404. Basic Yard Area, Lot Coverage and Height Requirements for All Buildings Other Than Dwellings**

404.1 The following table establishes the yard, lot coverage and height requirements for all buildings except dwellings and structures accessory to dwellings by districts:

District	Minimum Depth (in feet)		Minimum Width each Side Yard (in feet)	Maximum Percent of Lot Coverage	Maximum Height of Buildings	
	Front Yard	Rear Yard			Stories	Feet
A-1	30	35	50	15%	2 1/2	35
C-1	30	35	50	15%	2 1/2	35
R-A) R-1) R-2)	30	35	25	25%	2 1/2	35
B-1	30	None	None	75%	3	45
B-2	30	30	30	20%	3	45
M-1	30	30	30	40%	3	45
M-2	30	30	30	40%	3	45

404.2 Lot widths and lot areas shall be of such size to meet all the requirements of this ordinance including off-street parking and loading yard, and lot coverage requirements.

404.3 Minimum Side and Rear Yard Requirements for Nonresidential Uses Abutting "A", "C" or "R" Districts: Nonresidential buildings or uses located in any "B" or "M" District shall not be located nor conducted closer to any lot line or any lot in an "A", "C" or "R" District than the distance specified in the following schedule:

(a) Minimum side or Rear Yard Abutting any "A", "C" or "R" District	Use
25 feet	Off -street parking spaces and access drives for nonresidential uses.
80 feet	Recreation facilities, entertainment facilities motels, trailer and mobile home parks, all commercial uses.
150 feet	Outside sale or storage of building material or construction equipment, auto salvage operations, all industrial uses.



## INSTRUCTIONS FOR COMPLETING ACT 537 PLAN CONTENT AND ENVIRONMENTAL ASSESSMENT CHECKLIST

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### GENERAL INFORMATION

These instructions are designed to assist the applicant in completing the Act 537 Plan Content and Environmental Assessment Checklist.

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### APPLICANT IDENTIFIER

For purposes of identifying and tracking both planning and permit packages, please be sure that the following information matches.

**NAMES.** Enter the municipality designated as the organization name required in Section B of the Permit Application – General Information form.

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### SUBMISSION IDENTIFIER

For the purpose of identifying the submission title, please enter the same document title in Section A of the Permit Application – General Information form and in the Title of Submission on the Act 537 Content and Environmental Assessment Checklist title page.

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### USING THE CHECKLIST

For specific details covering the Act 537 Planning Requirements, refer to Chapters 71 and 73 of the DEP's Regulations.

A copy of this completed checklist must be included with your Act 537 plan. The department will use the "DEP USE ONLY" column during the completeness evaluation of the plan. This column may also be used by DEP during the preplanning meeting with the municipality to identify planning elements which are not required to be included in the plan. All the planning elements required by DEP must be addressed in your plan or the plan will be returned as incomplete. The page number or other reference must be listed in column 1 of the checklist prior to plan submittal. If the municipality determines that any items listed in this checklist do not apply, or conditions stated in a certain part of this checklist do not exist in an area, a comment must be included in column 1 which states that the particular checklist item will have no impact on the plan or that it does not exist in the planning area. When information required as part of an official plan update revision has been developed separately or in a previous update revision, incorporate the information by reference to the planning document and page. Three copies of the completed plan with all attachments must be submitted to DEP.

**The most recent version checklist is found in Appendix I of the current DEP publication "A Guide for Preparing Act 537 Update Revisions" 3620-BK-DEP1480 as published on the internet. Access the DEP website at <http://www.dep.state.pa.us> (Choose directLINK "Drinking Water Publications").**



Commonwealth of Pennsylvania  
Department of Environmental Protection  
Bureau of Water Quality Protection

**ACT 537 PLAN CONTENT  
AND ENVIRONMENTAL ASSESSMENT CHECKLIST**

For specific details covering Act 537 planning requirements, refer to Chapters 71 and 73 of DEP's Regulations.

Municipality: Markleysburg Borough & Henry Clay Township County: Fayette County

Local Municipal Contact Official: Lori Frazee, Board Member of Markleysburg Borough

Telephone Number of Official: 724-329-0350

Consultant: McMillen Engineering, Inc.

Consultant's Telephone Number: 724-439-8110

Consultant's Contact Person: Terry McMillen, Sr., P.E. and B. Todd. Radolec, P.E.

Title of Submission: Act 537 Sewage Facilities Plan for service areas of Markleysburg Borough & Henry Clay Township

Date Submitted: 8-5-02 Lori J. Frazee

About this checklist . . . . .

- \* DEP publication 3640-BK-DEP1480 11/92, "A Guide For Preparing Act 537 Update Revisions -- November 1992", is obsolete. Do not use checklist pages from that publication.
- \* You must complete and attach this checklist when you submit the plan to the department for review and approval.
- \* This checklist is composed of two parts, one for Administrative Completeness and one for General Plan Content. A plan must be "administratively complete" in order to be formally reviewed and approved by the department. The General Plan Content checklist identifies each of the issues which must be addressed in your Act 537 Plan Update based on a pre-planning meeting between you and/or your consultant and the Department. The Administrative Completeness checklist is found on page 3. The General Content checklist is found on pages 4 through 14. PENNVEST funded or applicant plans must address planning requirements on page 15.
- \* You must use the right-hand column blanks in the checklist to identify the page in the plan on which each planning issue is found or reference a previously approved update or special study (title and page number).
- \* If you determine a planning issue is not applicable even though it was previously thought to be needed, please explain your decision within the text of the plan (or as a footnote) and indicate the page number where this documentation is found.
- \* After Municipal Adoption by Resolution, submit three copies of the plan, any attachments or addenda, and this checklist to the department.

## ADMINISTRATIVE COMPLETENESS CHECKLIST

DEP Use Only	Indicate Page #(s) in Plan	In addition to the main body of the plan, the plan must include items one through eight listed below to be accepted for formal review by the department. Incomplete Plans will be returned unless the municipality is clearly requesting an advisory review.
_____	<u>Table of Contents</u>	1. Table of Contents
_____	<u>page 1&amp;2</u>	2. Plan Summary
_____	<u>page 3</u>	A. Identify the proposed service areas and major problems evaluated in the plan. (Reference - Title 25, §71.21.a.7.i).
_____	<u>page 4</u>	B. Identify the alternative(s) chosen to solve the problems and serve the areas of need identified in the plan. Also, include any institutional arrangements necessary to implement the chosen alternative(s). (Reference Title 25 §71.21.a.7.ii).
_____	<u>pages 4,5,6</u>	C. Present the estimated cost of implementing the proposed alternative (including the user fees) and the proposed funding method to be used. (Reference Title 25, §71.21.a.7.iii).
_____	<u>page 5</u>	D. Identify the municipal commitments necessary to implement the Plan. (Reference Title 25, §71.21.a.7.iii).
_____	<u>V. Attachments 2 Municipal Adopt. Res &amp; Meeting Minutes</u>	E. Provide a schedule of implementation for the project which identifies the MAJOR milestones with dates necessary to accomplish the project to the point of operational status. (Reference Title 25, §71.21.a.7.iv).
_____	<u>V. Attachments 3 letters</u>	3. Original, signed and sealed Resolution of Adoption by the municipality which contains, at a minimum, alternatives chosen and a commitment to implement the Plan in accordance with the implementation schedule. (Reference Title 25, §71.31.f) Section V.F. of the Planning Guide.
_____	<u>V. Attachments 2 Proof of Publications</u>	4. Evidence that the municipality has requested, reviewed and considered comments by appropriate official planning agencies of the municipality, planning agencies of the county, planning agencies with areawide jurisdiction (where applicable), and any existing county or joint county departments of health. (Reference-Title 25, §71.31.b) Section V.E.1 of the Planning Guide.
_____	<u>V. Attachments page 5</u>	5. Proof of Public Notice which documents the proposed plan adoption, plan summary, and the establishment and conduct of a 30 day comment period. (Reference-Title 25, §71.31.c) Section V.E.2 of the Planning Guide.
_____	<u>V. Attachments</u>	6. Copies of ALL written comments received and municipal response to EACH comment in relation to the proposed plan. (Reference-Title 25, §71.31.c) Section V.E.2 of the Planning Guide.
_____	<u>V. Attachments 2 Municipal Letters--Municipal Responses</u>	7. A complete project implementation schedule with milestone dates specific for each existing and future area of need. Other activities in the project implementation schedule should be indicated as occurring a finite number of days from a major milestone. (Reference-Title 25, §71.31.d) Section F of the Planning Guide. Include dates for the future initiation of feasibility evaluations in the project's implementation schedule for areas proposing completion of sewage facilities for planning periods in excess of five years. (Reference Title 25, §71.21.b).
_____	<u>V. Attachments 2 Municipal Letters--Municipal Responses</u>	8. Documentation indicating that the appropriate agencies have received, reviewed and concurred with the method proposed to resolve identified inconsistencies within the proposed alternative and consistency requirements in 71.21.(a)(5)(i-iii). (Reference-Title 25, §71.31.e). Appendix B of the Planning Guide.

## GENERAL PLAN CONTENT CHECKLIST

DEP Use Only	Indicate Page #(s) in Plan	Item Required
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**I. Previous Wastewater Planning**

**A. Identify and briefly analyze all existing wastewater planning that:**

- |       |             |   |
|-------|-------------|---|
| _____ | <u>None</u> | 1. Has been previously undertaken under the Sewage Facilities Act (Act 537). (Reference-Act 537, Section 5 §d.1).   |
| _____ | <u>N/A</u>  | 2. Has not been carried out according to an approved implementation schedule contained in the plans. (Reference-Title 25, §71.21.a.5.i.A-D). Section V.F of the Planning Guide. |
| _____ | <u>None</u> | 3. Is anticipated or planned by applicable sewer authorities. (Reference-Title 25, §71.21.a.5.i.A). Section V.D. of the Planning Guide.   |
| _____ | <u>N/A</u>  | 4. Has been done through planning modules for new land development, planning "exemptions" and addenda. (Reference-Title 25, §71.21.a.5.i.A).                                    |

**B. Identify and briefly summarize all municipal and county planning documents adopted pursuant to the Pennsylvania Municipalities Planning Code (Act 247) including:**

- |       |  |  |
|-------|--|--|
| _____ | <u>Figure 5, pages 14,15</u>                           | 1. All land use plans and zoning maps which identify residential, commercial, industrial, agricultural, recreational and open space areas. (Reference-Title 25, §71.21.a.3.iv).                        |
| _____ | <u>V. Attachments Subdivision Land Dev. Ordinances</u> | 2. Zoning or subdivision regulations that establish lot sizes predicated on sewage disposal methods. (Reference-Title 25 §71.21.a.3.iv).   |
| _____ | <u>pages 10,11</u>                                     | 3. All limitations and plans related to floodplain and stormwater management and special protection (Ch. 93) areas. (Reference-Title 25 §71.21.a.3.iv) Appendix B, Section II.F of the Planning Guide. |

**II. Physical and Demographic Analysis utilizing written description and mapping (All items listed below require maps, and all maps should show all current lots and structures and be of appropriate scale to clearly show significant information).**

- |       |                        |  |
|-------|------------------------|--|
| _____ | <u>Figure 1 et.al.</u> | A. Identification of planning area(s), municipal boundaries, Sewer Authority/Management Agency service area boundaries. (Reference-Title 25, §71.21.a.1.i).  |
| _____ | <u>Figure 1</u>        | B. Identification of physical characteristics (streams, lakes, impoundments, natural conveyance, channels, drainage basins in the planning area). (Reference-Title 25, §71.21.a.1.ii).   |
| _____ | <u>Figure 2</u>        | C. Soils - Analysis with description by soil type and soils mapping. Show areas suitable for in-ground on-lot systems, elevated sand mounds, individual residential spray irrigation systems, and areas unsuitable for soil dependent systems. (Reference-Title 25, §71.21.a.1.iii). Show Prime Agricultural Soils and any locally protected agricultural soils. (Reference-Title 25, §71.21.a.1.iii). |

DEP  
Use  
Only

Plan  
Page No.

Item Required

- Figure 9 D. Geologic Features - (1) Identification through analysis, (2) mapping and (3) their relation to existing or potential nitrate-nitrogen pollution and drinking water sources. Include areas where existing nitrate-nitrogen levels are in excess of five mg/l. (Reference-Title 25, §71.21.a.1.iii).
- Figure1 et.al. E. Topography - Depict slopes that are suitable for conventional systems; slopes that are suitable for elevated sand mounds; slopes that are unsuitable for on-lot systems. (Reference-Title 25, §71.21.a.1.ii).
- Figure 9 F. Potable Water Supplies - Identification through mapping, description and analysis to include available public water supply capacity and aquifer yield for groundwater supplies. (Reference-Title 25 §71.21.a.1.vi). Section V.C. of the Planning Guide.
- Figure 4 G. Wetlands-Identify wetlands as defined in Title 25, Chapter 105 by description, analysis and mapping. Include National Wetland Inventory mapping and potential wetland areas per USDA, SCS mapped hydric soils. Proposed collection, conveyance and treatment facilities and lines must be located and labeled, along with the identified wetlands, on the map. (Reference-Title 25, §71.21.a.1.v). Appendix B, Section II.I of the Planning Guide.

**III. Existing Sewage Facilities in the Planning Area - Identifying the Existing Needs**

- A. Identify, map and describe municipal and non-municipal, individual and community sewerage systems in the planning area including:
  - 1. Location, size and ownership of treatment facilities, main intercepting lines, pumping stations and force mains including their size, capacity, point of discharge. Also include the name of the receiving stream, drainage basin, and the facility's effluent discharge requirements. (Reference-Title 25, §71.21a.2.i.A).
  - 2. A narrative and schematic diagram of the facility's basic treatment processes including the facility's NPDES permitted capacity, and the Clean Streams Law permit number. (Reference-Title 25, §71.21.a.2.i).
  - 3. A description of problems with existing facilities (collection, conveyance and/or treatment), including existing or projected overload under Title 25, Chapter 94 (relating to municipal wasteload management) or violations of the NPDES permit, Clean Streams Law permit, or other permit, rule or regulation of the department. (Reference-Title 25, §71.21.a.2.i.B).
  - 4. Details of scheduled or in-progress upgrading or expansion of treatment facilities and the anticipated completion date of the improvements. Discuss any remaining reserve capacity and the policy concerning the allocation of reserve capacity. Also discuss the compatibility of the rate of growth to existing and proposed wastewater treatment facilities. (Reference-Title 25, §71.21.a.4.i & ii).
  - 5. A detailed description of operation and maintenance requirements of the municipality for on-lot systems and the status of past and present compliance with these requirements and any other requirements relating to sewage management programs. (Reference-Title 25, §71.21.a.2.i.C).
  - 6. Disposal areas, if other than stream discharge, and any applicable groundwater limitations. (Reference-Title 25, §71.21.a.4.i & ii).

**DEP  
Use  
Only**

**Plan  
Page No.**

**Item Required**

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|  |   | <p>B. Using DEP's manual titled "Sewage Disposal Needs Identification Guidance," identify, map and describe areas that utilize individual and community on-lot sewage disposal and, unpermitted collection and disposal systems ("wildcat" sewers, borehole disposal, etc.) and retaining tank systems in the planning area including:</p>                  |
|  | <u>pages 22, 23</u>                           | 1. The types of systems in use. (Reference-Title 25, §71.21.a.2.ii.A).  |
|  | <u>pages 20, 21 &amp; Attachments Letters</u> | 2. A sanitary survey complete with a description of documented and potential public health pollution, and operational problems (including malfunctioning systems) with the systems, including violations of local ordinances, the Sewage Facilities Act, the Clean Stream Law or regulations promulgated thereunder. (Reference-Title 25, §71.21.a.2.ii.B). |
|  | <u>pages 17, 21</u>                           | 3. A comparison of the types of on-lot sewage systems installed in an area with the types of systems which are appropriate for the area according to soil, geologic conditions, topographic limitations sewage flows, and Title 25 Chapter 73 (relating to standards for sewage disposal facilities). (Reference-Title 25, §71.21.a.2.ii.C).                |
|  | <u>pages 18, 21 &amp; Attachments Letters</u> | 4. An individual water supply survey to identify possible contamination by malfunctioning on-lot sewage disposal systems consistent with the DEP Sewage Disposal Needs Identification Guidance manual. (Reference-Title 25 §71.21.a.2.ii.B).  |
|  |   | <p>C. Identify wastewater sludge and septage generation, transport and disposal methods. Include this information in the sewage facilities alternative analysis including:</p>  |
|  | <u>N/A</u>                                    | 1. Location of sources of wastewater sludge or septage (Septic tanks, holding tanks, wastewater treatment facilities). (Reference-Title 25 §71.71).   |
|  | <u>N/A</u>                                    | 2. Quantities of the types of sludges or septage generated. (Reference-Title 25 §71.71).  |
|  | <u>N/A</u>                                    | 3. Present disposal methods, locations, capacities and transportation methods. (Reference-Title 25 §71.71).   |

**IV. Future Growth and Land Development**

- |  |                     |   |
|--|---------------------|---|
|  |                     | <p>A. Delineate and describe the following through map, text and analysis:</p>  |
|  | <u>page 20</u>      | 1. Areas with existing development or plotted subdivisions. Include the name, location, description, total number of EDU's in development, total number of EDU's currently developed and total number of EDUs remaining to be developed (include time schedule for EDU's remaining to be developed). (Reference-Title 25, §71.21.a.3.i).  |
|  | <u>Figure 5</u>     | 2. Land use designations established under the Pennsylvania Municipalities Planning Code (35 P.S. 10101-11202), including residential, commercial and industrial areas. (Reference-Title 25, §71.21.a.3.ii). Include a comparison of proposed land use as allowed by zoning and existing sewage facility planning. (Reference-Title 25, §71.21.a.3.iv).                         |
|  | <u>pages 19, 20</u> | 3. Future growth areas with population and EDU projections for these areas using historical, current and future population figures and projections of the municipality. Discuss and evaluate discrepancies between local, county, state and federal projections as they relate to sewage facilities. (Reference-Title 25, §71.21.a.1.iv). (Reference-Title 25, §71.21.a.3.iii). |

**DEP  
Use  
Only**

**Plan  
Page No.**

**Item Required**

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| <u>          </u> | <u>Sec. VI</u>     | <p>4. Zoning, and/or subdivision regulations; local, county or regional comprehensive plans; and existing plans of a Commonwealth agency relating to the development, use and protection of land and water resources with special attention to: (Reference-Title 25, §71.21.a.3.iv).</p> <p style="margin-left: 20px;">--public ground/surface water supplies<br/>--recreational water use areas<br/>--groundwater recharge areas<br/>--industrial water use<br/>--wetlands</p> |
| <u>          </u> | <u>pages 21-26</u> | <p>5. Sewage planning to provide adequate wastewater treatment for the municipality. This planning must be related to both the <u>five and ten year</u> future planning periods and be based on growth impacts on existing and proposed wastewater collection and treatment facilities. (Reference-Title 25, §71.21.a.3.v).</p>   |

**V. Identify Alternatives to Provide New or Improved Wastewater Disposal Facilities**

**A. Conventional collection, conveyance, treatment and discharge alternatives including:**

- |                   |                     |   |
|-------------------|---------------------|---|
| <u>          </u> | <u>pages 25, 26</u> | <p>1. The potential for regional wastewater treatment. (Reference-Title 25, §71.21.a.4).</p>  |
| <u>          </u> | <u>N/A</u>          | <p>2. The potential for extension of existing municipal or non-municipal sewage facilities to areas in need of new or improved sewage facilities. (Reference-Title 25, §71.21.a.4.i).</p> |
| <u>          </u> | <u>N/A</u>          | <p>3. The potential for the continued use of existing municipal or non-municipal sewage facilities through one or more of the following: (Reference-Title 25, §71.21.a.4.ii).</p>         |
| <u>          </u> | <u>N/A</u>          | <p>a. Repair. (Reference-Title 25, §71.21.a.4.ii.A).</p>  |
| <u>          </u> | <u>N/A</u>          | <p>b. Upgrading. (Reference-Title 25, §71.21.a.4.ii.B).</p>   |
| <u>          </u> | <u>N/A</u>          | <p>c. Reduction of hydraulic or organic loading to existing facilities. (Reference-Title 25, §71.71).</p>   |
| <u>          </u> | <u>N/A</u>          | <p>d. Improved operation and maintenance. (Reference-Title 25, §71.21.a.4.ii.C).</p>  |
| <u>          </u> | <u>N/A</u>          | <p>e. Other applicable actions that will resolve or abate the identified problems. (Reference-Title 25, §71.21.a.4.ii.D).</p>   |
| <u>          </u> | <u>pages 25, 26</u> | <p>4. The need for construction of new community sewage systems including sewer systems and/or treatment facilities. (Reference-Title 25, §71.21.a.4.iii).</p>                            |
| <u>          </u> | <u>N/A</u>          | <p>5. Repair or replacement of collection and conveyance system components. (Reference-Title 25, §71.21.a.4.ii.A).</p>  |
| <u>          </u> | <u>pages 22, 26</u> | <p>6. Use of innovative/alternative methods of collection/conveyance to serve needs areas using existing wastewater treatment facilities. (Reference-Title 25, §71.21.a.4.ii.B).</p>      |

**DEP  
Use  
Only**

**Plan  
Page No.**

**Item Required**

		<p>B. The use of individual sewage disposal systems including individual residential spray irrigation systems based on:</p>
	<u>pages 22, 26</u>	1. Soil and slope suitability. (Reference-Title 25, 71.21.a.2.ii.C).
	<u>pages 11, 17, &amp; 18</u>	2. Preliminary hydrogeologic evaluation. (Reference-Title 25, §71.21.a.2.ii.C).
	<u>pages 27, 28</u>	3. The establishment of a sewage management program. (Reference-Title 25, §71.21.a.4.iv). See also Part "F" below.
	<u>pages 22-24</u>	4. The repair, replacement or upgrading of existing malfunctioning systems in areas suitable for on-lot disposal considering: (Reference-Title 25, §71.21.a.4).
	<u>page 25</u>	a. Existing technology and sizing requirements of Title 25 Chapter 73. (Reference-Title 25, §73.31-73.72).
	<u>N/A</u>	b. Use of expanded absorption areas or alternating absorption areas. (Reference-Title 25, §73.16).
	<u>N/A</u>	c. Use of water conservation devices. (Reference-Title 25, §71.73.b.2.iii).
		<p>C. The use of small flow sewage treatment facilities or package treatment facilities to serve individual homes or clusters of homes based on: (Reference-Title 25, §71.64.d).</p>
	<u>pages 25, 26</u>	1. Treatment and discharge requirements. (Reference-Title 25, §71.64.d).
	<u>pages 25, 26</u>	2. Soil suitability. (Reference-Title 25, §71.64.c.i).
	<u>pages 17, 18 &amp; Figures 9 &amp; 2</u>	3. Preliminary hydrogeologic evaluation. (Reference-Title 25, §71.64.c.2).
	<u>pages 22, 23</u>	4. Agency or other controls over operation and maintenance requirements. (Reference-Title 25, §71.64.d). See Part "F" below.
		<p>D. The use of community land disposal alternatives including:</p>
	<u>pages 22-26</u>	1. Soil and site suitability. (Reference-Title 25, 71.21.a.2.ii.C).
	<u>pages 17, 18 &amp; Figures 9 &amp; 2</u>	2. Preliminary hydrogeologic evaluation. (Reference-Title 25, 71.21.a.2.ii.C).
	<u>pages 27, 28</u>	3. Controls over operation and maintenance requirements through a Sewage Management Program (Reference-Title 25, 71.21.a.2.ii.C). See Part "F" below.
	<u>N/A</u>	4. The rehabilitation or replacement of existing malfunctioning community land disposal systems. (See Part V, B, 4, a, b, c above). See also Part "F" below.

**DEP  
Use  
Only**

**Plan  
Page No.**

**Item Required**

		<p>E. The use of retaining tank alternatives on a temporary or permanent basis including: (Reference- Title 25, §71.21.a.4).</p>
	<u>pages 24, 25</u>	1. Commercial, residential and industrial use. (Reference-Title 25, §71.63.e).
	<u>pages 24, 25</u>	2. Designated conveyance facilities (pumper trucks). (Reference-Title 25, §71.63.b.2).
	<u>pages 24, 25</u>	3. Designated treatment facilities or disposal site. (Reference-Title 25, 71.63.b.2).
	<u>N/A</u>	4. Implementation of a retaining tank ordinance by the municipality. (Reference-Title 25, §71.63.b.2). See Part "F" below.
	<u>N/A</u>	5. Financial guarantees when retaining tanks are used as an interim sewage disposal measure. ( Reference-Title 25, §71.63.c.2).
		<p>F. Sewage management programs to assure the future operation and maintenance of existing and proposed sewage facilities through:</p>
	<u>pages 27, 28</u>	1. Municipal ownership or control over the operation and maintenance of individual on-lot sewage disposal systems, small flow treatment facilities, or other traditionally non-municipal treatment facilities. (Reference-Title 25, §71.21.a.4.iv).
	<u>pages 27, 28</u>	2. Required inspection of sewage disposal systems on a schedule established by the municipality. (Reference-Title 25, §71.73.b.1.).
	<u>pages 27, 28</u>	3. Required maintenance of sewage disposal systems including septic and aerobic treatment tanks and other system components on a schedule established by the municipality. (Reference-Title 25, §71.73.b.2).
	<u>pages 27, 28</u>	4. Repair, replacement or upgrading of malfunctioning on-lot sewage systems. (Reference-Title 25, §71.21.a.4.iv) through: <ul style="list-style-type: none"> <li>a. Aggressive pro-active enforcement of ordinances which require operation and maintenance and prohibit malfunctioning systems. (Reference-Title 25, §71.73.b.5).</li> <li>b. Public education programs to encourage proper operation and maintenance and repair of sewage disposal systems.</li> </ul>
	<u>pages 27, 28</u>	5. Establishment of joint municipal sewage management programs. (Reference-Title 25, §71.73.b.8).
	<u>pages 27, 28</u>	6. Requirements for bonding, escrow accounts, management agencies or associations to assure operation and maintenance for non-municipal facilities. (Reference-Title 25, §71.71).



**DEP  
Use  
Only**

**Plan  
Page No.**

**Item Required**

G. Non-structural comprehensive planning alternatives that can be undertaken to assist in meeting existing and future sewage disposal needs including: (Reference-Title 25, §71.21.a.4).

1. Modification of existing comprehensive plans involving:

pages 9,10  
Sec. VI

a. Land use designations. (Reference-Title 25, §71.21.a.4).

pages 9,10  
Sec. VI

b. Densities. (Reference-Title 25, §71.21.a.4).

pages 9,10  
Sec. VI

c. Municipal ordinances and regulations. (Reference-Title 25, §71.21.a.4).

pages 27, 28

d. Improved enforcement. (Reference-Title 25, §71.21.a.4).

pages 9,10  
Sec. VI

e. Protection of drinking water sources. (Reference-Title 25, §71.21.a.4).

pages 9,10  
Sec. VI

2. Consideration of a local comprehensive plan to assist in producing sound economic and consistent land development. (Reference-Title 25, §71.21.a.4).

pages 9,10  
Sec. VI

3. Alternatives for creating or changing municipal subdivision regulations to assure long-term use of on-site sewage disposal which consider lot sizes and protection of replacement areas. (Reference-Title 25, §71.21.a.4).

pages 27, 28

4. Evaluation of existing local agency programs and the need for technical or administrative training. (Reference-Title 25, §71.21.a.4).

H. A no-action alternative which includes discussion of both short-term and long-term impacts on: (Reference-Title 25, §71.21.a.4).

pages 22-23

1. Water Quality/Public Health. (Reference-Title 25, §71.21.a.4).

pages 22-23

2. Growth potential (residential, commercial, industrial). (Reference-Title 25, 71.21.a.4).

pages 22-23

3. Community economic conditions. (Reference-Title 25, 71.21.a.4).

pages 22-23

4. Recreational opportunities. (Reference-Title 25, §71.21.a.4).

pages 22-23

5. Drinking water sources. (Reference-Title 25, §71.21.a.4).

pages 22-23

6. Other environmental concerns. (Reference-Title 25, 71.21.a.4).

**VI. Evaluation of Alternatives**

A. Technically feasible alternatives identified in Section V of this check-list must be evaluated for consistency with respect to the following: (Reference-Title 25, §71.21.a.5.i.A).

pages 10,11

1. Applicable plans developed and approved under Sections 4 and 5 of the Clean Streams Law or Section 208 of the Clean Water Act (33 U.S.C.A. 1288). (Reference-Title 25, §71.21.a.5.i.A). Appendix B, Section II.A of the Planning Guide.

**DEP  
Use  
Only**

<b>Plan Page No.</b>	<b>Item Required</b>
<u>pages 9, 14, &amp; 15</u>	2. Municipal wasteload management plans developed under PA Code, Title 25, Chapter 94. (Reference-Title 25, §71.21.a.5.i.B). The municipality's recent Wasteload Management (Chapter 94) Reports should be examined to determine if the proposed alternative is consistent with the recommendations and findings of the report. Appendix B, Section II.B of the Planning Guide.
<u>pages 9-11, 14, &amp; 15</u>	3. Plans developed under Title II of the Clean Water Act (33 U.S.C.A. 1281-1299) or Titles II and VI of the Water Quality Act of 1987 (33 U.S.C.A 1251-1376). (Reference-Title 25, §71.21.a.5.i.C). Appendix B, Section II.E of the Planning Guide.
<u>pages 9, 14, &amp; 15</u>	4. Comprehensive plans developed under the Pennsylvania Municipalities Planning Code. (Reference-Title 25, §71.21.a.5.i.D). The municipality's comprehensive plan must be examined to assure that the proposed wastewater disposal alternative is consistent with land use and all other requirements stated in the comprehensive plan. Appendix B, Section II.D of the Planning Guide.
<u>pages 14, 15</u>	5. Antidegradation requirements as contained in PA Code, Title 25, Chapters 93, 95 and 102 (relating to water quality standards, wastewater treatment requirements and erosion control) and the Clean Water Act. (Reference-Title 25, §71.21.a.5.i.E). Appendix B, Section II.F of the Planning Guide.
<u>pages 14, 15</u>	6. State Water Plans developed under the Water Resources Planning Act (42 U.S.C.A. 1962-1962 d-18). (Reference-Title 25, §71.21.a.5.i.F). Appendix B, Section II.C of the Planning Guide.
<u>pages 11, 14, &amp; 15</u>	7. Pennsylvania Prime Agricultural Land Policy contained in Title 4 of the Pennsylvania Code, Chapter 7, Subchapter W. Provide narrative on local municipal policy and an overlay map on prime agricultural soils. (Reference-Title 25, §71.21.a.5.i.G). Appendix B, Section II.G of the Planning Guide.
<u>pages 10, 11 14 &amp; 15</u>	8. County Stormwater Management Plans approved by DEP under the Storm Water Management Act (32 P.S. 680.1-680.17). (Reference-Title 25, §71.21.a.5.i.H). Conflicts created by the implementation of the proposed wastewater alternative and the existing recommendations for the management of stormwater in the county Stormwater Management Plan must be evaluated and mitigated. If no plan exists, no conflict exists. Appendix B, Section II.H of the Planning Guide.
<u>pages 12, 14, &amp; 15</u>	9. Using wetland mapping developed under Section II.A.7, identify and discuss mitigative measures including the need to obtain permits for any encroachments on wetlands from the construction or operation of any proposed wastewater facilities. Appendix B, Section II.I of the Planning Guide.
<u>pages 12-15 &amp; PNDI Attachment</u>	10. Protection of rare, endangered or threatened plant and animal species as identified by the Pennsylvania Natural Diversity Inventory (PNDI). (Reference-Title 25, §71.21.a.5.i.J). Provide the department with a copy of the completed Request For PNDI Search document. Also <u>provide a copy of the response letter from the Department of Conservation and Natural Resources' Bureau of Forestry regarding the findings of the PNDI search.</u> Appendix B, II.J.

DEP  
Use  
Only

Plan  
Page No.

Item Required

pages 13-15  
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Attachment

11. Historical and archaeological resource protection under P.C.S. Title 37, Section 507 relating to cooperation by public officials with the Pennsylvania Historical and Museum Commission. (Reference-Title 25, §71.21.a.5.i.K). Provide the department with a completed copy of a Cultural Resource Notice request to the Bureau of Historic Preservation (BHP) to provide a listing of known historical sites and potential impacts on known archaeological and historical sites. Also provide a copy of the response letter from the BHP. Appendix B, Section II.K of the Planning Guide.

N/A

B. Provide for the resolution of any inconsistencies in any of the points identified in Section VI.A. of this checklist by submitting a letter from the appropriate agency stating that the agency has received, reviewed and concurred with the resolution of identified inconsistencies. (Reference-Title 25, §71.21.a.5.ii). Appendix B of the Planning Guide.

Page 14  
Attachment

C. Evaluate alternatives identified in Section V of this checklist with respect to applicable water quality standards, effluent limitations or other technical, legislative or legal requirements. (Reference-Title 25, §71.21.a.5.iii).

Sec. IX

D. Provide cost estimates using present worth analysis for construction, financing, on going administration, operation and maintenance and user fees for alternatives identified in Section V of this checklist. Estimates shall be limited to areas identified in the plan as needing improved sewage facilities within five years from the date of plan submission. (Reference-Title 25, §71.21.a.5.iv).

Sec. IX

E. Provide an analysis of the funding methods available to finance the proposed alternatives evaluated in Section V of this checklist. Also provide documentation to demonstrate which alternative and financing scheme combination is the most cost-effective; and a contingency financial plan to be used if the preferred method of financing cannot be implemented. The funding analysis shall be limited to areas identified in the plan as needing improved sewage facilities within five years from the date of the plan submission. (Reference-Title 25, §71.21.a.5.v).

F. Analyze the need for immediate or phased implementation of each alternative proposed in Section V of this checklist including: (Reference-Title 25, §71.21.a.5.vi).

page 4

1. A description of any activities necessary to abate critical public health hazards pending completion of sewage facilities or implementation of sewage management programs. (Reference-Title 25, §71.21.a.5.vi.A).

page 4

2. A description of the advantages, if any, in phasing construction of the facilities or implementation of a sewage management program justifying time schedules for each phase. (Reference-Title 25, §71.21.a.5.vi.B).

pages 27-28

G. Evaluate administrative organizations and legal authority necessary for plan implementation. (Reference - Title 25, §71.21.a.5.vi.D.).

DEP  
Use  
Only

Plan  
Page No.

Item Required

**VII. Institutional Evaluation**

A. Provide an analysis of all existing wastewater treatment authorities, their past actions and present performance including:

N/A No  
existing  
Authority  
N/A

1. Financial and debt status. (Reference-Title 25, §71.61.d.2).
2. Available staff and administrative resources. (Reference-Title 25, §71.61.d.2).
3. Existing legal authority to:
  - a. Implement wastewater planning recommendations. (Reference-Title 25, §71.61.d.2).
  - b. Implement system-wide operation and maintenance activities. (Reference-Title 25, §71.61.d.2).
  - c. Set user fees and take purchasing actions. (Reference-Title 25, §71.61.d.2).
  - d. Take enforcement actions against ordinance violators. (Reference-Title 25, §71.61.d.2).
  - e. Negotiate agreements with other parties. (Reference-Title 25, §71.61.d.2).
  - f. Raise capital for construction and operation and maintenance of facilities. (Reference-Title 25, §71.61.d.2).

N/A

N/A

N/A

N/A

N/A

N/A

pages 23, 27  
& 28

B. Provide an analysis and description of the various institutional alternatives necessary to implement the proposed technical alternatives including:

pages 27, 28

1. Need for new municipal departments or municipal authorities. (Reference-Title 25, §71.61.d.2).
2. Functions of existing and proposed organizations (sewer authorities, on-lot maintenance agencies, etc.). (Reference-Title 25, §71.61.d.2).
3. Cost of administration, implementability, and the capability of the authority/agency to react to future needs. (Reference-Title 25, §71.61.d.2).

pages 23, 27  
& 28

page 4 &  
Sec. IX

C. Describe all necessary administrative and legal activities to be completed and adopted to ensure the implementation of the recommended alternative including:

pages 27, 28

1. Incorporation of authorities or agencies. (Reference-Title 25, §71.61.d.2).
2. Development of all required ordinances, regulations, standards and inter-municipal agreements. (Reference-Title 25, §71.61.d.2).
3. Description of activities to provide rights-of-way, easements and land transfers. (Reference-Title 25, §71.61.d.2).
4. Adoption of other municipal sewage facilities plans. (Reference-Title 25, §71.61.d.2).
5. Any other legal documents. (Reference-Title 25, §71.61.d.2).
6. Dates or timeframes for items 1-5 above on the project's implementation schedule.

pages 27, 28

page 27

N/A

N/A

page 5

DEP  
Use  
Only

Plan  
Page No.

Item Required

<u>          </u>	<u>pages 27, 28</u>	D. Identify the proposed institutional alternative for implementing the chosen technical wastewater disposal alternative. Provide justification for choosing the specific institutional alternative considering administrative issues, organizational needs and enabling legal authority. (Reference-Title 25, §71.61.d.2).
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**VIII. Justification for Selected Technical & Institutional Alternatives**

- |                   |                             |   |
|-------------------|-----------------------------|---|
|                   |                             | A. Identify the technical wastewater disposal alternative which best meets the wastewater treatment needs of each study area of the municipality. Justify the choice by providing documentation which shows that it is the best alternative based on: |
| <u>          </u> | <u>pages 3, 4 &amp; 26</u>  | 1. Existing wastewater disposal needs. (Reference-Title 25, §71.21.a.6).  |
| <u>          </u> | <u>pages 3, 4 &amp; 26</u>  | 2. Future wastewater disposal needs. (5 and 10 years growth areas). (Reference-Title 25, §71.21.a.6).   |
| <u>          </u> | <u>page 4 &amp; Sec. IX</u> | 3. Operation and maintenance considerations. (Reference-Title 25, §71.21.a.6).  |
| <u>          </u> | <u>Sec. IX</u>              | 4. Cost-effectiveness. (Reference-Title 25, §71.21.a.6).  |
| <u>          </u> | <u>N/A</u>                  | 5. Available management and administrative systems. (Reference-Title 25, §71.21.a.6).   |
| <u>          </u> | <u>Sec. IX</u>              | 6. Available financing methods. (Reference-Title 25, §71.21.a.6).   |
| <u>          </u> | <u>page 16</u>              | 7. Environmental soundness and compliance with natural resource planning and preservation programs. (Reference-Title 25, §71.21.a.6).   |
| <u>          </u> | <u>Sec. IX</u>              | B. Designate and describe the capital financing plan chosen to implement the selected alternative(s). Designate and describe the chosen back-up financing plan.   |

**ADDITIONAL REQUIREMENTS FOR PENNVEST PROJECTS**

Municipalities that propose to implement their official sewage facilities plan updates with PENNVEST funds must meet six additional requirements to be eligible for such funds. See Appendix N for greater detail. Contact the DEP regional office serving your county listed in Appendix J.

**DEP  
Use  
Only**

**Plan  
Page No.**

**Item Required**

\_\_\_\_\_

**pages 9-18**

1. Environmental Impact Assessment. (Planning Phase).

Items a, b, c, e and g of the Environmental Impact Assessment requirement are eligible for Act 537 grant participation to the extent of identification of a potential impact. Studies required to determine impact, to mitigate impact and to obtain permits are not eligible for Act 537 grant participation. Such studies may be eligible for PENNVEST funding. Items d, f, h, i, j, k and l are not required by Chapter 71, but may be eligible for Act 537 grant participation when required for DEP approval of sewage facilities plan update revision.

- a. Historical and Archaeological Sites
- b. Wetlands
- c. Endangered and Protected Species
- d. Air Quality
- e. Floodplains
- f. Fish and Wildlife
- g. Agricultural Lands
- h. Wild and Scenic Rivers
- i. Coastal Zone Management
- j. Socio-Economic Impacts
- k. Water Supplies
- l. Other Environmentally Sensitive Areas

\_\_\_\_\_

**Sec. IX**

2. Cost Effectiveness. (Planning Phase)

\_\_\_\_\_

3. Second Opinion Project Review. (Design Phase)

\_\_\_\_\_

4. Minority Business Enterprise/Women’s Business Enterprise. (Construction Phase)

\_\_\_\_\_

5. Civil Rights. (Construction Phase)

\_\_\_\_\_

6. Initiation of Operation/Performance Certification. (Post-construction Phase)

## I / A TECHNOLOGIES

### PARTIAL LISTING OF INNOVATIVE AND ALTERNATIVE TECHNOLOGIES

#### TREATMENT TECHNOLOGIES

Aquaculture  
Aquifer Recharge  
Biological Aerated Filters  
Constructed Wetlands  
Direct Reuse (NON-POTABLE)  
Horticulture  
Overland Flow  
Rapid Infiltration  
Silviculture  
Microscreens  
Controlled Release Lagoons  
Swirl Concentrator

#### ENERGY RECOVERY TECHNOLOGIES

Anaerobic Digestion with more than 90 percent  
Methane Recovery  
Cogeneration of Electricity  
Self-Sustaining Incineration

#### SLUDGE TREATMENT TECHNOLOGIES

Aerated Static Pile Composting  
Enclosed Mechanical Composting (In vessel)  
Revegetation of Disturbed Land  
Aerated Windrow Composting

#### INDIVIDUAL & SYSTEM-WIDE COLLECTION TECHNOLOGIES

Cluster Systems  
Septage Treatment  
Small Diameter Gravity Sewers  
Step Pressure Sewers  
Vacuum Sewers  
Variable Grade Sewers  
Septic Tank Effluent Pump with  
Pressure Sewers



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
PERMIT APPLICATION -- GENERAL INFORMATION FORM

Before completing this General Information Form (GIF), read the step-by-step instructions provided in this Permit Application Package. This version of the General Information Form (GIF) must be completed and returned with any program-specific application being submitted to the Department.

## DEP USE ONLY

Date Received \_\_\_\_\_

Client ID# \_\_\_\_\_

Site ID# \_\_\_\_\_

## PROJECT INFORMATION

## Project Name

Markleysburg Borough Act 537 Sewage Plan Update

Existing Use of Land Developed Corridor along SR 281; Residential and Commercial

Total Project Acres N/A Total Disturbed Acres 4.1+/- (total, maximum)

Receiving Water/Watershed Name Unnamed tributary of Pinkham Run

Chapter 93 Receiving Water Classification CWF - Cold Water Fishery

## Project Description

Act 537 Sewage Planning with (future) infrastructure construction

## Time Schedules Project Milestone (Optional)

Act 537 Draft

1/02

Act 537 Submit

3/02

6/02

PADEP review and acceptance

9/02

Funding and final design

1. Will your project involve the disturbance of any prime agricultural lands? If "yes", indicate the alternatives to this disturbance considered and the reasons they were not deemed feasible.

		Alternative Considered	Reason Not Feasible
<input checked="" type="checkbox"/>	No	1.	
<input type="checkbox"/>	Yes	2.	
		3.	

2. Will your project require any Commonwealth funds or Commonwealth-administered federal funds? If "yes", indicate the type, amount, and source of these funds.

		Type	Amount	Source
<input type="checkbox"/>	No	1. Act 537 reimbursement	\$3,600.00	PADEP
<input checked="" type="checkbox"/>	Yes	2. DECD	\$unknown	Commonwealth of Pennsylvania
		3. PennVEST	\$unknown	PennVEST

3. Is this application for an authorization type on the list of authorizations affected by the land use policy?

Yes     No    If "Yes", see Note below.

4. Will the project involve new land development, change the existing use of land, or change the 'footprint' of an existing facility?

Yes     No    If "Yes", see Note below.

**Note:** If answers to both Questions 3. & 4. above are "Yes", you are required to complete the Land Use Information questions below. If answers to either Question 3. or 4. above is "No", skip the Land Use Information section below.



**LAND USE INFORMATION**

1. Is this application for a project covered by Act 537 (The Sewage Facilities Act)?  
 Yes     No    If "Yes", skip all remaining Final Land Use Questions.
2. Is there a municipal comprehensive plan?  
 Yes     No
3. Is there a county comprehensive plan?  
 Yes     No
4. Is there a multi-municipal or multi-county comprehensive plan?  
 Yes     No
5. Is the proposed project consistent with these plans?  
 Yes     No
6. Are there municipal zoning ordinances?  
 Yes     No
7. Are there joint municipal zoning ordinances?  
 Yes     No
8. Is the proposed project consistent with zoning ordinances?  
 Yes     No
9. Does the proposed project require a change or variance to an existing comprehensive plan or zoning ordinances?  
 Yes     No
10. Are any zoning ordinances that are applicable to this project currently subject to any type of legal proceeding?  
 Yes     No
11. Have you obtained all applicable local zoning and building approvals?  
 Yes     No
12. Will the project involve any of the following:
- |      |  |                              |                             |
|------|--|------------------------------|-----------------------------|
| 12.1 | a site under DEP's Land Recycling Program?                               | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 12.2 | reclamation or re-mining of a previously mined site?                     | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 12.3 | a Keystone Opportunity Zone, Select Site or Enterprise Development Area? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 12.4 | a Designated Growth Area?  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
13. Have local municipal or county land use comments been submitted to the Department?  
 Yes     No

**Note:** Applicants are encouraged to submit copies of local land use approvals or other evidence of compliance with local comprehensive plans and zoning ordinances.

APPLICANT INFORMATION						
DEP Client ID#	Applicant Type / Code 49- Sanitary Services					
Organization Name or Registered Fictitious Name	markleysburg Borough		Employer ID# (EIN)	Dun & Bradstreet ID#		
Individual Last Name	First Name	MI	Suffix	SSN		
Additional Individual Last Name	First Name	MI	Suffix	SSN		
Mailing Address Line 1	Mailing Address Line 2					
PO Box 25						
Address Last Line -- City	State	ZIP+4	Country			
Markleysburg	PA	15459	United States			
Applicant Contact Last Name	First Name	MI	Suffix	Phone	Ext	
Cuppet	Linda					
Applicant Contact Title	Email Address			FAX		
Secretary (Markleysburg Borough)						
SITE INFORMATION						
Estimated Number of Applicant Employees to be Present at Site						
<input type="checkbox"/> 1-4	<input type="checkbox"/> 5-9	<input type="checkbox"/> 10-19	<input type="checkbox"/> 20-49	<input type="checkbox"/> 50-99	<input checked="" type="checkbox"/> 100-249	<input type="checkbox"/> 250-499 <input type="checkbox"/> 500+
DEP Site ID#	Site Name					
	Markleysburg Borough Act 537 Sewage Plan Update					
Site Location Line 1	Site Location Line 2					
State Route 281						
Site Location Last Line -- City	State	ZIP+4	EPA ID#			
Markleysburg	PA	15459				
Detailed Written Directions to Site						
From US Route 40, South along S.R. 281 and Borough roads along S.R. 281						
Description of Site						
Residential and Commercial developed lands (for sewage)						
County Name	Municipality	City	Boro	Twp	State	
Fayette	Henry Clay	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	PA	
County Name	Municipality	City	Boro	Twp	State	
Fayette	Markleysburg	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PA	
Site Contact Last Name	First Name	MI	Suffix	Phone	Ext	
Cuppet	Linda					
Site Contact Title	FAX					
Secretary (Markleysburg Borough)						
Site Contact Firm	Email Address					
Markleysburg Borough						
Mailing Address Line 1	Mailing Address Line 2					
PO Box 25						
Mailing Address Last Line -- City	State	ZIP+4				
Markleysburg	PA	15459				
Applicant to Site Relationship						
Municipality						
NAICS Codes (Two- & Three-Digit Codes - List All That Apply)				(Optional: 6-Digit Code)		
MUNIC						

**PERMIT COORDINATION INFORMATION**

1.1 Will the project involve construction activity that disturbs five or more acres of land? If "Yes", specify total disturbed acreage. (DEP Use/4x66)  
*Note:* If acres are disturbed, it may be the applicant's responsibility to also notify the PA Historical and Museum Commission, Bureau of Historic Preservation, 400 North Street, Floor 2, Harrisburg, PA 17120-0093, (717) 787-3362. PHMC notification is required for 1) purposes of construction activities for Individual NPDES permits disturbing 10 or more acres; and 2) Erosion & Sediment Control permits. General NPDES permits disturbing 10 or more acres are exempt from PHMC notification. For additional information, see Cultural Resource Notice instructions to determine whether submission of information to PHMC is required for this permit application.  
 Yes  No Total Disturbed Acreage 4.1 +/- Acres

1.2 Is a storm water collection and discharge system proposed for this project? (DEP Use/4x66)  
 Yes  No

1.3 Will any work associated with this project take place within 50 feet of a stream, waterway, or wetland; or is located in a FEMA delineated floodway? If "Yes", identify the stream, waterway, or wetland. (DEP Use/4x66)  
 Yes  No  
 Watershed \_\_\_\_\_  
 Stream Unnamed tributary to Pinkham Run  
 Waterway \_\_\_\_\_  
 Wetland \_\_\_\_\_

1.4 Does the project involve dredging or construction of any structure or placement of fill that encroaches on a stream, floodplain, or wetland? If "Yes", check the appropriate item(s). (DEP Use/4x66)  
 Yes  No  
 Dredging  
 Bridge or Culvert Construction  
 Pier Construction  
 Outfall Pipe Construction  
 Other

2.1 Will the project involve discharge of industrial wastewater or stormwater to a dry swale, surface water, ground water or an existing sanitary sewer system or storm water system? If "Yes", discuss in Project Description. (DEP Use/4x62)  
 Yes  No (Discuss in Section A, Project Description.)

2.2 Will the project involve the construction and operation of industrial waste treatment facilities? (DEP Use/4x62)  
 Yes  No

2.3 Will the project involve construction of sewage treatment facilities, sanitary sewers, or sewage pumping stations? If "Yes", indicate estimated proposed flow (gal/day). Also, discuss the sanitary sewer pipe sizes and the number of pumping stations/treatment facilities/ name of downstream sewage facilities in the Project Description, where applicable. (DEP Use/4x62)  
 Yes  No Est Prop Flow (gal/day): 60,000 gpd  
 (Discuss in Section A, Project Description.)

3.1 Will land be subdivided for this project? (DEP Use/4x61)  
 Yes  No

3.2 Will the proposed generate sewage?  
 If "Yes", indicate estimated flow (gal/day).  
 If "Yes", indicate number of persons to be served.  
 If "Yes", attach Act 537 approval letter (Approval required prior to 105/NPDES approval).  
 If "Yes", sewage will be treated by (check appropriate item/box). (DEP Use/4x61)  
 Yes  No Est Flow (gal/day): 60,000 gpd  
 Persons Served: 170 (max growth)  
 Act 537 Approval Letter Attached  Yes  No  
 Treated by:  On-Site Soils System  
 On-Site Treatment Plant  
 Conveyed to Off-Site Treatment Plant

3.3 If sewage planning was submitted and approved, indicate project name or code. (DEP Use/4x61)  
 Yes  No Proj Name/Code: Act 537 (Markleysburg Boro)

4.1 Does the project involve construction of a dam? If "Yes", identify the dam. (DEP Use/3140)  
 Yes  No Dam: \_\_\_\_\_

4.2 Will the project interfere with the flow from, or otherwise impact, a dam? If "Yes", identify the dam. (DEP Use/3140)  
 Yes  No Dam: \_\_\_\_\_

5.1 Will the project involve operations, excluding during the construction period, that produce air emissions (i.e., NOX, VOC, etc.)? If "Yes", identify the type and amounts of emissions. (DEP Use/4x70)  
 Yes  No

	Type	Amount

6.1 Is an on-site drinking water supply (well), other than individual house wells, proposed for your project? If "Yes", indicate total number of people served and/or the total number of connections served, if applicable. And check all proposed sub-facilities. (DEP Use/4x81)  
 Yes  No

Persons Served: \_\_\_\_\_  
 Emp/Guests: \_\_\_\_\_  
 Connections: \_\_\_\_\_  
 Sub-Facilities:

<input type="checkbox"/> Distribution System	<input type="checkbox"/> Entry Point
<input type="checkbox"/> Water Treatment Plant	<input type="checkbox"/> Transmission Main
<input type="checkbox"/> Source	<input type="checkbox"/> Storage Facility
<input type="checkbox"/> Pump Station	

6.2 If purchasing your water in bulk, excluding during the construction period, name the provider. Also, indicate the daily number of employees or guests served. (DEP Use/4x81)  
 Yes  No Provider: \_\_\_\_\_  
 Emp/Guests: \_\_\_\_\_

6.3 If to be served by public water supply, indicate name of supplier and attach letter from supplier stating that it will serve the project. (DEP Use/4x81)  
 Yes  No Supplier: National Pike Water Authority (proposed)

6.4 Will this project involve a new or increased drinking water withdrawal from a stream or other water body? If "Yes", provide name of stream. (DEP Use/4x81)  
 Yes  No Stream: \_\_\_\_\_

7.1 Will the construction or operation of this project involve treatment, storage, reuse, or disposal of waste? If "Yes", indicate what type, (i.e., hazardous, municipal, residual, infectious & chemotherapeutic) and how much. What are the proposed means of treatment, storage, reuse and disposal? (DEP Use/4x32)  
 Yes  No

	Type	Amount	Means
<input type="checkbox"/> Treated			
<input type="checkbox"/> Stored			
<input type="checkbox"/> Reused			
<input type="checkbox"/> Disposed			

8.1 Will your project involve the removal of coal, minerals, etc. as part of any earth disturbance activities? (DEP Use/48y1)  
 Yes  No

9.1 Will your project involve operations within 200 feet of an oil or gas well? If "Yes", indicate Oil and Gas API#. (DEP Use/4z41)  
 Yes  No O&G API#: \_\_\_\_\_

10.1 Does your project involve installation of any of the following? If "Yes", list Substance & Capacity; may need a Storage Tank Site Specific Installation Permit. (DEP Use/3930)

	Substance	Capacity
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Field constructed underground storage tank.		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Aboveground storage tank greater than 21,000 gallons capacity.		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Tank greater than 1,100 gallons which will contain a highly hazardous substance.		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Storage tank at a new facility.		

**FACILITY INFORMATION**

**Application Type of Attached Program-Specific Permit/Authorization Application**

<input type="checkbox"/> AMAJ Amendment, Major	<input type="checkbox"/> MODEO Modification Exec Order	<input type="checkbox"/> REIS Reissue
<input type="checkbox"/> AMEN Amendment	<input checked="" type="checkbox"/> NEW New	<input type="checkbox"/> REN Renewal
<input type="checkbox"/> AMIN Amendment, Minor	<input type="checkbox"/> NOT Notification	<input type="checkbox"/> RESC Rescission
<input type="checkbox"/> MOD Modification	<input type="checkbox"/> ORD Order	<input type="checkbox"/> SUCC Succession
<input type="checkbox"/> MODAT Modification Alt Timeline	<input type="checkbox"/> REG Registration	<input type="checkbox"/> TRAN Transfer

**Modification of Existing Facility**

1. Will this project modify an existing facility, system, or activity?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
2. Will this project involve an addition to an existing facility, system, or activity?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

*If "Yes", check all relevant facility types and provide DEP facility identification numbers below.*

Facility Type	DEP Fac ID#	Facility Type	DEP Fac ID#
<input type="checkbox"/> Air Emission Source		<input type="checkbox"/> Public Water Supply System	
<input type="checkbox"/> Hazardous Waste Facility		<input type="checkbox"/> Water Resource (withdrawal point)	
<input checked="" type="checkbox"/> Municipal or Residential Waste Facility	ACT 537	<input type="checkbox"/> Oil & Gas Location	
<input type="checkbox"/> Mining Operation		<input type="checkbox"/> Oil & Gas Location / Coal Pillars	
<input type="checkbox"/> Dam		<input type="checkbox"/> Radiation Protection Facility	
<input type="checkbox"/> Water Obstruction or Encroachment		<input type="checkbox"/> Other:	
<input type="checkbox"/> Water Pollution Control Facility		<input type="checkbox"/> Other:	


Sub-Facility ID	Location of Lat/Long Point	Latitude			Longitude		
		Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
Proposed STP	un. trib. Pinkham Run						

**CONSULTANT FOR THIS PROJECT**

<b>Last Name</b> McMillen	<b>First Name</b> Terry	<b>MI</b> E.	<b>Suffix</b> Sr.
<b>Title</b> President	<b>Consulting Firm</b> McMillen Engineering, Inc.		
<b>Mailing Address Line 1</b> PO Box 363		<b>Mailing Address Line 2</b>	
<b>Address Last Line - City</b> Hopwood	<b>State</b> PA	<b>ZIP+4</b> 15445	<b>Country</b> United States
<b>Email Address</b> mcmileng@hhs.net	<b>Phone</b> 724-439-8110	<b>Ext</b>	<b>FAX</b> 724-439-4733

**CERTIFICATION**

I certify that I have the authority to submit this Permit Application on behalf of the applicant named herein and that the information provided in this Application is true and correct to the best of my knowledge and information.

<b>Signature</b>		<b>Date</b>
<b>Type or Print Name</b>	Terry E. McMillen, Sr., P.E.	

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**PROOF OF PUBLICATION  
OF PUBLIC NOTICE  
(MARKLEYSBURG BOROUGH)**

**PROOF OF PUBLICATION  
OF PUBLIC NOTICE  
(HENRY CLAY TOWNSHIP)**

# Proof of Publication

The HERALD-STANDARD, established in 1907, a newspaper of general circulation, published by Uniontown Newspapers, Inc., a Pennsylvania corporation, 8-18 E. Church Street, Uniontown, Fayette County, Pennsylvania, and has been issued regularly, except legal holidays, since said date.

The attached advertisement, which is exactly as printed and published, was published in the regular issues of said newspaper, on May 26, 2002.

The cost of advertising and proof, \$ 92.42.

#### NOTICE

Markleysburg Borough Council has prepared an Act 537 SEWAGE FACILITIES PLAN which provides for public sewage facilities in Markleysburg Borough. The 537 Sewage Facilities Plan is intended to service those areas along and surrounding SR 281 in Markleysburg Borough and Henry Clay Twp. The project includes the intent to design, finance, and construct a sewage treatment plant, collection and conveyance system for sanitary sewage flows. An anticipated user fee of \$30.85 is calculated from the study data. McMillen Engineering (preparer of the study) has recommended constructing a sewage treatment plant along an unnamed tributary to Pinkham Run and initial service is intended to service approximately 154 users in both Markleysburg Borough and Henry Clay Twp. The Plan is available at the Markleysburg Borough building and Henry Clay Twp. building for review and written comment. Arrangements to review the documents can be made by calling Lori Frazee (Borough) (724)329-0850 or Margaret Rishel (Township) (724)329-4733.  
Markleysburg Borough Council  
Henry Clay Twp. Supervisors

UNIONTOWN NEWSPAPERS, INC.

By Carolyn Ann Kozak

STATE OF PENNSYLVANIA, } SS:  
COUNTY OF FAYETTE

Before me, a Notary Public in and for the said county and state personally appeared Max Phillip Sperry, who being duly sworn according to law says that he is Controller of Uniontown Newspapers, Inc.; that neither affiant nor said corporation is interested in the subject matter of the attached advertisement; and that all of the allegations of the foregoing statement including those as to the time, place and character of publication are true.

Sworn to and subscribed before me

this 28th day of May, 20 02

Carolyn Ann Kozak

Max Phillip Sperry

Notarial Seal  
Carolyn Ann Kozak, Notary Public  
Uniontown, Fayette County  
My Commission Expires May 1, 2003

Member, Pennsylvania Association of Notaries



RESOLUTION FOR ACT 537 PLAN ADOPTION

RESOLUTION OF THE COUNCIL OF MARKLEYSBURG BOROUGH, FAYETTE COUNTY, PENNSYLVANIA (hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, the Council of Markleysburg Borough has prepared an Act 537 SEWAGE FACILITIES PLAN which provides for sewage facilities in Markleysburg Borough and

WHEREAS, Markleysburg Borough finds that the Facilities Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Council of the Borough of Markleysburg hereby adopts and submits to the Department of Environmental Protection for its approval as an "Official Plan" of the municipality, the above referenced Facilities Plan. The municipality hereby assures the Department of the complete and timely implementation of the said plan as required by law. (Section 5, Pennsylvania Sewage Facilities Act as amended).

I, Sheri L. Wolfe, Secretary, Markleysburg Borough Council, hereby certify that the foregoing is a true copy of the Borough's Resolution No. 03, adopted 2002.

BOROUGH SEAL

Secretary



\_\_\_\_\_

June 3, 2002

The regular meeting of the Henry Clay Township Supervisors was held at the township office. Supervisors present was C. Sarver, R. Fike and G. Rishel, Attorney (Ms.) Hajduk present, also. The minutes was read, C. Sarver motion to accept minutes as read, G. Rishel 2<sup>nd</sup>, motion carried.

OLD BUSINESS:

Noah's Arch, C. Sarver motion to accept contract, G. Rishel 2<sup>nd</sup>, motion carried.  
(This is instead of the S. P. C. A. contract for animal control).

Grader, C. Sarver and G. Rishel toured the plant, discuss the possibility of piggy backing with the state, by going that way the cost could be a few thousand dollars higher, C. Sarver motion to advertise for a new 2002 or 2003 grader, bids to be opened on July 1, 2002 at 7:15 p.m., G. Rishel 2<sup>nd</sup>, motion carried.

Sewage, after a discussion of the survey results from Markleysburg Borough line to Calvin Jenkins (5 no's & 7 yes') the Board of Supervisors decided not to join Markleysburg Borough Sewage Project since the response was so close, if it was going to Route 40 the response was much higher (7 no's & 11 yes'). C. Sarver motion not to join Markleysburg Borough (Act 537 Plan) Sewage Project, G. Rishel 2<sup>nd</sup>, motion carried. Asked secretary to send letter of non-commitment a. s. a. p. (Note: there's places in the area which would be feasible and down hill to the system, but was not discussed and the residents would like to see sewage)

NEW BUSINESS:

R. Dennis gave brief description of Pen Step Grant (Pennsylvania Small Town Environmental Program) and how it could benefit the residents located on Martin Road, this is a community project, needs local volunteers and the use of local government equipment, could possible get \$25,000.00 to \$30,000.00 for materials, this has nothing to do with N. P. W. A., but after the water line is installed it will belong to N. P. W. A. this would help get more tap-in's for the water project. No one else is competing for the grant, it'll be awarded June 30, 2002 and must start construction in July, 2002, no dead line on when the work is to be finalized. Supervisors decided to volunteer their time on Fridays and Saturdays, they can use the township equipment to bring the water to the park and the municipal building, but Attorney Hajduk is to check on whether or not they can donate the use of the local government equipment to go further back Martin Road, approximately .9ths of a mile, if this is not permissible R. Dennis will donate the use of his equipment. Gary Rishel asked about the boring across the road, R. Dennis will check on the cost of the boring, possibly the N. P. W. A. could pay for the boring. Pete Mills asked about the liability on volunteers, R. Dennis, this could possibly be added to the N. P. W. A. insurance policy.

N. P. W. A. contract, after a discussion on bring the water to the township office and community park, C. Sarver motion to accept the contract with the tap-in fee of \$1,000.00 each for the township office and community park, R. Fike 2<sup>nd</sup>, motion carried.

Announcements:

Hard-to-Recycle Day, June 22, 2002 at the Fayette County Fairgrounds from 8 a.m. to 3 p.m. The way to apply for a formal appeal on tax assessments is on the bulletin board for review. Demco will be starting work on the TR#311, Bruceton Road project on June 10, 2002.

Supervisors discuss sharing the postage to mail letters to local residents about the possibility of Marclay School closing, this will include dates and times of school board meetings, Attorney Hajduk would like to see complete letter and postcard before anything is mailed. Supervisors asked Attorney Hajduk to a draft letter expressing their concerns and asking the School Board for a 10 year plan for Marclay School. (See attached letter to be sent)

Lynch property, G. Rishel spoke to Mrs. Lynch about trees to be removed on the township right-of-way, Supervisors looked at what she had wanted, G. Rishel explained that there was only one tree they would removed, afterwards Mr. Lynch sent letter stating that this is the townships liability if anything happened (See attached letter), Attorney Hajduk advised them to have a surveyor find the center of the road and determine if they are on the township right-of way, after this is determine she'll send appropriate letter confirming that they are or are not responsible for the removal of these trees.

Michael Outrich sent letter asking to be either the primary or alternate SEO, Supervisors asked secretary to get a fee schedule before the July 1, 2002 meeting if possible.

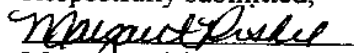
Building permits applications for January 1, 2002 to May 31, 2002: 01-02 H. Nichelson, 02-02 R. Fike, 03-02 L. Davis, 05-02 E. Rugg, 06-02 M. Kapinski, 07-02 J. Hostetler, 08-02 E. Dennison, 09-02 P. Shaffer, 10-02 T. Moore, 11-02 E. Mastronicola, 12-02 E. Sines, 13-02 M. Mosqueda, 14-02 G. Mc Coy, 15-02 T. Mc Carty, 16-02 J. Rugg, 17-02 J. Savage, 18-02 J. Neal, 19-02 J. Savage, 20-02 D. Rugg, 21-02 G. Hargreaves, 22-02 B. Martin, 23-02 J. Humberston, 24-02 M. Maxson, 25-02 M. Glover.

C. Sarver motion to pay the bills, G. Rishel 2<sup>nd</sup>, motion carried.

C. Sarver motion to adjourn, R. Fike 2<sup>nd</sup>. motion carried.

Meeting adjourned at 7:57 p.m.

Respectfully submitted,

  
Margaret Rishel, Secretary

Residents present:

Mike Dzurkinan, Pete Mills, Richard Dennis, LeRoy LeJune.

**PROJECT NARRATIVE  
MARKLEYSBURG BOROUGH  
Act 537 Sewage Plan Update  
January 3, 2002**

Markleysburg Borough is developing an Act 537 Sewage (facilities) Plan update for the intended regionalized Sanitary Sewer Service of Markleysburg Borough with the potential collection service to Henry Clay Township (along State Route 281), Fayette County, Pennsylvania.

All sanitary sewerage collection lines are intended to be located in public right-of-ways along public roadways. No disturbance to buildings or other structures is foreseen. No environmental disturbance is anticipated.

Upon acceptance and approval of the Act 537 sewage plan update, multiple funding sources will be approached relative to construction of the new sewage treatment plant and collection and conveyance system. Primary line lengths include approximately 11,000 lf of gravity collection line and 5,000 lf to potentially service Henry Clay Township along state Route 281. The USGS (location) map and a conceptual sewer system layout are attached for reference.

## Agreement for Engineering Services

McMILLEN ENGINEERING INC.  
P.O. Box 363, Hopwood, PA 15445

November 9, 2000

McMillen Engineering Inc. (engineer) proposes to perform for:

Name: Markleysburg Borough (client) Phone:  
Lori Frazee Fax:  
Street: P.O. Box 25  
City, State, Zip: Markleysburg, PA 15459

RE: Sewage Facilities Study - Act 537

### Scope of Services:

Feasibility study (Act 537 Sewage Facilities Plan) for constructing sewage facilities to serve the Borough of Markleysburg. The following items are included in the study:

1. PADEP/Markleysburg Borough planning meetings for study content and ultimate planning (8 hours).
2. Preliminary layout and mapping of the sewerage system (from available aerial mapping with a field audit of newly updated or unidentifiable areas).
3. Flow estimates and sewage treatment options analysis.
4. Cost estimates and comparisons of constructing the sewage treatment options (completed to date).
5. Feasibility analysis, summaries, and recommendations.

The study will be arranged to comply with the Pennsylvania Sewage Facilities Act, Sewage Facilities Planning Guide for Preparing Act 537 Plans. PADEP will require that the Henry Clay Township homes near the boundaries of Markleysburg Borough be included in the Borough's feasibility study and planning and service areas.

### Terms:

1. This proposal is valid for six months and void if altered by the client. All submittal fees are payable by the owner and they are not included in this proposal. If you or your company has any pre-qualifications for issuing payment (such as W-9 forms, insurance certificates, etc.), the request should accompany the return of this signed form as you are responsible for payment upon receipt of the invoice.

2. Full payment by the client is due upon receipt of each invoice. If any invoice is not paid within fifteen days, interest at the rate of 1.5 percent per month shall be added from the date of the invoice until the payment thereof. As payments are received, work will be released. If collection is necessary, all costs of collection, including reasonable attorney's fees and court costs, shall be paid by the client. A fee of \$25.00 will be charged for all returned checks.

Fees are predicated upon timely payment of invoiced amounts. If a payment schedule different from that specified above is anticipated, it is the client's responsibility to notify McMillen Engineering so that acceptable payment arrangements can be made prior to execution of this agreement. Please note that a change in payment terms may affect the fees specified. Work will cease if progress payments are not received. Payment shall not be dependent upon third-party payment to the client.

3. Fee schedule:

Estimated Engineering Fees - \$7,200.00

One-half of the fee for preparing the study is reimbursable by PADEP (\$3,600.00).

Notes: Time for additional meetings will be charged at our standard hourly rates.

Consultation and engineering services during construction are not included.

4. The client is defined as the person signing this agreement, whether this person is the property owner, agent, or a company representative, and as such, hereby acknowledges the authority and responsibility for payment of all invoices by him, the company, or agency the person represents.

Approved and accepted:

It is agreed and mutually understood that the attached conditions form a part of this agreement.

Financial Responsibility Accepted by:

McMILLEN ENGINEERING, INC.

\_\_\_\_\_  
Client (Sign)

By:

\_\_\_\_\_  
(Print or type name)

Date Accepted:

Date \_\_\_\_\_

Invoices will be submitted as addressed, unless indicated below.

Work should be invoiced to:

\_\_\_\_\_  
Name

\_\_\_\_\_  
Company (if applicable)

Conditions:

1. Approval by the municipality and/or regulatory agency or body is not guaranteed. Submittals shall be made in accordance with the applicable regulations and standard engineering practice. Revisions to the site plan requested by (a) the client and/or (b) the regulatory agency or body for items not required by their regulations will be charged based upon our hourly rate schedule. An estimate will be provided prior to performing the work.
2. Any change in work scope shall be approved in writing by the engineer and client prior to commencing with said change. All such work shall be subject to the terms and conditions of this agreement and compensation made accordingly.
3. The cost of five sets of drawings sent by regular mail is included. Additional copies, prints, reproducible drawings, and overnight mail or hand delivery are charged at cost.
4. Examples of items which are not included in the fee:
  - a. Core borings and soils analysis.
  - b. Site or parking lot lighting.
  - c. Traffic engineering and final design of entrance for PennDOT approvals.
  - d. Any work required as the result of construction activities which is not in accordance with applicable permit requirements.
  - e. Inspection or supervision during construction.
  - f. All fees shall be payable by the owner.
5. **NO EXCEPTIONS:** If submittal time is a factor, consider pre-payment of work (or hand delivery of your payment or overnight mail) so your payment does not delay your submittal. If the proposed submittal date is missed because your payment is not received, submittal will be scheduled for the following month's meeting.
6. Certificate of Insurance: McMillen Engineering Inc. and the owner will be named as "additional insured" on all construction contracts awarded as part of this project.
7. The drawings, specifications, and other documents prepared by McMillen Engineering Inc. for this project are instruments of McMillen Engineering Inc.'s services for use solely with respect to this project and, unless otherwise indicated, shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including the copyright. The client shall be permitted to retain copies, including reproducible copies, of the drawings, specifications, and other documents for information and reference in connection with the client's use and occupancy of the project. The drawings, specifications, or other documents shall not be used by the client or others on other projects, for additions to this project, or for completion of this project by others, except by agreement in writing and with appropriate compensation to McMillen Engineering Inc.
8. There are no agreements or understandings other than those written or specified herein.
9. This agreement is meant to be legally enforceable under the laws of the Commonwealth of Pennsylvania.
10. This agreement is meant to be legally binding on the parties hereto.
11. The parties hereto hereby warrant that they have read and do understand the terms and effects of this agreement and are aware that it forms a binding contract.

**TASK/ACTIVITY**

**Markleysburg Borough** Municipality      **Fayette** County      **SR 281 corridor, et al** Proposed Planning Area (attach map)      **April 2001** Date of Report  
 Date completed plan will be submitted to DEP      **August 2001**      **Estimated Cost of Plan**      **\$7,200.00**

Task Activity Number from Appendix I	Principal		Project Engineer		Engineer		Draftsman		Clerical		Sub-Total		
	hr/rate	hours	hr/rate	hours	hr/rate	hours	hr/rate	hours	hr/rate	hours		cost	cost
I. B					2		3		1		\$120	\$34	\$294.00
II. A-G			2		4		17		1		\$240	\$34	\$1,204.00
III. A-B	1		2		7		2		3		\$420	\$102	\$822.00
IV. A					8		2		3		\$480	\$102	\$677.00
V. A-H	1		4		14				3		\$840	\$102	\$1,277.00
VI. A-G	3		4		19				3		\$1,140	\$102	\$1,762.00
VII. A-D	2		2		4				3		\$240	\$102	\$622.00
VIII. A-B	1		2		4				3		\$240	\$102	\$547.00
Sum (\$)											\$3,720	\$680	\$7,205.00

Name of Person Completing Report

Signature

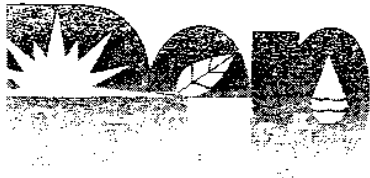
Title

Municipal Secretary Signature



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**EFFLUENT LIMITATIONS**



Pennsylvania Department of Environmental Protection

400 Waterfront Drive  
Pittsburgh, PA 15222-4745  
February 15, 2002

Southwest Regional Office

412-442-4000  
Fax 412-442-4328

Chad Stafford  
McMillen Engineering, Inc.  
PO Box 363  
Hopwood, PA 15445

Re: Markleysburg Borough  
Act 537 Preliminary Effluent Limits  
Markleysburg Borough  
Fayette County

Dear Mr. Stafford:

This is in response to your January 8, 2002 request for preliminary effluent limits for the referenced area. I evaluated the discharge based on a maximum average monthly daily flow of 50,000 gpd. with discharge to an unnamed tributary of Pinkham Run. The following effluent limitations would likely be imposed for the proposed point of discharge.

<u>PARAMETER</u>	<u>MONTHLY AVERAGE</u>	<u>INSTANTANEOUS MAXIMUM</u>
CBOD5 (mg/l)	25	50
TSS (mg/l)	30	60
Ammonia Nitrogen (mg/l)		
5/1 - 10/31	1.9	3.9
11/1 - 4/30	3	6
Fecal Coliform		
5/1 - 9/30	200/100 ml	1000/100 ml
10/1 - 4/30	2000/100 ml	
pH	within range of 6 - 9 standard units	
Dissolved Oxygen	minimum of 5 mg/l	
Total Residual Chloride (mg/l)	0.016	0.038

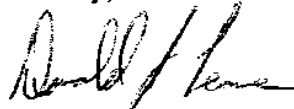
Chad Stafford

-2-

February 15, 2002

Please be advised that these limitations are preliminary and in no manner gives authorization for a discharge. If you have any questions concerning this matter, you may contact me at this office.

Sincerely,

A handwritten signature in black ink, appearing to read "Donald J. Leone". The signature is written in a cursive style with a large initial "D".

Donald J. Leone, P.E.  
Sanitary Engineer  
Water Management

The enclosed materials are considered proprietary property of ZENON Municipal Systems, Inc. No assignments either implied or expressed, of intellectual property rights, data, know how, trade secrets or licenses of use thereof are given. All information is provided exclusively to the addressee for the purposes of evaluation and is not to be reproduced or divulged to other parties, nor used for manufacture or other means or authorize any of the above, without the express written consent of ZENON Municipal Systems, Inc. The acceptance of this document will be construed as an acceptance of the foregoing conditions.

**ZeeWeed®/ZenoGem®  
Wastewater Treatment System  
Budget Proposal**

for

**Markleysburg WWTP,  
Markleysburg, PA**

**Proposal Reference No. 00-148-B**

Submitted to:

Todd Radolec,  
McMillen Engineering

Care of:

Mark Place,  
John P. Place, Inc.,  
90 Clarion Blvd.,  
Pittsburgh, PA 15236  
Tel: 412-892-2000  
FAX: 412-655-1109

Submitted by:

James W. Hotchkies,  
ZENON Municipal Systems, Inc.  
3239 Dundas Street West  
Oakville, ON L5M 4B2  
Tel: 905-465-3030 ext. 3208  
FAX: 905-465-3050

2000-09-12

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ZenoGem® Wastewater Treatment System  
 Proposal 00-146-B  
 2000-09-12  
 Page 2



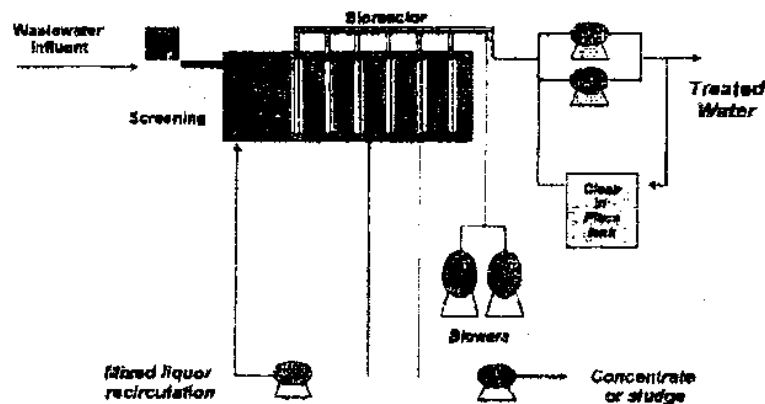
### Synopsis of the ZenoGem® Wastewater Treatment Process

The ZenoGem® Process is a proprietary ZENON technology that consists of a suspended growth biological reactor integrated with an ultrafiltration membrane system. Essentially, the ultrafiltration system replaces the solids separation function of secondary clarifiers and sand filters in a conventional activated sludge system. For municipal applications, the ultrafilter employed is the ZeeWeed® ZW500-VW hollow fiber membrane, which has a 0.1 micron pore size which ensures that no particulate matter is discharged in the effluent.

The ZeeWeed® ultrafiltration membranes are typically submerged in the aeration tank, in direct contact with the mixed liquor. Through the use of a suction duty pump, a vacuum is applied to a header connecting the membranes. Treated water is drawn by the vacuum through the hollow fiber ultrafiltration membranes, into the pump and then discharged. The energy associated with permeate pumping is relatively small, due to the use of a vacuum rather than positive pressure. An airflow is introduced to the bottom of the membrane module producing turbulence which scours the external surface of the hollow fibers transferring rejected solids away from the membrane surface. This airflow also provides a portion of the biological process oxygen requirements; the remainder is provided by a diffused aeration system. Waste sludge is pumped directly from the aeration tank.

The ZenoGem® technology effectively overcomes the problems associated with poor settling of sludge in conventional activated sludge processes. The ZenoGem® technology permits bioreactor operation with considerably higher mixed liquor solids concentrations than conventional activated sludge systems which are limited by sludge

### ZenoGem® Schematic



ZenoGem® Wastewater Treatment System  
 Proposal 00-148-B  
 2000-09-12  
 Page 3



settling. The ZenoGem® process is typically operated at a mixed liquor suspended solids (MLSS) concentration in the range of 12,000 to 15,000 mg/L. The elevated biomass concentrations allow for highly effective removal of both soluble and particulate biodegradable material in the waste stream. The ZenoGem® process combines the unit operations of aeration, secondary clarification and filtration into a single process, simplifying operation and greatly reducing space requirements.

Occasionally, the ZeeWeed® ZW-500 Membranes may require removal from the ZenoGem® bioreactor tank for a thorough cleaning. The frequency of cleaning is a site-specific factor. Typically, removal of membranes for cleaning is required every three to six months. For this type of cleaning, the membrane cassette is removed and placed in a Dip Tank. The membranes soak in a cleaning solution for a period of time before being returned to the ZenoGem® Process Tank. Typically a 200 to 1,000 mg/L solution of sodium hypochlorite is used for cleaning the membranes. However, in certain cases, a mild acid or caustic solution may be required. The required Dip Tank(s) may be of fiberglass, concrete construction or fabricated steel, whichever suits the Customer's preferences. Each Dip Tank is approximately 8.0 ft. (L) x 4.0 ft. (W) x 8.5 ft. (D).

#### ZW-500 Ultrafiltration Membrane Modules

Membrane Design Flux Rate	10 gfd at average day flow
	20 gfd at maximum day flow
	24 gfd at peak hourly flow
Minimum Design Liquid Temperature	15 °C
# Membrane Modules	12
# Membrane Cassettes	2 (8-module Cassettes)

The ZenoGem® process is adapted for denitrification, where total nitrogen removal is required. The elevated levels of biomass become readily anoxic in the absence of aeration, ensuring high denitrification rates. An upstream anoxic zone is incorporated in the ZenoGem® tank design to accommodate denitrification. The ZenoGem® process is also adapted for phosphorus removal. Through the addition of metal salts, such as alum or ferric chloride, to the raw wastewater or mixed liquor, soluble phosphorus in the waste stream is precipitated. The ZeeWeed® membranes have a pore size that provides an absolute barrier to the discharge of precipitated phosphorus. The phosphorus is retained in the mixed liquor and removed with the waste activated sludge. The ZenoGem® process can reliably achieve significantly lower effluent phosphorus concentrations than conventional municipal treatment processes.

ZenoGem® Wastewater Treatment System  
Proposal 00-148-B  
2000-09-12  
Page 4



### Overview of Equipment Provided

The ZenoGem®/ZeeWeed® Membrane Wastewater Treatment Plant is designed with major process equipment supplied loose, for installation on concrete pads. The ZeeWeed® membranes are supplied for installation in concrete tanks (by others) within ZENON supplied membrane support frames. Each process tank has at least two compartments, including an aerated membrane zone and an anoxic zone. The compartments may be separated by a baffle.

The permeate from each membrane train is pumped via permeate pumps, supplied in main & standby configuration. Permeate pumps are supplied loose, for mounting on concrete pads, with the interconnecting piping and local isolators for supply by others. The valves & fittings for the permeate system are within the ZENON scope of supply, to ensure compatibility with the control system provided.

Backpulsing of the membranes is by dedicated backpulse pumps, from backpulse water storage tanks supplied by ZENON. The backpulse tank is filled from the common permeate discharge header pipe (piping by others). Backpulse water storage tanks are supplied loose for mounting adjacent to the permeate pumping equipment.

The membrane air scour blowers and supplemental air blowers are supplied loose, either for installation adjacent to the membrane system tanks or, if preferred, within a separate blower room to minimize the noise within the plant building. The interconnecting piping from the blowers to the air headers in the membrane tanks will be for supply and installation by others. Mechanical mixing is provided for each anoxic zone. A fine bubble diffused aeration system is supplied for installation within the aerated zone of the process tanks.

Recirculation pumps are provided and are designed for an anoxic recycle ratio of 8 times ADF. The recirculation pumps can be provided with VFD units to allow for optimization of the system process performance.

Sludge wasting is accomplished by periodically diverting mixed liquor from the recirculation line, via manual control, and is a function of influent characteristics, reactor design and operator preference. Mixed liquor wasting may be weekly, monthly or at even longer periods.

The plant control panel may be installed adjacent to the plant or located in a separate control room depending on the Owner's preference. All instrumentation, motor controls, operator controls, PLC(s) and any VFDs required for the ZENON supplied equipment (supplemental air blowers, permeate and backpulse pumps) are within the ZENON scope of supply.

Influent screening is not within the ZENON scope of supply. However, effective operation of the ZENON system requires appropriate screening upstream of the ZenoGem® aeration (bioreactor) tanks. A mechanical screening device, capable of

ZenoGem® Wastewater Treatment System  
 Proposal 00-148-B  
 2000-09-12  
 Page 5



screening particles down to 3.0 mm, is required to prevent hair and other stringy materials from tangling with the membranes.

### Design Parameters

The table below summarizes the main design parameters on which the ZenoGem® system has been designed. The column titled "influent" are characteristics of typical medium strength sanitary wastewater as to be approved for use by the client's representative. The column titled "effluent" is the anticipated treated water quality ZENON expects to be able to achieve based on current ZENON design.

Parameter	Influent	Effluent	Units
Average Daily Flow	60,000	60,000	USgpd
Maximum Daily Flow	120,000	120,000	USgpd
Design Water Temperature	10	10	°C
BOD <sub>5</sub>	240	<5	mg/L
TSS	220	<5	mg/L
NH <sub>4</sub> -N	N/A	<3	mg/L
TP	N/A	<1	mg/L

### Design Concept

The design configuration proposed by ZENON for this project will initially have a dual train system with each membrane treatment trains having a nominal design capacity of 30,000 USGpd for a total plant capacity of 60,000 USGpd (average day flow). It would be possible to operate only one train and still meet the average day flow capacity.

The system is designed for installation within adjacent rectangular concrete membrane tanks that will use common wall construction to reduce costs and minimize plant footprint. The tanks are sized for an ultimate ADF of 120,000 USGpd, per cell. Initial equipment is supplied for a total plant flow of 60,000 USGpd. Each membrane treatment stream will be equipped with its own permeate pump. The flow will be split into the individual tanks from a common inlet feed channel that will run along the feed end of the membrane tanks.

Each membrane stream will have two (2) compartments, an aerated aerobic zone containing the membranes and an anoxic zone (mixed but not aerated). Mixed liquor will be recirculated (pumped) from the aerobic to the anoxic zone. The anoxic zone is separated from the aerobic zone by a baffle.



ZenoGem® Wastewater Treatment System  
 Proposal 00-148-B  
 2000-09-12  
 Page 6



### Bioreactor Design

The bioreactor proposed for this design is an in-ground, concrete vessel – supplied by others – to meet the design criteria specified by ZENON and with the following basic parameters:

Total Bioreactor Volume	60,000	USgal
Design HRT	24	hours in Phase 1
	12	hours in Phase 2
Design MLSS	15,000	mg/L
Number of Membrane Trains	2	
Number of Bioreactor Tanks	2	
Volume of Each Bioreactor	30,000	USgal (Working Volume)
Length of Each Bioreactor	30	ft
Width of Each Bioreactor	13.5	ft
Height of Each Bioreactor	15	ft
Side Water Depth of Bioreactor	10	ft
Length of Membrane Compartment	11	ft
Length of Anoxic Compartment	19	ft

Process tanks may be of concrete construction or fabricated steel, whichever suits the Customer's preferences, and are not included in ZENON's scope of supply. Tank dimensions are preliminary only and may change slightly once final detail design commences.

ZenoGem® Wastewater Treatment System  
 Proposal 00-148-B  
 2000-09-12  
 Page 7



### Scope of Supply - ZENON

The main equipment included with the supply of ZenoGem® Wastewater Treatment System is summarized below.

Item & Description	Quantity
ZeeWeed® (ZW500) Membrane Modules, complete with structural steel framing for installing the modules in the membrane bioreactor tank(s)	12
Submersible, Grinder Transfer Pumps, for transfer of raw wastewater from the collection sump to the EQ tank or bioreactor	2
Permeate/Backpulse pump trains c/w valves & fittings	2
Air Blowers, for membrane air scour & process air requirements	2
Permeate collection header pipe	2
Air scour distribution header pipe	2
Recirculation pump and flow monitoring system	2
Air diffusers for supply of process air	96
Process control panel c/w motor control equipment & instrumentation integral to the ZenoGem® System	1
Backpulse tank	1
Clean in Place (CIP) membrane cleaning system	1
pH control system	2
Co-nutrient feed system	2
Equipment general arrangement and layout drawings	3 sets
Operating & Maintenance manuals	3
Field service and process start-up assistance (days)	10

Additional man-hours will be billed separately from the proposed system capital cost at a rate of \$650 US per day plus living and traveling expenses.

ZenoGam® Wastewater Treatment System  
 Proposal 00-148-B  
 2000-09-12  
 Page 8



### Scope of Supply - by Others

Items for supply by others include, and are not limited to:

Item & Description
Overall plant design
Review of design parameters
Review of equipment drawings and specifications
Equipment foundations, civil work, equipment mounting pads, buildings etc.
Permits including construction permits, discharge permits, and plant design approvals
HVAC equipment design, specifications, and installation (where applicable)
Emergency power supply and specifications (where applicable)
Receiving and safe storage of equipment at site until ready for installation
Shipping, handling, duties and taxes (as applicable)
Unloading of delivered equipment from the transportation vehicle to the plant site
Equipment installation
Collection sump, to meet the specifications set by ZENON
Intake screen - 3 mm openings recommended - static or roto-screen
Equalization tank, with a capacity equivalent to 12-24 hours of ADF
Bioreactor - as previously described - c/w integral membrane dip tank
Membrane removal system - hoist
UV disinfection system (if required)
Sludge holding (if desired)
Disposal field (if required)
Process and utilities piping, pipe supports, hangers, valves etc. including but not limited to: <ul style="list-style-type: none"> <li>- Piping, pipe supports and valves between ZENON supplied equipment and other plant process equipment</li> <li>- Piping between any loose-supplied ZENON equipment</li> <li>- Process tank aeration system air piping, equalization tank system piping, etc</li> <li>- Permeate discharge piping</li> </ul>
Electrical wiring, conduit and other appurtenances required to provide power connections as required from the electrical power source to the ZENON control panel and from the control panel to any electrical equipment, pump motors and instruments external to the ZENON-supplied enclosure
Raw materials, chemicals and utilities etc. during equipment start-up and operation
Laboratory services operating and maintenance personnel during equipment checkout, start-up and operation

ZenoGem® Wastewater Treatment System  
 Proposal 00-148-B  
 2000-09-12  
 Page 9



### ZenoGem® Wastewater Treatment System Pricing

One (1) ZenoGem® Wastewater Treatment System as described above, with the following design capacity.

Average Daily Flow		60,000	USgpd
Maximum Daily Flow		120,000	USgpd

**Budgetary Pricing:** \_\_\_\_\_ **US\$ 325,000.00**

#### Validity

Pricing is for budgetary purposes only and does not constitute a final offer of sale.

#### Freight, Taxes and Duties

All equipment is quoted FOB Oakville, Ontario, Canada. No freight, taxes, duties or brokerage are included in the above pricing. Any freight charges, taxes, duties or tariffs, of any type, are for the account of the purchaser.

#### Terms of Payment

The budgetary pricing quoted in this proposal is based on the following terms of payment:

- 15% with Purchase Order
- 30% on submission of General Arrangement Drawings
- 50% on shipment of equipment or notification that equipment is ready to ship (partial shipments permitted)
- 5% within thirty (30) days of equipment start-up or within sixty (60) days of equipment shipment, whichever is sooner.

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**SECTION VII**  
**CORRESPONDENCE**

# MCMILLEN ENGINEERING

## CIVIL ENGINEERS

P.O. Box 363 • Hopwood Center • Hopwood • Pa • 15445  
Phone: (724) 439-8110 Fax: (724) 439-4733

February 1, 2002

Tammy Shell  
Fayette County Department of  
Planning & Community Development  
61 East Main Street  
4<sup>th</sup> Floor Courthouse  
Uniontown, PA 15401

RE: Act 537 Sewage Facilities Plan

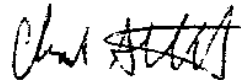
Dear Ms. Shell:

Enclosed are two copies of the draft reviewed by the municipality and county agencies for plan finalization. Please review and provide our office with any written comments so that we may address prior to sending the update to PADEP.

The municipalities and PADEP have each been sent the same Draft Plan for review and initial comments. The state requires some acknowledgment that all noted parties have examined the draft.

Please call if you have any questions. Thank you for your time.

Sincerely,  
MCMILLEN ENGINEERING INC.



Chad Stafford, E.I.T.

cc: Linda Cuppet, Markleysburg Borough  
Margaret Rishel, Henry Clay Township  
PADEP, John Black  
file



Fayette County Courthouse

OFFICE OF  
PLANNING, ZONING  
AND COMMUNITY DEVELOPMENT

FAYETTE COUNTY, PENNSYLVANIA

FOURTH FLOOR COURTHOUSE

61 EAST MAIN STREET

UNIONTOWN, PA 15401

(724) 430-1210

FAX (724) 430-4029

*April 30, 2002*

*McMillen Engineering Company  
Chad Stafford, E.I.T.  
Route 40 East  
Hopwood Plaza  
Hopwood, Pa 15445*

***Re: Markleysburg Borough and Henry Clay Township Act  
537 Sewage Facilities Plan***

*Dear Mr. Stafford:*

*The Fayette County Office of Planning, Zoning and Community Development (county planning department) is in receipt of the Act 537 Facilities Plan for Markleysburg Borough and Henry Clay Township.*

*This Office has reviewed the documentation provided by your firm on behalf of not only the county planning department but also the Fayette County Planning Commission.*

*There are no adverse comments to the documentation. Any assistance this Office can provide please contact us. The County has grant writers that are experienced in PennVEST funding and other financial assistance for implementation of public sewerage.*

*If you have any questions please contact me directly at 724-430-1210.*

*Sincerely,*  
  
*Tammy Shell  
Executive Director*



# MCMILLEN ENGINEERING

## CIVIL ENGINEERS

P.O. Box 363 • Hopwood Center • Hopwood • Pa • 15445  
Phone: (724) 439-8110 Fax: (724) 439-4733

February 1, 2002

Markleysburg Borough  
Linda Cuppet, Secretary  
PO Box 25  
Markleysburg, PA 15459

RE: Act 537 Sewage Facilities Plan

Dear Ms. Cuppet:

Enclosed are three copies of the Draft Act 537 Plan for Markleysburg Borough to be reviewed by the municipality for plan finalization. Please review and provide our office written comments so that we may address prior to sending the update to PADEP.

After we respond to your review comments we will again send these documents to your attention to be accepted by resolution as the "Official Plan" by the municipality. The other municipality and PADEP have each been sent the same Draft Plan for review and initial comments.

Additionally, evidence that this official plan has been before the municipalities planning agencies and available for public review and comment for sixty (60) days must be provided with the final PADEP official plan submittal. Evidence shall be provided in the form of a public notice (from a local newspaper), attachment of any and all written responses and, if none are received, a written letter from the municipality reflection this fact. Please send evidence of all documents to our office for our final plan submittal. A copy of the Act 537 public notification requirements are attached with this document so that your solicitor can prepare.

Please call if you have any questions.

Sincerely,  
McMILLEN ENGINEERING INC.

Chad Stafford, E.I.T.

cc: Margaret, Henry Clay Township  
John Black, PADEP



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**MCMILLEN ENGINEERING**  
**CIVIL ENGINEERS**

P.O. Box 363 • Hopwood Center • Hopwood • Pa • 15445  
Phone: (724) 439-8110 Fax: (724) 439-4733

February 1, 2002

Henry Clay Township  
Margaret Rishel  
RD 1 Box 140  
Markleysburg, PA 15459

RE: Act 537 Sewage Facilities Plan

Dear Ms. Rishel:

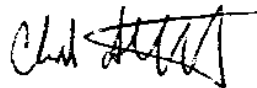
Enclosed are three copies of the Draft Act 537 Plan for Markleysburg Borough to be reviewed by the municipality for plan finalization. Please review and provide our office written comments so that we may address prior to sending the update to PADEP.

After we respond to your review comments we will again send these documents to your attention to be accepted by resolution as the "Official Plan" by the municipality. The other municipality and PADEP have each been sent the same Draft Plan for review and initial comments.

Additionally, evidence that this official plan has been before the municipalities planning agencies and available for public review and comment for sixty (60) days must be provided with the final PADEP official plan submittal. Evidence shall be provided in the form of a public notice (from a local newspaper), attachment of any and all written responses and, if none are received, a written letter from the municipality reflection this fact. Please send evidence of all documents to our office for our final plan submittal. A copy of the Act 537 public notification requirements are attached with this document so that your solicitor can prepare.

Please call if you have any questions.

Sincerely,  
McMILLEN ENGINEERING INC.



Chad Stafford, E.I.T.

cc: Linda Cuppett, Markleysburg Borough  
John Black, PADEP



Pennsylvania Department of Environmental Protection

Bureau of Water Quality Management  
286 Industrial Park Road  
Ebensburg, PA 15931-4119  
September 27, 2001

814-472-1900

FAX NUMBER 814-472-1861

**Cambria Office**

Linda Cuppet, Secretary  
Markleysburg Boro  
P. O. Box 25  
Markleysburg, PA 15459

*JGM's*

Re: PA Sewage Facilities Act  
Sewage Plan Update  
Markleysburg Boro, Fayette County

Dear Ms. Cuppet:

Please be advised that we have reviewed and approved your Plan of Study (POS) and Task Activity Report (T.A.R.) for your above-captioned sewage facilities plan. Therefore please proceed with the plan. We have requested of Henry Clay Township to participate with you in this plan preparation. It is our understanding that they have not been cooperating with you. Therefore your plan at minimum should address the surrounding homes in Henry Clay Township as far as a house count and capacity within your collection, conveyance and treatment facilities.

As you are aware the Department will provide up to 50% grant for the preparation of the, but this is an after the fact grant.

If we can provide any further information, service or consultation, please feel free to contact this office.

Sincerely,

John Black  
Sewage Planning Specialist

cc: McMillen Engineering  
Henry Clay Township  
J. Crislip  
File

JB:bk





Pennsylvania Department of Environmental Protection

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400 Waterfront Drive  
Pittsburgh, PA 15222-4745  
April 10, 2002

Southwest Regional Office

412-442-4000  
Fax 412-442-4328

Mr. Darren Hersom  
PO Box 314  
Markleysburg, PA 15459

Re: PENNVEST Consultation Meeting  
Markleysburg Borough  
Fayette County

Dear Mr. Hersom:

This will summarize our March 1, 2002 planning consultation meeting at the Donohoe Center in Greensburg. We discussed the proposed Markleysburg sewer project and possible PENNVEST funding scenarios.

With the passage of the Growing Greener Initiative, PENNVEST has more grant money available for sewer projects. PENNVEST has been giving projects with fewer than 250 customers top priority in their allocation of the grant funds. They will attempt to provide enough grants to bring the project at a targeted user rate. Based on a rough review of the project user rates, it appeared that your project would be grant eligible and that the targeted user rate would be 25 to 30 dollars per month. The grants were committed for a five-year period. We are currently completing the third year of the program.

Projects submitted for PENNVEST funding consideration are prioritized. Environmental and economic development ratings are provided to the PENNVEST staff by the Department of Environmental Protection and Department of Community and Economic Development, respectively. On the basis of these ratings and the funding resources, the PENNVEST staff and Board decide which projects will be funded.

With respect to the environmental priority, municipalities that are served predominately by wildcat sewers or where the majority of the on-lot systems are malfunctioning, receive a high priority.

Prerequisites for PENNVEST construction funding are an approved Act 537 Plan, an NPDES discharge permit, and a Water Management Part II permit.



Mr. Darren Hersom

-2-

April 10, 2002

In your Act 537 Plan, the treatment plant design should be based on 100 gallons per capita per day or approximately 250 gallons per EDU. We will also allow for a 20 to 25 percent growth rate. Adjacent areas in Henry Clay Township should also be addressed.

During the design, you should keep in mind that PENNVEST requires, where available, a listing of two brand names and "or equal". You will need to complete the enclosed Bid Specification Certification form and submit it with your Water Management Part II permit application.

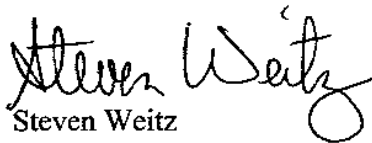
The project will be subject to state prevailing wages. In all likelihood, it will be exempted from the Minority Business Enterprise (MBE)/Womens Business Enterprise (WBE) requirements.

Enclosed is EPA Form 4700-4 which should be completed and submitted with the PENNVEST application.

Finally, when submitting the PENNVEST application, you will need to include comment letters from the local planning agency, the County Planning Commission, and the County's Agricultural Land Preservation Board.

If you have any questions, please do not hesitate to call me at 412-442-4073.


Sincerely,



Steven Weitz  
Project Manager  
Water Management

cc: PENNVEST  
✓ McMillen Engineering Company

**ATTACHMENT A**

		United States Environmental Protection Agency Washington, DC 20460 <b>Preaward Compliance Review Report For</b> <b>All Applicants Requesting Federal Financial Assistance</b>		FORM Approved OMB No. 2090-0014 Expires 4-30-99	
Note: Read instructions on reverse side before completing form.					
I. A. Applicant (Name, City, State)		B. Recipient (Name, City, State)		C. EPA Project No.	
II. Brief description of proposed project, program or activity.					
III. Are any civil rights lawsuits or complaints pending against applicant and/or recipient? If "Yes," list those complaints and the disposition of each complaint.				<input type="checkbox"/> Yes <input type="checkbox"/> No	
IV. Have any civil rights compliance reviews of the applicant and/or recipient been conducted by any Federal Agency during the two years prior to this application for activities which would receive EPA assistance? If "Yes," list those compliance reviews and status of each review.				<input type="checkbox"/> Yes <input type="checkbox"/> No	
V. Is any other Federal financial assistance being applied for or is any other Federal financial assistance being applied to any portion of this project, program or activity? If "Yes," list the other Federal Agency(s), describe the associated work and the dollar amount of assistance.				<input type="checkbox"/> Yes <input type="checkbox"/> No	
VI. If entire community under the applicant's jurisdiction is not served under the existing facilities/services, or will not be served under the proposed plan, give reasons why.					
VII. Population Characteristics					Number of People
1. A. Population of Entire Service Area					
B. Minority Population of Entire Service Area					
2. A. Population Currently Served					
B. Minority Population Currently Being Served					
3. A. Population to be Served by Project, Program or Activity					
B. Minority Population to be Served by Project, Program or Activity					
4. A. Population to Remain Without Service					
B. Minority Population to Remain Without Service					
VIII. Will all new facilities or alterations to existing facilities financed by these funds be designed and constructed to be readily accessible to and useable by handicapped persons? If "No", explain how a regulatory exception (40 CFR 7.70) applies.				<input type="checkbox"/> Yes <input type="checkbox"/> No	
IX. Give the schedule for future projects, programs or activities (or of future plans), by which service will be provided to all beneficiaries within applicant's jurisdiction. If there is no schedule, explain why.					
X. I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.					
A. Signature of Authorized Official		B. Title of Authorized Official		C. Date	
For the U.S. Environmental Protection Agency					
<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved		Authorized EPA Official		Date	

EPA Form 4700-4 (Rev. 1/90) Previous editions are obsolete.

Instructions

General

Recipients of Federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes.

Title VI of the Civil Rights Act of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the title shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the Federal financial assistance is to provide employment).

Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the ground of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities.

Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified handicapped individual shall solely by reason of handicap be excluded from participation in, be denied the benefit of or be subjected to discrimination under any program or activity receiving Federal financial assistance. Employment discrimination on the basis of handicap is prohibited in all such programs or activities.

The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission.

Title IX of the Education Amendments of 1972 provides that no person on the basis of sex shall be excluded from participation in, be denied the benefit of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution.

The information on this form is required to enable the U.S. Environmental Protection Agency to determine whether applicants and prospective recipients are developing projects, programs and activities on a nondiscriminatory basis as required by the above statutes.

Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission.

If any item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable".

In the event applicant is uncertain about how to answer certain questions, EPA program official should be contacted for clarification.

EPA FORM 4700-4 (Rev. 1/90) Reverse

ITEMS

- I.A. "Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance.
- I.B. "Recipient" means any entity, other than applicant, which will actually receive EPA assistance.
- I.C. Self-explanatory.
- II. Self-explanatory.
- III. "Civil rights lawsuits" means any lawsuit or complaint alleging discrimination on the basis of race, color, national origin, sex, age or handicap pending against the applicant and/or entity which actually benefits from this grant. For example, if a city is the named applicant but the grant will actually benefit the Department of Sewage, civil rights lawsuits involving both the city and the Department of Sewage should be listed.
- IV. "Civil rights compliance review" means any review assessing the applicant's and/or recipient's compliance with laws prohibiting discrimination on the basis of race, color, national origin, sex, age or handicap. If any part of the review covered the entity which will actually benefit from the grant, it should be listed.
- V. Self-explanatory.
- VI. The word "community" refers to the area under the applicant's and/or recipients jurisdiction. The "community" might be a university or laboratory campus, or a community within a large city. If there is a significant disparity between minority and nonminority populations to receive service, not otherwise satisfactorily explained, the Regional office may require a map which indicates the minority and nonminority population served by this project, program or activity.
- VII. This information is required so that reviewers may determine if a disparity in the proposed provision of services will exist in the event the application is approved for funding. Give population of recipient's jurisdiction, broken out by categories as specified.
- In the event the applicant cannot provide the requested information because the funds will be distributed over a wide demographic area which is yet to be determined, an explanation may be provided on a separate sheet. For example, State applying for a capitalization grant under the State Revolving Fund program may not know which cities and counties will apply for and receive, SRF loans.
- VIII. Self-explanatory.
- IX. "Jurisdiction" means the geographic area over which applicant has the authority to provide service.
- X. Self-explanatory.

"Burden Disclosure Statement"

EPA estimates public reporting burden for the preparation of this form to average 30 minutes per response. This estimate includes the time for reviewing instructions, gathering and maintaining the data needed and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

# SPECIFICATION CERTIFICATION

## Section I – Instructions

This form must be signed by all Borrowers that receive PENNVEST Financial Assistance. This form must be submitted to the appropriate DEP Regional Office prior to advertising for bids. A list of Regional DEP addresses is provided with this form.

## Section II – Certification

Project Name: \_\_\_\_\_

County: \_\_\_\_\_

We certify that, in regard to the specifications for the above named project:

1. For products, materials, or equipment that require standard performance criteria and are not unique or special, two manufacturers/suppliers of comparable quality or utility (if available) have been named, followed by the words "or equal".
2. Sole source specifications have only been used when:
  - Only one item will meet the required performance requirements.
  - An item is patented and no known substitute will meet the requirement.
  - Compatibility with existing equipment is required due to operation and maintenance considerations.
  - Physical restrictions of the site dictate the use of a certain item.
3. The Base Bid with Add/Deduct Alternates format has only been used where a process or special product was specified for which there may not be a true "or equal". Alternates are either named in the specification or must be identified by the Bidder prior to bid award. Redesign costs associated with the alternate are the Bidder's responsibility. Alternates may cost more or less than the Base Bid, as determined by the bidding process, and **bid alternates will be considered prior to contract award.**

\_\_\_\_\_  
Name of the Borrower's  
Authorized Representative

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name of Professional Engineer

\_\_\_\_\_  
Firm represented

P.E. Stamp

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Date: February 5, 2002

### PENNVEST "Or Equal" Condition

*Borrower agrees that no specifications for bids in connection with any project financed by PENNVEST (Authority) shall be written in such a manner as to contain proprietary, exclusionary, or discriminatory requirements other than those based upon performance, unless such requirements are necessary to satisfy physical restrictions of the site or to provide for necessary interchangeability of parts and equipment. When brand or trade names appear in specifications, Borrower shall include two manufacturers/suppliers of comparable quality or utility (if available) followed by the words "or equal".*

### PENNVEST "Or Equal" Condition Guidance

#### Background:

Project specifications shall, to the extent practicable, provide for maximum use of products, materials, and equipment that are readily available through competitive procurement, or through standard or proven production techniques, methods, and processes.

The "or equal" condition and the Specification Certification (copy attached) have been adopted by PENNVEST to promote competitive bidding. All Borrowers are required to take the appropriate actions necessary to develop nonrestrictive specifications and avoid sole-source restrictions. This Condition requires Borrowers to certify that bid specifications will allow "or equal" products except in special circumstances. It is the Borrower's responsibility to ensure that bid specifications meet the intent of this condition. The Specification Certification is to be provided to the Department of Environmental Protection (DEP) prior to advertising for bids.

#### When the "or equal" clause applies:

The "or equal" clause should be used in all cases where the product, material, or equipment is specified using brand or trade names. In these cases, the specified item requires standard performance criteria, can be supplied by more than one manufacturer and is not unique or special. Examples of such items are conventional pumping, filtering, screening and grit removal equipment, clarifiers and belt presses.



When the "or equal" clause does not apply:

The "or equal" clause may be omitted when unique or special circumstances are involved such as:

1. Sole Source Specifications

Sole source products, materials, or equipment are specified from a single manufacturer for such reasons as:

- a. Only known item that will meet the required performance requirements.
- b. The item is patented and no known substitute will meet the requirement.
- c. Compatibility with existing equipment is required due to operation and maintenance reasons such as: the operation of other existing equipment/systems requires this item, the interchangeability of spare parts, or the need for uniform maintenance and uniform performance.
- d. Physical restrictions such as dimensional limitations for installation in existing facilities.

2. Process or Special Product Specifications

The "or equal" clause may be omitted for projects where a process or special product is being specified for which there may not be a true "or equal" in terms of type or system components. There may be alternate processes or products that meet the performance requirements but they utilize different components to achieve the required result. In these cases, Base Bid with Add/Deduct Alternates may be used. The Base Bid is the specified and named process or special product around which the design has been prepared. The Alternate manufacturer(s) may be named or unnamed in the bid specifications. If unnamed, the bidder shall be required to name the manufacturer prior to award. The Alternate may require some degree of redesign from that shown for the Base Bid process or product to fit the project conditions. The redesign is the responsibility of the Bidder and occurs after contract award. The Alternate(s) may cost more or less than the Base Bid and the difference (add or deduct) is determined by the bidding process.

**BID ALTERNATES MUST BE CONSIDERED PRIOR TO CONTRACT AWARD.**

**NOTE: ANY BASE BID FORMAT OF SOLICITATION FOR PRODUCTS, MATERIALS, OR EQUIPMENT THAT REQUIRES ALTERNATES TO BE DEDUCTS ONLY DOES NOT CONFORM TO THE PENNVEST "OR EQUAL" CONDITION AND SHALL NOT BE USED.**

Justification required when the "or equal" clause is not used:

For any item where a brand or trade name(s) is specified without the "or equal" clause, the Borrower must be prepared to provide written justification, if requested. This justification must clearly explain the circumstances that led to the necessity for a non-competitive procurement. It must also include a full cost review. **NOTE: It remains the Borrower's responsibility to defend the specifications and bidding format against any protests that may arise during the bidding process.**

Consequence of non-compliance with "or equal" condition:

PENNVEST will not participate in the funding of any product, material, or equipment which is not procured in accordance with this guidance.

Contract Awards

In awarding the project, the Borrower reserves the right to reject any and all bids, to waive any and all informalities, and the right to disregard all nonconforming, non-responsive or conditional bids. PENNVEST and DEP assume no liability regarding the award of contract, or the quality or performance of equipment. The Borrower should award to the lowest responsible bidder whose evaluation by Borrower indicates to the Borrower that the award will be in the best interests of the project.

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**MARKLEYSBURG BOROUGH  
PLANNING COMMENTS  
AND  
MUNICIPAL RESPONSES**

## Chad Stafford

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**From:** "Doug Friend" <dfriend@vitalink.ws>  
**To:** <chad1@hhs.net>; <todd1@hhs.net>  
**Sent:** Sunday, March 03, 2002 9:55 PM  
**Subject:** Markleysburg Borough Act 537 Sewage Facilities Plan comments...

Todd/Chad,

Here are a few comments and questions regarding the Act 537 plan. I just took time today to review the plan and apologize I didn't send this earlier. There is a meeting Monday night and I would like to see authorization for publishing then.

Todd, sorry I had to leave the meeting Friday. Could you reply with anything I may have missed? We were discussing the possibility of getting to a \$25 monthly user fee.

Thanks,  
Doug Friend

1. How much of Brown Hill Road is included in the Phase I and Phase II? There are about 8 homes that wouldn't appear to be gravity flow. Does any Phase include extending to the boro limits of Brown Hill Road, is a on-lot system considered for these residents or are they not included?
2. 2180lf of gravity sewer line along Mud Pike Road seems like a lot. Will this include the township residents on Mud Pike too and, if so, how does that affect Henry Clay Townships relations with this project?
3. Phase II includes 600lf along an unnamed township road. Where is this specifically?
4. Could I get a 8½ X 11 inch preliminary layout to better identify the lines?
5. Wouldn't it be wise to include the Phase III A or Phase III B in the preliminary cost projection numbers with the understanding that these may need yanked later if it causes the project to become too big and too expensive. If we would become entitled to 75% or 80% grant, it would be better to include this phase now which would mean our share would be about \$25,000 for this phase. Later we may be looking at a significantly lower or no grant for this phase.
6. Could we consider the possibility of running a main line in the field on the East side of 281. This could possible service the entire East side of 281, the Friendsville Road phase residents and possibly most of the west side of 281 and may possibly be done completely gravity flow??
7. How would other funding and grants affect Pennvest funds. Should we wait to solicit other funds? It appears we would want to run as much as possible through Pennvest to take advantage of their percentage grant. If we would later receive funds or grant from a different source, is it possible to use it to pay down the Pennvest loan?
8. The Act 530 plan calls for the creation of a Municipal Wastewater Authority. If Henry Clay Township is not involved, is it possible for the Borough Council to perform these duties and not create the authority?
9. The plan include several references to Linda Cuppett as Borough secretary. Linda has not been secretary for over 10 years. The current secretary is Sherry Wolfe.
10. Possible calculation errors on project cost breakdown?? Clearing & grubbing – Phase III B should be 1.5 acres instead of 15. Contingencies for Phase III B is more than 10%? Henry Clay Twp SR0281 highway boarings – Phase II should be \$3600 instead of \$360.
11. Is it typical for us to pay for Plant dispaning and closing?? \$50,000 sounds high.
12. Can you provide an updated Financing Scenario, 75% grant, 1% over 30 years with the adjustments mentioned at Friday's meeting. (smaller plant/less gpd/no reserve)
13. Barb McMillen mentioned a vacuum system. What is the difference in a vacuum system and a pumped system or are they the same?
14. If we authorize advertising Monday night and get it in the paper this week, will time permit us to have everything ready for Penvest's July meeting?

## ENGINEERING REPLY TO MARKLEYSBURG BOROUGH RESPONSE

### Engineering Reply to Markleysburg Borough Response

The following data responses are included to address the March 3, 2002 electronic mail received from Doug Friend (acting as Markleysburg Borough Council Representative). The numbers correspond as answers to Mr. Friend's comments.

1. The Phase I Development area includes 105 potential gravity flow users only. Non-gravity residence we felt were cost prohibitive in expanding service due to potential electrical, maintenance and force main costs that would have to be distributed to the gravity users. Non-gravity users are addressed in future phases dependent upon fundings and needs.
2. See the report mapping figures 10 and 11. The 2810 linear feet (not 2,180 l.f.) includes not only Mud Pike Road but the entire municipal road system that can be serviced by gravity. Quantities have been derived from accurate aerial surveys. 800 linear feet additional is along State Route 281 in the Borough. Henry Clay Township residents are feasibly included in Phase I of Markleysburg's Extension to Henry Clay Township.
3. See the report mapping figure 10.
4. See the report mapping figures 10 and 11.
5. We have provided additional "Markleysburg Borough Financing Scenario - Phase I, Phase II and Phase IIIA (75% option 20 years)". This scenario would account for a public system to include the 105 gravity users along with the six non-gravity users and appurtenances. As you can see, the six non-gravity users would increase the monthly debt service repayment for the 105 gravity users by an amount of \$1.61. We do not feel this is fair to these residents or feasible.
6. See the report mapping figure 10. We have analyzed the best locations to service the most parties. The elevations established during final design will govern final users and until that is designed we can not guarantee final location. We will take your suggestion under advisement, though. Thank you.
7. You may solicit and should consider obtaining other funds as soon as possible. More monies will make the project more favorable. Your other funds could be used towards the PennVEST funding repayment. Please check specifics with Larry Gasparato.
8. Yes it is possible, but the best interest of having an appointed authority board is suggested. Residents may feel that either borough decisions and/or sewage decisions are dependent upon one another with exactly the same persons involved. This is your decision.
9. We have used Linda Cuppett since Mr. Black (PADEP) had made response to her. We will update.
10. We have adjusted calculation mistyped as appropriate.
11. There is an estimate of \$50,000.00 for plant disbanding and closing. This includes estimated administrative, sludge and liquids removals, testings, etc. This is a reasonable estimate without knowing the daily operations, removals, administrative costs, agreements, etc.
12. See the last financing scenario. We have updated the report completely.

- 
13. The vacuum system is a type of force system where a "lifting system" lifts sewage to a specific design elevation and then is forced to a design location.
  14. You can advertise as soon as possible, but you can not adopt for at least sixty days. You can adopt around May 15, 2002. You should make the PennVEST July meeting but this may be dependent upon the county and township's responses.

**Todd Radolec**

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**From:** Doug Friend [dfriend@vitalink.us]  
**Sent:** Monday, July 01, 2002 11:05 AM  
**To:** chad1@hhs.net; Todd Radolec  
**Cc:** Lori Frazee  
**Subject:** Markleysburg Borough Act 537 notes/corrections

Chad/Todd,

Brian and I have been reviewing the Act 537 plan and have a few items we would like addressed prior to adoption. We were hoping to adopt the plan tonight. Please reply at your earliest convenience regarding these items.

- 1) The Phase I plant cost increased from 700,000 on the original draft to 900,000 on the final plan. What specifically is different to cause this increase (Page 39).
- 2) The Phase IIIB total cost appears to be miss-calculated. It is \$30,000 short. The Construction cost amount is listed as \$64,475 and should have been \$94,475 (Page 40).
- 3) The 'Sewer System Layout' map (unmarked) defines various project phases but does not correspond with any of the phases described in the financing options (map and Page 41).
- 4) Your reply to questions 2, 3, 4, & 6 of my previous email indicate to reference figure 10 and/or 11. I cannot find anything marked 'figure 10' or 'figure 11' nor can I identify any maps or figures that address these questions.
- 5) The provided plan resolutions continue to include Linda Cuppett as secretary and some specifically include reference to 'Wharton'? Obviously, we could correct and create our own resolution, using yours as a template, but thought it should be accurate in the plan. (page 7 & 32)

We are currently reviewing financing numbers and will let you know if we find anything else.

Thanks,  
Doug Friend  
Brian Frazee

**Todd Radolec**

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**From:** Doug Friend [dfriend@vitalink.us]  
**Sent:** Monday, July 01, 2002 12:59 PM  
**To:** chad1@hhs.net; Todd Radolec  
**Subject:** Additional Comments regarding Markleysburg Borough Act 537.

Chad/Todd,

Additional comments regarding the Act 537 Financing options.

- 1) How come in the RUS scenario the O&M is lower with option 1A vs. I while all other scenarios the O&M is the same? Why would the O&M be different based upon the financing?
- 2) Financing Option RUS Phase IA, II & IV Service Option 3 the grant should be 763,520 not 764,520. This affects the other calculations as well.
- 3) PennVEST Phase IA and II Service Option 1 does not add up correctly (debt \$15.40 + O&M \$22.23 = \$37.63) not \$35.52.
- 4) It appears that you calculated several PennVEST scenarios at 0.1% instead of 1.0%, both 20 & 30 year, Service Options 2, 3, 4 & 5.

Please contact either me or Brian at 724-329-1516 at your earliest convenience to discuss these issues and how they affect our ability to adopt this plan. We would like to have information for tonight's meeting. Let me know if either of you will be there.

Thanks,  
Doug Friend  
Brian Frazee



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In Response to E-mail July 1 2002 12:59PM

1. 1A is a smaller plant, thus the O&M is less.
2. This will have to be changed
3. This will have to be changed.
4. 0.1% would give debt service repayments around \$4000.00  
Please Check.

In Response to E-mail July 1 2002 11:05AM

1. Estimated cost increase reflects the flow increase with Add'l study areas.
2. Correct on Sheet 39, Secretary did not carry over for page 40. No Financing Scenarios include this phase.
3. The phases are depicted as described in Section IV. Alt Evaluation.  
Revise to be consistent with financing scenarios.
4. See "Sewer System Layout" mapping Fig. 10
5. You and your solicitor must create Figure I and II. We inserted these as examples for your use.

MARKLEYSBURG BOROUGH  
SEWAGE MEETING  
APRIL 29, 2002

Markleysburg Borough Council met with the Public to discuss the proposed sewage project.

**MEMBER OF COUNCIL PRESENT:** Pres. Lori Frazee, Brian Frazee, Jeff Frazee, Darren Hersom, Bill Knight, Donna Welch, Mayor-- Doug Friend.

**Also in Attendance:** Solicitor Jack Purcell, Chad from McMillen Engineering.

**The following Residents of Markleysburg were also in attendance:**

Lisa Rishel, Bobbi Rishel, Craig Turner, Beverly J. Turner, Shiela Herring, Walter S. Glover, Shirley Wilson, Linda Teets, Paul VanSickel, Dick Dennis, Janet & William Mardis, Chris Martin, Brad & Linda Danjou, Flora Humbert, Ron Bird, Blaine & Dolores Cuppett, Charles E. Glover, Ward W. Umbel, Pearl M. Fike, Ray M. Fike, Bill Wilson, Amber Daughdrill, Clyde Humberston.

President Lori Frazee opened the meeting. Introduced all of the Counsel members and the Jack Purcell - Solicitor and also Chad - McMillen Engineering. President Lori Frazee gave a brief outline of what the Council members wanted to present to the public and the reasons for the meeting, then she turned the meeting over to Chad from McMillen Engineering.

Chad addressed the residents of the borough and introduced Act 537 Sewage Facilities Plan. He explained the procedures on how the determination too what plan was the best feasible manner for 80 - 90% of the Borough and for a small percent of Henry Clay Township. He also explained where the best place for the sewage plant would be for a gravity system. Two pumping stations would be needed to service Maryland Road and Brownhill. Two more pumping stations would be placed in the Henry Clay Twp., which would service Mud Pike, Marclay School, and Ringer Trucking. Chad explained that Public Comments are to be placed to the Council in written form so that McMillen can address any concern that the resident has properly.

McMillen recommends that the Borough adopt this plan for 105 gravity users. Borough will get 75% funding. He then explained all the options and the cost to the residents at the meeting.

Mayor Doug Friend requested that Chad have a study to be done for the Brownhill - Friendsville Road thru possibly a gravity not pumping.

Council would have to get a double right away too private property owners.

Resident Ron Bird wanted to know how far up 281 toward W.V. would the lines go?

McMillen: Just to the Personnel Care Home.

Chad informed the residents that Commercial usage would be different from Resident usage. Monitors will be set up. Once a residence gets above a certain amount the price will be higher. This is based upon a 350 gallon per day. Borough Residents will pay a \$350.00 tap in fee. Monthly bill will be around \$30.85, with \$.10 per gallon when you use above the 350 gallon allotted a day.

Public Comment:

Why wasn't Brownhill added to the system?

McMillen: Because the cost was too much for the amount of users. There will be a pumping station for the eight residences beyond the gravity flow on Brownhill Road, but that is as far as the lines will go.

Public Comment:

Was Braddock Road considered in this project?

McMillen: Again the cost would be too much to include them at this time.

Chad explained that the residents would have to take care of the cost from the main line to their house. Tap in fee does not include connecting to the house. If you live beyond 150 ft from the line for you to connect would be optional. You must be within 150ft., whether or not this is mandatory is based upon gravity flow and location of residents. If you live within the area of the project it will be mandatory. Pumping stations will not be at the residents cost if the line is not low enough to get gravity flow. This plant will be based upon a 30-year plan. Lines will be on public right of way.

Council has not ruled out Friendsville Road for Borough Residents as of yet.

Resident Chris Martin: Would you tap into own sewage line or a new one?

McMillen: Suggests that a new line to your house be place and that you pump out your old septic but you do not have too.

Chad also explained that no down spouts would be connected to this system. Washing machines and sink water will have to go into system and also the basement drains. Council will have to enact these rules. The lines will cross over the road to the other side of the street to connect to the houses and this has already been added to the proposed cost.

There are also programs that will pick up cost for the elderly that can't afford this.

A vote was taken of the residents to see how many at this meeting was interested in city sewage:

Three residents were opposed to the sewage.

Majority at this meeting was in favor of the sewage.

Mayor Doug Friend informed the resident briefly on how the water project was coming along. Doug explained that we should receive water within the next 2 years. Next spring will start phase one. The water will not be mandatory. Tap in fee will be doubled if you do not tap in. Residents tap in fee is \$1000.00 per house.

Resident Chris Martin: Why is water higher?

Water Authority Dick Dennis: The water is only getting a 25% funding.

Fire Plugs would be installed with the water.

Resident Craig Turner: Wanted to know if Council was going to go ahead with the sewage project.

Council member Brian Frazee: With the vote that was taken tonight it showed that the residents are in favor of the sewage.

Council member Darren Hersom: Informed residents that the trees in the area were in need of being trimmed and if residents did not want them to trim them then the residents need to take care of trimming their own trees so there wouldn't be any problems.

President Lori Frazee Adjourned the Meeting.

## **MARKLEYSBURG BOROUGH Sanitary Sewer Project- Act 537 Summary**

Markleysburg Borough Council has instructed McMillen Engineering, Inc. to proceed with the study and reporting of the feasibility to service the Borough with public sanitary sewage services.

On file at the Markleysburg Borough administrative office is the intended copy of the Act 537 Sewage Facilities Plan to be adopted by the Borough Council. The residents of Markleysburg Borough should make arrangements to review the document prior to adoption.

The study analyzes the feasibility of the Borough to design, construct, and implement a public sewage system for the majority of the municipality. The chosen alternative (as discussed in the Plan) is to construct a 75,000 gpd wastewater treatment plant that would service those gravity areas along State Route 281, Church Street, and Mud Pike Road along with the first eight homes located along Brown Hill Road that could be serviced by a supplemental sewage pumping system. Additionally, the immediate neighboring area of Henry Clay Township along State Route 281 and Mud Pike Road are intended to be included in the initial project.

Intended funding is through PennVEST and the user fee for those 154 intended users would be \$30.85 per month, as estimated in the Plan. Tapping to the facilities shall be mandatory and residential tap-in fees are estimated at \$350.00 per home.

**A public meeting is scheduled for April 29, 2002 at 7 PM at the Markleysburg Borough building for plan review and public comment. Please consider attending as this will impact the Borough in whole.**

Council Members for Markleysburg Borough include:  
Lori Frazee, Darren Hersom, Bill Knight, Sr., Jeff Frazee, Donna Welch,  
Brian Frazee, Wesley Dennis      Mayor: Doug Friend

SIGN - IN SHEET

Date: 4-29-02

NAME:

REASON ATTENDING:

1. BRAD & LINDA DANJOU

SEWAGE MEETING

2. Flora Humbert

Sewage Meeting

3. Don Reid

Sewage Meeting

4. Blaine & Dalores Cuppett

Sewage Meeting

5. Charles E. Glover

Sewage Meeting

6. Ward W. Umbel

Sewage Meeting

7. Pearl M. Hild

Sewage Meeting

8. Lynn Fike

Sewage Meeting

9. Bill Wilson

" "

10. Amber DAUGHDRILL

Sewage meeting

11. Clyde Humberston

TO LEARN

12.

13.

**SIGN - IN SHEET**

Date: 4-29-02

**NAME:**

**REASON ATTENDING:**

1. LISA Rishel

SEWAGE meeting

2. Bobbi Rishel

Sewage Meeting

3. Craig Turner

Sewage Meetings

4. Beverly J. Dumas

Sewage Concern

5. Shida Herring  
Sawtooth Nursing Center

Sewage Concern

6. Bill Knight

Gathering Sewage Information

7. Walter S. Glover

8. Shirley Wilson

sewage meeting

9. Linda Teets

sewage meeting

10. Paul Van Sickle

sewage meeting

11. Dick Dennis

sewage info

12. Janet & William Mardis

sewage info

13. Chris Martin

SEWAGE INFO

**Markleysburg Borough**  
Proposed Sewage Project Meeting  
April 29, 2002, 7:00pm

Welcome

Introductions

President's Comments

Project Overview by McMillen Engineering

Public Comments & Questions

**NOTES:**

Yes  
Now  
I want  
it  
Lynn Teets



Ari,

In regards to Markleysburg  
Boro. sewage, My husband wants to be  
connected to it from our house.

We need to talk again to see who needs  
to do what to receive sewage. Please let  
us know.

Thankya,

Lisa & Bob Traskel

5-13-02

724-329-4654

ROBERT D. RISHEL  
PO BOX 187  
MARKLEYSBURG, PA 15459



Lori Frayer  
P.O. Box #  
Markleysburg, Pa 15459



*South Fayette  
Nursing Center*

P.O. Box 298  
252 Main Street  
Markleysburg, PA 15459  
(724) 329-4830

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April 30, 2002

Lori Frazee  
Markleysburg Borough Council  
P.O. Box 25  
Markleysburg, PA 15459

RE: Sanitary Sewer Project

Dear Ms. Frazee:

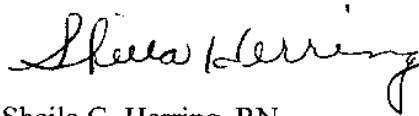
Please be advised that South Fayette Nursing Center is in favor of the Markleysburg Borough Sanitary Sewer Project.

I would like to clarify information that would be relevant to this project

South Fayette Nursing Center is a 77 bed licensed nursing facility. Our water system is maintained in accordance as a public water system where usage is metered. The average water usage per day is 3,000 gallons. I hope this information will be useful.

If I can be of further assistance, please don't hesitate to let me know. My telephone number is 724-329-4830.

Sincerely,



Sheila G. Herring, RN  
Administrator

SGH: jdr

*South Fayette Nursing Center*

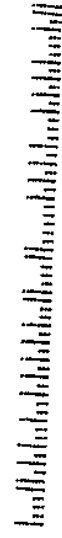
P.O. Box 298  
Markleysburg, PA 15459



WOLKSWAGEN PEDAL PITCHER 152 04-30702 20 43 155 6

Lori Frazee  
Markleysburg Borough Council  
P.O. Box 25  
Markleysburg, PA 15459

15459+0025 01



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**HENRY CLAY TOWNSHIP  
PLANNING COMMENTS**

**And**

**MUNICIPAL RESPONSES**

Henry Clay Township  
156 Martin Road  
Markleysburg, Pa 15459  
Phone 724-329-4733

Council of Markleysburg Borough  
P.O. Box 25  
Markleysburg, Pa 15459

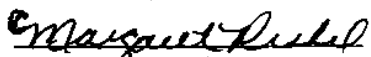
June 5, 2002

Dear Council Members,

On June 3, 2002 at the regular scheduled meeting of the Henry Clay Township Board of Supervisors they discussed the possibility of joining Markleysburg Borough sewage project, prior to this a survey was taken, after reviewing the results of the survey the Board of Supervisors decided not to join in on the Markleysburg Borough Act 537 Sewage Project.

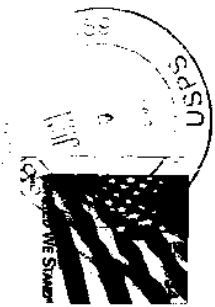
If you have any questions please feel free to call the township office.

Sincerely,

  
Margaret Rishel,  
Secretary



Henry Clay Township  
156 Martin Road  
Markleysburg, Pa 15459



Public Survey on Sewage for Henry Clay Township Residents

The Councilmen of the Borough of Markleysburg have prepared Act 537 (Sewage Facilities Plan) which provides public sewage facilities in Markleysburg Borough, also DEP is requesting that Henry Clay Township does a joint project with the Borough of Markleysburg involving sections of the township, which has been identified as TR#311, Bruceton Road (from route 40 going south on route 281 to the borough line, a small section on Mudd Pike, another small section along Glass Road).

The Act 537 is intended to service those areas along and surrounding State Route 281 in Markleysburg, TR#311 & TR#357 in Henry Clay Township. The project includes the intent to design, finance and construct a sewage treatment plant, collection and conveyance system for sanitary sewage flows. An anticipated user fee of \$30.85 is calculated from the study data. McMillen Engineering (preparer of the study) has made recommendation to construct a sewage treatment plant along an unnamed tributary to Pinkham Run and initial service is intended to service approximately 154 users in both Markleysburg Borough and Henry Clay Township.

The plan is available at the office of Markleysburg Borough and Henry Clay Township for review and all comments must be in written form to either Markleysburg Borough or Henry Clay Township. Additional arrangements can be made with Lori Frazee to review the documents by calling 724-329-0350.

Please answer the following questions:

- 1). What is your name and address? Richard Workman  
305/307 Bruceton Rd. Markleysburg
- 2). Is your sewage system in working order? Yes
- 3). Would you like to have public sewage? NO!
- 4). If you don't want public sewage, why? No need / increased cost /  
property value decline  
w/ proximity of sewage  
treatment plant.



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Please answer the following questions:

- 1). What is your name and address? David E. Jenkins  
253 Bruceston Rd. Markleysburg, Pa.
- 2). Is your sewage system in working order? Yes
- 3). Would you like to have public sewage? Undecided ?
- 4). If you don't want public sewage, why? \_\_\_\_\_

Dave, Sorry I missed you, but  
Would you please sign your name &  
answer these questions & mail back to

Henry Clay Twsp  
156 Martin Road  
Markleysburg, Pa 15459

Thank you  
Mary

Public Survey on Sewage for Henry Clay Township Residents

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Please answer the following questions:

1). What is your name and address?



2). Is your sewage system in working order?

yes

3). Would you like to have public sewage?

NO

4). If you don't want public sewage, why?

Can't afford it

Public Survey on Sewage for Henry Clay Township Residents

The Councilmen of the Borough of Markleysburg have prepared Act 537 (Sewage Facilities Plan) which provides public sewage facilities in Markleysburg Borough, also DEP is requesting that Henry Clay Township does a joint project with the Borough of Markleysburg involving sections of the township, which has been identified as TR#311, Bruceton Road (from route 40 going south on route 281 to the borough line, a small section on Mudd Pike, another small section along Glass Road).

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Please answer the following questions:

1). What is your name and address?

Paul Jenkins  
240 Bruceton Rd.

2). Is your sewage system in working order?

yes

3). Would you like to have public sewage?

No

4). If you don't want public sewage, why?

Can't afford it

Public Survey on Sewage for Henry Clay Township Residents

The Councilmen of the Borough of Markleysburg have prepared Act 537 (Sewage Facilities Plan) which provides public sewage facilities in Markleysburg Borough, also DEP is requesting that Henry Clay Township does a joint project with the Borough of Markleysburg involving sections of the township, which has been identified as TR#311, Bruceton Road (from route 40 going south on route 281 to the borough line, a small section on Mudd Pike, another small section along Glass Road).

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Please answer the following questions:

- 1). What is your name and address? Leticia Turner
- 2). Is your sewage system in working order? yes
- 3). Would you like to have public sewage? no
- 4). If you don't want public sewage, why? mine is working fine

Public Survey on Sewage for Henry Clay Township Residents

The Councilmen of the Borough of Markleysburg have prepared Act 537 (Sewage Facilities Plan) which provides public sewage facilities in Markleysburg Borough, also DEP is requesting that Henry Clay Township does a joint project with the Borough of Markleysburg involving sections of the township, which has been identified as TR#311, Bruceton Road (from route 40 going south on route 281 to the borough line, a small section on Mudd Pike, another small section along Glass Road).

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Please answer the following questions:

- 1). What is your name and address? John BRANSON  
241 BRUCETON Road MARKLEYSBURG PA. 15459
- 2). Is your sewage system in working order? YES
- 3). Would you like to have public sewage? YES
- 4). If you don't want public sewage, why? \_\_\_\_\_

Henry Clay Twp.  
156 Martin Rd  
Markleysburg, Pa  
15459

Public Survey on Sewage for Henry Clay Township Residents

The Councilmen of the Borough of Markleysburg have prepared Act 537 (Sewage Facilities Plan) which provides public sewage facilities in Markleysburg Borough, also DEP is requesting that Henry Clay Township does a joint project with the Borough of Markleysburg involving sections of the township, which has been identified as TR#311, Bruceton Road (from route 40 going south on route 281 to the borough line, a small section on Mudd Pike, another small section along Glass Road).

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Please answer the following question:



Junior S. Coneway  
233 Bruceton Rd  
Markleysburg, PA 15459-1191

*Junior S. Coneway*

- 1). What is your name and address? \_\_\_\_\_
- 2). Is your sewage system in working order? Yes
- 3). Would you like to have public sewage? yes
- 4). If you don't want public sewage, why? \_\_\_\_\_

Public Survey on Sewage for Henry Clay Township Residents

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Please answer the following questions:

- 1). What is your name and address? Calvin Jenkins  
229 Bruceston Rd Markleysburg, PA 15459
- 2). Is your sewage system in working order? Yes
- 3). Would you like to have public sewage? Yes
- 4). If you don't want public sewage, why? \_\_\_\_\_

Public Survey on Sewage for Henry Clay Township Residents

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Please answer the following questions:

- 1). What is your name and address? Randy & Dona Jo Show  
278 Bruceton Rd, Markleysburg PA 15459
- 2). Is your sewage system in working order? yes
- 3). Would you like to have public sewage? yes
- 4). If you don't want public sewage, why? \_\_\_\_\_

Henry Clay Twp.  
156 Martin Rd  
Markleysburg, Pa 15459



Public Survey on Sewage for Henry Clay Township Residents

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Please answer the following questions:

- 1). What is your name and address? ROBERT A. MYERS
- 2). Is your sewage system in working order? YES
- 3). Would you like to have public sewage? YES
- 4). If you don't want public sewage, why? N/A

Public Survey on Sewage for Henry Clay Township Residents

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Please answer the following questions:

- 1). What is your name and address? Carl Pellegrin 250 Bruceton Rd
- 2). Is your sewage system in working order? yes
- 3). Would you like to have public sewage? yes
- 4). If you don't want public sewage, why? \_\_\_\_\_

Public Survey on Sewage for Henry Clay Township Residents

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Please answer the following questions:

- 1). What is your name and address? STEVEN A + MARY ANNE MOREAU  
262 AND 270 BRUCETON RD., MARKLEYSBURG, PA, 15459
- 2). Is your sewage system in working order? YES
- 3). Would you like to have public sewage? WOULD SERIOUSLY CONSIDER IT.
- 4). If you don't want public sewage, why? \_\_\_\_\_

Mr & Mrs Moreau,

Sorry I missed you, but would you please sign your name & answer these questions & mail back to:

Henry Clay Twp  
156 Martin Rd  
Markleysburg, Pa  
15459

Thank you  
Margi

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**ALL PUBLIC  
COMMENTS AND RESPONSES**

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)

**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.

Article Addressed to:  
 Kurt Carr  
 OHMC  
 Div. of Archaeology & Protection  
 Box 1026  
 Harrisburg, PA  
 17108-1026

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) \_\_\_\_\_ B. Date of Delivery JAN 09 2002

C. Signature [Signature]  Agent  Addressee

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below: \_\_\_\_\_

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

2. Article Number (Copy from service label) 7099 3400 0016 0609 1331  
 PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

2. Article Number (Copy from service label) 0119A 1324

1. Article Addressed to:  
 Anthony S. Ross  
 PA Game Commission  
 2001 Elmerton Ave  
 Harrisburg, PA 17110-9999

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

A. Received by (Please Print Clearly) \_\_\_\_\_ B. Date of Delivery \_\_\_\_\_

C. Signature [Signature]  Agent  Addressee

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below: \_\_\_\_\_

**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.

Article Addressed to:  
 Andrew Shiels  
 PA Fish & Boat Commission  
 750 Robinson Lane  
 Bellefonte, PA 16823-9620

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) Julie Miller B. Date of 1-7

C. Signature [Signature]  Ag  Ad  Yes  No

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below: \_\_\_\_\_

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Mer  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

Article Number (Copy from service label) 7099 3400 0016 0609 1348  
 PS Form 3811, July 1999 Domestic Return Receipt 102595

2. Article Number (Copy from service label) 0119A 1317

1. Article Addressed to:  
 Earne Harris  
 Dept. Conservation & Natural Resources  
 Bureau of Forestry  
 P.O. Box 8552  
 Harrisburg, PA 17105-8552

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

A. Received by (Please Print Clearly) \_\_\_\_\_ B. Date of Delivery JAN 07 2002

C. Signature [Signature]  Agent  Addressee

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below: \_\_\_\_\_

**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.

Article Addressed to:  
 Marilyn Dugan  
 Fayette County Conservation Dist  
 10 Nickman Plaza  
 Mont Fnce, PA 15456

**COMPLETE THIS SECTION ON DELIVER**

A. Received by (Please Print Clearly) \_\_\_\_\_ B. \_\_\_\_\_

C. Signature [Signature]  Agent  Addressee

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below: \_\_\_\_\_

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

Article Number (Copy from service label) 099 3400 0016 0609 1355  
 PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

2. Article Number (Copy from service label) 0119A 1317

1. Article Addressed to:  
 Earne Harris  
 Dept. Conservation & Natural Resources  
 Bureau of Forestry  
 P.O. Box 8552  
 Harrisburg, PA 17105-8552

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

# MCMILLEN ENGINEERING

## CIVIL ENGINEERS

P.O. Box 363 • Hopwood Center • Hopwood • Pa • 15445  
Phone: (724) 439-8110 Fax: (724) 439-4733

January 3, 2002

Marilyn Dugan  
Fayette County Conservation District  
10 Nickman Plaza  
Lemont Furnace, PA 15456

RE: Markleysburg Borough  
Act 537 Sewage Plan Update

Dear Ms. Dugan:

Markleysburg Borough is in the process of performing an environmental review pursuant to the National Environmental Policy Act for the USDA, Rural Utilities Service and an Act 537 Sewage Plan Update in order that it may assess the environmental impacts of the sewage service project in Fayette County, Pennsylvania. The project is being proposed to provide public sewage to the residents of Markleysburg Borough and potentially Henry Clay Township, Fayette County, Pennsylvania. Enclosed are a project narrative, service area map, and USGS location map that depict the proposed project's construction activities and describe the work involved.

Markleysburg Borough requests that your office review the proposed project for any state and federally listed, threatened and endangered species and any other important state natural resources that may occur in the project area through your PNDI database. Please provide any recommendations you may have to mitigate or avoid these impacts (if any).

We are also requesting information on the possible effects of the proposed project on important farm land and prime range land and any recommendations you have to minimize or avoid these effects. We also seek your assessment of the compatibility of the proposed project with state and local government or any private programs and policies to protect important farm land.

Please call if you have any questions.

Sincerely,  
MCMILLEN ENGINEERING INC.



Chad Stafford, E.I.T.

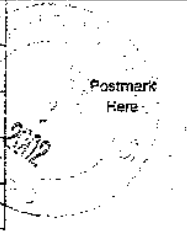
cc: file ✓

7099 3400 0016 0409 9700 00HE 6602

U.S. Postal Service  
**CERTIFIED MAIL RECEIPT**  
(Domestic Mail Only - No Insurance Coverage Provided)

\_\_\_\_\_

Postage	\$ .80
Certified Fee	2.10
Return Receipt Fee (Endorsement Required)	1.50
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$ 4.40</b>



Recipient's Name (Please Print Clearly) (to be completed by addressee)  
 Marilyn Dugan, Fayette Cons Dist  
 Street, Apt. No., or PO Box No.  
 10 Nickman Plaza  
 City, State, ZIP-4  
 Lemsnt, France PA 15456



COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 BUREAU OF WATER QUALITY PROTECTION  
 BUREAU OF WATERWAYS ENGINEERING

**FOR OFFICIAL USE ONLY**

PNDI Screening  
 Reviewer \_\_\_\_\_  
 Date \_\_\_\_\_  
 Phone No. \_\_\_\_\_

**SUPPLEMENT NO. 1**  
**PENNSYLVANIA NATURAL DIVERSITY INVENTORY SEARCH FORM**

This form provides site information necessary to perform a computer screening for species of special concern listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Pennsylvania Fish and Boat Code or the PA Game and Wildlife Code. Records regarding species of special concern are maintained by PA DCNR in a computer data base called the "Pennsylvania Natural Diversity Inventory" (PNDI). Results from this search are not intended to be a conclusive compilation of all potential special concern resources located within a proposed project site. On-site biological surveys may be recommended to provide a definitive statement on the presence or absence, or degree of natural integrity of any project site. Results of this PNDI search are valid for one year.

Please complete the information below, attach an 8½" x 11" photocopy (DO NOT REDUCE) of the portion of the U.S.G.S. Quadrangle Map that identifies the project location and outlines the approximate boundaries of the project and mail to the appropriate DEP regional office or delegated County Conservation District prior to completing a Chapter 105 environmental assessment or any other DEP permit application. (SEE REVERSE SIDE FOR LIST OF OFFICES AND ADDRESSES).

NAME: Markleysburg Borough

ADDRESS: c/o McMillen Engineering

PO Box 363

Hopwood, PA 15445

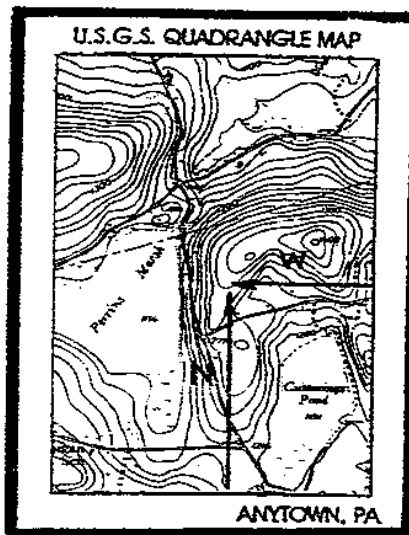
PHONE: ( 724 ) -4398110

COUNTY: Fayette

TWP./MUNICIPALITY: Henry Clay Township and Markleysburg Borough

U.S.G.S. 7½ Minute Quadrangle  
Friendsville, MD -PA-WV

PROJECT DESCRIPTION AND SIZE (Briefly describe entire area relevant to your project, including acreage.)  
Act 537 Sewage Plan Update and Public Sewage Service Installation, 4.1+/- acres (maximum)



North (Up) \_\_\_\_\_ 20.5 \_\_\_\_\_ inches

West (to the left) \_\_\_\_\_ 10.75 \_\_\_\_\_ inches  
 (Center)

INDICATE PROJECT LOCATION TO THE NEAREST ONE TENTH INCH MEASURING FROM THE EDGE OF THE MAP IMAGE FROM THE LOWER RIGHT CORNER.

**FOR OFFICIAL USE ONLY**

**SCREENING RESULTS** - Follow the directions of the checked block.

- No potential conflicts were encountered during the PNDI inquiry. Include this form and the PNDI receipt with your Chapter 105 environmental assessment or other DEP permit application submissions.
- Potential conflicts must be resolved by contacting the natural resource agencies listed on the PNDI receipt. Please provide a copy of this form and the PNDI receipt along with a brief description of your project to the listed agency for consultation and recommendations. Include this form, the printed PNDI search results and the natural resource agency's written recommendation with your Chapter 105 environmental assessment or other DEP permit application submissions.



Fax Transmission Cover Sheet

# FCCD

Fayette County Conservation District

10 Nickman Plaza

Lemont Furnace, PA 15456

Telephone: (724) 4384497

Fax: (724) 4372914

To: CHAD STAFFORD

Fax#: 724-439-4733

From: MARILYN DUGAN

Date: 1-9-02

RE: MARKLEYSBURG BORO - SEWAGE

Pages(including cover) \_\_\_\_\_



3630-PM-WQ0041 Rev. 7/2000



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF WATER QUALITY PROTECTION  
BUREAU OF WATERWAYS ENGINEERING

<b>FOR OFFICIAL USE ONLY</b>	
PNDI Screening	Reviewer <u>Fayette C.C.D.</u>
Reviewer	Date <u>Jan. 9 2002</u>
Date	Phone No. <u>724-435-4497</u>
Phone No.	

**SUPPLEMENT NO. 1  
PENNSYLVANIA NATURAL DIVERSITY INVENTORY SEARCH FORM**

This form provides site information necessary to perform a computer screening for species of special concern listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Pennsylvania Fish and Boat Code or the PA Game and Wildlife Code. Records regarding species of special concern are maintained by PA DCNR in a computer data base called the "Pennsylvania Natural Diversity Inventory" (PNDI). Results from this search are not intended to be a conclusive compilation of all potential special concern resources located within a proposed project site. On-site biological surveys may be recommended to provide a definitive statement on the presence or absence, or degree of natural integrity of any project site. Results of this PNDI search are valid for one year.

Please complete the information below, attach an 8 1/2" x 11" photocopy (DO NOT REDUCE) of the portion of the U.S.G.S. Quadrangle Map that identifies the project location and outlines the approximate boundaries of the project and mail to the appropriate DEP regional office or delegated County Conservation District prior to completing a Chapter 105 environmental assessment or any other DEP permit application. (SEE REVERSE SIDE FOR LIST OF OFFICES AND ADDRESSES).

NAME: Markleysburg Borough

ADDRESS: c/o McMillan Engineering

PO Box 363

Hopwood, PA 15445

PHONE: (724 ) -4398110

COUNTY: Fayette

TWP./MUNICIPALITY: Henry Clay Township and Markleysburg Borough

U.S.G.S. 7 1/2 Minute Quadrangle

Friendsville, MD -PA-WV

PROJECT DESCRIPTION AND SIZE (Briefly describe entire area relevant to your project, including acreage.)

Act 537 Sewage Plan Update and Public Sewage Service Installation  
4.1 +/- acres (maximum)



North (Up) \_\_\_\_\_ 20.5 \_\_\_\_\_ inches

West (to the left) \_\_\_\_\_ 10.75 \_\_\_\_\_ inches  
(Center)

INDICATE PROJECT LOCATION TO THE NEAREST ONE TENTH INCH MEASURING FROM THE EDGE OF THE MAP IMAGE FROM THE LOWER RIGHT CORNER.

**FOR OFFICIAL USE ONLY**

**SCREENING RESULTS -** Follow the directions of the checked block

- No potential conflicts were encountered during the PNDI inquiry. Include this form and the PNDI receipt with your Chapter 105 environmental assessment or other DEP permit application submissions.
- Potential conflicts must be resolved by contacting the natural resource agencies listed on the PNDI receipt. Please provide a copy of this form and the PNDI receipt along with a brief description of your project to the listed agency for consultation and recommendations. Include this form, the printed PNDI search results and the natural resource agency's written recommendation with your Chapter 105 environmental assessment or other DEP permit application submissions.

## PNDI Internet Database Search Results

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PNDI Search Number: N91193  
Search Results For [fayette.county@dep.state.pa.us](mailto:fayette.county@dep.state.pa.us)  
Search Performed By: Heather Knupsky On 1/9/02 10:25:56 AM  
Agency/Organization: Fayette County Conservation District  
Phone Number: (724) 438-4497  
Search Parameters: Quad - 397964; North Offset - 20.5; West Offset - 10.75; Acres - 50  
Project location center (Latitude): 39.73755  
Project location center (Longitude): 79.45133  
Project Type: Planning/Act 537 Plan

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*Print this page using your Internet browser's print function and keep it as a record of your search.*

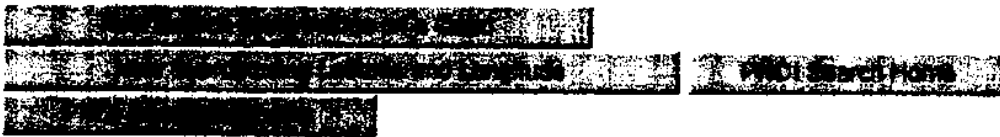
No conflicts with ecological resources of special concern are known to exist within the specified search area.

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PNDI is a site specific information system, which 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. PNDI is a cooperative project of the Department of Conservation and Natural Resources, The Nature Conservancy and the Western Pennsylvania Conservancy. This response represents the most up-to-date summary of the PNDI data files and is valid for 1 year. An absence of recorded information does not necessarily imply actual conditions on-site. A field site survey may reveal previously unreported populations.

Legal authority for Pennsylvania's biological resources resides with three administrative agencies. The handout entitled Pennsylvania Biological Resource Management Agencies, outlines which species groups are managed by these agencies. Feel free to contact our office if you have questions concerning this response or the PNDI system, and please refer to the PNDI Search Number at the top of this page in future correspondence concerning this project.

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# MCMILLEN ENGINEERING

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## CIVIL ENGINEERS

P.O. Box 363 • Hopwood Center • Hopwood • Pa • 15445  
Phone: (724) 439-8110 Fax: (724) 439-4733

January 3, 2002

Andrew L. Shiels  
PA Fish & Boat Commission  
450 Robinson Lane  
Bellefonte, PA 16823-9620

RE: Markleysburg Borough  
Act 537 Sewage Plan Update

Dear Mr. Shiels:

Markleysburg Borough is in the process of performing an environmental review pursuant to the National Environmental Policy Act for the USDA, Rural Utilities Service and an Act 537 Sewage Plan Update in order that it may assess the environmental impacts of the sewage service project in Fayette County, Pennsylvania. The project is being proposed to provide public sewage to the residents of Markleysburg Borough and potentially Henry Clay Township, Fayette County, Pennsylvania. Enclosed are a project narrative, service area map, and USGS location map that depict the proposed project's construction activities and describe the work involved.

Markleysburg Borough requests that your office review the proposed project for any state and federally listed, threatened and endangered species and any other important state natural resources that may occur in the project area through your PNDI database. Please provide any recommendations you may have to mitigate or avoid these impacts (if any).

Please call if you have any questions.

Sincerely,  
McMILLEN ENGINEERING INC.



Chad Stafford, E.I.T.

cc: file ✓

**BUREAU OF FISHERIES**

Delano R. Graff, Director  
(814) 359-5154  
FAX: (814) 359-5153



**DIVISION OF FISHERIES MANAGEMENT**

Richard A. Snyder, Chief  
(814) 359-5110  
FAX: (814) 359-5153

**IN REPLY REFER TO  
SIR #8332**

**COMMONWEALTH OF PENNSYLVANIA  
PENNSYLVANIA FISH & BOAT COMMISSION**

450 Robinson Lane  
Bellefonte, PA 16823-9620

January 23, 2002

McMILLEN ENGINEERING  
Chad Stafford  
P.O. Box 363  
Hopwood Center  
Hopwood, Pennsylvania 15445

Dear Mr. Stafford:

**RE: Species Impact Review (SIR) – Rare, Candidate, Threatened, and Endangered Species  
Act 537 Sewage Plan Update  
Markleysburg Borough, Fayette County, Pennsylvania**

I have examined the map accompanying your recent correspondence which shows the location for the proposed above referenced project.

Presently, none of the fishes, amphibians or reptiles we list as endangered or threatened are known to occur at or in the immediate vicinity of this study area.

To allow faster processing of Species Impact Reviews (SIRs) in the future, we are requesting that the attached, revised "SIR Request Form" be completed and returned to this office together with other relevant project information. Please make copies of the attached form and use with all future project reviews. If you have received, and in fact are using the new form, disregard the above request. Please note that the Pennsylvania Fish & Boat Commission conducts Species Impact Reviews **only for reptiles, amphibians, fishes, and aquatic invertebrates**. Reviews concerning other natural resources must be submitted to other appropriate agencies. In any future correspondence with us regarding this specific project, please refer to the SIR number above. Thank you in advance for your cooperation.

Sincerely,

Andrew L. Shiels, Leader  
Nongame and Endangered Species Unit

/ta

Encl. (1)

COMMONWEALTH OF PENNSYLVANIA  
**FISH AND BOAT COMMISSION**  
 NONGAME AND ENDANGERED SPECIES UNIT (NESU)

**SPECIES IMPACT REVIEW (SIR) REQUEST FORM**

- A. This form provides the site information necessary to perform a computer database search for species of special concern listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Pennsylvania Fish and Boat Code or the Wildlife Code.
- B. Use only **one form** for each proposed project or location. Complete the information below and **mail** form to:

Nongame and Endangered Species Unit  
 PA Fish and Boat Commission  
 450 Robinson Lane  
 Bellefonte, PA 16823  
 Fax: (814) 359-5153

- C. This form, a cover letter including a project narrative, and accompanying maps should be sent to the above address for environmental reviews that **only** concern *reptiles, amphibians, fishes and aquatic invertebrates*. Reviews for other natural resources must be submitted to other appropriate agencies.
- D. The absence of recorded information from our databases and files does not necessarily imply actual conditions on site. Future field investigations could alter this determination. The information contained in our files is routinely updated. A review is valid for one year.
- E. **Please send us only one (1) copy of your request** – either by fax or by mail – not both. Mail is preferred to improve legibility of maps. Facsimile submission will not improve our response turn-around time.
- F. **Allow 30 days for completion of the review from the date of PFBC-NESU receipt**. Large projects and workload may extend this review timeframe.
- G. **In any future correspondence with us following your receipt of the SIR response, please refer to the assigned SIR number at the top left of our cover letter.**
- H. **FORMS THAT ARE NOT COMPLETED IN FULL, WILL NOT BE REVIEWED.**

**PLEASE PRINT OR TYPE:** If available, provide the potential conflict PNDI Search Number: \_\_\_\_\_

PFBC-NESU response should be sent to:

Company/Agency: \_\_\_\_\_ Form Preparer: \_\_\_\_\_

Address: \_\_\_\_\_

Phone (8:00 AM to 4:00 PM): \_\_\_\_\_

Project Description: \_\_\_\_\_

Indicate if the project is: Transportation  or Non-transportation  (check one)

Will the proposed project encroach directly or indirectly (e.g., runoff) upon wetlands or waterways? Circle one for each:

Wetlands: Yes No Unknown      Waterways: Yes No Unknown

County: \_\_\_\_\_ Township/Municipality: \_\_\_\_\_

Name of the United States Geological Survey (U.S.G.S.) 7.5 Minute Quadrangle Map where project is located: \_\_\_\_\_

Project size (in acres): \_\_\_\_\_

Attach an 8.5" by 11" photocopy (**DO NOT REDUCE**) of the section of the U.S.G.S. Quadrangle Map which identifies the project location. On this map, indicate the location of the project center (if linear, depict both ends) and outline the approximate boundaries of the project area.

Specify latitude/longitude of the project center.

Latitude: \_\_\_\_\_ ° / \_\_\_\_\_ ' / \_\_\_\_\_ " N

Indicate latitude/longitude in degrees-minutes-seconds format only.

Longitude: \_\_\_\_\_ ° / \_\_\_\_\_ ' / \_\_\_\_\_ " W

Three steps are needed to convert from decimal degrees to degrees-minutes-seconds: (1) Degrees will be the whole number. (2) To get minutes, multiply the decimal degree portion by 60. (3) Multiply the decimal minute portion by 60 to get seconds.  
 Example: (Latitude) 40.93748 = 40°; 0.93748 x 60 = 56.2488' = 56'; 0.2488 x 60 = 14.928 = 15" = 40°56'15" N  
 (Longitude) 75.94740 = 75°; 0.94740 x 60 = 56.844' = 56'; 0.844 x 60 = 50.64 = 51" = 75°56'51" W

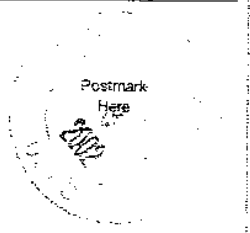
**FOR PFBC-NESU USE ONLY**

SIR#	Quad Name	Data Source	Search Result-Potential Species Conflict	Action

U.S. Postal Service  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only. No Insurance Coverage Provided)

PHET 6090 9T00 08HE 6602

Postage	\$ .80
Certified Fee	5.10
Return Receipt Fee (Endorsement Required)	1.50
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$ 4.40</b>



Recipient's Name (Please Print Clearly) (to be completed by mailer)  
**Andrew Shields - PA Fish & Boat Com**  
 Street, Apt. No., or PO Box No.  
**450 Robinson Lane**  
 City, State, ZIP+4  
**Bellefonte PA 16823-9620**

COMMONWEALTH OF PENNSYLVANIA  
FISH AND BOAT COMMISSION

- A. This form provides the site information necessary to perform a computer search for species of special concern listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Pennsylvania Fish and Boat Code or the Wildlife Code.
- B. Complete the information below and mail to:

Andrew L. Shiels  
Nongame and Endangered Species Unit  
PA Fish and Boat Commission  
450 Robinson Lane  
Bellefonte, PA 16823  
(814) 359-5113

- C. This form and accompanying maps should be sent to the above address for environmental reviews that only concern reptiles, amphibians, fishes and aquatic invertebrates. Reviews for other natural resources must be submitted to other appropriate agencies.
- D. The absence of recorded information from our files does not necessarily imply actual conditions on site. Future field investigations could alter this determination. The information contained in our files is routinely updated. A review is valid for one year.

Please print or type  
Applicant's Name: Markleysburg Borough Company: c/o McMillen Engineering, Inc.  
Address: PO Box 363, Hopwood, PA 15445

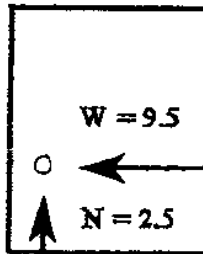
Phone (8:00 AM to 4:00 PM): 724-439-8110

Project Description: Act 537 Sewage Plan Update and Public Sewage Service  
Co Fayette County Twp/Municipality: Markleysburg Borough and  
Henry Clay Township

Name of the United States Geological Survey (U.S.G.S.) 7.5 Minute Quadrangle Map Where project is located:  
Friendsville, MD, PA, WV Project size (in acres): 4.1+/- acres

Indicate the location of approximate project center on the U.S.G.S. Quad map by measuring in inches (to nearest one-tenth) from the lower right corner of the actual U.S.G.S. Quad map.

- North (Up) 20.5 inches
- West (to the left) 10.75 inches  
(to center)



(Example, not to scale)

Use only one form for each proposed project or location.  
Attach an 8.5" by 11" photocopy (DO NOT REDUCE) of the section of the U.S.G.S. Quadrangle Map which identifies the project location and outlines the approximate boundaries of the project.

FOR PFBC USE ONLY




# MCMILLEN ENGINEERING

CIVIL ENGINEERS

P.O. Box 363 • Hopwood Center • Hopwood • Pa • 15445  
Phone: (724) 439-8110 Fax: (724) 439-4733

January 3, 2002

Kurt Carr  
PHMC  
Division of Archaeology and Protection  
Box 1026  
Harrisburg, PA 17108-1026

RE: Markleysburg Borough  
Act 537 Sewage Plan Update

Dear Mr. Carr:

Markleysburg Borough is in the process of performing an environmental review pursuant to the National Environmental Policy Act for the USDA, Rural Utilities Service and an Act 537 Sewage Plan Update in order that it may assess the environmental impacts of the sewage service project in Fayette County, Pennsylvania. The project is being proposed to provide public sewage to the residents of Markleysburg Borough and potentially Henry Clay Township, Fayette County, Pennsylvania. Enclosed are the project narrative, Cultural Resource Notice, service area map, and USGS location map that depict the proposed project's construction activities.

Markleysburg Borough requests the assistance of your office in identifying historic properties that are listed or eligible for listing on the National Register of Historic Places and that may be affected by the project. Please provide any recommendations you may have to mitigate or avoid these impacts to properties that may be affected. No structures will be impacted with this sanitary sewer service installation.

We would appreciate a response within thirty days. The reply from your office should be sent to the address listed above. Please call if you have any questions.

Sincerely,  
McMILLEN ENGINEERING INC.

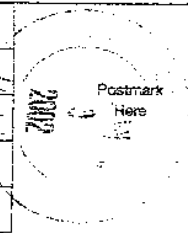


Chad Stafford, E.I.T.

cc: Marilyn Dugan w/attachments  
file ✓

U.S. Postal Service  
**CERTIFIED MAIL RECEIPT**  
(Domestic Mail Only) (No Insurance Coverage Provided)

7099 0690 9100 004E 6604

Postage	\$ .80	
Certified Fee	2.10	
Return Receipt Fee (Endorsement Required)	1.50	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$ 4.40	

Recipient's Name (Please Print Clearly) (to be completed by mailer)  
Kurt Carr PHD  
Street, Apt. No., or PO Box No.  
Box 1026  
City, State, ZIP+4  
Harrisburg, PA 17103-1026



## CULTURAL RESOURCE NOTICE

Before completing this form, read the step-by-step instructions provided with this form.

<b>SECTION A. APPLICANT IDENTIFIER</b>			
Applicant Name	Markleysburg Borough		
Street Address	PO Box 25		
City	Markleysburg	State	PA Zip 15459
Telephone Number	724-329-5542		
Project Title	Markleysburg Borough Act 537 Sewage Plan Update		
<b>SECTION B. LOCATION OF PROJECT</b>			
Municipality	Henry Clay Township and Markleysburg Borough	County Name	Fayette DEP County Code 26
<b>SECTION C. PERMITS OR APPROVALS</b>			
Name of Specific DEP Permit or Approval Requested:			
Anticipated federal permits:			
<input type="checkbox"/>	Surface Mining	<input type="checkbox"/>	404 Water Quality Permit
<input type="checkbox"/>	Army Corps of Engineers	<input type="checkbox"/>	Federal Energy Regulatory Commission
<input type="checkbox"/>	401 Water Quality Certification	<input checked="" type="checkbox"/>	Other: NPDES (Sewage) and Part II
<b>SECTION D. GOVERNMENT FUNDING SOURCES</b>			
<input checked="" type="checkbox"/>	State: (Name) PennVest, PADEP	<input checked="" type="checkbox"/>	Local: (Name) Markleysburg Borough
<input checked="" type="checkbox"/>	Federal: (Name) Rural Utility Service	<input type="checkbox"/>	Other: (Name)
<b>SECTION E. RESPONSIBLE DEP REGIONAL, CENTRAL, DISTRICT MINING or OIL &amp; GAS MGMT OFFICE</b>			
DEP Regional Office Responsible for Review of Permit Application		<input type="checkbox"/>	Central Office (Harrisburg)
<input type="checkbox"/>	Southeast Regional Office (Conshohocken)	<input type="checkbox"/>	Northeast Regional Office (Wilkes-Barre)
<input type="checkbox"/>	Southcentral Regional Office (Harrisburg)	<input type="checkbox"/>	Northcentral Regional Office (Williamsport)
<input checked="" type="checkbox"/>	Southwest Regional Office (Pittsburgh)	<input type="checkbox"/>	Northwest Regional Office (Meadville)
<input type="checkbox"/>	District Mining Office:	<input type="checkbox"/>	Oil & Gas Office:
<b>SECTION F. RESPONSIBLE COUNTY CONSERVATION DISTRICT, if applicable.</b>			
County Conservation District		Telephone Number, if known	
Fayette County Conservation District		724-438-4497	
<b>SECTION G. CONSULTANT</b>			
Consultant, if applicable	McMillen Engineering		
Street Address	PO Box 363		
City	Hopwood	State	PA Zip 15445
Telephone Number	724-439-8110		

**SECTION H. PROJECT BOUNDARIES AND DESCRIPTION**

**REQUIRED**

Indicate the total acres in the property under review. Of this acreage, indicate the total acres of earth disturbance for the proposed activity 4.1 +/- Acres

Attach a 7.5' U.S.G.S. Map indicating the defined boundary of the proposed activity. Attached (1"=500')

Attach photographs of any building over 50 years old. Indicate what is to be done to all buildings in the project area. - N/A

Attach a narrative description of the proposed activity. Attached

Attach the return receipt of delivery of this notice to the Pennsylvania Historical and Museum Commission. Attached

**REQUESTED**

Attach photographs of any building over 40 years old - N/A

Attach site map, if available.

**SECTION I. SIGNATURE BLOCK**

1-3-02



Date of Submission of Notice to PHMC

Applicant's Signature



**CULTURAL RESOURCE NOTICE**

**APPLICANT'S CHECKLIST**

Please check the following list to make sure that you have included all the required information. Place a checkmark in the column provided for all items completed and/or provided.

Failure to provide all of the requested information will delay the processing of the application and may result in the application being placed on hold with no action, or will be considered withdrawn and the application filed closed.

	Requirement	Check ✓ If Included
<b>1.</b>	<b>Attachments, where appropriate, are included.</b>	
	a) Section B - Additional municipality information.	X
	b) Section B - Additional county information.	X
	c) Section G - 7.5' USGS Map (with defined boundaries of proposed activity).	X
	d) Section G - Narrative description of proposed activity.	X
	e) Section G - Photographs of any buildings over 50 years old, Indicate what is to be done to all buildings in the project area.	N/A
	f) Section G - Total acres in property under review. Of this acreage, total acres of earth disturbance for the proposed activity.	X 4.1+/-
	h) Return receipt of delivery of Cultural Resource Notice to the Pennsylvania Historical and Museum Commission	X
<b>2.</b>	<b>Mailings</b>	
	a) Notice mailed to PHMC on _____	
	b) Received Returned Receipt from PHMC on _____	
	c) Submitted application to DEP Regional, Central, District Mining or Oil and Gas Mgmt. Office on _____ with copy of Returned Receipt from PHMC as proof of submittal. or	
	d) Submitted application to County Conservation District Office _____ with copy of return receipt from PHMC as proof as submittal.	
	<b>Requests</b>	<b>Check ✓ If Included</b>
<b>3.</b>	<b>Attachments requested, where appropriate, are included</b>	
	a) Section G - Photographs of any buildings over 40 years old.	N/A
	b) Section G - Site maps of the proposed activity, if available.	X



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

February 5, 2002

Chad Stafford, EIT  
McMillen Engineering  
PO Box 363  
Hopwood Center  
Hopwood, PA 15445

TO EXPEDITE REVIEW USE  
SHP REFERENCE NUMBER

Re: File No. ER 96-1992-051-K  
USDA: NPDES (Sewage) and Part II,  
Markleysburg Borough ACT 537  
Sewage Plan Update, Henry Clay  
Twp. and Markleysburg Borough,  
Fayette Co.

Dear Mr. Stafford:

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. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

There is a high probability that prehistoric and historic archaeological resources are located in this project area. In our opinion, the activity described in your proposal should have no effect on such resources. Should the scope of the project be amended to include additional ground disturbing activity this office should be contacted immediately and a Phase I Archaeological Survey may be necessary to locate all potentially significant archaeological resources.

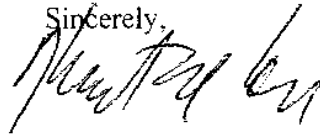
The properties listed below, listed on or eligible for the National Register of Historic Places, are located near the project area. In our opinion, the activity described in your proposal will have no effect on such resources. Should the applicant become aware, from any source, that unidentified historic or archaeological properties are located at the project site, or that the project activities will have an effect on these properties, the Bureau for Historic Preservation should be contacted immediately.

**Brown's Tavern, US Route 40, Henry Clay Township  
Flatrock Property, RAFC-HEN-03, Henry Clay Township**

Page 2  
February 4, 2002  
Mr. Chad Stafford, EIT

If you need further information regarding archaeological survey please contact Chan Funk at (717) 772-0924. If you need further information concerning historic structures please consult Susan Zacher at (717) 783-9920. If you need a **status only** of the reviewed project please call Tina Webber at (717) 705-4036.

Sincerely,

A handwritten signature in black ink, appearing to read "Kurt W. Carr". The signature is written in a cursive style with a large initial "K".

Kurt W. Carr, Chief  
Division of Archaeology &  
Protection

CC: DEP, Southwest Reigon  
KWC/lmm

# MCMILLEN ENGINEERING

## CIVIL ENGINEERS

P.O. Box 363 • Hopwood Center • Hopwood • Pa • 15445  
Phone: (724) 439-8110 Fax: (724) 439-4733

January 3, 2002

Department of Conservation and Natural Resources  
Jeanne Harris  
PNDI - Bureau of Forestry  
P.O. Box 8552  
Harrisburg, PA 17105-8552

RE: Markleysburg Borough  
Act 537 Sewage Plan Update

Dear Ms. Harris:

Markleysburg Borough is in the process of performing an environmental review pursuant to the National Environmental Policy Act for the USDA, Rural Utilities Service and an Act 537 Sewage Plan Update in order that it may assess the environmental impacts of the sewage service project in Fayette County, Pennsylvania. The project is being proposed to provide public sewage to the residents of Markleysburg Borough and potentially Henry Clay Township, Fayette County, Pennsylvania. Enclosed are a project narrative, service area map, and USGS location map that depict the proposed project's construction activities and describe the work involved.

As shown on the enclosed map, none of the construction work take place in the proximity of federal lands. Although the submittal of a special use permit application at this time would be premature, we are seeking information on environmental effects from the project as an input to the Rural Utilities Service's decision-making process. We request your review of this project for potential impacts to officially designated areas within the project and any recommendations you may have to mitigate or avoid these effects (if any). We would also appreciate receiving any information regarding additional review requirements that your agency may have.

We would appreciate a response within thirty days. The reply from your office should be sent to the address listed above. Please call if you have any questions.

Sincerely,  
MCMILLEN ENGINEERING INC.



Chad Stafford, E.I.T.

cc: file ✓





## Pennsylvania Natural Diversity Inventory

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

January 18, 2002

Fax 717-783-5109  
717-787-3444

### Bureau of Forestry

Chad Stafford  
McMillen Engineering  
PO Box 363  
Hopwood Center  
Hopwood, PA 15445

**Re: Pennsylvania Natural Diversity Inventory Review for the Proposed Act 537 Sewage Plan Update, Markleysburg Borough**  
**PER NO: 12432**

Dear Mr. Stafford:

In response to your request on January 3, 2002 to review the above mentioned project, we have reviewed the area using the Pennsylvania Natural Diversity Inventory (PNDI) information system. PNDI records indicate that no occurrences of species of special concern are known to exist within the project area, therefore we do not anticipate any impact on endangered, threatened, or rare species at this location. PNDI attempts to be a complete information resource on species of special concern within the Commonwealth. However, it may not contain all location information for species within the jurisdiction of other agencies. Please contact the Fish and Boat Commission and US Fish and Wildlife Service for information on species within their purview.

PNDI 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. PNDI is a cooperative project of the Department of Conservation and Natural Resources, The Nature Conservancy and the Western Pennsylvania Conservancy. This response represents the most up-to-date summary of the PNDI data files and is good for one year. An absence of recorded information does not necessarily imply actual conditions on-site. A field survey of any site may reveal previously unreported populations.

Feel free to phone our office if you have questions concerning this response or the PNDI system, and please refer to the P.E.R. Reference Number at the top of the letter in future correspondence concerning this project.

Sincerely,

Jeanne Harris  
Environmental Review Specialist

# MCMILLEN ENGINEERING

## CIVIL ENGINEERS

P.O. Box 363 • Hopwood Center • Hopwood • Pa • 15445  
Phone: (724) 439-8110 Fax: (724) 439-4733

January 3, 2002

Anthony S. Ross  
PA Game Commission  
2001 Elmerton Avenue  
Harrisburg, PA 17110-9797

RE: Markleysburg Borough  
Act 537 Sewage Plan Update

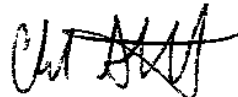
Dear Mr. Ross:

Markleysburg Borough is in the process of performing an environmental review pursuant to the National Environmental Policy Act for the USDA, Rural Utilities Service and an Act 537 Sewage Plan Update in order that it may assess the environmental impacts of the sewage service project in Fayette County, Pennsylvania. The project is being proposed to provide public sewage to the residents of Markleysburg Borough and Henry Clay Township, Fayette County, Pennsylvania. Enclosed are a project narrative, service area map, and USGS location map that depict the proposed project's construction activities and describe the work involved.

As shown on the enclosed map, none of the construction will take place in the proximity of federal lands. Although the submittal of a special use permit application at this time would be premature, we are seeking information on environmental effects from the project as an input to the Rural Utilities Service's decision-making process. We request your review of this project for potential impacts to officially designated areas within the project and any recommendations you may have to mitigate or avoid these effects (if any). We would also appreciate receiving any information regarding additional review requirements that your agency may have.

We would appreciate a response within thirty days. The reply from your office should be sent to the address listed above. Please call if you have any questions.

Sincerely,  
MCMILLEN ENGINEERING INC.



Chad Stafford, E.I.T.

cc: file ✓



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

February 1, 2002

Mr. Chad Stafford  
McMillen Engineering  
PO Box 363  
Hopwood Center  
Hopwood, PA 15445

In re: Markleysburg Borough  
Act 537 Sewage Plan Update  
Henry Clay Township, Fayette County, PA

Dear Mr. Stafford:

This is in response to your letter of January 3, 2002, requesting information concerning endangered and threatened species of birds and mammals as related to this project.

Our office review has determined that no state listed endangered or threatened species 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. However, should project plans change or if additional information on endangered or threatened species 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 Environment Protection under Chapter 105 and the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act.

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

Sincerely,

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

JRL/pfb

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

AN EQUAL OPPORTUNITY EMPLOYER

# MCMILLEN ENGINEERING

## CIVIL ENGINEERS

P.O. Box 363 • Hopwood Center • Hopwood • Pa • 15445  
Phone: (724) 439-8110 Fax: (724) 439-4733

*Certified*

January 8, 2002

Steve Balta  
PADEP Southwest Regional  
400 Waterfront Drive  
Pittsburgh, PA 15222-4745

RE: Markleysburg Boro Act 537  
Effluent Limitations

Dear Mr. Balta:

McMillen Engineering is preparing an Act 537 Sewage Facilities Plan for the Borough of Markleysburg and that feasible portion of Henry Clay Township near State Route 281, Fayette County, Pennsylvania.

Intended treated effluent discharge is to an unnamed tributary to Pinkham Run, on the east side of SR 281 (Latitude = 39°40'00" Longitude = 79°27'00"). An intended activated sludge sewage treatment system treating a maximum daily flow of 120,000 gpd is being investigated.

Jack Crislip and John Black indicated that you would provide preliminary effluent limitations for this sewerage system alternative upon request. This letter and the attached map is being sent as our official request. Your earliest convenience is appreciated.

Sincerely,  
McMILLEN ENGINEERING INC.

*Chad*  
Chad Stafford, E.I.T.

00ET 6090 9100 00HE 66

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
(Domestic Mail Only; No Insurance Coverage Provided)	
Postage	\$ .80
Certified Fee	2.10
Return Receipt Fee (Endorsement Required)	1.50
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 4.40

Postmark: HOPWOOD PA 2002 8

Recipient's Name (Please Print Clearly) (to be completed by mailer)  
Steve Balta - PADEP Southwest Regional  
Street, Apt. No., or PO Box No.  
400 Waterfront Dr.  
City, State, ZIP+4  
Pittsburgh PA 15222-4745

PS Form 3800, February 2000 See Reverse for Instructions

CIVIL • STRUCTURAL • ENVIRONMENTAL • LAND SURVEYING • LAND DEVELOPMENT  
TRAFFIC • STORMWATER MANAGEMENT • WETLAND DELINEATION and MITIGATION



# United States Department of the Interior

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



January 16, 2002

Chad Stafford, E.I.T.  
McMillen Engineering  
P.O. Box 363  
Hopwood Center  
Hopwood, PA 15445

Dear Mr. Stafford:

This responds to your letter of January 3, 2002, requesting information about federally listed and proposed endangered and threatened species within the area affected by the Markleysburg Borough sewer service project located in Fayette 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.

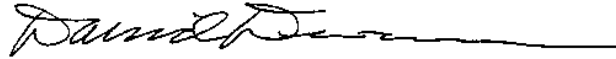
Except for occasional transient species, no federally listed or proposed threatened or endangered species under our jurisdiction are known to occur within the project impact area. Therefore, no biological assessment nor further consultation under the Endangered Species Act are required with the Fish and Wildlife Service. This determination is valid for two years from the date of this letter. If the proposed project has not been fully implemented prior to this, an additional review by this office will be necessary. Also, should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. A compilation of certain federal status species in Pennsylvania is enclosed for your information.

This response relates only to endangered or 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.

Requests for information regarding State-listed endangered or threatened species should be directed to the Pennsylvania Game Commission (birds and mammals), the Pennsylvania Fish and Boat Commission (fish, reptiles, amphibians and aquatic invertebrates), and the Pennsylvania Department of Conservation and Natural Resources (plants).

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

Sincerely,

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

David Densmore  
Supervisor

Enclosure

**FEDERALLY LISTED, PROPOSED AND CANDIDATE SPECIES  
(in Pennsylvania)**

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u> <sup>1</sup>	<u>Distribution</u>
<b><u>FISHES</u></b>			
Shortnose sturgeon <sup>2</sup>	<i>Acipenser brevirostrum</i>	E	Delaware River & other Atlantic coastal waters
<b><u>REPTILES</u></b>			
Bog turtle	<i>Clemmys muhlenbergii</i>	T	Current - Adams, Berks, Bucks, Chester, Cumberland, Delaware, Franklin, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton and York Co. Historic - Crawford, Mercer and Philadelphia Co.
Eastern massasauga rattlesnake	<i>Sistrurus catenatus catenatus</i>	C	Current - Butler, Crawford, Mercer and Venango Co. Historic - Allegheny and Lawrence Co.
<b><u>BIRDS</u></b>			
Bald eagle	<i>Haliaeetus leucocephalus</i>	T	Suitable habitats across the state. Recent nesting in Butler, Cameron, Centre, Chester, Crawford, Dauphin, Erie, Forest, Huntingdon, Lancaster, Lebanon, Mercer, Northumberland, Pike, Tioga, Venango, Warren and York Co. Wintering concentrations occur near ice-free sections of rivers, lakes and reservoirs, including the Delaware River.
Piping plover	<i>Charadrius melodus</i>	E	Presque Isle (Erie County). Migratory. No nesting in Pennsylvania since mid-1950s.
<b><u>MAMMALS</u></b>			
Indiana bat	<i>Myotis sodalis</i>	E	Winter hibernacula: Armstrong, Blair, Lawrence, Luzerne, Mifflin and Somerset Co.
<b><u>MOLLUSKS</u></b>			
Dwarf wedgemussel	<i>Alasmidonta heterodon</i>	E	Current - Delaware River (Wayne Co.). Historic - Delaware River watershed (Bucks, Carbon, Chester and Philadelphia Co.); Susquehanna River watershed (Lancaster Co.)
Clubshell mussel	<i>Pleurobema clava</i>	E	French Creek and Allegheny River watersheds (Clarion, Crawford, Erie, Forest, Mercer, Venango and Warren Co.)
Northern riffleshell	<i>Epioblasma torulosa rangiana</i>	E	French Creek and Allegheny River watersheds (Clarion, Crawford, Erie, Forest, Mercer, Venango and Warren Co.)
<b><u>PLANTS</u></b>			
Northeastern bulrush	<i>Scirpus ancistrochaetus</i>	E	Current - Adams, Bedford, Blair, Carbon, Centre, Clinton, Cumberland, Dauphin, Franklin, Huntingdon, Lackawanna, Lehigh, Lycoming, Mifflin, Monroe, Berks, Bucks, Chester, Columbia Co., Erie, Forest, Northampton

**SECTION VIII**  
**REPORT MAPPING**



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**SECTION IX**  
**ESTIMATED CONSTRUCTION COSTS**

**ESTIMATE OF OTHER ALTERNATIVE EVALUATIONS  
MARKLEYSBURG BOROUGH AND HENRY CLAY TOWNSHIP  
Conceptual Sewer System Options  
Cost Breakdown of Construction and Project Costs**

<b>CONSTRUCTION COSTS</b>					
Item Description	Unit Cost	Community Alternative On-Lot 1-Pond		Community Alternative On-Lot 1-Tanks	
		Quantity	Cost	Quantity	Cost
4-inch PVC force main	\$20/lf				
8-inch PVC gravity sewer	\$24/lf	7285	\$174,840.00	7285	\$174,840.00
8-inch PVC gravity sewer (in-state roadway)	\$30/lf	6340	\$190,200.00	6340	\$190,200.00
Holding facility	ls	3	\$105,000.00	5	\$225,000.00
Manholes, frames, and covers	\$1,400 ea	52	\$72,800.00	52	\$72,800.00
4-inch PVC lateral line	\$15/lf	3415	\$51,225.00	3415	\$51,225.00
Lateral wyes (8"x 8"x 4")	\$300 ea	149	\$44,700.00	149	\$44,700.00
Pumping station	\$70,000 ea				
SR0281 highway borings	\$120/lf	270	\$32,400.00	270	\$32,400.00
Township road highway crossing	\$50/lf	105	\$5,240.00	105	\$5,240.00
Clearing and grubbing	\$2,750/ac	3.5	\$9,625.00	3.5	\$9,625.00
Seeding and mulching	\$1,100/ac	3.5	\$3,850.00	3.5	\$3,850.00
Electrical services	\$5,500 ea				
Fencing and access	\$5,500 ea	3	\$16,500.00	3	\$16,500.00
E&S measures and traffic control	ls	1	\$10,000.00	1	\$10,000.00
<b>Total Construction Cost</b>			<b>\$716,380.00</b>		<b>\$836,380.00</b>
<b>PROJECT COST</b>					
<b>Total construction costs</b>			<b>\$716,380.00</b>		<b>\$836,380.00</b>
Legal fees			\$14,325.00		\$16,725.00
Engineering fees			\$85,965.00		\$100,365.00
Land and right-of-way (\$2/lf for easement plus base cost)			\$35,000.00		\$35,000.00
Daily inspection			\$9,800.00		\$9,800.00
PADOT bonding and inspection Bonding = \$23/lf x 1.10 x 5% x lf Inspection = 200 lf/day x \$330/day x lf			\$41,260.00		\$41,260.00
Road/berm Restoration (\$7/lf)			\$111,755.00		\$111,755.00
Permits			\$10,000.00		\$10,000.00
Contingencies (10%)			\$102,450.00		\$116,130.00
<b>Total Project Costs</b>			<b>\$1,126,935.00</b>		<b>\$1,277,415.00</b>

**BOROUGH OF MARKLEYSBURG**  
**ESTIMATE OF SELECTED ALTERNATIVES - CONCEPTUAL SEWER SYSTEM LAYOUTS**  
 Cost Breakdown of Construction and Project Costs (Sheet 1 of 2)

Item Description	Unit Cost	Phase I		Phase IA		Phase II		Phase III A		Phase III B		Phase IV		
		Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
4-inch PVC force main	\$20/lf								845	\$16,900.00			1475	\$29,500.00
8-inc PVC gravity sewer	\$24/lf	2,810	\$67,440.00	2,810	\$67,440.00	3,800	\$91,200.00	225	\$5,400.00	225	\$5,400.00	1300	\$31,200.00	
8-inch PVC gravity sewer (in-state roadway)	\$30/lf	800	\$24,000.00	800	\$24,000.00	2,520	\$75,600.00	770	\$23,100.00		\$23,100.00			
Sewage treatment plant (Avg 60,000 gpd) (120,000 gpd) (peak)	ls	1	\$900,000.00	37,500 gpd 75,000peak (1 ls)	\$625,000.00									
Manholes, frames, and covers	\$1,400 ea	13	\$18,200.00	13	\$18,200.00	18	\$25,200.00	5	\$7,000.00	5	\$7,000.00	4	\$5,600.00	
4-inch PVC lateral line	\$15/lf	825	\$12,375.00	825	\$12,375.00	1,800	\$27,000.00	150	\$2,250.00	150	\$2,250.00	120	\$1,800.00	
Lateral wyes (8" x 8" x 4")	\$300 EA	33	\$9,900.00	33	\$9,900.00	72	\$21,600.00	6	\$1,800.00	6	\$1,800.00	8	\$2,400.00	
Pumping station	\$50,000 ea							1	\$50,000.00			1	\$50,000.00	
SR0281 highway borings	\$120/lf	45	\$5,400.00	45	\$5,400.00	90	\$10,800.00	45	\$5,400.00					
Township road highway crossing	\$50/lf	35	\$1,750.00	35	\$1,750.00	35	\$1,750.00	35	\$1,750.00		\$1,750.00			
Clearing and grubbing	\$2,750/ac	1.0	\$2,750.00	1.0	\$2,750.00	1.0	\$2,750.00	0.5	\$1,375.00	0.5	\$1,375.00	1.0	\$2,750.00	
Seeding and mulching	\$1,100/ac	1.0	\$1,100.00	1.0	\$1,100.00	1.0	\$1,100.00	0.5	\$550.00	0.5	\$550.00	1.0	\$1,100.00	
Electrical services	\$5,500 ea	1	\$5,500.00	1	\$5,500.00			1	\$5,500.00	1	\$5,500.00	1	\$5,500.00	
Fencing and access	\$5,500 ea	1	\$5,500.00	1	\$5,500.00			1	\$5,500.00	1	\$5,500.00	1	\$5,500.00	
E&S measures and traffic control	ls	1	\$5,000.00	1	\$5,000.00	2	\$10,000.00	1	\$5,000.00	1	\$5,000.00	1	\$5,000.00	
Sand mound (piping, material, etc.)	\$30,000 ea											1	\$30,000.00	
<b>Total Construction Costs</b>			\$1,058,915.00		\$783,915.00		\$267,000.00		\$131,525.00		\$94,475.00		\$140,350.00	

**BOROUGH OF MARKLEYSBURG**  
**ESTIMATE OF SELECTED ALTERNATIVES- CONCEPTUAL SEWER SYSTEM LAYOUTS**  
**Cost Breakdown of Construction and Project Costs (Sheet 2 of 2)**

<b>PROJECT COSTS</b>								
Total construction costs	\$1,058,915.00	\$783,915.00	\$267,000.00	\$131,525.00	\$94,475.00	\$140,350.00		
Legal Fees	\$21,200.00	\$13,250.00	\$5,350.00	\$2,650.00	\$2,650.00	\$3,250.00		
Engineering fees	\$86,850.00	\$54,280.00	\$28,050.00	\$15,150.00	\$12,200.00	\$9,825.00		
Land and right-of-way (\$2/lf for easement plus base cost)	\$12,000.00	\$12,000.00	\$14,450.00	\$2,500.00	\$7,000.00	\$4,950.00		
Daily inspection	\$11,650.00	\$11,650.00	\$7,900.00	\$1,250.00	\$1,250.00	\$1,250.00		
PADOT bonding and inspection Bonding = \$23/lf x 1.10 x 5% x lf	\$2,350.00	\$2,350.00	\$7,350.00	\$2,250.00				
Road/berm restoration (\$7/lf)	\$25,270.00	\$25,270.00	\$44,240.00	\$6,965.00	\$3,990.00	\$10,325.00		
Permits	\$5,000.00	\$5,000.00	\$2,000.00	\$2,000.00	\$1,000.00	\$1,250.00		
Contingencies (10%)	\$105,900.00	\$78,400.00	\$26,700.00	\$13,150.00	\$6,450.00	\$14,035.00		
<b>Total Project Costs</b>	<b>\$1,329,135.00</b>	<b>\$986,115.00</b>	<b>\$403,040.00</b>	<b>\$177,440.00</b>	<b>\$99,015.00</b>	<b>\$185,235.00</b>		

**BOROUGH OF MARKLEYSBURG  
CONCEPTUAL SEWER SYSTEM LAYOUTS  
Phase Options**

- Phase I: Consists of construction of a 120,000 gpd sewage treatment plant, 800 lf gravity sewer line along SR 0281, 2,180 lf gravity sewer line along Mud Pike Road (TR 357), and 630 lf gravity sewer along Church Street.
- Phase IA: Consist of construction of a 75,000 gpd sewage treatment plant in lieu of 400 gpd/user at 275 gpd/user as per PADEP option. Service area construction the same as Phase I.
- Phase II: Consist of construction of 2,900 lf gravity sewer line along SR 0281, 600 lf of service line extention between Mud Pike Road (TR 357) and SR 0281, 400 lf gravity sewer line along Brown Hill Road, and 2,215 lf gravity sewer interceptor (cross country).
- Phase IIIA: Consists of construction of a sewage pump station, 845 lf of force main, 770 lf gravity sewer along Friendsville Road (SR 2013), and 225 lf gravity along Old Friendsville Road.
- Phase IIIB: Consists of construction of a community on-lot sewerage system (elevated sand mound) to service the six residents along Friendsville Road (SR 2013) toward Friendsville, Maryland.
- Phase IV: Consists of construction of a sewage pump station, 1,475 lf of force main, 1,300 of gravity sewer southward along Brownhill Road.

**HENRY CLAY TOWNSHIP**  
**ESTIMATE OF SELECTED ALTERNATIVES- CONCEPTUAL SEWER SYSTEM LAYOUTS**  
**Cost Breakdown of Construction and Project Costs (page 1)**

<b>CONSTRUCTION COSTS</b>					
Item Description	Unit Cost	Phase I		Phase II	
		Quantity	Cost	Quantity	Cost
4-inch PVC force main	\$20/lf	2125	\$42,500.00	1275	\$25,500.00
8-inc PVC gravity sewer	\$24/lf	450	\$10,800.00		
8-inch PVC gravity sewer (in-state roadway)	\$30/lf	2250	\$67,500.00	1865	\$55,950.00
Sewage treatment plant	ls				
Manholes, frames, and covers	\$1,400 ea	11	\$15,400.00	8	\$11,200.00
4-inch PVC lateral line	\$15/lf	540	\$8,100.00	250	\$3,750.00
Lateral wyes (8" x 8" x 4")	\$300 ea	35	\$10,500.00	13	\$3,900.00
Pumping station, Generator, etc.	\$70,000 ea	1	\$70,000.00	1	\$70,000.00
SR 0281 highway borings	\$120/lf	60	\$7,200.00	90	\$10,800.00
Township road highway crossing	\$50/lf				
Clearing and grubbing	\$2,750/ac	1	\$2,750.00	1	\$2,750.00
Seeding and mulching	\$1,100/ac	1	\$1,100.00	1	\$1,100.00
Electrical services	\$5,500 ea	1	\$5,500.00	1	\$5,500.00
Fencing and access	\$5,500 ea	1	\$5,500.00	1	\$5,500.00
E&S measures and traffic control	ls	1	\$5,750.00	1	\$5,750.00
Plant disbanding & closing	\$50,000 ea			1	\$50,000.00
<b>Total Construction Costs</b>			<b>\$252,600.00</b>		<b>\$251,700.00</b>

**HENRY CLAY TOWNSHIP**  
**ESTIMATE OF SELECTED ALTERNATIVES- CONCEPTUAL SEWER SYSTEM LAYOUTS**  
**Cost Breakdown of Construction and Project Costs (page 2)**

<b>PROJECT COSTS</b>		
Total construction costs	\$252,600.00	\$251,700.00
Legal Fees	\$4,185.00	\$4,155.00
Engineering fees	\$24,600.00	\$30,205.00
Land and right-of-way (\$2/lf for easement plus base cost)	\$15,250.00	\$20,150.00
Daily inspection	\$6,400.00	\$7,300.00
PADOT bonding and inspection Bonding = \$23/lf x 1.10 x 5% x lf	\$4,000.00	\$5,175.00
Road/berm restoration (\$7/lf)	\$18,900.00	\$21,980.00
Permits	\$5,000.00	\$6,000.00
Contingencies (10%)	\$25,260.00	\$25,170.00
<b>Total Project Costs</b>	<b>\$356,195.00</b>	<b>\$371,835.00</b>

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**HENRY CLAY TOWNSHIP  
CONCEPTUAL SEWER SYSTEM LAYOUTS  
Phase Options**

- Phase I: Consists of construction of a primary sewage pumping station along SR 0281, 2,700 lf gravity sewer line and force main interconnection (2,125 lf) to the co-municipal sewage treatment plant located in Markleysburg Borough.
- Phase II: Consist of construction of a second public maintained sewage pumping station along SR 0281 (3,140 lf total, on both sides expanded from the initial easternmost service area) to service from U.S. Route 40 to the municipal sewage collection system. Closure of the Marclay School STP is included.



**MARKLEYSBURG BOROUGH  
RUS 50% FUNDING  
RUS Financing Scenario Phase I and Phase II  
Service Option 1**

Project Cost		\$1,732,175.00	
Tap-in fees			
93 @ \$350.		\$32,550.00	
12 @ \$1000.		\$12,000.00	
Total tap-in fees:		\$44,550.00	(To keep as capital expenditure)
RUS Grant (50% assumed)		\$843,812.50	(Less tap in fees)
Other loan		\$843,812.50	(Less tap in fees)
Debt Service			
\$843,812.50 @ 4% over 40 years		\$42,319.44	
10% Reserve		\$4,231.94	
Total debt service:		\$46,551.38	
Debt service repayment cost per EDU			
126 EDUs		\$369.46	
Debt service reimbursement per month per user		\$30.79	
Estimated authority operation and maintenance costs (monthly)			
Fixed	A. Billing services	\$210.00	
	B. Secretarial	\$240.00	
	C. Manager/operator	\$535.00	
	D. Office space	\$250.00	
	E. Insurance	\$125.00	
	F. Office supplies	\$25.00	
Variable	A. Electric	\$800.00	
	B. Water	\$100.00	
	C. Chemical	\$50.00	
	D. Repair	\$465.00	
Total O & M per month		\$2,800.00	
Total O & M per annual		\$33,600.00	
Cost per EDU per month (O&M)		\$22.23	
Cost per EDU per annual (O&M)		\$266.67	
Total cost per EDU per month		\$53.02	for 40 years

**MARKLEYSBURG BOROUGH**  
**RUS 50% FUNDING**  
**RUS Financing Scenario Phase IA and Phase II**  
**Service Option 2**

Project Cost		\$1,389,155.00	
Tap-in fees			
93 @ \$350.		\$32,550.00	
12 @ \$1000.		\$12,000.00	
Total tap-in fees:		\$44,550.00	(To keep as capital expenditure)
RUS Grant (50% assumed)		\$672,302.50	(Less tap in fees)
Other loan		\$672,302.50	(Less tap in fees)
Debt Service			
\$672,302.50 @ 4% over 40 years		\$33,717.72	
10% Reserve		\$3,371.77	
Total debt service:		\$37,089.49	
Debt service repayment cost per EDU			
126 EDUs		\$294.36	
Debt service reimbursement per month per EDU		\$24.53	
Estimated authority operation and maintenance costs (monthly)			
Fixed			
A. Billing services		\$210.00	
B. Secretarial		\$240.00	
C. Manager/operator		\$535.00	
D. Office space		\$250.00	
E. Insurance		\$125.00	
F. Office supplies		\$25.00	
Variable			
A. Electric		\$600.00	
B. Water		\$75.00	
C. Chemical		\$35.00	
D. Repair		\$420.00	
Total O & M per month		\$2,515.00	
Total O & M per annual		\$30,180.00	
Cost per EDU per month (O&M)		\$19.96	
Cost per EDU per annual (O&M)		\$239.52	
Total cost per EDU per month		\$44.49	for 40 years

**MARKLEYSBURG BOROUGH**  
**RUS 50% FUNDING**  
**RUS Financing Scenario Phase IA and Phase II and Phase IV**  
**Service Option 3**

Project Cost	\$1,574,390.00	
Tap-in fees		
101 @ \$350.	\$35,350.00	
12 @ \$1000.	\$12,000.00	
Total tap-in fees:	\$47,350.00	(To keep as capital expenditure)
RUS Grant (50% assumed)	\$763,520.00	(Less tap in fees)
Other loan	\$763,520.00	(Less tap in fees)
Debt Service		
\$763,520.00 @ 4% over 40 years	\$38,575.69	
10% Reserve	\$3,857.57	
Total debt service:	\$42,433.26	
Debt service repayment cost per EDU		
134 EDUs	\$316.67	
Debt service reimbursement per month per EDU	\$26.39	
Estimated authority operation and maintenance costs (monthly)		
Fixed		
A. Billing services	\$226.00	
B. Secretarial	\$240.00	
C. Manager/operator	\$535.00	
D. Office space	\$250.00	
E. Insurance	\$125.00	
F. Office supplies	\$25.00	
Variable		
A. Electric	\$800.00	
B. Water	\$75.00	
C. Chemical	\$35.00	
D. Repair	\$465.00	
Total O & M per month	\$2,776.00	
Total O & M per annual	\$33,312.00	
Cost per user EDU month (O&M)	\$20.72	
Cost per user EDU annual (O&M)	\$248.60	
Total cost per user EDU month	\$47.11	for 40 years

**MARKLEYSBURG BOROUGH**  
**RUS 50% FUNDING**  
**RUS Financing Scenario Phase IA, Phase II, Phase IIIA, Phase IV**  
**Service Option 4**

Project Cost		\$1,751,830.00	
Tap-in fees			
107 @ \$350.		\$37,450.00	
12 @ \$1000.		\$12,000.00	
Total tap-in fees:		\$49,450.00	(To keep as capital expenditure)
RUS Grant (50% assumed)		\$851,190.00	(Less tap in fees)
Other loan		\$851,190.00	(Less tap in fees)
Debt Service			
\$851,190.00 @ 4% over 40 years		\$43,005.09	
10% Reserve		\$4,300.51	
Total debt service:		\$47,305.60	
Debt service repayment cost per EDU			
140 EDUS		\$337.90	
Debt service reimbursement per month per EDU		\$28.16	
Estimated authority operation and maintenance costs (monthly)			
Fixed			
A. Billing services		\$238.00	
B. Secretarial		\$240.00	
C. Manager/operator		\$535.00	
D. Office space		\$250.00	
E. Insurance		\$125.00	
F. Office supplies		\$25.00	
Variable			
A. Electric		\$1,000.00	
B. Water		\$75.00	
C. Chemical		\$35.00	
D. Repair		\$505.00	
Total O & M per month		\$3,028.00	
Total O & M per annual		\$36,336.00	
Cost per EDU per month (O&M)		\$21.63	
Cost per EDU per annual (O&M)		\$259.55	
Total cost per EDU per month		\$49.79	for 40 years

**MARKLEYSBURG BOROUGH WITH HENRY CLAY TOWNSHIP  
RUS 50% FUNDING  
RUS Financing Scenario Phase IA, Phase II, Phase IV(M), Phase I(HC)  
Service Option 5**

Project Cost		\$1,930,585.00	
Tap-in fees			
142 @ \$350.		\$49,700.00	
12 @ \$1000.		\$12,000.00	
Total tap-in fees:		\$61,700.00	(To keep as capital expenditure)
RUS Grant (50% assumed)		\$934,442.50	(Less tap in fees)
Other loan		\$934,442.50	(Less tap in fees)
Debt Service			
\$934,442.50 @ 4% over 40 years		\$47,211.30	
10% Reserve		\$4,721.13	
Total debt service:		\$51,932.43	
Debt service repayment cost per EDU 175EDUS		\$296.76	
Debt service reimbursement per month per EDU		\$24.73	
Estimated authority operation and maintenance costs (monthly)			
Fixed			
A. Billing services		\$308.00	
B. Secretarial		\$240.00	
C. Manager/operator		\$535.00	
D. Office space		\$250.00	
E. Insurance		\$125.00	
F. Office supplies		\$25.00	
Variable			
A. Electric		\$1,200.00	
B. Water		\$75.00	
C. Chemical		\$35.00	
D. Repair		\$560.00	
Total O & M per month		\$3,353.00	
Total O & M per annual		\$40,236.00	
Cost per user EDU month (O&M)		\$19.16	
Cost per user EDU annual (O&M)		\$229.92	
Total cost per EDU per month		\$43.89	for 40 years

**MARKLEYSBURG BOROUGH WITH HENRY CLAY TOWNSHIP  
RUS 50% FUNDING  
RUS Financing Scenario Phase IA, Phase II, Phase IV(M), Phase I & II (HC)  
Service Option 6**

Project Cost		\$2,302,420.00	
Tap-in fees			
151 @ \$350.		\$52,850.00	
16 @ \$1000.		\$16,000.00	
Total tap-in fees:		\$68,850.00	(To keep as capital expenditure)
RUS Grant (50% assumed)		\$1,116,785.00	(Less tap in fees)
Other loan		\$1,116,785.00	(Less tap in fees)
Debt Service			
\$1,116,785.00 @ 4% over 40 years		\$56,009.27	
10% Reserve		\$5,600.93	
Total debt service:		\$61,610.20	
Debt service repayment cost per EDU			
193 EDUS		\$319.22	
Debt service reimbursement per month per EDU		\$26.60	
Estimated authority operation and maintenance costs (monthly)			
Fixed	A. Billing services	\$324.00	
	B. Secretarial	\$240.00	
	C. Manager/operator	\$535.00	
	D. Office space	\$250.00	
	E. Insurance	\$125.00	
	F. Office supplies	\$25.00	
Variable	A. Electric	\$1,400.00	
	B. Water	\$80.00	
	C. Chemical	\$45.00	
	D. Repair	\$585.00	
Total O & M per month		\$3,609.00	
Total O & M per annual		\$43,308.00	
Cost per user EDU month (O&M)		\$18.70	
Cost per user EDU annual (O&M)		\$224.40	
Total cost per EDU per month		\$37.63	for 40 years

**MARKLEYSBURG BOROUGH**  
**PENNVEST 75% FUNDING**  
**Financing Scenario Phase I and Phase II**  
**Service Option 1**

Project Cost		\$1,732,175.00	
Tap-in fees			
93 @ \$350.		\$32,550.00	
12 @ \$1000.		\$12,000.00	
Total tap-in fees:		\$44,550.00	(To keep as capital expenditure)
RUS Grant (75% assumed)		\$1,265,718.75	(Less tap in fees)
Other (Loan)		\$421,906.25	(Less tap in fees)
Debt Service			
\$421,906.25 @ 1% over 20 years		\$23,283.84	
Debt service repayment cost per EDU			
126 EDUS		\$184.80	
Debt service reimbursement per month per EDU		\$15.40	
Estimated authority operation and maintenance costs (monthly)			
Fixed	A. Billing services	\$210.00	
	B. Secretarial	\$240.00	
	C. Manager/operator	\$535.00	
	D. Office space	\$250.00	
	E. Insurance	\$125.00	
	F. Office supplies	\$25.00	
Variable	A. Electric	\$800.00	
	B. Water	\$100.00	
	C. Chemical	\$50.00	
	D. Repair	\$465.00	
Total O & M per month		\$2,800.00	
Total O & M per annual		\$33,600.00	
Cost per EDU per month (O&M)		\$22.23	
Cost per EDU per annual (O&M)		\$267.67	
Total cost per EDU per month		\$37.63	for 20 years

**MARKLEYSBURG BOROUGH  
PENNVEST 75% FUNDING  
Financing Scenario Phase IA and Phase II  
Service Option 2**

Project Cost		\$1,389,155.00	
Tap-in fees			
93 @ \$350.		\$32,550.00	
12 @ \$1000.		\$12,000.00	
Total tap-in fees:		\$44,550.00	(To keep as capital expenditure)
RUS Grant (75% assumed)		\$1,008,453.70	(Less tap in fees)
Other (Loan)		\$336,151.25	(Less tap in fees)
Debt Service			
\$336,151.25 @ 1% over 20 years		\$18,627.93	
Debt service repayment cost per EDU			
126 EDUS		\$147.84	
Debt service reimbursement per month per EDU		\$12.32	
Estimated authority operation and maintenance costs (monthly)			
Fixed	A. Billing services	\$210.00	
	B. Secretarial	\$240.00	
	C. Manager/operator	\$535.00	
	D. Office space	\$250.00	
	E. Insurance	\$125.00	
	F. Office supplies	\$25.00	
Variable	A. Electric	\$600.00	
	B. Water	\$75.00	
	C. Chemical	\$35.00	
	D. Repair	\$420.00	
Total O & M per month		\$2,515.00	
Total O & M per annual		\$30,180.00	
Cost per user EDU month (O&M)		\$19.96	
Cost per user EDU annual (O&M)		\$239.52	
Total cost per EDU per month		\$32.28	for 20 years



**MARKLEYSBURG BOROUGH**  
**PENNVEST 75% FUNDING**  
**Financing Scenario Phase IA, Phase II and Phase IV**  
**Service Option 3**

Project Cost		\$1,574,390.00	
Tap-in fees			
101 @ \$350.		\$35,350.00	
12 @ \$1000.		\$12,000.00	
Total tap-in fees:		\$47,350.00	(To keep as capital expenditure)
RUS Grant (75% assumed)		\$1,145,280.00	(Less tap in fees)
Other (Loan)		\$381,760.00	(Less tap in fees)
Debt Service			
\$381,760.00 @ 1% over 20 years		\$21,155.35	
Debt service repayment cost per EDU			
134 EDUS		\$157.88	
Debt service reimbursement per month per EDU		\$13.15	
Estimated authority operation and maintenance costs (monthly)			
Fixed			
A. Billing services		\$226.00	
B. Secretarial		\$240.00	
C. Manager/operator		\$535.00	
D. Office space		\$250.00	
E. Insurance		\$125.00	
F. Office supplies		\$25.00	
Variable			
A. Electric		\$800.00	
B. Water		\$75.00	
C. Chemical		\$35.00	
D. Repair		\$465.00	
Total O & M per month		\$2,776.00	
Total O & M per annual		\$33,312.00	
Cost per EDU per month (O&M)		\$20.72	
Cost per EDU per annual (O&M)		\$248.60	
Total cost per EDU per month		\$33.87	for 20 years

**MARKLEYSBURG BOROUGH**  
**PENNVEST 75% FUNDING**  
**Financing Scenario Phase IA, Phase II, Phase IIIA, and Phase IV**  
**Service Option 4**

Project Cost		\$1,751,830.00	
Tap-in fees			
107 @ \$350.		\$37,450.00	
12 @ \$1000.		\$12,000.00	
Total tap-in fees:		\$49,450.00	(To keep as capital expenditure)
RUS Grant (75% assumed)		\$1,276,785.00	(Less tap in fees)
Other (Loan)		\$425,595.00	(Less tap in fees)
Debt Service			
\$425,595.00 @ 1% over 20 years		\$23,584.48	
Debt service repayment cost per EDU			
140 EDUS		\$168.46	
Debt service reimbursement per month per EDU		\$14.04	
Estimated authority operation and maintenance costs (monthly)			
Fixed	A. Billing services	\$238.00	
	B. Secretarial	\$240.00	
	C. Manager/operator	\$535.00	
	D. Office space	\$250.00	
	E. Insurance	\$125.00	
	F. Office supplies	\$25.00	
Variable	A. Electric	\$1,000.00	
	B. Water	\$75.00	
	C. Chemical	\$35.00	
	D. Repair	\$505.00	
Total O & M per month		\$3,028.00	
Total O & M per annual		\$36,336.00	
Cost per EDU per month (O&M)		\$21.63	
Cost per EDU per annual (O&M)		\$259.55	
Total cost per EDU per month		\$35.67	for 20 years

**MARKLEYSBURG BOROUGH WITH HENRY CLAY TOWNSHIP  
PENNVEST 75% FUNDING  
Financing Scenario Phase IA, Phase II, and Phase IV (M) + Phase I (HC)  
Service Option 5**

Project Cost		\$1,930,585.00	
Tap-in fees			
142 @ \$350.		\$49,700.00	
12 @ \$1000.		\$12,000.00	
Total tap-in fees:		\$61,700.00	(To keep as capital expenditure)
RUS Grant (75% assumed)		\$1,401,663.70	(Less tap in fees)
Other (Loan)		\$467,221.30	(Less tap in fees)
Debt Service			
\$467,221.30 @ 1% over 20 years		\$25,891.22	
Debt service repayment cost per EDU			
175 EDUS		\$147.95	
Debt service reimbursement per month per EDU		\$12.33	
Estimated authority operation and maintenance costs (monthly)			
Fixed	A. Billing services	\$308.00	
	B. Secretarial	\$240.00	
	C. Manager/operator	\$535.00	
	D. Office space	\$250.00	
	E. Insurance	\$125.00	
	F. Office supplies	\$25.00	
Variable	A. Electric	\$1,200.00	
	B. Water	\$75.00	
	C. Chemical	\$35.00	
	D. Repair	\$560.00	
Total O & M per month		\$3,353.00	
Total O & M per annual		\$40,236.00	
Cost per user EDU month (O&M)		\$19.16	
Cost per user EDU annual (O&M)		\$229.92	
Total cost per EDU per month		\$31.49	for 20 years

**MARKLEYSBURG BOROUGH WITH HENRY CLAY TOWNSHIP  
PENNVEST 75% FUNDING  
Financing Scenario Phase IA, Phase II, Phase IV (M) + Phase I & Phase II (HC)  
Service Option 6**

Project Cost		\$2,302,420.00	
Tap-in fees			
151 @ \$350.		\$52,850.00	
16 @ \$1000.		\$16,000.00	
Total tap-in fees:		\$68,850.00	(To keep as capital expenditure)
RUS Grant (75% assumed)		\$1,675,177.50	(Less tap in fees)
Other (Loan)		\$588,392.50	(Less tap in fees)
Debt Service			
\$588,392.50 @ 1% over 20 years		\$30,605.96	
Debt service repayment cost per EDU			
193 EDUS		\$168.94	
Debt service reimbursement per month per EDU		\$14.08	
Estimated authority operation and maintenance costs (monthly)			
Fixed	A. Billing services	\$324.00	
	B. Secretarial	\$240.00	
	C. Manager/operator	\$535.00	
	D. Office space	\$250.00	
	E. Insurance	\$125.00	
	F. Office supplies	\$25.00	
Variable	A. Electric	\$1,400.00	
	B. Water	\$80.00	
	C. Chemical	\$45.00	
	D. Repair	\$585.00	
Total O & M per month		\$3,609.00	
Total O & M per annual		\$43,308.00	
Cost per EDU per month (O&M)		\$18.70	
Cost per EDU per annual (O&M)		\$224.40	
Total cost per EDU per month		\$32.78	for 20 years

**MARKLEYSBURG BOROUGH**  
**PENNVEST 75% FUNDING**  
**Financing Scenario Phase I and Phase II**  
**Service Option 1**

Project Cost		\$1,732,175.00	
Tap-in fees			
93 @ \$350.		\$32,550.00	
12 @ \$1000.		\$12,000.00	
Total tap-in fees:		\$44,550.00	(To keep as capital expenditure)
PennVEST Grant (75% assumed)		\$1,265,718.75	(Less tap in fees)
Other (Loan)		\$421,906.25	(Less tap in fees)
Debt Service			
\$421,906.25 @ 1% over 30 years		\$16,289.24	
Debt service repayment cost per EDU			
126 EDUS		\$129.28	
Debt service reimbursement per month per EDU		\$10.78	
Estimated authority operation and maintenance costs (monthly)			
Fixed	A. Billing services	\$210.00	
	B. Secretarial	\$240.00	
	C. Manager/operator	\$535.00	
	D. Office space	\$250.00	
	E. Insurance	\$125.00	
	F. Office supplies	\$25.00	
Variable	A. Electric	\$800.00	
	B. Water	\$100.00	
	C. Chemical	\$50.00	
	D. Repair	\$465.00	
Total O & M per month		\$2,800.00	
Total O & M per annual		\$33,600.00	
Cost per EDU per month (O&M)		\$22.23	
Cost per EDU per annual (O&M)		\$266.67	
Total cost per EDU per month		\$33.01	for 30 years

**MARKLEYSBURG BOROUGH**  
**PENNVEST 75% FUNDING**  
**Financing Scenario Phase IA and Phase II**  
**Service Option 2**

Project Cost		\$1,389,155.00	
Tap-in fees			
93 @ \$350.		\$32,550.00	
12 @ \$1000.		\$12,000.00	
Total tap-in fees:		\$44,550.00	(To keep as capital expenditure)
PennVEST Grant (75% assumed)		\$1,008,453.70	(Less tap in fees)
Other (Loan)		\$336,151.30	(Less tap in fees)
Debt Service			
\$336,151.30 @ 1% over 30 years		\$13,025.28	
Debt service repayment cost per EDU			
126 EDUS		\$103.38	
Debt service reimbursement per month per EDU		\$8.61	
Estimated authority operation and maintenance costs (monthly)			
Fixed	A. Billing services	\$210.00	
	B. Secretarial	\$240.00	
	C. Manager/operator	\$535.00	
	D. Office space	\$250.00	
	E. Insurance	\$125.00	
	F. Office supplies	\$25.00	
Variable	A. Electric	\$600.00	
	B. Water	\$75.00	
	C. Chemical	\$35.00	
	D. Repair	\$420.00	
Total O & M per month		\$2,515.00	
Total O & M per annual		\$30,180.00	
Cost per EDU per month (O&M)		\$19.96	
Cost per EDU per annual (O&M)		\$239.52	
Total cost per EDU per month		\$28.57	for 30 years

**MARKLEYSBURG BOROUGH**  
**PENNVEST 75% FUNDING**  
**Financing Scenario Phase IA, Phase II and Phase IV**  
**Service Option 3**

Project Cost		\$1,574,390.00	
Tap-in fees			
101 @ \$350.		\$35,350.00	
12 @ \$1000.		\$12,000.00	
Total tap-in fees:		\$47,350.00	(To keep as capital expenditure)
PennVEST Grant (75% assumed)		\$1,145,280.00	(Less tap in fees)
Other (Loan)		\$381,760.00	(Less tap in fees)
Debt Service			
\$381,760.00 @ 1% over 30 years		\$14,792.48	
Debt service repayment cost per EDU			
134 EDUS		\$110.39	
Debt service reimbursement per month per EDU		\$9.19	
Estimated authority operation and maintenance costs (monthly)			
Fixed	A. Billing services	\$226.00	
	B. Secretarial	\$240.00	
	C. Manager/operator	\$535.00	
	D. Office space	\$250.00	
	E. Insurance	\$125.00	
	F. Office supplies	\$25.00	
Variable	A. Electric	\$800.00	
	B. Water	\$75.00	
	C. Chemical	\$35.00	
	D. Repair	\$465.00	
Total O & M per month		\$2,776.00	
Total O & M per annual		\$33,312.00	
Cost per EDU per month (O&M)		\$20.72	
Cost per EDU per annual (O&M)		\$248.60	
Total cost per EDU per month		\$29.91	for 30 years

**MARKLEYSBURG BOROUGH**  
**PENNVEST 75% FUNDING**  
**Financing Scenario Phase IA, Phase II, Phase IIIA, and Phase IV**  
**Service Option 4**

Project Cost		\$1,751,830.00	
Tap-in fees			
107 @ \$350.		\$37,450.00	
12 @ \$1000.		\$12,000.00	
Total tap-in fees:		\$49,450.00	(To keep as capital expenditure)
PennVEST Grant (75% assumed)		\$1,276,785.00	(Less tap in fees)
Other (Loan)		\$425,595.00	(Less tap in fees)
Debt Service			
\$425,595.00 @ 1% over 30 years		\$16,419.00	
Debt service repayment cost per EDU			
140 EDUS		\$117.79	
Debt service reimbursement per month per EDU		\$9.81	
Estimated authority operation and maintenance costs (monthly)			
Fixed	A. Billing services	\$238.00	
	B. Secretarial	\$240.00	
	C. Manager/operator	\$535.00	
	D. Office space	\$250.00	
	E. Insurance	\$125.00	
	F. Office supplies	\$25.00	
Variable	A. Electric	\$1,000.00	
	B. Water	\$75.00	
	C. Chemical	\$35.00	
	D. Repair	\$505.00	
Total O & M per month		\$3,028.00	
Total O & M per annual		\$36,336.00	
Cost per EDU per month (O&M)		\$21.63	
Cost per EDU per annual (O&M)		\$259.55	
Total cost per EDU per month		\$31.44	for 30 years



**MARKLEYSBURG BOROUGH WITH HENRY CLAY TOWNSHIP  
PENNVEST 75% FUNDING  
Financing Scenario Phase IA, Phase II, Phase IV (M) and Phase I (HC)  
Service Option 5**

Project Cost		\$1,930,585.00	
Tap-in fees			
142 @ \$350.		\$49,700.00	
12 @ \$1000.		\$12,000.00	
Total tap-in fees:		\$61,700.00	(To keep as capital expenditure)
PennVEST Grant (75% assumed)		\$1,401,633.70	(Less tap in fees)
Other (Loan)		\$467,221.30	(Less tap in fees)
Debt Service			
\$467,221.30 @ 1% over 30 years		\$18,103.94	
Debt service repayment cost per EDU			
175 EDUS		\$103.45	
Debt service reimbursement per month per EDU		\$8.62	
Estimated authority operation and maintenance costs (monthly)			
Fixed	A. Billing services	\$308.00	
	B. Secretarial	\$240.00	
	C. Manager/operator	\$535.00	
	D. Office space	\$250.00	
	E. Insurance	\$125.00	
	F. Office supplies	\$25.00	
Variable	A. Electric	\$1,200.00	
	B. Water	\$75.00	
	C. Chemical	\$35.00	
	D. Repair	\$560.00	
Total O & M per month		\$3,353.00	
Total O & M per annual		\$40,236.00	
Cost per EDU per month (O&M)		\$19.16	
Cost per EDU per annual (O&M)		\$229.92	
Total cost per EDU per month		\$27.78	for 30 years

**MARKLEYSBURG BOROUGH WITH HENRY CLAY TOWNSHIP  
PENNVEST 75% FUNDING**



**Financing Scenario Phase IA, Phase II, Phase IV (M), Phase I (HC), Phase II (HC)  
Service Option 6**

Project Cost		\$2,302,420.00	
Tap-in fees			
151 @ \$350.		\$52,850.00	
16 @ \$1000.		\$16,000.00	
Total tap-in fees:		\$68,850.00	(To keep as capital expenditure)
PennVEST Grant (75% assumed)		\$1,675,177.50	(Less tap in fees)
Other (Loan)		\$588,392.50	(Less tap in fees)
Debt Service			
\$558,392.50 @ 1% over 30 years		\$21,552.12	
Debt service repayment cost per EDU			
193 EDUS		\$111.67	
Debt service reimbursement per month per EDU		\$9.31	
Estimated authority operation and maintenance costs (monthly)			
Fixed	A. Billing services	\$324.00	
	B. Secretarial	\$240.00	
	C. Manager/operator	\$535.00	
	D. Office space	\$250.00	
	E. Insurance	\$125.00	
	F. Office supplies	\$25.00	
Variable	A. Electric	\$1,400.00	
	B. Water	\$80.00	
	C. Chemical	\$45.00	
	D. Repair	\$585.00	
Total O & M per month		\$3,609.00	
Total O & M per annual		\$43,308.00	
Cost per EDU per month (O&M)		\$18.70	
Cost per EDU per annual (O&M)		\$224.39	
Total cost per EDU per month		\$28.01	for 30 years

\* Service Options are consistent of combined Phases as listed below. See pages 41 and 44 "Phase Options" Summary for expanded narratives of the service options.

- 1 - Markleysburg Phase I + Phase II
- 2 - Markleysburg Phase IA + Phase II
- 3 - Markleysburg Phase IA + Phase II + Phase IV
- 4 - Markleysburg Phase IA + Phase II + Phase IIIA + Phase IV
- 5 - Markleysburg Phase IA + Phase II + Phase IV + Henry Clay Township Phase I
- 6 - Markleysburg Phase IA + Phase II + Phase IV + Phase IV + Henry Clay Township Phase I + Phase II

October 29, 2002

Jack Crislip  
Department of Environmental Protection  
400 Waterfront Drive  
Pittsburgh, Pennsylvania 15222-4745

**RE: MARKLEYSBURG/HENRY CLAY ACT 537 PLAN**

Dear Mr. Crislip:

Enclosed is a copy of the signed Intermunicipal Agreement between the Borough and the Township. It is to be included within the Act 537 Plan.

Attached are the following:

1. Updated Table 6 – This table has been updated with a more accurate EDU count along with a value of 300 gpd/home for the residential units based on population data. As can be noted, the sewage flows total 62,935 gpd and the sewage plant is proposed to be sized for an average daily flow of 75,000 gpd.
2. Updated Cost Summary – The updated total project cost estimate is \$2,444,000 for the selected Service Option 6. The pump stations have been eliminated and the sewage plant is proposed to be located in Henry Clay Township along Route 281 approximately 1800' south of Route 40. The location is generally located in the vicinity of the prior location of Pump Station #2, which has been eliminated.
3. Updated PennVest 75% Funding – The updated Option 6 funding using 75% PennVest Grant Funding results in a user charge of approximately \$28.40 per month.

Page -1-



We are looking forward to an expedited review and approval of the Act 537 Plan so we may proceed with the Part I NPDES Permit submittal and Part II DEP Permit Submittal.

PennVest would like to have this project submitted in January 2003 so the funding can be recommended at the March 2003 PennVest meeting.

Thank you for your individual efforts.

Should you have any questions or comments, please feel free to contact me or Jeff Hartung at our North Huntingdon Office.

Sincerely,  
THE EADS GROUP, INC. (Somerset)

A handwritten signature in cursive script that reads "Steve Sesack".

By: Steve Sesack, P.E.

Enclosures

Cc: File 5111-S-01, w/enc.  
Markleysburg Borough, w/enc.  
Henry Clay Township, w/enc.  
Jeffrey W. Hartung – EADS, w/enc.  
Brian Frazee, w/enc.  
Terry Mattis – DEP Uniontown, w/enc.

DATE: 10/25/02

TABLE 6 (Updated) Field Audit Population/Flows			
Markleysburg Borough			
Users	User Flow Rate	Normal Sewage Flow	EDU's
101 Residential Homes	101 homes @ 300 gpd/home <sup>(1)</sup>	30,300 gpd	101
Post Office	1 restroom @ 400 gpd	400 gpd	1
Community Center	2 restrooms @ 400 gpd each	800 gpd	2
Repair Garage	1 restroom @ 400 gpd	400 gpd	1
Funeral Home	2 public restrooms @ 400 gpd ea	800 gpd	2
Nursing Home	97 beds @ 75 gpd each	7,275 gpd	18
Six Churches	360 seats @ 6 gpd/seat	2,160 gpd	6
Grocery Store	4 restrooms @ 400 gpd	1,600 gpd	4
<b>Average Daily Sewage Flow</b>		<b>43,735 gpd</b>	<b>135</b>
Henry Clay Township (SR 281 Corridor)			
Users	User Flow Rate	Normal Sewage Flow	EDU's
44 Residential Homes	44 homes @ 300 gpd/home <sup>(2)</sup>	13,200 gpd	44
Petroleum Storage Co.	2 restrooms @ 400 gpd each	800 gpd	2
Convenience Store	2 restrooms @ 400 gpd each	800 gpd	2
Repair Garage	1 restroom @ 400 gpd	400 gpd	1
Marclay School	200 students/other @ 20 gpd ea	4,000 gpd	10
<b>Average Daily Sewage Flow</b>		<b>19,200 gpd</b>	<b>59</b>
<b>Total Average Daily Flows @ SR 281 Corridor =</b>		<b>62,935 gpd</b>	<b>194</b>
<b>Size Sewage Plant for about 19% Growth =</b>		<b>63,000</b> <b>75,000 gpd capacity</b>	

<sup>(1)</sup> 1990 census per Pennsylvania State Data Center indicates population of 320 for Markleyburg Borough with 101 occupied housing units - or approximately 3 persons per unit; therefore, 300 gpd/unit.

<sup>(2)</sup> 1990 census per Pennsylvania State Data Center indicates population of 1860 for Henry Clay Township with 620 occupied units - or approximately 3 persons per unit; therefore, 300 gpd/unit.

**MARKLEYSBURG BOROUGH  
SEWER SYSTEM - TOTAL PROJECT COST ESTIMATE  
UPDATED COST SUMMARY**

**DATE: 10/25/02**

**OCTOBER 2002**

<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL PRICE</u>
Local Sewers, Unpaved	16,400	LF	\$40.00	\$656,000
Local Sewers, Road Shoulder	1,638	LF	\$45.00	\$73,710
Local Sewers, Road Paved	123	LF	\$55.00	\$6,765
State Sewers, Shoulder Paved	2,366	LF	\$60.00	\$141,960
Deep Sewers	915	LF	\$100.00	\$91,500
Borings	240	LF	\$150.00	\$36,000
Grinder Pumps	10	EA	\$5,000.00	\$50,000
2" Pressure Sewers	1,800	LF	\$20.00	\$36,000
Pump Stations	0	EA	\$61,600.00	\$0
Sewage Plant	75,000	GAL	\$10.00	\$750,000
Markleysburg School STP Closing	1	LS	\$24,000.00	<u>\$24,000</u>
			<b>TOTAL CONSTRUCTION</b>	<b>\$1,865,935.00</b>
			<b>CONTINGENCIES @ 10%</b>	<b>\$186,593.50</b>
			<b>21% ASSOCIATED COSTS</b>	<b><u>\$391,846.35</u></b>
			<b>TOTAL PROJECT COST</b>	<b>\$2,444,000.00</b>

**NOTES:**

- 1.) This cost estimate includes construction of facilities to provide sanitary sewer service to all of Markleysburg Borough including Henry Clay Township areas north from the Borough located along State Route 281 to the intersection of State Route 40.
- 2.) These areas are referred to as Phase IA, Phase II, Phase IV (M) plus Phase I (HC) and Phase II (HC) in the Borough's Act 537 Plan dated July 2002.

**MARKLEYSBURG BOROUGH WITH HENRY CLAY TOWNSHIP**  
**PENNVEST 75% GRANT FUNDING**  
**Financing Scenario Phase IA, Phase II, Phase IV (M), Phase I (HC), Phase II (HC)**  
**Service Option 6 (Updated 10/25/02)**

Project Cost	\$2,444,000.00
Residential Taps	145
Commercial/Industrial Taps	49
Residential Taps @ \$350 x .90	\$45,675.00
Commercial Taps @ \$1000 x .90	<u>\$44,100.00</u>
Total Tap-In Fees:	\$89,775.00
Project Cost Minus Tap Fees	\$2,354,225.00
PennVEST Grant (75% assumed)	<u>\$1,765,668.75</u>
Other (Loan)	\$588,556.25
Debt Service	
Loan @ 1% over 30 years (.03875)	\$22,806.55
Total EDU's	194
Debt service repayment cost per EDU	\$117.56
Debt service reimbursement per month per EDU	\$9.80
Estimated authority operation and maintenance costs (monthly)	
Fixed	
A. Billing Services	\$324.00
B. Secretarial	\$240.00
C. Manager/Operator	\$535.00
D. Office Space	\$250.00
E. Insurance	\$125.00
F. Office Supplies	\$25.00
Variable	
A. Electric	\$1,400.00
B. Water	\$80.00
C. Chemical	\$45.00
D. Repair	\$585.00
Total O & M Per Month	\$3,609.00
Total O & M Per Annual	\$43,308.00
Cost Per EDU per month (O & M)	\$18.60
Cost Per EDU per annual (O & M)	\$223.24
Total Cost Per EDU per month	\$28.40 for 30 years



copy

**INTERMUNICIPAL SEWER AGREEMENT**

MADE this 7<sup>th</sup> day of October, 2002, by and between the **BOROUGH OF MARKLEYSBURG**, a municipal corporation of the Commonwealth of Pennsylvania, with its principal office in the Borough of Markleysburg, County of Fayette and Commonwealth of Pennsylvania (hereinafter called "Borough"), and the **TOWNSHIP OF HENRY CLAY**, a municipal corporation of the Commonwealth of Pennsylvania, with its principal office in the Township of Henry Clay, County of Fayette and Commonwealth of Pennsylvania (hereinafter called "Township").

**WHEREAS**, the Borough has updated its Act 537 Plan to provide for sewage disposal in the Borough and parts of the Township; and,

**WHEREAS**, the Borough and Township have agreed that it will be in the best interests of both municipalities for the Borough to provide sewage service to certain areas of the Township.

**NOW, THEREFORE**, it is agreed as follows:

1. Borough will design and construct a public sanitary sewer system (hereinafter known as the "Project") serving areas in the Borough and the Township as shown on the location plan for sanitary sewer lines attached hereto and made a part hereof as Exhibit "A" (hereinafter known as the "Service Area").

2. Borough shall assume financial responsibility to design and construct all necessary sewer lines, manholes, pumping facilities, sewage treatment plant and appurtenances required to provide sanitary sewer service for the Project to the Service Area.

3. Borough shall assume the responsibility for constructing and managing the Project and, following construction and startup, Borough shall then own, operate and maintain the sewer system in the Service Area.

4. The customers in the Service Area will become customers of the Borough and will be responsible to pay (a) a tap fee and (b) a user fee based on the Project's debt service and annual operation and maintenance charges for the Service Area.

5. Township agrees to enact a mandatory connection ordinance for customers in the Township located in the Service Area set forth on Exhibit "A" in accordance with Pennsylvania Department of Environmental Protection (DEP) requirements.

6. The customers located in the Service Area described on Exhibit "A" shall pay the rates established by the Borough for the Service Area which shall include a user fee and a transmission fee and shall conform and be subject to the sewer system rules and regulations enacted by the Borough.

7. Borough agrees to acquire the Pennsylvania Infrastructure Investment Authority (PENNVEST) loan/grant, bond issue or other financing for the Project.

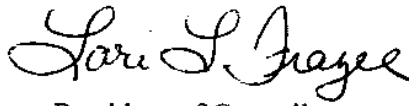
**IN WITNESS WHEREOF, AND INTENDING TO BE LEGALLY BOUND HEREBY,**

the parties have hereunto set their hands and seals the day and year first above written.

**ATTEST:**

  
Secretary

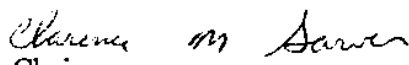
**BOROUGH OF MARKLEYSBURG**

By   
President of Council

**ATTEST:**

  
Secretary

**TOWNSHIP OF HENRY CLAY**

By   
Chairman

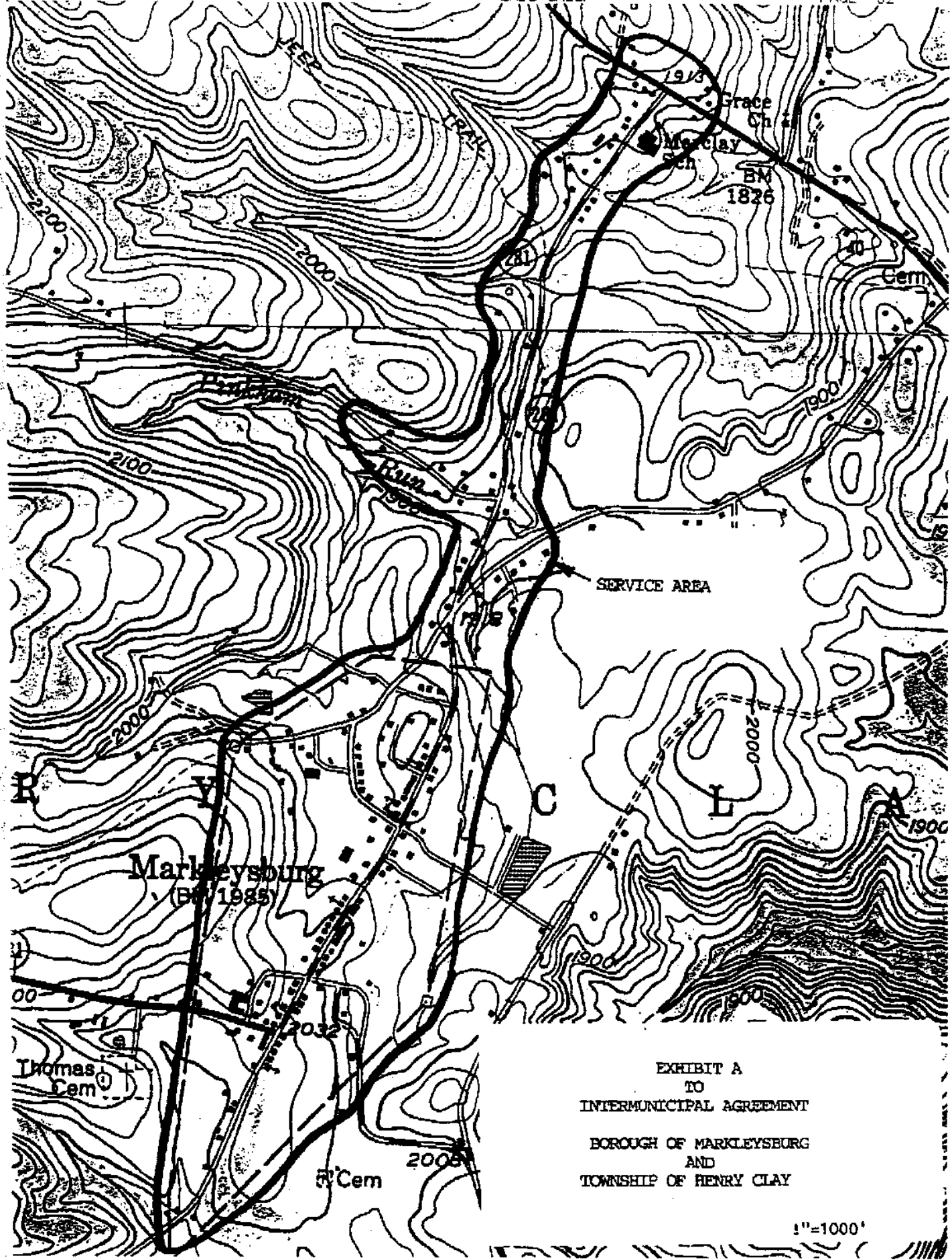


EXHIBIT A  
 TO  
 INTERMUNICIPAL AGREEMENT  
 BOROUGH OF MARKLEYSBURG  
 AND  
 TOWNSHIP OF HENRY CLAY

1"=1000'