RECEIVED JUN 1 8 1998

Pennsylvania Department of Environmental Protection

150 Roosevelt Avenue
York, PA 17404
June 12, 1998

717-771-4481
FAX 717-845-3496

York District Office

Penn Township Supervisors
20 Wayne Ave.
Hanover, PA 17331

Re: Planning Module for New Land Development
Colonial Hills Phase 10
Penn Township, York County
DEP Code No. A3-67951-127-3
West Manheim Township, York County
DEP Code No. A3-67964-068-3

Ladies and Gentlemen:

The Department of Environmental Protection has reviewed the above-referenced proposed Official Plan revision consisting of a multi-unit residential development on 55.09 acres. The project will consist of 14 single-family dwellings, 22 duplex units and 308 townhouse units. West Manheim will contain 336 of the total units and Penn Township will contain eight units. The project will be served by public sewer and water and generate an estimated 120,400 GPD tributary to the Penn Township sewage treatment plant. The proposed development is located on the north side of Pumping Station Road, one mile east of the intersection with SR 0094 (Baltimore Pike) in West Manheim Township and Penn Township, York County.

The plan revision is approved with the following comments:

1. The approved project will require a Clean Streams Law (CSL) permit for the construction and operation of the proposed sewerage facilities. The permit application must be submitted in the name of the municipality. Approval of this planning module is only approval of the preliminary concept of the proposed project and does not assure that a permit application will be acted upon favorably by the Department. Issuance of a CSL permit will be based upon a technical evaluation of the permit application and supporting information. Starting construction prior to obtaining a permit is a violation of the Clean Streams Law.

2. Other Department permits may be required for construction if encroachment to streams or wetlands will result. Information regarding the requirements for such permits or approvals can be obtained from DEP Soils and Waterways Section, Water Management Program, Southcentral Regional Office,909 Elmerton Avenue, Harrisburg, PA 17110, telephone 717-705-4707.

Should you have any questions concerning this matter, please feel free to contact this office.

Sincerely,

Robert P. Feister
Sewage Planning Specialist
York District Office

cc: Penn Township Sewer Authority
Joseph Myers
Group Hanover, Inc.
York County Planning Commission
West Manheim Township Supervisors

RECEIVED JUN 1 8 1998

Pennsylvania Department of Environmental Protection

150 Roosevelt Avenue
York, PA 17404
June 12, 1998

717-771-4481
FAX 717-845-3496

York District Office

West Manheim Township Supervisors
31 Fairview Drive
Hanover, PA 17331

Re: Planning Module for New Land Development
Colonial Hills Phase 10
Penn Township, York County
DEP Code No. A3-67951-127-3
West Manheim Township, York County
DEP Code No. A3-67964-068-3

Ladies and Gentlemen:

The Department of Environmental Protection has reviewed the above-referenced proposed Official Plan revision consisting of a multi-unit residential development on 55.09 acres. The project will consist of 14 single-family dwellings, 22 duplex units and 308 townhouse units. West Manheim will contain 336 of the total units and Penn Township will contain eight units. The project will be served by public sewer and water and generate an estimated 120,400 GPD tributary to the Penn Township sewage treatment plant. The proposed development is located on the north side of Pumping Station Road, one mile east of the intersection with SR 0094 (Baltimore Pike) in West Manheim Township and Penn Township, York County.

The plan revision is approved with the following comments:

1. The approved project will require a Clean Streams Law (CSL) permit for the construction and operation of the proposed sewerage facilities. The permit application must be submitted in the name of the municipality. Approval of this planning module is only approval of the preliminary concept of the proposed project and does not assure that a permit application will be acted upon favorably by the Department. Issuance of a CSL permit will be based upon a technical evaluation of the permit application and supporting information. Starting construction prior to obtaining a permit is a violation of the Clean Streams Law.

2. Other Department permits may be required for construction if encroachment to streams or wetlands will result. Information regarding the requirements for such permits or approvals can be obtained from DEP Soils and Waterways Section, Water Management Program, Southcentral Regional Office,909 Elmerton Avenue, Harrisburg, PA 17110, telephone 717-705-4707.

Should you have any questions concerning this matter, please feel free to contact this office.

Sincerely,

Robert P. Feister
Sewage Planning Specialist
York District Office

cc: Penn Township Sewer Authority
Joseph Myers
Group Hanover, Inc.
York County Planning Commission
Penn Township Supervisors

# West Manheim Township

Board of Supervisors

31 Fairview Drive

Hanover, Pa. 17331

Phone: 717 632-0320

Fax: 717 632-2499


RECEIVED OCT 3 0 1997

October 28, 1997

RE: COLONIAL HILLS
Tract located on north side of
Pumping Station Road at Oakwood Drive
Intersection

TO WHOM IT MAY CONCERN:

This letter certifies that public water will be avaliable to the above referenced tract of land.

If you have any further questions, contact me at the Township Office.

Very truly yours,

WEST MANHEIM TOWNSHIP
BOARD OF SUPERVISORS

Dean R. Hempfing,
Water Authority Administrator

RECEIVED NOV 2 6 1997

THE BOROUGH OF HANOVER
44 FREDERICK STREET
HANOVER. PENNA. 17331
717-637-3877
AN EQUAL OPPORTUNITY EMPLOYER

November 24, 1997

G.H.I.
213 Carlisle Street
Hanover, Pa. 17331

Attention: Mr. Ted Decker

Dear Mr. Decker:

This letter is to confirm that water is available to the lots for Colonial Hills, Ph 10 in Penn Township.

A Consumer Deposit is necessary to extend the water lines for these lots.

If you have any questions, please call 637-3877.

Sincerely,

THE BOROUGH OF HANOVER
WATER DEPARTMENT

Gordon Shue

Gordon Shue
Supervisor

GS/jez

GHI Engineers and Surveyors

Group Hanover, Inc.

Robert A. Nedzel, PE, PLS
Douglas L. Stambaugh, PLS, SEO
Gregory N. Wengert, PLS
Theodore A. Decker, PE, PLS
Edward L. Mort, PLS
Robert M. Lauriello, EIT

November 19, 1997

# PROJECT NARRATIVE
# COLONIAL HILLS - PHASE 10
# WEST MANHEIM TOWNSHIP/PENN TOWNSHIP
# YORK COUNTY, PENNSYLVANIA
# DEP CODE NO. A3-67964-068-3
# DEP CODE NO. A3-67951-127-3
# PROJECT NO. 951060

Colonial Hills - Phase 10 is a proposed residential subdivision located 1 mile east of the intersection S.R. 0094 - Baltimore Pike and Pumping Station Road along the northern side of Pumping Station Road in West Manheim and Penn Township, York County. The project will consist of 14 single family residential dwellings, 22 duplex units and 308 townhouse units. West Manheim Township will contain 336 dwelling units (6 single-family, 22 duplex units and 308 townhouse units) while Penn Township will contain 8 dwelling units (8 single-family). The proposed total number of EDU's will be 344. The total area of the proposed subdivision is 55.094 acres with 50.799 acres in West Manheim Township and the remaining 4.295 acres in Penn Township.

The proposed sewage flow for this development was computed using 350 gallons per dwelling, duplex or townhouse unit. Therefore, the total daily flow will be 120,400 gallons of sewage per day. This project will be served by public water by West Manheim Township and Penn Township. The proposed water usage for this development was computed using a rate of 350 gallons per dwelling unit. The total daily water use will be 120,400 gallons per day.

The proposed method of sewage disposal will be to collect sewage in a 8, 10 or 12 inch diameter gravity sewer main within the project. The 12 inch gravity sewer will convey the sewage 900 feet northeastward to a proposed pump station in West Manheim Township. From the proposed pump station the sewage will cross into Penn Township and be pumped through an 8 inch diameter force main to S.R. 3070 - Black Rock Road, parallel with S.R. 3070 - Black Rock Road, cross S.R. 3068 - Grandview Road and connect to an existing 15 inch diameter gravity sewer line, along S.R. 3070 - Black Rock Road. The 15 inch main is known as the Breezewood Interceptor Sewer. The sewage will then flow in that main, eventually crossing S.R. 0116 - York Street and continuing in Penn Township sewer mains until it reaches Penn Township's Sewage Treatment Plant. After treatment of the sewage, the plant will discharge to Oil Creek in Penn Township at a point located on the 7.5 minute Hanover, PA U.S.G.S. Quadrangle Map at 11.4 inches up and 11.0 inches over from the lower right hand corner.

The adjacent land uses surrounding this project can be best described as follows: To the north and east is residential and to the south and west is agricultural.

GHI Engineers and Surveyors

Group Hanover, Inc.

Robert A. Nedzel, PE, PLS
Douglas L. Stambaugh, PLS, SEO
Theodore A. Decker, PE, PLS
Edward L. Mort, PLS

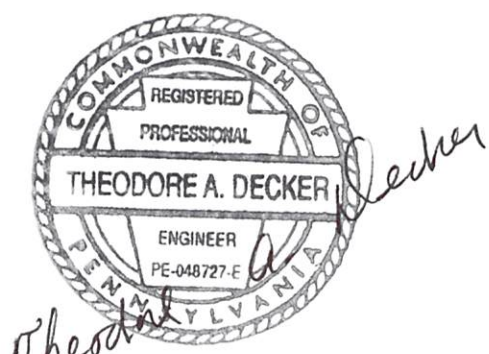
# COLONIAL HILLS - PHASE 10

## WEST MANHEIM TOWNSHIP
## AND
## PENN TOWNSHIP

# DESIGN

# ENGINEER'S

# REPORT




AUGUST 21, 1998
PROJECT NO. 951060

213 Carlisle Street • Hanover, Pennsylvania 17331 • 717-637-3800 • Fax 633-9143

3600-PM-WQ0007 5/95
Checklist

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER MANAGEMENT PROGRAM

# WATER QUALITY MANAGEMENT PART II
# SEWAGE APPLICATION - CHECKLIST FOR SUBMITTAL

## 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 file closed.

ENCLOSE THIS CHECKLIST WITH YOUR APPLICATION FORM.

* * * FOR DER USE * * *
Application ID# _____
Stamp Date Application Received

| | Requirement | Check √ If Included | * DER * Use Only |
|---|---|---|---|
| | **Accompanying materials and documentation (See General Instructions)** | | |
| 1. | Appropriate application fee $100.00 | ✓ | |
| 2. | Three (3) copies of application, design engineer's report, and accompanying drawings and plans. | ✓ | |
| | a. Affidavit and proper signatures | ✓ | |
| | b. Engineer's professional seal | ✓ | |
| | c. Properly notarized | ✓ | |
| | d. Plans PRELIMINARY PLAN - COLONIAL HILLS - PHASE 10 (TITLE/DESCRIPTION) | ✓ | |
| | No. of sheets 31 Date AUG. 01, 1995 REV. 8/4/98 | ✓ | |
| | Specifications COLONIAL HILLS - PHASE 10 (TITLE) SAME AS PLANS | ✓ | |
| | Plans _____ (TITLE/DESCRIPTION) | | |
| | No. of sheets _____ Date _____ | | |
| | Specifications _____ (TITLE) | | |
| 3. | _____ additional copies of application, design engineer's report, and accompanying plans and specifications for review by DRBC, Allegheny County or Erie County. | N/A | |
| 4. | Soil Erosion and Sedimentation Control Plan | ✓ | |
| | a. County Conservation District comments (optional) | ✓ | |
| 5. | Has appropriate ACT 537 planning approval been obtained? | ✓ | |
| 6. | List by number, the modules submitted with this application MODULE 2 | ✓ | |
| 7. | Act 14 Notification | ✓ | |



Recycled Paper

ER–BWQ–265: Rev. 2/89 DEPARTMENT OF ENVIRONMENTAL RESOURCES

# SEWER EXTENSIONS and PUMPING STATIONS PERMIT APPLICATION

APPLICANT NAME* West Manheim Township , ADDRESS: 31 Fairview Drive
CITY, ZIP Hanover,Pa 17331 TELEPHONE NUMBER: 717-632-0320

*Applicant shall be the agency which will own the sewerage facilities following completion and/or dedication.

A filing fee of $100.00 will be required for sewer extension (collector sewers only). A filing fee of $500.00 will be required for all other type of facilities. This fee must be submitted with the application in the form of a check (not more than 15 days old) made payable to "Pennsylvania Department of Environmental Resources". This fee is ***not*** required of State agencies. An additional filing fee of $50.00 is required when the sewerage project involves a stream encroachment located within the delineated 100 year floodplain or within 50 feet of the stream bank in absence of a delineated floodplain. This additional fee is ***not*** required of Federal, State, County or Municipal Agencies.

PROJECT NAME Colonial Hills - Phase 10
PROJECT LOCATION
MUNICIPALITY West Manheim Twp.
COUNTY York County
BASIS OF DESIGN
DESIGN YEAR 2003
DESIGN POPULATION 1204

If the project is associated with land development, complete the following:

NAME OF DEVELOPMENT Colonial Hills - Phase 10
TYPE OF DEVELOPMENT Residential
NUMBER OF UNITS 344 PROJECT ACREAGE 55.09 acres
PERMIT NO. OF RECEIVING SEWERS 67-98407

NOTE: Please attach a drawing which clearly shows the boundaries of the proposed service area, the properties to be served, the location of the sewerage facilities, the slope of proposed sewers on the plan with inverts of manhole, point of connection to existing sewers, and all streets, streams or other important site features. Also, include specifications for the facilities and an erosion and sedimentation control plan.

For any deviations from the Sewerage Manual, please note clearly and fully justify.

*FOR THE APPLICANT*

I hereby apply for approval on (Date) Aug. 18th, 1998 to construct and operate [ X ] Sewers and appurtenances [ ] Sewage pumping station(s) which [ X ] does [ ] does not include stream crossing(s)/100 year floodplain location.

For sewage pumping stations include detailed construction plans and Module 2.

For stream crossing, include the plan and profile view of the sewer line and Module 11.

Affidavit: I hereby certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and based on my inquiry of those individuals immediately responsible for obtaining the information I believe the submitted information is true, accurate and complete.

APPLICANT'S SIGNATURE Kenneth L. Harget
NAME AND TITLE: Kenneth L. Harget, Chairman
ADDRESS: 31 Fairview Drive Hanover,Pa 17331
SWORN and subscribed to before me this 18th day of August, 1998 Cornelia A. Craumer NOTARY

NOTARY SEAL

Notarial Seal
Cornelia A. Craumer, Notary Public
West Manheim Twp., York Co.
My Commission Expires June 19, 1999
Member, Pennsylvania Association of Notaries

*FOR THE DESIGNER*

Affidavit, I, Theodore A. Decker,PE, do hereby certify that the information contained in the accompanying plans, specifications, and reports has been prepared in accordance with accepted engineering practice, is true and correct, and is in conformance with the standards, guidelines and requirements of the Department of Environmental Resources.

DESIGNER'S NAME Theodore A. Decker,PE
NAME OF FIRM: GHI Engineers and Surveyors
ADDRESS, ZIP 213 Carlisle St.
Hanover,Pa 17331
TELEPHONE NUMBER: 717-637-3800

Theodore A. Decker
DESIGNER'S SEAL & SIGNATURE**

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
THEODORE A. DECKER
ENGINEER

**A Registered Professional Engineer seal and signature is required for all Part II permit applications with the exception of Minor Sewer Extensions (serving not more than 250 residential dwelling units and not involving interceptor or pumping station). A Registered Surveyor seal and signature in lieu of a Registered Professional Engineer seal and signature is acceptable for Minor Sewer Extensions.

3600-PM-WQ0007 5/95

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER MANAGEMENT PROGRAM

Coordination #

# APPLICATION FOR WATER QUALITY MANAGEMENT PART II PERMIT -- SEWERAGE

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

DER USE ONLY

Application ID# (Assigned by DER) _____

Stamp Date Application Received

## SECTION A. APPLICANT IDENTIFIER

Applicant Name: West Manheim Township

## SECTION B. APPROVAL OF PLANS FOR CONSTRUCTION (CHECK APPROPRIATE BLOCKS IN SPACES A, B, AND C)

A. APPROVAL OF PLANS FOR CONSTRUCTION/MODIFICATION OF:

- ☒ Sewers and Appurtenances
- ☐ Pump Stations
- ☐ Sewage Treatment Plant
- ☐ Outfall and Headwall
- ☐ Stream Crossing
- ☐ Impoundment
- ☐ Spray Irrigation

B. ☐ APPROVAL TO OPERATE SEWERAGE FACILITIES

DATE OF APPLICATION: 8/18/98

## SECTION C. SIGNATURES (ALL DISCHARGES OF WASTES ARE PURSUANT TO "THE CLEAN STREAMS LAW" AND NPDES PART I PERMIT)

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA, COUNTY OF York

I, Kenneth L. Harget, Chairman being duly sworn, according to law, depose and say that I (am the applicant) (am an officer or official of the applicant) (have the authority to make this application) and that the plans, reports and documents designated and attached here with as part of the application are true and correct to the best of my knowledge and belief.

SIGNATURE Kenneth L. Harget DATE 8-18-98

TITLE Chairman

SWORN AND SUBSCRIBED TO BEFORE ME THIS

18th DAY OF August 1998

Cornelia A. Craumer
Notary Public

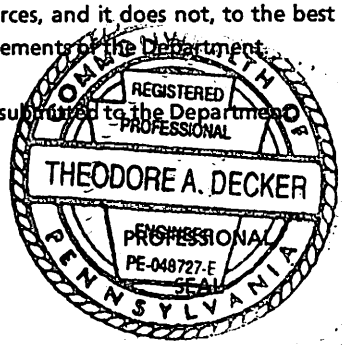
NOTARY SEAL

Notarial Seal
Cornelia A. Craumer, Notary Public
West Manheim Twp., York County
My Commission Expires June 19, 1999
Member, Pennsylvania Association of Notaries

**THIS SECTION TO BE COMPLETED BY THE REGISTERED PROFESSIONAL ENGINEER WHO PREPARES THIS APPLICATION, ACCOMPANYING REPORT AND SUPPORTING DOCUMENTATION:**

This is to certify that I have personally reviewed all engineering information contained in the accompanying modules, drawings, specifications, and other documents which are part of this application and that I have found it to be of good engineering quality, true and correct, and is in conformance with the requirements of the Department of Environmental Resources, and it does not, to the best of my knowledge, withhold information that is pertinent to a determination of compliance with the requirements of the Department.

NOTICE: It is an offense under Pennsylvania Criminal Code to affirm a false statement in documents submitted to the Department.




Name of Design Engineer: Theodore A. Decker,PE

Design Firm: GHI Engineers and Surveyors

Mailing Address: 213 Carlisle Street
Hanover,Pa 17331

Telephone: 717 - 637-3800
AC

Theodore A. Decker, PE
Signature of Professional Engineer

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER MANAGEMENT PROGRAM

# WATER POLLUTION CONTROL
## MODULE 2

FOR DEPARTMENT USE ONLY

## TABLE 1 -- SEWER SYSTEM

1. CLASS OF CONSTRUCTION ☒ NEW SYSTEM ☐ REPLACEMENT OF EXISTING SYSTEMS ☒ SANITARY ☐ COMBINED
2. INITIAL POPULATION 0 , DESIGN YEAR POPULATION 1204
3. DESIGN FLOW DATA
   - (a) Laterals and Submain Sewers (GPCD) 100
   - (b) Interceptors (GPCD) 100
   - (c) Average Daily Flow (MGD) 0.1204
   - (d) Infiltration/Inflow (MGD) (included in C above)
   - (e) Industrial Waste Flow (MGD) N/A
   - (f) Total Average Design Flow (MGD) 0.1204
   - (g) Maximum Expected Flow Rate (Peak Instantaneous) (MGD) 0.4816
4. GENERAL INFORMATION:
   - (a) Describe measures taken to reduce I/I in the system including leakage test and reference applicable portion of the specifications.
     Watertight joints used on all pipes, air testing of all lines performed by contractor in presence of Township inspector. Also Township Engineer will be inspecting construction.
   - (b) Describe any overflows or bypasses within the system.
     None
   - (c) If applicable, describe capacity of receiving sewers and pumping station and submit two copies of the executed intermunicipal agreement. The receiving gravity (12"ø) sewer has a capacity of 1.6MGD at 0.40% slope. The West Manheim Township pumping station which is part of the receiving sewer has a capacity of 1.0 MGD.

## TABLE 2 -- PUMP STATION (Submit separate table for each pump station)

1. PUMP STATION NAME:
2. LOCATION (street name, etc.):
3. TYPE (e.g. Conventional, suction lift, ejector or submersible) _____
4. INITIAL POPULATION TO BE SERVED: _____, FUTURE POPULATION TO BE SERVED: _____.
   DESIGN YEAR _____
5. DESIGN INFORMATION:

| | | AVG (MGD) | MAX (Peak Instantaneous) (MGD) |
|---|---|---|---|
| (a) | Domestic Flow Rate (based on Design population to be served) | | |
| (b) | Industrial Flow Rate | | |
| (c) | Infiltration/Inflow Rate | | |
| (d) | Design Flow Rate | | |
| (e) | Effective Wet Well capacity (Gal) | | |
| (f) | Detention Time (Min) | | |
| (g) | Design Average Velocity in Force Main (Fps) | | |
| (h) | Total Dynamic (Head Pump Station + Force Main) | Static Head | Ft. |
| | | Friction Loss | Ft. |
| | | TDH | Ft. |

(continued)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER MANAGEMENT PROGRAM

# WATER POLLUTION CONTROL
## MODULE 2

FOR DEPARTMENT USE ONLY

6. GENERAL INFORMATION

(a) Describe the proposed project with respect to the 100 year flood elevation, ventilation, emergency power provision and alarm system.

## TABLE 3 -- PUMPING FACILITIES

LIST ALL THE PUMPS IN THE ENTIRE TREATMENT FACILITY

| NUMBER OF IDENTICAL PUMPS | Describe Pump Use | Type of Pump | Check Columns That Apply To Each Pump | | | | | | | | Pump Capacity | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | EXISTING | PROPOSED | VARIABLE SPEED | CONSTANT SPEED | AUTOMATIC CONTROL | MANUAL CONTROL | PNEUMATIC EJECTOR | STAND BY OPERATION | (GPM) | TDH (FT.) |
| | | | | | | | | | | | | |

GHI Engineers and Surveyors

Robert A. Nedzel, PE, PLS
Douglas L. Stambaugh, PLS, SEO
Theodore A. Decker, PE, PLS
Edward L. Mort, PLS

Group Hanover, Inc.

August 18,1998

COLONIAL HILLS - PHASE 10 SUBDIVISION
WEST MANHEIM TOWNSHIP/PENN TOWNSHIP
YORK COUNTY,PENNSYLVANIA

DESIGN ENGINEER'S REPORT

Colonial Hills Subdivision consists of a 55.094 acre site located approximately 1 mile east of the intersection of SR 0094 (Baltimore Pike) and Pumping Station Road in West Manheim Township and Penn Township,York County. The project contains 344 EDU's(336 in West Manheim Township and 8 in Penn Township).

Proposed sewage flows from this project were computed using 100 gallons per person per day and 3.5 persons per dwelling unit. This projects to a daily flow of 120,400 gallons per day. The proposed sewage will flow by gravity in 8 and 10 inch diameter sewer mains to a point of connection to the West Manheim Township interceptor sewer permitted under Permit No. 67-98407.

Upon completion of the proposed sanitary sewer extension, the developer will dedicate the sanitary sewer and appurtenances to West Manheim Township for maintenance and operation.

213 Carlisle Street • Hanover, Pennsylvania 17331 • 717-637-3800 • Fax 633-9143

GHI Engineers and Surveyors

Robert A. Nedzel, PE, PLS
Douglas L. Stambaugh, PLS, SEO
Theodore A. Decker, PE, PLS
Edward L. Mort, PLS

Group Hanover, Inc.

AUGUST 18,1998

NARRATIVE REPORT

COLONIAL HILLS SUBDIVISION - PHASE 10
WEST MANHEIM TOWNSHIP/PENN TOWNSHIP
YORK COUNTY , PENNA.
PROJECT NO. 951060

Colonial Hills - Phase 10 is a proposed residential subdivision located 1 mile east of the intersection of S.R. 0094 (Baltimore Pike) and Pumping Station Road in West Manheim Township and Penn Township,York County. The project consists of 6 single family dwelling units, 22 duplex units,and 308 townhouse units in West Manheim Township plus 8 single family dwelling units in Penn Township. This amounts to a total of 344 EDU's situated on 55.094 acres(50.799 acres in West Manheim and 4.295 acres in Penn Township).

Sanitary sewer service will be provided by West Manheim Township in the form of collection and conveyance. Treatment of the sewage will be provided by the Penn Township Sewage Treatment Plant. Sewage from this development will flow by gravity in the proposed 8 and 10 inch diameter gravity sewers to a point of connection to the West Manheim Township 12 inch diameter interceptor receiving sewer. This sewer was permitted under Permit No.67-98407 and is located in proposed Colonial Drive approximately 140 feet north of the intersection of Pumping Station Road and proposed Colonial Drive.

Soil Erosion and Sediment Control will be accomplished in accordance with the approved Soil Erosion and Sediment Control Plans. This plan was approved by the York County Conservation District on June 6 , 1996 and is approved by DEP under code PAS10Y043 pending issuance of this Clean Streams Permit.

Additional control of trench excavation will be achieved by placing silt barrier fencing on the downhill side of any earth moving, with the exception of earth that will be used as backfill that same day. Permanent measures include proper backfilling and stabilization of trenches with seeding and mulching.

Upon completion of the proposed sanitary sewer extension, the developer will dedicate the sanitary sewer and appurtenances to West Manheim Township for maintenance and operation.

GHI Engineers and Surveyors

Robert A. Nedzel, PE, PLS
Douglas L. Stambaugh, PLS, SEO
Theodore A. Decker, PE, PLS
Edward L. Mort, PLS

Group Hanover, Inc.

August 11, 1998

FILE COPY

York County Planning Commission
100 West Market Street
York, PA 17401

SUBJECT: CLEAN STREAMS LAW PERMIT
COLONIAL HILLS - PHASE 10
WEST MANHEIM TOWNSHIP AND PENN TOWNSHIP
PROJECT NO. 951060

Dear Board Members:

Pursuant to PA Act 14, P.L. 834, this is to inform you that Joseph A. Myers is applying for a Clean Streams Law Permit for sewer extension for Colonial Hills - Phase 10.

The Colonial Hills - Phase 10 subdivision is located approximately 1 mile east of the intersection of S.R. 0094 - Baltimore Pike and Pumping Station Road along the northern side of Pumping Station Road.

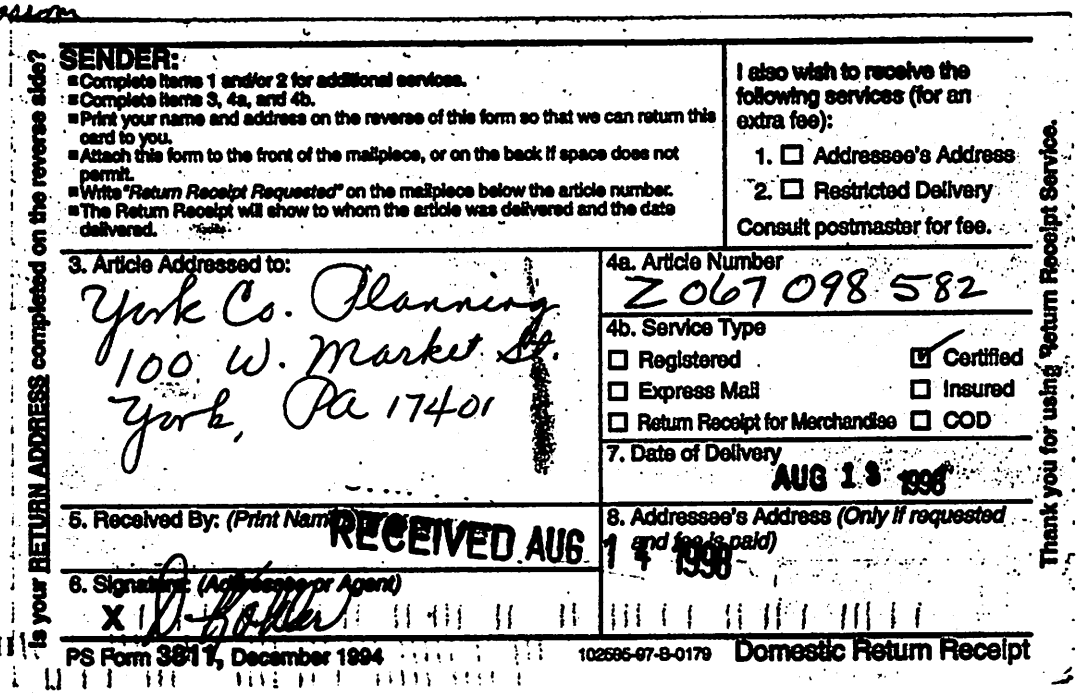
Very truly yours,

GHI Engineers and Surveyors

Michael E. Bossom

Michael E. Bossom

MEB/rak



SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery
Consult postmaster for fee.

3. Article Addressed to: York Co. Planning 100 W. Market St. York, PA 17401

4a. Article Number Z 067 098 582

4b. Service Type
☐ Registered ☑ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery AUG 1 8 1998

5. Received By: (Print Name) RECEIVED AUG 1 4 1998

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent) X D. Keller

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

PS Form 3811, December 1994 102595-97-B-0179 Domestic Return Receipt

213 Carlisle Street • H

**GHI** Engineers and Surveyors

Robert A. Nedzel, PE, PLS
Douglas L. Stambaugh, PLS, SEO
Theodore A. Decker, PE, PLS
Edward L. Mort, PLS

Group Hanover, Inc.

August 11, 1998

Penn Township Board of Commissioners
20 Wayne Avenue
Hanover, PA 17331

FILE COPY

SUBJECT: CLEAN STREAMS LAW PERMIT
COLONIAL HILLS - PHASE 10
WEST MANHEIM TOWNSHIP AND PENN TOWNSHIP
PROJECT NO. 951060

Dear Board Members:

Pursuant to PA Act 14, P.L. 834, this is to inform you that Joseph A. Myers is applying for a Clean Streams Law Permit for sewer extension for Colonial Hills - Phase 10.

The Colonial Hills - Phase 10 subdivision is located approximately 1 mile east of the intersection of S.R. 0094 - Baltimore Pike and Pumping Station Road along the northern side of Pumping Station Road.

Very truly yours,

GHI Engineers and Surveyors

Michael E. Bossom

Michael E. Bossom

MEB/rak

213 Carlisle Street • Ha

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "*Return Receipt Requested*" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Penn Township
20 Wayne Ave
Hanover, PA 17331

4a. Article Number
Z 067 098 584

4b. Service Type
☐ Registered ☑ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
8-12-98

5. Received By: (Print Name) RECEIVED AUG

8. Addressee's Address (Only if requested and fee paid)

6. Signature: (Addressee or Agent)
X

PS Form 3811, December 1994 102595-97-B-0179 Domestic Return Receipt

Thank you for using Return Receipt Service.

GHI Engineers and Surveyors

Robert A. Nedzel, PE, PLS
Douglas L. Stambaugh, PLS, SEO
Theodore A. Decker, PE, PLS
Edward L. Mort, PLS

Group Hanover, Inc.

August 11, 1998

FILE COPY

West Manheim Township Board of Supervisors
31 Fairview Drive
Hanover, PA 17331

SUBJECT: CLEAN STREAMS LAW PERMIT
COLONIAL HILLS - PHASE 10
WEST MANHEIM TOWNSHIP AND PENN TOWNSHIP
PROJECT NO. 951060

Dear Board Members:

Pursuant to PA Act 14, P.L. 834, this is to inform you that Joseph A. Myers is applying for a Clean Streams Law Permit for sewer extension for Colonial Hills - Phase 10.

The Colonial Hills - Phase 10 subdivision is located approximately 1 mile east of the intersection of S.R. 0094 - Baltimore Pike and Pumping Station Road along the northern side of Pumping Station Road.

Very truly yours,

GHI Engineers and Surveyors

Michael E. Bossom

Michael E. Bossom

MEB/rak

213 Carlisle Street • Ha

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
West Manheim Twp
31 Fairview Dr.
Hanover, PA 17331

RECEIVED AUG 1

4a. Article Number
Z 067098583

4b. Service Type
☐ Registered ☑ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
8/13/98

5. Received By: (Print Name)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)
X Suzanne S Nolder

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

PS Form 3811, December 1994 102595-97-B-0179 Domestic Return Receipt

LOCATION MAP
COLONIAL HILLS - PHASE 10
USGS QUAD.MAP - HANOVER,PA
Scale - 1" = 2000'  951060

RECEIVED JUN 1 8 1998

Pennsylvania Department of Environmental Protection

150 Roosevelt Avenue
York, PA 17404
June 12, 1998

717-771-4481
FAX 717-845-3496

**York District Office**

Penn Township Supervisors
20 Wayne Ave.
Hanover, PA 17331

Re: Planning Module for New Land Development
Colonial Hills Phase 10
Penn Township, York County
DEP Code No. A3-67951-127-3
West Manheim Township, York County
DEP Code No. A3-67964-068-3

Ladies and Gentlemen:

The Department of Environmental Protection has reviewed the above-referenced proposed Official Plan revision consisting of a multi-unit residential development on 55.09 acres. The project will consist of 14 single-family dwellings, 22 duplex units and 308 townhouse units. West Manheim will contain 336 of the total units and Penn Township will contain eight units. The project will be served by public sewer and water and generate an estimated 120,400 GPD tributary to the Penn Township sewage treatment plant. The proposed development is located on the north side of Pumping Station Road, one mile east of the intersection with SR 0094 (Baltimore Pike) in West Manheim Township and Penn Township, York County.

The plan revision is approved with the following comments:

1. The approved project will require a Clean Streams Law (CSL) permit for the construction and operation of the proposed sewerage facilities. The permit application must be submitted in the name of the municipality. Approval of this planning module is only approval of the preliminary concept of the proposed project and does not assure that a permit application will be acted upon favorably by the Department. Issuance of a CSL permit will be based upon a technical evaluation of the permit application and supporting information. Starting construction prior to obtaining a permit is a violation of the Clean Streams Law.

2. Other Department permits may be required for construction if encroachment to streams or wetlands will result. Information regarding the requirements for such permits or approvals can be obtained from DEP Soils and Waterways Section, Water Management Program, Southcentral Regional Office,909 Elmerton Avenue, Harrisburg, PA 17110, telephone 717-705-4707.

Should you have any questions concerning this matter, please feel free to contact this office.

Sincerely,

Robert P. Feister
Sewage Planning Specialist
York District Office

cc: Penn Township Sewer Authority
Joseph Myers
Group Hanover, Inc.
York County Planning Commission
West Manheim Township Supervisors

RECEIVED JUN 1 8 1998

Pennsylvania Department of Environmental Protection

150 Roosevelt Avenue
York, PA 17404
June 12, 1998

717-771-4481
FAX 717-845-3496

York District Office

West Manheim Township Supervisors
31 Fairview Drive
Hanover, PA 17331

Re: Planning Module for New Land Development
Colonial Hills Phase 10
Penn Township, York County
DEP Code No. A3-67951-127-3
West Manheim Township, York County
DEP Code No. A3-67964-068-3

Ladies and Gentlemen:

The Department of Environmental Protection has reviewed the above-referenced proposed Official Plan revision consisting of a multi-unit residential development on 55.09 acres. The project will consist of 14 single-family dwellings, 22 duplex units and 308 townhouse units. West Manheim will contain 336 of the total units and Penn Township will contain eight units. The project will be served by public sewer and water and generate an estimated 120,400 GPD tributary to the Penn Township sewage treatment plant. The proposed development is located on the north side of Pumping Station Road, one mile east of the intersection with SR 0094 (Baltimore Pike) in West Manheim Township and Penn Township, York County.

The plan revision is approved with the following comments:

1. The approved project will require a Clean Streams Law (CSL) permit for the construction and operation of the proposed sewerage facilities. The permit application must be submitted in the name of the municipality. Approval of this planning module is only approval of the preliminary concept of the proposed project and does not assure that a permit application will be acted upon favorably by the Department. Issuance of a CSL permit will be based upon a technical evaluation of the permit application and supporting information. Starting construction prior to obtaining a permit is a violation of the Clean Streams Law.

2. Other Department permits may be required for construction if encroachment to streams or wetlands will result. Information regarding the requirements for such permits or approvals can be obtained from DEP Soils and Waterways Section, Water Management Program, Southcentral Regional Office,909 Elmerton Avenue, Harrisburg, PA 17110, telephone 717-705-4707.

Should you have any questions concerning this matter, please feel free to contact this office.

Sincerely,

Robert P. Feister
Sewage Planning Specialist
York District Office

cc: Penn Township Sewer Authority
Joseph Myers
Group Hanover, Inc.
York County Planning Commission
Penn Township Supervisors

RECEIVED JUN 07 1996

# York County Conservation District

*118 Pleasant Acres Road • York, Pennsylvania 17402 • Telephone (717) 840-7430 • Fax (717) 755-0301*

June 6, 1996

MR DREW PLUNKERT
JOSEPH A MYERS
160 RAM DRIVE
HANOVER PA 17331

Re: **Status Report**
Colonial Hills - Phase 10
PAS10Y043
West Manheim Township
Penn Township
York County

Dear Sir:

This letter is to provide you with notification that the York County Conservation District has completed its review of the erosion and sedimentation control plan for the above referenced project for an Individual NPDES Permit for Discharges of Stormwater for Construction Activities. The revised plan designed by Ted Decker, of Group Hanover, Inc., and dated ***May 29, 1996,*** has been reviewed and is **ADEQUATE** to meet the requirements of Pa. Title 25, Chapter, 102, Erosion Control, two copies of the application along with the supporting documentation which you have provided has been forwarded to the Department of Environmental Protection (DEP) which is responsible for issuance of the permit.

The Conservation District has reviewed this plan solely to determine whether it is adequate to satisfy the requirements of 25 Pa Code 102.1 et seq., the Erosion Control Regulations of the Department of Environmental Protection. By a determination that the plan is adequate to meet these requirements, neither the Conservation District nor the County assumes any responsibility for the implementation of the plan or the proper construction and operation of the facilities contained in the plan. The design, structure integrity, and installation of the control measures are the responsibility of the landowner and/or the earthmover.

Please be advised that Section 402(p) of the Federal Clean Water Act requires that storm water discharges associated with construction activities that disturb five or more acres of land be authorized by a NPDES permit. The National Pollution Discharge Elimination System Permit (NPDES) became effective on October 1, 1992. The Department of Environmental Protection has developed a general permit which can be used to authorize most construction activities disturbing between 5 and 25 acres of land, provided the activity is not located in a special protection watershed (25 Pa. Code Chapter 93). Activities in these watersheds and most construction activities disturbing 25 acres or more must be authorized by an Individual NPDES Permit.

Permit requirements and federal regulations at 40 C.F.R. ~122.21 (b) require "when a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit". Please be advised that once a contractor has been selected for the project, the permit must either be transferred to the contractor or the contractor must be made a Co-Permittee. The enclosed form must be used to add a Co-Permittee.

DEP's Soils and Waterways Section will conduct a final technical review of the application and determine whether any additional permits are required from other regulatory programs within the Department.

Inquiries regarding the status of this application should be directed to DEP staff, Mollie Findley, DEP South Central Regional Office. She is responsible for the applications' final review and coordination and can be contacted at (717) 657-4590.

Sincerely,

Kent A. Bitting

Kent A. Bitting
Erosion Control Technician

cc: Ted Decker, Group Hanover, Inc.
W. Manheim Township
Penn Twp.
Project File

## PERMITS

1. INDIVIDUAL NPDES PERMIT PAS10YO43
   (BEING HELD BY DEP UNTIL CLEAN STREAMS PERMIT ISSUED)

2. WATER OBSTRUCTION AND ENCROACHMENT PERMIT E67-559

3. GENERAL PERMITS 05 6795141
   07 6795129

RECEIVED
SEP 03 1996
DEP - SOUTHCENTRAL REGION
WATER MANAGEMENT PROGRAM

Permit No. E67-559

Commonwealth of Pennsylvania
Department of Environmental Protection
Southcentral Regional Office
Water Management Program
Soils & Waterways Section

**WATER OBSTRUCTION AND ENCROACHMENT PERMIT**
**SMALL PROJECT PURSUANT TO SECTION 105.13(e)**

The Department of Environmental Protection "Department", established by the Act of December 3, 1970, P.L. 834 (71 P.S. §§510-1 et seq.) and empowered to exercise certain powers and perform certain duties under and by virtue of the Act of November 26, 1978, P.L. 1375, as amended by the Act of October 23, 1979, P.L. 204 (32 P.S. §§693.1 et seq.) known as the "Dam Safety and Encroachments Act"; Act of October 4, 1978, P.L. 851, (32 P.S. §§679.101 et seq.) known as the "Flood Plain Management Act"; Act of June 22, 1937, P.L. 1987, (35 P.S. §§691.1 et seq.), known as the "Clean Streams Law"; and the Administrative Code, Act of April 9, 1929, P.L. 177, as amended, which empowers the Department to exercise certain powers and perform certain duties by law vested in and imposed upon the Water Supply Commission of Pennsylvania and the Water and Power Resources Board, hereby issues this permit to:

**MR JOSEPH A. MYERS**
**160 Ram Drive, Hanover, PA 17331**

giving its consent to widen the existing concrete bridge on Pumping Station Road over Furnace Creek by installing a 15-foot wide x 4-foot high x 27-feet long reinforced concrete box culvert for the purpose of highway improvements located approximately 0.75 miles east of SR0094 (Hanover, PA Quadrangle N:3.4 inches; W:10.0 inches) in West Manheim Township, York County.

The issuance of this permit also constitutes approval of a Water Quality Certification under Section 401 of the Federal Water Pollution Control Act [33 U.S.C.A. 1341(a)].

This permit is issued in response to an application filed with the Department on the 18th day of March A.D. 1996, and with the understanding that the work shall be performed in accordance with the maps, plans, profiles and specifications filed with and made a part of the application of July 31, 1996 subject, however, to the provisions of the Dam Safety and Encroachments Act, the Flood Plain Management Act, the Clean Streams Law, the Administrative Code, the rules and

regulations promulgated thereunder and the following conditions and restrictions. If the work authorized by this permit is not completed on or before the 31st day of December A.D. 1999, this permit, if not previously revoked or specifically extended by the Department in writing, shall become void without further notification.

1. The permittee shall sign the permit thereby expressly certifying the permittee's acceptance of, and agreement to comply with, the terms and conditions of the permit. The permittee shall return a signed copy of the permit to the Department. The permit will not be effective until the signed copy of the permit is received by the Department;

2. The Department, in issuing this permit, has relied on the information and data which the permittee has provided in connection with his permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended, or revoked, in whole or in part, and the Department may, in addition, institute appropriate legal proceedings;

3. This permit does not give any property rights, either in real estate or material, nor any exclusive privileges, nor shall it be construed to grant or confer any right, title, easement, or interest in, to, or over any land belonging to the Commonwealth of Pennsylvania "Commonwealth"; neither does it authorize any injury to private property or invasion of private rights, nor any infringement of Federal, State, or Local laws or regulations; nor does it obviate the necessity of obtaining Federal assent when necessary;

4. The work shall at all times be subject to supervision and inspection by representatives of the Department, and no changes in the maps, plans, profiles, and specifications as approved shall be made except with the written consent of the Department. The Department, however, reserves the right to require such changes or modifications in the maps, plans, profiles, and specifications as may be considered necessary. The Department further reserves the right to suspend or revoke this permit if in its opinion the best interest of the Commonwealth will be subserved thereby;

5. This permit authorizes the construction, operation, maintenance and normal repair of the permitted structures conducted within the original specifications for the water obstruction or encroachment, and in accordance with the regulations of the Department and terms and conditions of this permit. Any repairs or maintenance involving modifications of the water obstruction or encroachment from its original specifications, and any repairs or

reconstruction involving a substantial portion of the structure as defined by regulations of the Department shall require the prior written approval and permit of the Department;

6. All construction debris, excavated material, brush, rocks, and refuse incidental to this work shall be removed entirely from the stream channel and placed either on shore above the influence of flood waters, or at such dumping ground as may be approved by the Department;

7. There shall be no unreasonable interference with the free discharge of the river or stream or navigation during construction;

8. If future operations by the Commonwealth require modification of the structure or work, or if, in the opinion of the Department, the structure or work shall cause unreasonable obstruction to the free passage of floodwaters or navigation, the permittee shall, upon due notice remove or alter the structural work or obstructions caused thereby, without expense to the Commonwealth, so as to increase the flood carrying capacity of the channel or render navigation reasonably free, easy, and unosbtructed, in such manner as the Department may require. No claim shall be made against the Commonwealth on account of any such removal or alteration;

9. The permittee shall notify the Department, in writing, of the proposed time for commencement of work at least 15 days prior to the commencement of construction;

10. If construction work has not been completed within the time specified in the permit and the time limit specified in the permit has not been extended in writing by the Department or if a permit has been revoked for any reason, the permittee shall, at his own expense and in a manner that the Department may prescribe, remove all or any portion of the work as the Department requires and restore the water course and floodplain to their former condition;

11. The permittee shall fully inform the engineer or contractor, responsible for the supervision and conduct of work, of the terms, conditions, restrictions and covenants of this permit. Prior to the commencement of construction, the permittee shall file with the Department in writing, on a form provided by the Department, a statement signed by the permittee and an individual responsible for the supervision or conduct of the construction work acknowledging and accepting the general and special conditions contained in the permit. Unless the acknowledgment and acceptance have been filed, the permit is void. A copy of the permit and the

acknowledgment shall be available at the work site for inspection upon request by an officer or agent of the Department or another Federal, State, County or Municipal Agency;

12. The permittee shall operate and maintain the structure or work authorized herein in a safe condition in accordance with the permit terms and conditions and the approved maps, plans, profiles and specifications;

13. This permit may not be transferred without prior written approval from the Department, such approval being considered upon receipt of the properly executed "Application for Transfer of Permit" form;

14. If and when the permittee desires to discontinue use or abandon the activity authorized herein, he must remove all or part of the structure or work authorized and take other actions as are necessary to protect safety and the environment in accordance with a permit issued by the Department;

15. If the use of explosives in any waterways is required, the permittee shall secure the prior written permit from the Pennsylvania Fish and Boat Commission, pursuant to the Pennsylvania Fish and Boat Code, Act 1980-175 Title 30 Pennsylvania Consolidated Statutes, Section 2906. Requests should be directed to the Pennsylvania Fish and Boat Commission, Bureau of Administrative Services, P.O. Box 1673, Harrisburg, PA 17120, telephone 717-657-4522;

16. Permittee shall implement and monitor the Erosion and Sedimentation Control Plan prepared in accordance with Chapter 102 so as to minimize erosion and prevent excessive sedimentation into the receiving watercourse or body of water;

17. The project site shall at all times be available for inspection by authorized officers and employees of the Pennsylvania Fish and Boat Commission. Prior to commencement and upon completion of the work authorized by this permit, the permittee shall notify the Pennsylvania Fish and Boat Commission's Southcentral Regional Office, 1704 Pine Road, Newville, PA 17241, telephone 717-486-7087;

18. The project site shall at all times be available for inspection by authorized officers and employees of the County Conservation District. Prior to commencement and upon completion of the work authorized by this permit, the permittee shall notify the York County Conservation District, 118 Pleasant Acres Road, York, PA 17402, 717-840-7430.

Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.

Joseph A. Myers
Permittee (signature)

8/29/96
Date

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Leon M. Oberdick
Program Manager

SEP - 6 1996
Issue Date

**PENNSYLVANIA STATE PROGRAMMATIC GENERAL PERMIT**
**(PASPGP-1)**

Dear Mr. Myers:

Upon the recommendation of the Chief of Engineers, and under the provisions of Section 404 of the Clean Water Act (CWA), as amended, and Section 10 of the River and Harbor Act (RHA) of 1899 (33 U.S.C. 403), the Secretary of the Army hereby authorizes the discharge of dredged, excavated, or fill material or structures into waters of the United States of America (USA), including wetlands. These discharges and structures must comply with all the terms, conditions, and processing procedures identified in this PASPGP-1.

It has been determined that the project as authorized by the Pennsylvania Department of Environmental Protection (PADEP) permit E67-559 qualifies for the PASPGP-1. Accordingly, you are authorized to undertake the activity pursuant to:

1. Section 10 of the RHA of 1899 (33 U.S.C. 403).

2. Section 404 of the CWA (33 U.S.C. 1344).

You are authorized to perform work in accordance with the terms and conditions specified below.

For an activity involving a structure or discharge of dredged, excavated, or fill materials into waters of the United States to be authorized by this PASPGP-1, it must meet the following requirements and conditions:

1. Proper maintenance. Any fill or work authorized shall be properly maintained, including maintenance to ensure public safety.

2. Erosion and siltation controls. Appropriate erosion and siltation controls must be used and maintained in effective operating condition during construction, and all exposed soils and other fills must be permanently stabilized at the earliest practicable date.

3. Aquatic life movements. No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species which normally migrate through the area, unless the activity's primary purpose is to impound water.

4. Equipment. Heavy equipment working in wetlands must be placed on mats or other measures must be taken to minimize soil disturbance, including avoiding the use of such equipment, if possible.

5. National Wild and Scenic Rivers (NWSR). Activities which occur in a component of the NWSR system; or in a river officially designated by Congress as a "study river" for possible inclusion in the system are not authorized by this PASPGP-1.

6. Tribal rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

7. Endangered species. No activity is authorized under the PASPGP-1 which is likely to, individually or cumulatively, jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Endangered Species Act (ESA), or which is likely to destroy or adversely modify the critical habitat of such species identified under the ESA. If an activity is authorized under the PASPGP-1, and during construction a Federal listed species or critical habitat is found to be present, all work must cease and the permittee must notify the Corps of Engineers (COE). The PASPGP-1 authorization is suspended until the conclusion of Section 7 consultation in accordance with the ESA. The PASPGP-1 authorization may be revoked for that specific project if the species or critical habitat is adversely affected. If it is determined that there will be no adverse effect or that an adverse effect can be mitigated, the PASPGP-1 will be reinstated for that specific activity with any appropriate mitigation conditions. Furthermore, persons have an independent responsibility under Section 9 of the ESA to not engage in any activity that would result in a "take" of a Federal listed species.

8. Cultural Resources. No activity is authorized under the PASPGP-1 which may adversely affect cultural resources listed or eligible for listing in the National Register of Historic Places (NRHP) until the requirements of Section 106 of the National Historic Preservation Act (NHPA) are met. Upon the discovery of the presence of a previously unknown historic or archaeological site, all work must cease and the permittee must notify the State Historic Preservation Officer (SHPO) and the COE. The PASPGP-1 authorization is suspended until it is determined, through the Section 106 consultation process, whether the activity will have an adverse effect on the cultural resource. The authorization under the PASPGP-1 may be reactivated or modified, through specific conditions if necessary, if it is determined that the activity will have no adverse effect on the cultural resource. The PASPGP-1 authorization may be revoked for the specific activity if the cultural resource will be adversely affected.

9. Water supply intakes. No discharge of dredged, excavated, or fill material or structure may occur in the proximity of a public water supply intake except where the discharge is for repair of the public water supply intake structures or adjacent bank stabilization, unless Corps approved and appropriate mitigation measures are to be implemented which will protect the water supply.

10. Shellfish production. No discharge of dredged, excavated, or fill material or structure may occur in areas of concentrated shellfish production, unless the discharge is directly related to an authorized shellfish harvesting activity.

11. Suitable material. No discharge of dredged, excavated, or fill material or structure may consist of unsuitable material or solid waste (sample: trash, debris, car bodies, etc.) and all material discharged must be free from toxic pollutants in toxic amounts pursuant to Section 307 of the CWA.

12. Mitigation. Discharges of dredged, excavated, or fill material or structures into waters of the USA must be avoided and minimized to the maximum extent practicable at the project site. Once avoidance and minimization of unavoidable adverse impacts has been demonstrated, compensation mitigation may be used to offset unavoidable adverse impacts.

13. Spawning areas. Excavation, discharges or structures in spawning or nursery areas shall not occur during spawning seasons. Impacts to these areas shall be avoided or minimized to the maximum extent practicable during all other times of the year.

14. Obstruction of high flows. To the maximum extent practicable, discharges or structures must not permanently restrict or impede the passage of normal or expected high flows or cause the relocation of the water (unless the primary purpose of the fill is to impound waters).

15. Adverse impacts from impoundments. If the discharge or structures creates an impoundment of water, adverse impacts on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow, including impacts to wetlands, shall be minimized to the maximum extent practicable.

16. Waterfowl breeding areas. Discharges or structures in breeding areas of migratory waterfowl must be avoided to the maximum extent practicable.

17. Removal of temporary fills. Any temporary fills or structures must be removed in their entirety and the affected areas returned to their preexisting elevation.

18. Inspections. The permittee shall permit a District Engineer or his authorized representative(s) to make periodic inspections at any time deemed necessary in order to ensure that the work is being performed in accordance with all the terms and conditions of the PASPGP-1.

19. False and incomplete information. If any of the information contained in the Pennsylvania/Corps Joint Permit Application (Chapter 105, Water Obstruction and Encroachment Permit), PADER General Permit registration, PADER Environmental Assessment and/or plans is found to be in error, falsified, and/or incomplete, the PASPGP-1 authorization may be subject to modification, suspension, or revocation in accordance with 33 CFR 325.7.

20. Section 404(b)(1) Guidelines. No activity may be permitted under the PASPGP-1 that is not in full conformity with the Section 404(b)(1) Guidelines. The COE is responsible for insuring compliance with the Guidelines.

21. Expiration date. This authorization is valid for the same period as the PADER authorization, not to exceed 5 years from the date of this authorization.

By Authority of the
Secretary of the Army:

Colonel Randall R. Inouye, P.E.
Baltimore District Engineer

Lieutenant Colonel Robert P. Magnifico
Philadelphia District Engineer

Colonel Richard B. Polin
Pittsburgh District Engineer

OCT 13 1995

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
-Please note our new name-
DEPARTMENT OF ENVIRONMENTAL PROTECTION
D E P
One Ararat Boulevard, Room 126
Harrisburg, Pennsylvania 17110

October 12, 1995

717-657-4590

Southcentral Regional Office

Mr. Joseph A. Myers
160 Ram Drive
Hanover, PA 17331

Dear Mr. Myers:

This will acknowledge receipt of your notification (copy enclosed) and registers your use of a General Permit acknowledged by the Department. Attached to this acknowledgment please find your Federal authorization in the form of the Pennsylvania State Programmatic General Permit. You are responsible for assuring the work is done in accordance with the drawings and conditions contained in the General Permit. You may proceed with your project after making the required notifications stipulated in the General Permit and securing all other approvals that may be necessary.

If you should have any questions concerning this acknowledgment, please contact me at the above telephone number.

Sincerely,

Raymond P. Zomok, P.E., Chief
Soils & Waterways Section
Water Management Program

Enclosure(s) - Exhibit(s)

Copies of Exhibit(s) sent to:
Pa. Fish & Boat Commission
County Conservation District
U.S. Army Corps of Engineers

An Equal Opportunity/Affirmative Action Employer

Recycled Paper

ACKNOWLEDGED
DATE: OCT 12 1995
GP 05679514 1

EXHIBIT C

Notification to Use
BDWM-GP-5
Utility Line Stream Crossings

I/We, Joseph A. Myers (owner name(s)), hereby notify the Bureau of Dams and Waterway Management of our intent to use Sample Drawing No. 1 to install a 12 inch diameter sanitary sewer line (size and description of utility line) across/~~along~~ wetlands (name of stream, body of water, or wetland) at a point approximately 1 mile east of the intersection of S.R. 0094 Baltimore Pike and (describe location) Pumping Station Road 150 feet north of Pumping Station Road.

in West Manheim Township (municipality), York County (county).

I/We have attached a LOCATION MAP similar to that shown on the sample drawings indicating where the utility line will be installed.

I/We certify that a copy of this notification was sent this day 09/29/95 (date) to West Manheim Township (municipality), and York County (county) in which the work will be performed.

Signed: Michael E. Bossom
(~~owner~~ or authorized representative)

Michael E. Bossom
c/o Group Hanover, Inc.
(owner address)

213 Carlisle Street

Hanover, PA 17331

637-3800
(owner telephone number)

I/We hereby notify the Bureau that BDWM-GP-8, Temporary Road Crossing will also be utilized during the installation of the utility line.

Signed: _____

Send to one of the addresses on Exhibit B.

RECEIVED NOV 0 3 1995 NOV 07 1995

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
-Please note our new name-
DEPARTMENT OF ENVIRONMENTAL PROTECTION
D E P
One Ararat Boulevard, Room 126
Harrisburg, Pennsylvania 17110

November 3, 1995

717-657-4590

**Southcentral Regional Office**

Mr. Joseph A. Myers
160 Ram Drive
Hanover, PA 17331

Dear Mr. Myers:

This will acknowledge receipt of your notification (copy enclosed) and registers your use of a General Permit acknowledged by the Department. Attached to this acknowledgment please find your Federal authorization in the form of the Pennsylvania State Programmatic General Permit. You are responsible for assuring the work is done in accordance with the drawings and conditions contained in the General Permit. You may proceed with your project after making the required notifications stipulated in the General Permit and securing all other approvals that may be necessary.

If you should have any questions concerning this acknowledgment, please contact me at the above telephone number.

Sincerely,

Raymond P. Zomok, P.E., Chief
Soils & Waterways Section
Water Management Program

Enclosure(s) - Exhibit(s)

Copies of Exhibit(s) sent to:
Pa. Fish & Boat Commission
County Conservation District
U.S. Army Corps of Engineers

NOV 07 1995

ACKNOWLEDGED
DATE: NOV - 3 1995
GP 076795129

**EXHIBIT C**

Notification to Use
BDWM-GP-7
Minor Road Crossings

I/We, Joseph A. Myers
(owner name(s))

hereby notify the Bureau of Dams and Waterway Management of our intent to install

3 culvert road crossing ~~and a box culvert bridge extension~~
(description of crossing; bridge, culvert, etc.)

in accordance with the drawings and conditions of this General Permit at a point 1 mile east of S.R. 0094 - Baltimore Pike and Pumping Station Road along ~~north side~~ of Pumping Station Road.
(describe location)

along ~~Furnace Creek~~ and an unnamed tributary to Furnace Creek
(name of stream, body of water or wetland)

in West Manheim Township (municipality), York County (county).

I/We have attached a LOCATION MAP similar to that shown on the Drawing No. 1 indicating where the minor road crossing will be installed. Also, I/we have attached the site plan and delineation data sheets as required by Item 7.

I/We certify that a copy of this notification was sent this day 09/29/95 (date) to

West Manheim Township (municipality) and York, County (county)

where the work will be performed.

Signed: Michael E. Bossom
(owner or authorized representative)

0141

Michael E. Bossom
c/o Group Hanover, Inc.
(typed or printed signature)

160 Ram Dr.

213 Carlisle Street
(owner address)

Hanover, PA 17331

632-9406

717-637-3800
(owner telephone number)

**Send to one of the addresses on Exhibit B.**

AGREEMENT

THIS AGREEMENT, made this 20th day of FEBRUARY, 1989, by and between WEST MANHEIM TOWNSHIP, (hereinafter referred to as "West Manheim"), a municipal corporation organized and existing under and by virtue of the laws of the Commonwealth of Pennsylvania, with its principal offices located at 31 Fairview Drive, Hanover, Pennsylvania, -AND- PENN TOWNSHIP, a municipal corporation organized and existing under and by virtue of the laws of the Commonwealth of Pennsylvania, with its principal offices located at 20 Wayne Avenue, Hanover, Pennsylvania, both municipal corporations situate in the County of York, Commonwealth of Pennsylvania, -AND- PENN TOWNSHIP AUTHORITY, (hereinafter referred to as "Authority"), organized and existing under and by virtue of the laws of Pennsylvania, with its principal offices located at Wayne Avenue, Hanover, York County, Pennsylvania, as follows:

WITNESSETH

WHEREAS, the Authority owns a Sanitary Sewage Collection, Conveyance, and Wastewater Treatment facility in Penn Township, York County, Pennsylvania; and

WHEREAS, Penn Township, by Agreement of Lease with the Authority, operates and maintains said facilities owned by the Authority; and

WHEREAS, the Penn Township Wastewater Treatment Plant (hereinafter referred to as "WWTP") has a total hydraulic capacity of four million two hundred thousand (4.2) gallons per day; and

WHEREAS, Penn Township has entered into Agreement with the Authority underwriting certain financial obligations for the repayment of the Authority Bonds, as well as administration, operation, and maintenance costs associated directly or indirectly with the operation of the WWTP and the Wastewater Collection and Conveyance System; and

WHEREAS, West Manheim desires to reserve two hundred fifty thousand (250,000) gallons per day of wastewater capacity at the WWTP; and a peak discharge not to exceed six hundred twenty-five thousand (625,000) gallons per day of wastewater in the Sewage Collection and Conveyance System; and

WHEREAS, West Manheim desires to pay its fair share of the financial obligation of the Authority, as well as the daily operation and maintenance costs for the reserved capacity at the WWTP and the Sewage Collection and Conveyance system.

NOW, THEREFORE, in consideration of the above-recitals and intending to be legally bound thereby, the Authority and Penn Township covenant and agree as follows:

I. PENN TOWNSHIP SHALL:

A. Agree to accept, transport and treat through Penn Township lines and WWTP wastewater generated in West Manheim.

B. Reserve a volume of wastewater capacity for West Manheim not to exceed two hundred fifty thousand (250,000) gallons per day for the WWTP and a peak discharge not to exceed six hundred twenty-five thousand (625,000) gallons per day in the conveyance system.

C. Invoice West Manheim for conveyance and treatment of wastewater on a quarterly basis at one hundred thirty (130%) percent of the Penn Township sewer rate then in effect for Penn Township residents. All invoices shall be paid by West Manheim on a lump-sum basis and shall be subject to late charges and penalties as provided for in Penn Township Ordinances.

D. Update its Act 537 Plan to include West Manheim's reserve capacity in the Collection and Conveyance System as well as the WWTP of Penn Township.

E. Invoice West Manheim for their pro-rata share of the construction costs of the Breezewood Interceptor Collection lines that convey West Manheim's wastewater to the WWTP.

F. Continue to administer, operate, maintain and repair its WWTP in efficient operating condition.

G. If pursuant to studies, guidelines, regulations or standards of any local, state or federal agencies having the right to control treatment, transportation or disposal of wastewater or if Penn Township is required to up-grade the leval of wastewater treatment, then Penn Township shall without further approval from West Manheim take whatever steps are necessary to comply with said regulations.

H. Have access at all times to the meter station for inspection purposes during normal working hours daily. The meter shall be read and inspected on a daily basis by Penn Township. Daily flows shall be recorded on a form and the results of same shall be provided to West Manheim monthly.

West Manheim shall install or cause to be installed telemetering facilities at the metering station(s) by which all flow recordings shall be transmitted to and recorded on a metering device installed at the WWTP.

I. Collect samples of West Manheim's wastewater utilizing the refrigerated type sampling device furnished by West Manheim and perform routine tests similar to the testing required under the NPDES Permit. The results

of the routine testing shall be provided to West Manheim. The above samplings and testing shall be performed at no cost to West Manheim.

J. Regulate all sewage whether classified as residential, commercial and industrial to conform to standards as specified in the current Penn Township ordinances.

K. In accordance with Penn Township's Industrial Waste Pre-Treatment Ordinance, monitor all industrial discharge and report the results of said monitoring to West Manheim.

L. Promptly file civil and criminal charges against those individuals, corporations, businesses, partnerships or residences in violation of Penn Township's sewer ordinances relating to this Agreement on behalf of West Manheim.

M. Compute quarterly sewer invoices based upon the metered volume of wastewater delivered to Penn Township or the average rate per equivalent residential connection for the actual number of connections using the system, whichever amount is greater. Starting July 1, 1990, and for each quarterly billing period thereafter, West Manheim's minimum sewer invoices shall be based upon a charge equivalent to one hundred thirty (130%) percent of Penn Township's average rate for two hundred fifty (250) residential units. For purposes of this

Agreement, the average rate per equivalent residential connection shall be fifteen thousand (15,000) gallons per quarter.

N. Invoice West Manheim on a quarterly basis for any and all industrial surcharges as determined by laboratory analysis in accordance with the most current Penn Township Pre-Treatment Ordinance.

O. Invoice West Manheim for its pro-rata share of interest accumulated to date on the Authority's Bonds relative to the construction of the WWTP and Sanitary Sewage Collection and Conveyance System. West Manheim's share of the pro-rata costs shall be 5.95 percent of the total interest paid on the Authority's Bonds computed to the date interest is actually paid to Penn Township. For illustration purposes only, if West Manheim paid October 15, 1989, the amount due from West Manheim to Penn Township would be Forty-Eight Thousand Sixty-Five ($48,065.00) Dollars.

II. WEST MANHEIM TOWNSHIP SHALL:

A. Deliver to Penn Township an average of two hundred fifty thousand (250,000) gallons per day of sewage or any fraction thereof.

B. Deliver wastewater generated in West Manheim to Penn Township, making a point of connection at or near Penn Township's existing Wastewater Pumping Station No. 4-A situated adjacent to Black Rock Road.

C. Construct a sanitary sewage metering facility at the point of connection to Penn Township's system. All costs associated with the design, installation, operation, telemetering, maintenance and calibration of said metering station shall be borne by West Manheim. The metering station shall be serviced and calibrated semi-annually. The calibration certificate shall be furnished to Penn Township. All costs associated with the calibration and certification of the metering station shall be paid for by West Manheim.

D. Install a twenty-four (24) hour refrigerated type sampling device acceptable to Penn Township at or near the point of connection to Penn Township's system. Penn Township shall have access to the sampler and shall make periodic tests of West Manheim wastewater and furnish West Manheim the results of these tests.

E. Should West Manheim make more than one discharge or connection to the Penn Township system, said connection shall meet all the requirements for metering and sampling as defined in this Agreement.

F. Agree to allow the disposal of sewage sludge from the Penn Township Wastewater Treatment facility for agricultural utilization in accordance with both the Department of Environmental Resources rules and regulations, permits and Ordinance No. 89- a proposed ordinance which is to be enacted by West

Manheim, a copy of said ordinance is marked Exhibit "A" and attached hereto and made a part hereof. The parties hereto agree that this entire agreement is conditional upon West Manheim's enactment of Ordinance No. 89- in its entirety as set forth in Exhibit "A".

G. Agree to all conditions of existing Ordinances, Resolutions and any change, revision, amendment, adoption or re-adoption of such rules, regulations, resolutions or ordinances as Penn Township shall, from time to time, deem necessary and proper for the use and operation of the sewer system. Thirty (30) days prior to the date of advertisement of said Ordinance or enactment of Resolution, West Manheim shall have the right to meet and discuss any and all changes, revisions, amendments, adoptions or re-adoptions to the Penn Township ordinances, resolutions, rules and regulations.

H. Agree to the installation, operation, maintenance, repair and replacement and all other incidentals related to the collection, transmission, pumping, telemetering and delivery of wastewater to Penn Township at the sole cost and expense of West Manheim.

I. Provide Penn Township with all information necessary for the preparation and filing of an Annual 94 Report to the Commonwealth of Pennsylvania, Department of Environmental Resources. Said information shall be

delivered to Penn Township on, or before, January 15th of each year following the connection or delivery of wastewater to Penn Township.

J. Pay quarterly wastewater charges and industrial surcharges to Penn Township within thirty (30) days of receipt of an invoice. The sewage treatment charges shall be one hundred thirty (130%) percent of the Penn Township prevailing rate beginning on the first quarter or part thereof after connecting to the Penn Township System. The quarterly charge shall be based upon the total volume of metered sewage delivered to the Penn Township system or the rate per equivalent dwelling unit for the actual number of connections using the system, whichever is greater, and shall continue to pay the quarterly invoices for each quarter thereafter. This charge shall be derived from actual water meter readings supplied to Penn Township by West Manheim Township. For those users not served by public water, the rate shall be based on an average of fifteen thousand (15,000) gallons per quarter until such time as the unit connects to the public water system.

K. Report in writing to Penn Township all new connections to West Manheim's sewer system. Said report shall be filed monthly and delivered to Penn Township by the 15th day of the month following each report period.

L. In the event the sewage meter proves to be recording inaccurate flows due to faulty meter operation, malfunction or otherwise, estimated flow shall be made by Penn Township based upon past flow recordings and applied to current conditions for use in determining quarterly billings. Invoices rendered under the above conditions shall be paid as defined under Article II-M.

M. Pay the cost of damage to the WWTP resulting from discharge of improper wastes in violation of Penn Township's Ordinances. Payment in full shall be made within thirty (30) days following notice of violation and inventory of resulting damages. The invoice shall be accompanied by an itemized certification of damages attested by the Penn Township Manager, Chairman of the Board of Commissioners and their Consulting Engineer.

N. Pay Penn Township, as a capital contribution, 5.95 percent of the interest paid by Penn Township on the Authority Bonds. The gross amount of interest shall be computed from the date the Authority Bonds were sold to the actual date payment is made to Penn Township. The Capital Contribution may be paid at any time after execution by all parties of this Agreement but no later than sixty (60) calendar days after West Manheim Sewage System is certified by their Consulting Engineer as being substantially complete or after the

first sewer connection is made to West Manheim's Sewage System, whichever date first arrives.

O. If the average daily flow of two hundred fifty thousand (250,000) gallons is exceeded in any three (3) months, then the quarterly charge to be paid Penn Township thereafter shall be subject to an additional thirty (30%) percent surcharge.

III. MISCELLANEOUS

A. Insurance

All parties to this Agreement shall insure, or cause to be insured, the facilities with a responsible company or companies authorized and qualified to do business under the laws of the Commonwealth against loss or damage by fire and such other risks, including public liability and casualties, and in such amounts as are usually carried on similar properties in the Commonwealth. Such insurance policies shall be non-assessable. Immediately upon the occurrence of any loss or damage to any part of said facilities which is covered by insurance, the applicable parties will commence and promptly complete, or cause to be so commenced and promptly completed, the repairing, replacement or reconstruction of the damaged or destroyed property and shall collect and apply, or cause to be applied, the proceeds of such insurance to the cost of such repair, replacement or reconstruction.

If the project cost of any such repairs or reconstruction shall exceed the proceeds of insurance, the parties hereto shall promptly pay their respective shares of such excess, based upon its respective shares of their allocated capacity.

B. Force Majeur

Notwithstanding any other provisions of this Agreement, no party hereto shall be responsible for damages to the other for any failure to comply with this Agreement resulting from an act of God or riot, sabotage, public calamity, flood, strike, breakdown of the facilities or other event beyond its reasonable control. The party having the responsibility for the facilities so affected, however, shall proceed promptly to remedy the consequences of such event.

C. Indemnity

Each party agrees to indemnify and save harmless the other party against all costs, losses or damage on account of any injury to persons or property occurring in the performance of this Agreement due to the negligence of such party or its agents or employees.

D. Breezewood Interceptor

It is agreed by all parties that Penn Township shall plan, design, acquire, construct, supervise, and, upon completion, operate the Breezewood Interceptor Sewage Collection System. The construction of said sewage

interceptor collection system shall be in accordance with Plans and Specifications prepared by Penn Township Consulting Engineer, subject to the terms and conditions set forth herein and where applicable and more specifically detailed in a report prepared by Nassaux-Hemsley, Inc., dated 1987, titled "Sewage System Feasibility Study," hereinafter referred to as Exhibit "A". Each party to the Agreement agrees that they shall pay their share of the project costs associated with the completion of the Breezewood Interceptor on the basis of thirty-nine (39%) percent Penn Township and sixty-one (61%) percent West Manheim Township. It is agreed and understood by all parties hereto that project costs as contained in Exhibit "A" are reasonable estimates of costs of the project all of which shall be adjusted based upon actual costs incurred.

Within thirty (30) days after Penn Township authorizes their Consulting Engineer to proceed with each segment of the project, West Manheim shall pay Penn Township their share of the project costs. For purposes of this Agreement, project costs are broken down into the following two (2) segments:

Segment No. 1 - Legal fees, rights-of-way plats acquisition, administration, surveying, design, specifications, permits, bidding and contingencies.

Segment No. 2 - Construction management, inspection, construction costs based upon actual bids received and contingencies.

Within two (2) weeks after authorization to proceed with Segment No. 1, Penn Township Consulting Engineer shall submit to each municipality estimated costs to complete the work outlined above. Receipt of the Consultant's estimate shall be considered an invoice and West Manheim Township shall, within thirty (30) days, pay Penn Township their proportioned share of the estimated project costs.

Within thirty (30) days after bids for construction are received, Penn Township Consulting Engineer shall submit to each municipality costs estimated to complete Segment No. 2 of the project. Within forty-five (45) calendar days following receipt of Segment No. 2 costs, West Manheim Township shall pay Penn Township their share of the project costs. If, upon receipt of the Consulting Engineer's estimate to complete either segment of work outlined above, a municipality declines to proceed, the remaining municipality may elect to proceed. The municipality that elects to withdraw from the project shall not be entitled to any reimbursement for their share of any costs, fees or expenditures incurred prior to notification of withdrawal.

Within sixty (60) days following completion of each segment of the project, Penn Township shall submit to West Manheim Township a detailed itemization of all costs associated with the Project.

If West Manheim Township has any questions concerning these costs, they shall, within thirty (30) days, notify Penn Township in writing of the concerns. Penn Township shall, within thirty (30) days, respond to West Manheim Township's objection. If, after the above procedures are followed, either municipality is not satisfied, the matter shall be submitted to arbitration as defined elsewhere in this Agreement.

In the event monies estimated under either or both segments of this project are insufficient to meet expenditures, Penn Township Consulting Engineer shall submit revised project costs. Payment of revised costs shall be due within thirty (30) days following receipt of the Consulting Engineer's revised estimate; the apportionment of revised costs shall be in the same proportion as the original costs were computed.

E. Severability

If any provision herein for any reason be held illegal or invalid, no other provisions of the Agreement shall be affected; and this Agreement shall then be

construed and enforced as if such illegal or invalid provision had not been contained herein.

F. Effective Date

This Agreement shall become effective as of the date hereof.

G. Waiver

The failure of a party hereto to insist upon strict performance of this Agreement or of any of the terms or conditions hereof shall not be construed as a waiver of any of its rights hereunder.

H. Counterparts

This Agreement may be executed in any number of counterparts, each of which shall be regarded for all purposes as an original, but such counterparts shall together constitute but one and the same instrument.

I. Successors and Assigns

This Agreement may not be voluntarily assigned by any party without the consent of the others, except that each party hereto which is a municipal authority may assign its rights to its related municipality pursuant to applicable law. Subject to the foregoing, this Agreement shall bind and inure to the benefit of the respective successors and assigns of the parties hereto.

J. Arbitration

Any disagreement under this basic agreement shall be submitted to binding arbitration for settlement. The Board of Arbitration shall be composed of three (3) persons, one appointed by each municipality and a third member selected from a list of three (3) people requested from the American Arbitration Association. West Manheim Township shall strike the first name on the list, Penn Township shall strike the second name and the remaining name shall be the Chairman and impartial arbitrator to settle the dispute. Each name shall be stricken within five (5) days of receipt of the list from AAA, and the hearing shall be conducted within thirty (30) days thereafter.

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement, intending to bind themselves and their respective heirs and assigns, effective the date first written above.

ATTEST:
Secretary

WEST MANHEIM TOWNSHIP
By: Kenneth L. Hargett
Chairman

ATTEST:
Secretary

PENN TOWNSHIP BOARD OF COMMISSIONERS
By: Ronald R Becker Sr.
President

ATTEST:
Secretary

PENN TOWNSHIP YORK COUNTY AUTHORITY
By: James H. Minnich
Chairman

# ADDENDUM TO AGREEMENT

WHEREAS, West Manheim Township, Penn Township, and the Penn Township York County Authority entered into an agreement on February 20, 1989, whereby West Manheim Township reserved 250,000 gallons per day of waste water capacity at the Penn Township waste water treatment plant; and

WHEREAS, the parties have agreed that it is in their best interests to amend the agreement due to changes in circumstances regarding the NPDES discharge permit and the availability of PennVest funding;

WITNESS THEREFORE the following agreement:

1. Article I, Section M of the agreement of the parties dated February 20, 1989 is hereby amended to read as follows:

> M. Compute quarterly sewer invoices based upon the metered volume of waste water delivered to Penn Township or the average rate per equivalent residential connection for the actual number of connections using the system, whichever amount is greater. Starting on the earlier of the date on which PennVest renders its decision on whether West Manheim Township qualifies for funding for the construction of their sewer conveyance system which is the subject of this agreement, or on the date on which the Penn Township waste water treatment plant is reissued its NPDES discharge permit, and for each quarterly billing period thereafter, West Manheim's minimum sewer invoices shall be based upon a charge equivalent to one hundred thirty percent (130%) of Penn Township's average rate or two hundred fifty (250) residential units. For purposes of this Agreement, the average rate per equivalent residential connection shall be fifteen thousand (15,000) gallons per quarter.

2. All of the other rights, conditions, obligations and provisions of the agreement of the parties dated February 20, 1989 shall remain in full force and effect.

3. This Addendum shall be effective beginning the 1ST day of SEPTEMBER, 1991.

IN WITNESS WHEREOF and intending to be legally bound hereby, the parties hereto have duly executed this agreement on this 5TH day of December, 1991.

ATTEST:

Cornelia A. Cowen
Secretary

Kenneth L. Haigh
Chairman
WEST MANHEIM TOWNSHIP

Karen M. Little
Secretary

David L. Barr
President
PENN TOWNSHIP BOARD OF COMMISSIONERS

Nadine Stuffle
Secretary

Merle E. Dubbs
Chairman
PENN TOWNSHIP YORK COUNTY AUTHORITY

**TYPE 2**

## Part II Permit Applications

**Applications** received for Industrial Waste and Sewage Applications under the Clean Stream Law, Act of June 22, 1937 (P.L. 1987, No. 394) (35 P.S. §§691.1 - 691.1001).

Southcentral Regional Office: Water Management Program Manager, 909 Elmerton Avenue, 2nd Floor, Harrisburg, PA 17110-8200, Telephone: 717-705-4707. If you wish to review any of these applications, please contact Mary DiSanto at 717-705-4732.

Sewage Applicaiton Number 2198408 submitted by Silver Spring Township Authority, 6475 Carlisle Pike, Mechanicsburg, PA 17055 in Silver Spring Township, Cumberland County to construct the John Keener Subdivision Pumping Station on Texaco Road was received in the Southcentral Regional Office on August 25, 1998.

Sewage Application Number 0572401 amendment 98-1 submitted by Municipal Authority of the Borough of Bedford, 244 West Penn Street, Bedford, PA 15522 in Bedford Borough, Bedford County to re-rate their existing wastewater treatment plant was received in the Southcentral Region on August 21, 1998.

Sewage Application Number 6798409 submitted by West Manheim Township, 31 Fairview Drive, Hanover, PA 17331 in West Manheim and Penn Townships to construct the Colonial Hills - Phase 10 Sewer Extension was received in the Southcentral Regional Office on August 25, 1998

Published in PA Bulletin
9/19/98

FILE COPY

Pennsylvania Department of Environmental Protection

**909 Elmerton Avenue**
**Harrisburg, PA 17110-8200**
**August 27, 1998**

**Southcentral Regional Office**

**(717) 705-4800**
**FAX (717) 705-4760**

West Manheim Township
31 Fairview Drive
Hanover, PA 17331

Re: Administrative Completeness Review
Part II Permit No. 6798409

Dear Applicant:

This is to inform you that the Department has reviewed the above referenced application in order to determine whether it contains the information, maps, fees, and other documents necessary for administrative completeness. Please be advised that your application has been determined to be administratively complete and will be processed for technical review.

During the technical review, **Lisa Sweigert** has been assigned as the lead reviewer for your application. The lead reviewer will evaluate the adequacy of the application and its components to determine if sufficient information exists to render a decision on the technical merits of your application. This individual will also coordinate comments from other technical staff as may be necessary for a comprehensive evaluation of the application.

You will be notified in writing if additional information is required before a technical decision can be rendered. The Department will make every effort to be clear and concise. The Department will send only one technical deficiency letter. Upon notification of any technical deficiencies, you will be given a stated period of time in which to submit the material requested When you submit a satisfactory response to the Department's request, the Department will proceed with its technical evaluation.

If, after completing the technical review, the Department is inclined to deny the application, you will be sent a pre-denial letter. The letter will outline the reason for denial. You will have one final opportunity to correct the deficiencies in your proposal before the Department makes a final decision. In the event you receive a pre-denial letter, you will be provided an opportunity to meet with Department staff to discuss the unresolved issues.

Under normal circumstances, completed applications can generally be processed within 120 days from the date of **acceptance**. Obviously, those applications which are complete and require little or no additional information can usually be processed more quickly.

For questions about your application, please contact **Lisa Sweigert** at (717) 705-4814 and refer to your application.

Sincerely,

Kelly L. Rathfon

Kelly L. Rathfon
Permits Section
Water Management Program

cc: Ted Decker, P.E., Group Hanover, Inc.

**GHI** Engineers and Surveyors
Group Hanover, Inc.
213 Carlisle Street
Hanover, PA 17331
TEL. (717) 637-3800
FAX. (717) 633-9143

# LETTER OF TRANSMITTAL

| DATE | JOB NO. |
|---|---|
| 8/21/98 | 951060 |

ATTENTION: PERMIT COORD.

RE: COLONIAL HILLS - PHASE 10
PART II PERMIT

FILE COPY

TO PA DEP WATER MAN. PROGRAM
SOUTH CENTRAL REGION
909 ELMERTON AVE.
HARRISBURG, PA 17110-8200

WE ARE SENDING YOU ☑ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

| COPIES | DATE | NO. | DESCRIPTION |
|---|---|---|---|
| 3 | | | APPLICATION (APPLIC. FORM, MODULES, DES. ENG. REPORT) |
| 3 | | | PLANS |
| 1 | | | APPLICATION FEE $100.00 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

RECEIVED DEP SOUTHCENTRAL REGION 98 AUG 25 AM 9:46 WATER MANAGEMENT

THESE ARE TRANSMITTED as checked below:

☑ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____ 19 _____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS PLEASE PROCESS THIS APPLICATION FOR APPROVAL OF A PART II PERMIT FOR A SEWER EXTENSION.

COPY TO _____

SIGNED: Ted Deden, PE

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

# Exhibit Q-6

# The York Water Company

"That good York water"
SINCE 1816

June 18, 2020

Pennsylvania Department of Environmental Protection
South-central Regional Office
Clean Water Program
Permits Section
909 Elmerton Avenue
Harrisburg, PA 17110

**Reference: Application for WQM Permit Transfer (Application)**
**West Manheim Township**

The York Water Company (YWC) is hereby submitting this Application to transfer responsibility of the West Manheim Township sewer collection system from West Manheim Township to the York Water Company. The transfer date is contingent upon approval from the Pennsylvania Public Utility Commission (PUC). Upon approval from the PUC, YWC will notify the DEP of said action and provide the transfer date.

Enclosed you will find the required fee, completed original and copy of the Application and associated attachments as per the application's general instructions. Once the transferred permits are received, YWC will register them with the Adams County Recorder of Deeds as required.

This Application replaces our Application submittal dated April 2, 2020 by removing the permit transfer request for the Joshua Hill Wastewater Treatment Plant (WQM Permit No. 6709403 and NPDES Permit No. PA0261343. These two permits are not in West Manheim Township's name.

Please do not process this transfer request until notified of the approval by the PUC.

If you have any questions, please feel free to contact me at (717) 718-2961 or stevem@yorkwater.com.

Sincerely,

Steven M. Metzler

Steven Metzler, P.E.
Sr. Engineering Project Manager

3800-PM-BCW0041b Rev. 8/2019
Application

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

# APPLICATION FOR NPDES OR WQM PERMIT TRANSFER

**Before completing this form, please read the instructions (3800-PM-BCW0041a). FAILURE TO FOLLOW THE INSTRUCTIONS MAY RESULT IN DENIAL OF THE APPLICATION.**

| **Related ID#s (If Known)** | | | | **DEP USE ONLY** |
|---|---|---|---|---|
| Client ID# | 272703<br>111898<br>_____ | APS ID# | 692402<br>478561<br>645180 | **Date Received**<br><br>**PA:** **PDG:** |
| Site ID# | 720720<br>488151 | Facility ID# | _____ | |

| | |
|---|---|
| Permit No(s) to be transferred:<br>**WQM - 6703403, WQM - 6708406, WQM - 6703406, WQM - 6798407, WQM - 6798409** | Date of Proposed Sale / Transfer of Ownership or Operation:<br>**TBD (Contingent upon PA PUC Approval)** |
| **Purpose of Application (select one):**<br>☒ Transfer Permit(s)<br>☐ Add a Co-Permittee | **eDMR System:**<br>☒ eDMR Registration Materials Attached and Sent to BCW<br>☐ eDMR Registration Materials Not Required |

**PERMIT / FACILITY CATEGORY**

| **NPDES Individual Permits** | **Other Permits / Authorizations** |
|---|---|
| ☐ Small Flow Treatment Facility (SFTF) | ☐ NPDES General Permit (PAG-_____) |
| ☒ Other Domestic Wastewater | ☒ Water Quality Management (WQM) Permit |
| ☐ Industrial Waste / Industrial Stormwater | ☐ Joint PFBC/DEP Permit ("Chapter 91.38 Permit") |
| ☐ Municipal Separate Storm Sewer System (MS4) | ☐ No Exposure Certification |
| ☐ Concentrated Animal Feeding Operation (CAFO) | ☐ Other: _____ |

**EXISTING PERMITTEE INFORMATION**

| **DEP Client ID#** | **Client Type/Code** | | | |
|---|---|---|---|---|
| | | | | |
| **Organization Name or Registered Fictitious Name** | | **Employer ID# (EIN)** | | **Dun & Bradstreet ID#** |
| West Manheim Township | | | | |
| **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** | | | |
| 2412 Baltimore Pike | | | | |
| **Address Last Line – City** | **State** | **ZIP+4** | **Country** | |
| Hanover | PA | 17331 | USA | |
| **Client Contact Last Name** | **First Name** | **MI** | **Suffix** | |
| Woerner | Marc | | | |
| **Client Contact Title** | | **Phone** | **Ext** | |
| Township Manager / Zoning Officer | | (717) 632-0320 | | |
| **E-mail Address** | | | **FAX** | |
| mwoerner@westmanheimtwp.com | | | (717) 632-2499 | |

## SITE INFORMATION

| DEP Site ID# | Site Name |
|---|---|
| 623 | West Manheim Township Wastewater Collection System |

**EPA ID#**

**Estimated Number of Employees to be Present at Site**

**Description of Site**
Wastewater Collection System

| County Name | Municipality | City | Boro | Twp |
|---|---|---|---|---|
| York | West Manheim | ☐ | ☐ | ☒ |
| **County Name** | **Municipality** | **City** | **Boro** | **Twp** |
| | | ☐ | ☐ | ☐ |

**Site Location Line 1**

**Site Location Line 2**

| Site Location Last Line – City | State | ZIP+4 |
|---|---|---|
| Hanover | PA | 17331 |

**Detailed Written Directions to Site**

| Site Contact Last Name | First Name | MI | Suffix |
|---|---|---|---|
| Toms | Chris | | |

**Site Contact Title**
Engineer

**Site Contact Firm**
C.S. Davidson, Inc

**Mailing Address Line 1**
38 N. Duke St.

**Mailing Address Line 2**

| Address Last Line – City | State | ZIP+4 |
|---|---|---|
| York | PA | 17401 |

| Phone | Ext | FAX | E-mail Address |
|---|---|---|---|
| (717) 846-4805 | | | CWT@csdavidson.com |

**NAICS Codes (Two- & Three-Digit Codes – List All That Apply)**
221

**6-Digit Code (Optional)**

**Site-to-Client Relationship**
AGENT (Township Engineer)

## FACILITY INFORMATION

**Facility Name** West Manheim Township Wastewater Collection System

**Attach a topographic map** that identifies the location of the facility and all discharge points (outfalls).

Provide the latitude and longitude coordinates at the center of the facility.

| Latitude | | | Longitude | | |
|---|---|---|---|---|---|
| **Degrees** | **Minutes** | **Degrees** | **Minutes** | **Degrees** | **Minutes** |
| 39 | 45 | 25 | 76 | 57 | 52 |

**Existing Permits.** Identify all NPDES and WQM permits for this facility.

| Permit Type | Permit# | Date Issued | Issued By |
|---|---|---|---|
| WQM | 6798409 | NOVEMBER 12, 1998 | PADEP |
| WQM | 6798407 | JULY 15, 1998 | PADEP |
| WQM | 6703406 (06-1) | AUGUST 29, 2006 | PADEP |
| WQM | 6708406 | JULY 22, 2008 | PADEP |
| WQM | 6703403 | OCTOBER 26, 2004 | PADEP |
| | | | |
| | | | |

**Facility Description.** Provide a brief description of the facility.

## COMPLIANCE HISTORY (EXISTING PERMITTEE)

Is the facility owner or operator in violation of any DEP regulation, permit, order or schedule of compliance at this or any other facility? ☐ Yes ☒ No

If "Yes," list each permit, order and schedule and provide compliance status. Use additional sheets to provide information on all permits.

| Permit Program | Permit No. |
|---|---|
| Brief Description of Non-Compliance | |

| Steps Taken to Achieve Compliance | Date(s) Compliance Achieved |
|---|---|
| | |
| | |

Current Compliance Status ☒ In Compliance ☐ In Non-Compliance

If the owner or operator is not in compliance with any permit requirement or DEP regulations, attach a narrative description of how the owner or operator will achieve compliance with the permit requirement, including the schedule for achieving compliance with appropriate milestones.

Are there any fees, past or present, due for the permit being transferred? ☐ Yes ☒ No

If "Yes," payment must be remitted with this application for any fees, past or present, due for the permit being transferred.

## CERTIFICATION (EXISTING PERMITTEE)

I certify that I have the authority to make this application as the existing permittee, and that the information included in this application is true to the best of my knowledge and belief. I, on behalf of the existing permittee, hereby:

☒ relinquish the permit(s) that are the subject of this application to the proposed permittee; or

☐ agree to include the proposed permittee identified in this application as a co-permittee on the permit.

I also certify under penalty of law and subject to the penalties of 18 Pa. C.S. Section 4904 (relating to unsworn falsification to authorities) that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

| Marc Woerner | Township Manager/Zoning Supervisor |
|---|---|
| **Name** (type or print legibly) | **Official Title** |
| Marc Woerner | 6/18/2020 |
| **Signature** | **Date** |

## PROPOSED PERMITTEE / CO-PERMITTEE INFORMATION

| DEP Client ID# | Client Type/Code | | | |
|---|---|---|---|---|
| 69800 | PACOR | | | |
| **Organization Name or Registered Fictitious Name** | | **Employer ID# (EIN)** | | **Dun & Bradstreet ID#** |
| The York Water Company | | 23-1242500 | | 00-791-8154 |
| **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** | | | |
| 130 East Market Street | | | | |
| **Address Last Line – City** | **State** | **ZIP+4** | **Country** | |
| York | PA | 17401-1219 | USA | |
| **Client Contact Last Name** | **First Name** | **MI** | **Suffix** | |
| Wheeler | Mark | A. | | |
| **Client Contact Title** | | **Phone** | **Ext** | |
| Chief Operating Officer | | (717) 814-2852 | | |
| **E-mail Address** | | | **FAX** | |
| markw@yorkwater.com | | | (717) 843-2715 | |
| **Site Name (if different from Site Information section above)** | | | | |
| York Water Company Downtown Office | | | | |
| **Facility Name (if different from Facility Information section above)** | | | | |

## DISCHARGE INFORMATION

Check the appropriate boxes below to indicate whether the quantity (flow or pollutant mass loads) or quality (pollutant concentrations) of any discharge to surface waters will change following transfer of the permit(s) or addition of co-permittee(s).

| | Expected Change | | |
|---|---|---|---|
| | **Greater Than Existing Discharge(s)** | **Less Than Existing Discharge(s)** | **No Change** |
| **Flow or Pollutant Mass Loads** | ☐ | ☐ | ☒ |
| **Pollutant Concentrations** | ☐ | ☐ | ☒ |

If changes are expected, explain the reason(s):

## COMPLIANCE HISTORY (PROPOSED PERMITTEE)

Is the proposed permittee in violation of any DEP regulation, permit, order or schedule of compliance at any other facility? ☐ Yes ☒ No

If "Yes," list each permit, order and schedule and provide compliance status. Use additional sheets to provide information on all permits.

| Permit Program | Permit No. |
|---|---|
| Brief Description of Non-Compliance | |

| Steps Taken to Achieve Compliance | Date(s) Compliance Achieved |
|---|---|
| | |
| | |

Current Compliance Status ☒ In Compliance ☐ In Non-Compliance

If the owner or operator is not in compliance with any permit requirement of DEP regulations, provide narrative description of how the owner or operator will achieve compliance with the permit requirement, including the schedule for achieving compliance with appropriate milestones.

## STATEMENT OF LIABILITY

**Unless otherwise indicated by attached written agreement, the proposed permittee will be held liable for all continuing and future violations of the transferred permit(s). If applicable, the written agreement must state the steps that will be taken to resolve any non-compliance at the facility and the responsible party for all actions.**

## CERTIFICATION (PROPOSED PERMITTEE)

I certify that I have the authority to make this application as the proposed permittee or co-permittee, and that the information included in this application is true to the best of my knowledge and belief. I, on behalf of the proposed permittee, hereby accept the permit(s) and the statement of liability above (unless otherwise specified in an attached written agreement), and agree to be bound by all terms of said permit(s).

I also certify under penalty of law and subject to the penalties of 18 Pa. C.S. Section 4904 (relating to unsworn falsification to authorities) that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**For Transfers of No Exposure Certifications**: I certify that: 1) I have read and understand the eligibility requirements for claiming a condition of "no exposure" and obtaining an exclusion from NPDES stormwater permitting under federal regulations; 2) there are no discharges of stormwater contaminated by exposure to industrial activities or materials from the industrial facility (except as allowed under federal regulations); and 3) there are no unauthorized non-stormwater discharges from the facility. I understand that I am obligated to submit a No Exposure Certification form once every five years to the NPDES permitting authority and, if requested, to the operator of the local MS4 into which this facility discharges (where applicable). I understand that I must allow the NPDES permitting authority, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under an NPDES permit prior to any point source discharge of stormwater from the facility.

| Mark Wheeler | Chief Operating Officer |
|---|---|
| **Name** (type or print legibly) | **Official Title** |
| W. Mark Wheeler | 6/11/20 |
| **Signature** | **Date** |

## DOCUMENT REVISION HISTORY

| Date | Revision Reason |
|---|---|
| August 2019 | Clarification of requirements for outstanding fees under Compliance History. |
| October 2018 | Updated application to include purpose of application and eDMR checkboxes on page 1, revisions to Discharge Information section, and revisions to Certification sections. Added option for transfer application to be used to add co-permittees to a permit. |
| February 2017 | Added requirement to submit eDMR registration if using eDMR. |
| November 2016 | Updated topographic map requirements; Updated document number and document number references. |

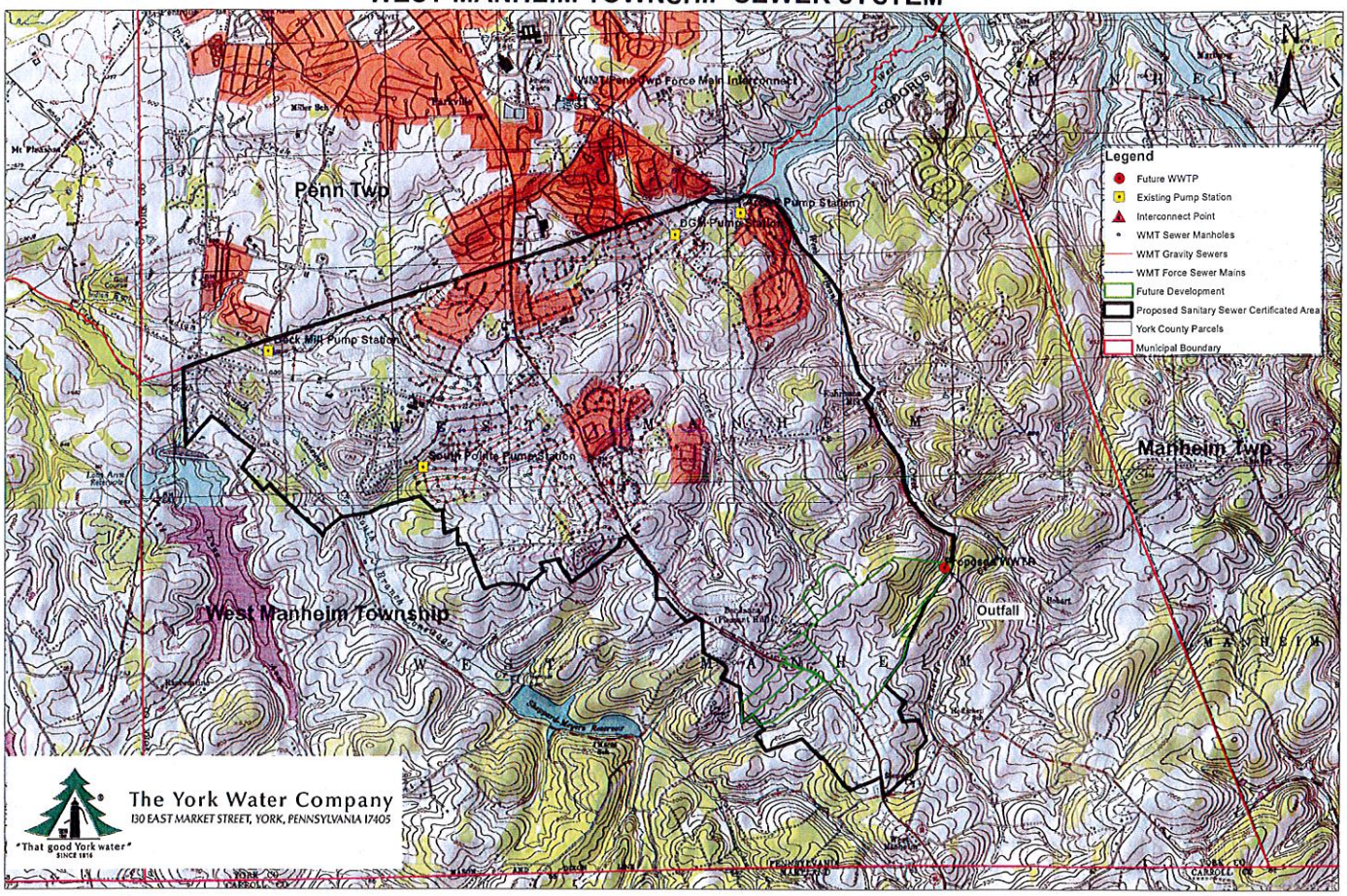
Topographic Map and Layout Map with Facilities

THE YORK WATER COMPANY
TEL. (717) 845-3601

130 EAST MARKET STREET
FAX (717) 852-0058

YORK, PENNSYLVANIA 17401-1219
www.yorkwater.com

# WEST MANHEIM TOWNSHIP SEWER SYSTEM



# eDMR Registration Form (3800-FM-BCW0424)

*THE YORK WATER COMPANY*
*TEL. (717) 845-3601*
*130 EAST MARKET STREET*
*FAX (717) 852-0058*
*YORK, PENNSYLVANIA 17401-1219*
*www.yorkwater.com*

# eDMR PERMITTEE REGISTRATION FORM FOR PERMIT TRANSFERS

**Please read and follow all instructions before submitting this form. Failure to submit complete and accurate information will result in the delay of processing or return of your registration application and/or permit transfer application.**

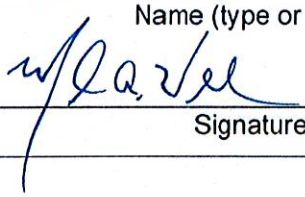
| **Part A. Permit and Facility Information** | | | |
|---|---|---|---|
| New Permittee Name: The York Water Company | | Permit No.: | WQM 6703403, 6708406, 6703406, 6798407, 6798409 |
| Facility Name: | West Manheim Township Wastewater Collection System, Pumping Stations & Wastewater Treatment Plant (future) | Mailing Address: | West Manheim Twp 2412 Baltimore Pike Hanover, PA 17331 |
| *Previous Users: Remove Previous Users ☒ Retain Previous Users ☐ | | | |
| **Part B. User Account Information (* indicates required information)** | | | |
| *Account Security Requested: ☐ Viewer ☐ Preparer ☒ Certifier (Authorized? Yes ☒ No ☐) | | | |
| *Last Name: | Wenger | Suffix: | Title: ☒ Mr. ☐ Ms. ☐ Dr. |
| *First Name: | Vaughn | Middle Name/Initial: | A. |
| *Job Title: | Wastewater Operations Superintendent | *Employer's Name: | The York Water Company |
| *Email Address: | Vaughnw@yorkwater.com | *Phone Number(s): | (717) 718-7544 |
| *GreenPort Username: WENGERV | | | |
| **User Account Information (*indicates required information)** | | | |
| *Account Security Requested: ☐ Viewer ☐ Preparer ☒ Certifier (Authorized? Yes ☒ No ☐) | | | |
| *Last Name: | Longstreet | Suffix: | Title: ☒ Mr. ☐ Ms. ☐ Dr. |
| *First Name: | John | Middle Name/Initial: | |
| *Job Title: | Wastewater Service Assistant Superintendent | *Employer's Name: | The York Water Company |
| *Email Address: | jackl@yorkwater.com | *Phone Number(s): | (717) 718-2978 |
| *GreenPort Username: LONGSTREETJ | | | |
| **User Account Information (*indicates required information)** | | | |
| *Account Security Requested: ☐ Viewer ☐ Preparer ☒ Certifier (Authorized? Yes ☒ No ☐) | | | |
| *Last Name: | Buracker | Suffix: | Title: ☒ Mr. ☐ Ms. ☐ Dr. |
| *First Name: | Grover | Middle Name/Initial: | E |
| *Job Title: | Wastewater Technician | *Employer's Name: | The York Water Company |
| *Email Address: | Ericb@yorkwater.com | *Phone Number(s): | (717) 718-2952 |
| *GreenPort Username: BURACKERE | | | |

**Part C. Certification**

I request that the above identified facility be registered for the Department of Environmental Protection's (DEP's) eDMR system. As the permittee, I agree that all eDMR users for this facility will follow permit requirements and the procedures for the electronic submission of DMR reports.

Please establish or modify the above user accounts in accordance with the information provided herein. Those persons who are to receive Certifier security are hereby designated as Authorized Representatives for this facility for all wastewater data reporting purposes. I understand that each person to receive Certifier security in the eDMR system must submit a completed Trading Partner Agreement.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

| | |
|---|---|
| Mark Wheeler<br>Name (type or print) | Chief Operating Officer<br>Official Title (type or print) |
|  <br>Signature | 6/11/20<br>Date |

**Mail or email this form and all attachments to:**

PA Department of Environmental Protection
Bureau of Clean Water
Rachel Carson State Office Building
PO Box 8774
Harrisburg, PA 17105-8774
Email: RA-EPDMR@pa.gov

# Trading Partner Agreement (3800-FM-BCW0425)

*THE YORK WATER COMPANY*
*TEL. (717) 845-3601*
*130 EAST MARKET STREET*
*FAX (717) 852-0058*
*YORK, PENNSYLVANIA 17401-1219*
*www.yorkwater.com*

3800-FM-BCW0425 Rev. 5/2018

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

# eDMR TRADING PARTNER AGREEMENT

**Identification:** Your username and password are unique to you. If you are using another person's name and password, you are submitting false information. Likewise, if someone else uses your name and password, they are submitting false information. If someone else gains access to your name and password, please notify us immediately.

**Authorization:** By signing below, you are certifying that you are a responsible corporate officer, a general partner, a proprietor or a principle executive officer in accordance with 40 CFR 122.22(a) or are otherwise a duly authorized representative of that person in accordance with 40 CFR 122.22(b) and are authorized to submit reports to the Department of Environmental Protection (DEP).

**Security Procedure:** When you send us information, we will display it as it will appear in the DEP's official record. If you have corrections to make to the displayed information, resubmit the information or click on the "Cancel" button. **Do not click the "Submit" button if the information is incorrect.** If the information is correct, click the "Submit" button to make it part of DEP's official record.

**False Reporting:** You are submitting official information. Any false statement is subject to substantial civil and criminal penalties, including 18 P.S. § 4904 (unsworn falsification to authorities). If you discover that the eDMR information you submitted is incorrect, please notify us immediately.

**Electronic Signature:** When you click a button labeled "I Agree" or "Submit," it has the same legal effect as a written signature under the Electronic Transactions Act, 73 P.S. § 2260.101 et seq.

**Confidential Information:** You must identify any confidential information as such when reporting. Any information that is not identified as confidential will be treated as public information. DEP will notify you if it does not agree that the identified information is confidential.

**Agreement:** By signing below, you agree to be bound by the terms of this Trading Partner Agreement, which shall be governed by the laws of Pennsylvania and enforced in Pennsylvania courts.

| | |
|---|---|
| Signature Required | Date |
| Grover Eric Swackes | PA 0082201 |
| Printed Name | Permit Number |

3800-FM-BCW0425 Rev. 5/2018

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

# eDMR TRADING PARTNER AGREEMENT

**Identification:** Your username and password are unique to you. If you are using another person's name and password, you are submitting false information. Likewise, if someone else uses your name and password, they are submitting false information. If someone else gains access to your name and password, please notify us immediately.

**Authorization:** By signing below, you are certifying that you are a responsible corporate officer, a general partner, a proprietor or a principle executive officer in accordance with 40 CFR 122.22(a) or are otherwise a duly authorized representative of that person in accordance with 40 CFR 122.22(b) and are authorized to submit reports to the Department of Environmental Protection (DEP).

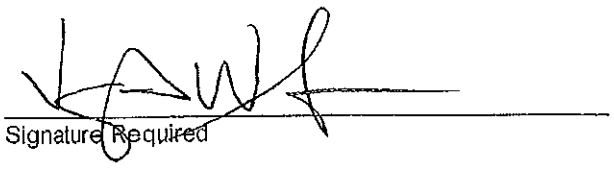
**Security Procedure:** When you send us information, we will display it as it will appear in the DEP's official record. If you have corrections to make to the displayed information, resubmit the information or click on the "Cancel" button. **Do not click the "Submit" button if the information is incorrect.** If the information is correct, click the "Submit" button to make it part of DEP's official record.

**False Reporting:** You are submitting official information. Any false statement is subject to substantial civil and criminal penalties, including 18 P.S. § 4904 (unsworn falsification to authorities). If you discover that the eDMR information you submitted is incorrect, please notify us immediately.

**Electronic Signature:** When you click a button labeled "I Agree" or "Submit," it has the same legal effect as a written signature under the Electronic Transactions Act, 73 P.S. § 2260.101 et seq.

**Confidential Information:** You must identify any confidential information as such when reporting. Any information that is not identified as confidential will be treated as public information. DEP will notify you if it does not agree that the identified information is confidential.

**Agreement:** By signing below, you agree to be bound by the terms of this Trading Partner Agreement, which shall be governed by the laws of Pennsylvania and enforced in Pennsylvania courts.



Signature Required

01/02/2020
Date

VAUGHN WENGER
Printed Name

PA0082201
Permit Number

3800-FM-BCW0425 Rev. 5/2018

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

# eDMR TRADING PARTNER AGREEMENT

**Identification:** Your username and password are unique to you. If you are using another person's name and password, you are submitting false information. Likewise, if someone else uses your name and password, they are submitting false information. If someone else gains access to your name and password, please notify us immediately.

**Authorization:** By signing below, you are certifying that you are a responsible corporate officer, a general partner, a proprietor or a principle executive officer in accordance with 40 CFR 122.22(a) or are otherwise a duly authorized representative of that person in accordance with 40 CFR 122.22(b) and are authorized to submit reports to the Department of Environmental Protection (DEP).

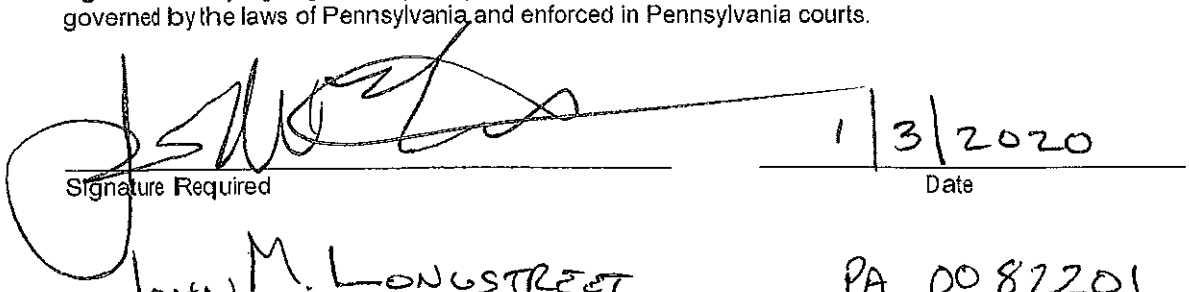
**Security Procedure:** When you send us information, we will display it as it will appear in the DEP's official record. If you have corrections to make to the displayed information, resubmit the information or click on the "Cancel" button. **Do not click the "Submit" button if the information is incorrect.** If the information is correct, click the "Submit" button to make it part of DEP's official record.

**False Reporting:** You are submitting official information. Any false statement is subject to substantial civil and criminal penalties, including 18 P.S. § 4904 (unsworn falsification to authorities). If you discover that the eDMR information you submitted is incorrect, please notify us immediately.

**Electronic Signature:** When you click a button labeled "I Agree" or "Submit," it has the same legal effect as a written signature under the Electronic Transactions Act, 73 P.S. § 2260.101 et seq.

**Confidential Information:** You must identify any confidential information as such when reporting. Any information that is not identified as confidential will be treated as public information. DEP will notify you if it does not agree that the identified information is confidential.

**Agreement:** By signing below, you agree to be bound by the terms of this Trading Partner Agreement, which shall be governed by the laws of Pennsylvania and enforced in Pennsylvania courts.



Signature Required

1/3/2020
Date

JOHN M. LONGSTREET
Printed Name

PA 0082201
Permit Number

# Exhibit R

**RESOLUTION #2011-04**

**A RESOLUTION OF THE TOWNSHIP OF WEST MANHEIM, YORK COUNTY, PENNSYLVANIA, ESTABLISHING THE SEWER RATES FOR CUSTOMERS OF THE PUBLIC SEWER SYSTEM.**

Be it resolved and enacted, and it is hereby resolved and enacted by the Board of Supervisors of the Township of West Manheim, York County, Pennsylvania, that the sewer rates for customers of the Township of West Manheim Sewer System are established pursuant to the following rate schedule.

| | |
|---|---|
| **BASE RATE** | **$165.00 PER QUARTER** |
| **PLUS USAGE** | |
| **0-10,000 GALLONS** | **$2.00 PER 1,000 GALLONS** |
| **10,001-20,000 GALLSON** | **$10.OO PER 1,000 GALLONS** |
| **20,001 AND ABOVE** | **$12.50 PER 1,000 GALLONS** |

**AS AN EXAMPLE, THE RATE FOR 12,000 GALLONS WOULD BE $205- $165 BASE PLUS $20.00 ($2.00 x 10) PLUS $20 ($10 X 2).**

WEST MANHEIM TOWNSHIP
BOARD OF SUPERVISORS

Nancy C. Smith
Secretary

Chairman

Vice Chairman

Member

Carl L Golbrecht
Member

Jan. 3, 2011
Enacted

Member

# Exhibit R-1

# WEST MANHEIM TOWNSHIP BOARD OF SUPERVISORS

## 2011 RE-ORGANIZATIONAL MEETING

## MONDAY, JANUARY 3, 2011 – 6:00 P.M.

The 2011 Re-organizational Meeting of the West Manheim Township Board of Supervisors was held on the above date and time at the Municipal Building.

Supervisor Gobrecht nominated Supervisor Woerner as temporary chairman. The nomination was seconded by Supervisor Williams and carried.

The Meeting was called to Order by Temporary Chairman Woerner, followed by the Pledge to Flag and Invocation.

ROLL CALL: Present were Supervisors Hartlaub, Woerner, Williams, Parr and Gobrecht, Solicitor Linus Fenicle of Reager & Adler, PC, and Engineer Michael Knouse from C. S. Davidson, Inc.

RECOGNITION OF VISITORS: Visitors register attached.

AGENDA: The agenda was approved in a motion by Supervisor Williams, seconded by Supervisor Gobrecht and carried.

Supervisor Gobrecht made a motion to nominate Supervisor Hartlaub as Chairman of the Board and it was seconded by Supervisor Parr. The motion was carried.

Supervisor Williams made a motion to nominate Supervisor Woerner as Vice-Chairman of the Board. Supervisor Gobrecht seconded the motion and it was carried.

In a motion by Supervisor Gobrecht, seconded by Supervisor Woerner and carried, the Board reappointed Kevin Null as Township Manager.

In separate motions by Supervisor Woerner, seconded by Supervisor Parr and carried, the Board appointed Nancy Smith as Secretary/Assistant Treasurer, Beverly Weaver as Treasurer/Assistant Secretary, Timothy Hippensteel as Police Chief and Alan Ault as Roadmaster.

In a motion by Supervisor Williams, seconded by Supervisor Woerner and carried, the Board reappointed the following officers and accepted their individual fee schedules for the year: Doug Stambaugh – Sewage Enforcement Officer, Linus Fenicle of Reager & Adler PC – Township Solicitor, C. S. Davidson, Inc. – Township Engineer, Jay Kalasnik – Zoning/Hearing Board Solicitor, Linda Deyarmin – Wage Tax Collector and Middle Department Inspection Agency, Inc. – Building Code Inspector.

The following Officers were reappointed in a motion by Supervisor Williams, seconded by Supervisor Woerner and carried:

Zoning Officer – Kevin Null
Code Enforcement Officer – Heather Neiderer
Vacancy Board Chairman – Cindy Lee
Earned Income Tax Representative - Supervisor Carl Gobrecht
Chief Administrative Officer of the Pension Plans - Supervisor Harold Hartlaub

In a motion by Supervisor Woerner, seconded by Supervisor Parr and carried, the Board appointed the members of the Board of Supervisors as Township Employees and Township Equipment Operators.

The Board approved Susquehanna Bank, People's Bank, ACNB and Members 1st Credit Union as Depositories for Township accounts in a motion by Supervisor Parr and seconded by Supervisor Gobrecht. Motion carried.

In a motion by Supervisor Woerner, seconded by Supervisor Gobrecht and carried, the Board adopted the Wage Tax Collection fee of the South Western School District.

The Board approved the renewal of all existing Ordinances and Resolutions for the new year in a motion by Supervisor Parr, seconded by Supervisor Gobrecht and carried.

Establish Board of Supervisors Meetings, Dates and Times: Monthly on First Thursday at 7:00 p.m., Supervisors Caucus at 6:00 p.m. and Third Tuesday at 7:00 p.m., Supervisors Caucus at 6:00 p.m. Motion by Supervisor Gobrecht, seconded by Supervisor Parr and carried.

In a motion by Supervisor Woerner, seconded by Supervisor Parr and carried, the Board approved 51 cents/mile as the rate of reimbursement for employees using their personal vehicles on Township business.

The Treasurer's/Secretary's Bond will be established at $1,500,000.00 for the Year 2011 in a motion by Supervisor Parr and seconded by Supervisor Woerner. Motion carried.

In a motion by Supervisor Parr, seconded by Supervisor Gobrecht and a unanimous roll call vote, the Board adopted Resolution #2011-01 which sets the police officer's contribution to the Police Pension Fund at 5% of their salary for 2011.

In a motion by Supervisor Gobrecht, seconded by Supervisor Parr and a unanimous roll call vote, the Board adopted Resolution #2011-02 which sets the non-uniformed employee's contribution of 5% to the Non-Uniformed Pension Fund.

Resolution #2011-03 was adopted in a motion by Supervisor Woerner, seconded by Supervisor Gobrecht and a unanimous roll call vote. This Resolution contains the fee schedule for services and permits for 2011.

In a motion by Supervisor Gobrecht, seconded by Supervisor Woerner and a unanimous roll call vote, the Board adopted Resolution #2011-04 which establishes the sewer rates for customers of the public sewer system.

Resolution #2011-05 will appoint Stambaugh Ness, PC, Certified Public Accountants, as independent auditors to examine and provide reports of all the accounts of the Township as of year ending 2010. The Resolution was adopted in a motion by Supervisor Parr, seconded by Supervisor Gobrecht and a unanimous roll call vote.

The meeting to reorganize was then closed in a motion by Supervisor Woerner, seconded by Supervisor Gobrecht and carried.

## REGULAR MEETING

DISBURSEMENTS: The Disbursements for the month of December, 2010, from all funds, were approved as listed in a motion by Supervisor Parr, seconded by Supervisor Williams and carried.

APPROVAL OF MINUTES: The Minutes of the Work Session Meeting of December 21, 2010 were approved as distributed in a motion by Supervisor Woerner, seconded by Supervisor Parr and carried.

Supervisor Hartlaub received correspondence from St. David's Lutheran Church on Musselman Road reaffirming their partnership with the Township to make their facility available as a polling place for West Manheim Township residents.

ENGINEER'S REPORT: Mike Knouse presented a written report of C.S. Davidson, Inc. dated January 3, 2011. Written copies were distributed to Supervisors and Staff (copy in Township files).

Mike Knouse indicated that most of the Engineer's report for this evening is informational only. He reviewed his proposed schedule for the adoption of the new SALDO Ordinance. The draft of the SALDO will be discussed at the Work Session Meeting on January 18, 2011

SOLICITOR'S REPORT: Solicitor Fenicle thanked the Board for the reappointment of Reager & Adler, PC as Township Solicitor for 2011. He reported that there are six properties that have not hooked into The York Water Company's public water lines as of this time. Two of these properties are in foreclosure and negotiations are ongoing with the other four property owners.

REPORTS: The Chief of Police Report for November, 2010 was approved in a motion by Supervisor Woerner, seconded by Supervisor Gobrecht and carried.

The Treasurer's Report for November, 2010 was approved, as distributed, in a motion by Supervisor Woerner, seconded by Supervisor Gobrecht and carried.

The Code Enforcement Officer's Report for November, 2010, was accepted, as distributed, in a motion by Supervisor Woerner, seconded by Supervisor Gobrecht and carried.

The Public Works Report for November, 2010 was accepted in a motion by Supervisor Woerner, seconded by Supervisor Gobrecht and carried.

The Pleasant Hill Fire Company and Ambulance Reports for November, 2010 were accepted in a motion by Supervisor Woerner and seconded by Supervisor Gobrecht. Motion carried.

There was no SEO Report for November, 2010.

The Utilities Supervisor's Report for November, 2010 was accepted, as distributed, in a motion by Supervisor Woerner, seconded by Supervisor Gobrecht and carried.

The EMA Activity Report for November, 2010 was approved and accepted in a motion by Supervisor Woerner and seconded by Supervisor Gobrecht. Motion carried.

MANAGER'S REPORT: Manager Kevin Null's report contained the following:

The perimeter fence to secure the Police Prisoner Transfer Area has been installed and the automatic gate operator will be installed in the near future. The dump truck and the

bucket truck have been delivered and are in service. Advertisement for sealed bids on the old truck will be sent out later this month. The bid document for municipal waste collection is being drafted and will go out later in January. The Sewer Authority met recently and recommended that the Authority be dissolved. In a motion by Supervisor Parr, seconded by Supervisor Williams and carried, the Board approved having the Solicitor prepare the necessary paperwork to dissolve the Township Sewer Authority. The new sewer rates that were adopted this evening will reduce the annual bill for over 80% of the users. The Public Works Department has serviced all the equipment for the winter and has been called out three times because of icy conditions. An improvement has been seen in PennDOT's treatment of the Baltimore Pike. They have applied a pre-treatment to the roadway. The Township has finished 2010 with 8.5% under budget in the General Fund and 30% under budget in the Highway Aid Fund. There will be a special meeting of the Board on January 13, 2011 at 6:00 p.m. to review and discuss an overview of infrastructure.

SUBDIVISION PLANS: (A) The following Subdivision Plans were given review time extensions as per written requests, in a motion by Supervisor Gobrecht, seconded by Supervisor Williams and carried - 1) Joshua Hill Farm, 124-lot Preliminary, 2) The Warner Farm, 15-lot Preliminary, 3) Orchard Estates, 58-lot Preliminary, 4) Preserve at Codorus Creek IV, 79-lot Preliminary, 5) Benrus Stambaugh et al, Land Development Plan, and 6) James Horak & Donald Yorlets, 6-lot Preliminary. Motion carried.

(B) In a motion by Supervisor Gobrecht, seconded by Supervisor Williams and carried – The Board then tabled all the following plans 1) Joshua Hill Farm, 124-lot Preliminary, 2) The Warner Farm, 15- lot Preliminary, 3) Orchard Estates, 58-lot Preliminary, 4) Preserve at Codorus Creek IV, 79-lot Preliminary, 5) Wyndsong Pointe, Phase II, 15-lot Final, 6) Fuhrman Mill Heights, 1-lot, 34 units, 7) Fox Run Village, 25-lot Final, 8) Steeple Chase, 12-lot Final, 9) Community Banks, Land Development Plan, 1-lot, 10) Homestead Acres, J.A. Myers, 134-lot Preliminary, 11) Northfields, Phase II, 52-lot Preliminary, 12) Benrus Stambaugh et al, Land Development Plan, 13) James Horak & Donald Yorlets, 6-lot Preliminary, 14) Reservoir Heights – Phase 2, 53-lot Final, and 15) Homestead Acres – 366-lot Preliminary. Motion carried.

PUBLIC COMMENTS: Supervisor Williams asked the Board members to consider the reappointment of the Commercial Development Committee to discuss how to bring business to the Township. This committee includes six township residents that would review and discuss business opportunities for West Manheim Township. Stan Werkheiser, 60 Sara Lane, asked if Manager Null had contacted anyone about the truck that is parked in his neighborhood. Mr. Null indicated that the truck will soon be moved from the area.

NEXT SCHEDULED MEETINGS – Supervisor's Work Session Meeting - Tuesday, January 18, 2011 at 7:00 p.m. with Supervisors Caucus at 6:00 p.m. Regular Supervisors Meeting – Thursday, February 3, 2011 at 7:00 p.m. with Supervisors Caucus at 6:00 p.m.

ADJOURNMENT - The meeting was adjourned at 6:42 p.m. in a motion by Supervisor Parr, seconded by Supervisor Gobrecht and carried.

Respectfully submitted,

Nancy C. Smith
Secretary

# Exhibit T

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

RECEIVED
AUG 8 - 2013
BY:

August 7, 2013

West Manheim Township
c/o Township Secretary
2412 Baltimore Pike
Hanover, PA 17331-9779

Re: Act 537 Planning
APS ID No. 16501
DEP Code No. D1-67964-ACT
West Manheim Township, York County

Ladies and Gentlemen:

The Department of Environmental Protection (Department) has completed the review of your Act 537 Plan Update submitted on April 23, 2013, prepared by C.S. Davidson, Inc. The submission is consistent with the requirements of Pa Code Title 25, Chapter 71 of the Department's rules and regulations. The plan provides for continued implementation of a strengthened On-Lot Disposal System (OLD's) operation and management program, along with future public sanitary sewer system extensions to serve the Fuhrman Mill Road and Woodridge Hunt areas in addition to the previously identified service areas 4, 5 and 6.

The plan is approved with the following comments:

1. The approved plan provides for the possible construction of a private wastewater treatment plant to serve the Joshua Hill Farm area. It is the understanding of the Department that should this plant be built, it will also serve a portion of the Pleasant Hill Area (Area 4).

2. Areas 4, 5 and 6 continue to be designated as future sewer service areas to be reevaluated within 10 years. The Department recommends that the western portion of Area 6 be re-evaluated for public sewer extension within 5 years due to the evidence of well water contamination.

3. All proposed subdivisions and land development projects utilizing on-lot sewage disposal systems within West Manheim Township will be required to complete a Component 2 planning module with a preliminary hydrogeologic study. Component 1 planning modules and on-lot disposal system planning exemptions may not be used to address these proposals.

It is now West Manheim Township's responsibility to implement the 537 Plan in accordance with the schedules contained within the plan.

Since the Department has approved your Plan, you are now eligible to receive a 50 percent planning cost reimbursement as provided under Section 6 of the Sewage Facilities Act (Act 537). A copy of the reimbursement application can be downloaded from the DEP website at http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-8773. You are reminded that reimbursement applications must show detailed cost breakdowns of tasks completed or you will place your reimbursement in jeopardy.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, PO Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717.787.3483) FOR MORE INFORMATION

If you have any questions, please call Mr. Barry L. Sweger at 717.705.4761.

Sincerely,

Maria D. Bebenek, P.E.
Environmental Program Manager
Clean Water Program

cc: C.S. Davidson, Inc.
York County Planning Commission

C.S.Davidson, Inc.
*Excellence in Civil Engineering*

38 N. Duke St. • York, PA 17401 • (717) 846-4805
50 W. Middle St. • Gettysburg, PA 17325 • (717) 337-3021
315 W. James St. • Lancaster, PA 17603 • (717) 481-29

# Act 537 Plan Update

For
West Manheim Township
York County, Pennsylvania

RESOLUTION # 2013-05

Approved

April 4, 2013

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

# Act 537 Plan Content and Environmental Assessment Checklist

## PART 1 GENERAL INFORMATION

### A. Project Information

1. Project Name West Manheim Township Act 537 Plan Update

2. Brief Project Description Act 537 Plan update to evaluate previously identified needs areas including Woodridge Hunt and Fuhrman Mill Road Areas

### B. Client (Municipality) Information

| Municipality Name | County | City | Boro | Twp |
|---|---|---|---|---|
| West Manheim Township | York | ☐ | ☐ | ☒ |

| Municipality Contact Individual - Last Name | First Name | MI | Suffix | Title |
|---|---|---|---|---|
| Gately | Laura | | | Secretary |
| Additional Individual Last Name | First Name | MI | Suffix | Title |

| Municipality Mailing Address Line 1 | Mailing Address Line 2 |
|---|---|
| 2412 Baltimore Pike | |

| Address Last Line -- City | State | ZIP+4 |
|---|---|---|
| Hanover | | 17331 |

| Phone + Ext. | FAX (optional) | Email (optional) |
|---|---|---|
| 717-632-0320 | | lgately@westmanheimtwp.com |

### C. Site Information

| Site (or Project) Name | (Municipal Name) Act 537 Plan |
|---|---|
| West Manheim Township Act 537 Plan Update | |

| Site Location Line 1 | Site Location Line 2 |
|---|---|
| Township | |

### D. Project Consultant Information

| Last Name | First Name | MI | Suffix |
|---|---|---|---|
| Knouse | Michael | R | |

| Title | Consulting Firm Name |
|---|---|
| Township Engineer | C.S. Davidson, Inc. |

| Mailing Address Line 1 | Mailing Address Line 2 |
|---|---|
| 38 N. Duke St. | |

| Address Last Line – City | State | ZIP+4 | Country |
|---|---|---|---|
| York | PA | 17401 | United States |

| Email | Phone + Ext. | FAX |
|---|---|---|
| mrk@csdavidson.com | 717-846-4805 | 717-846-5811 |

## PART 2 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. |
|---|---|---|
| _____ | i-vii | 1. **Table of Contents** |
| | | 2. **Plan Summary** |
| _____ | viii-x | A. Identify the proposed service areas and major problems evaluated in the plan. (Reference: Title 25, §71.21.a.7.i) |
| _____ | x | 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.i) |
| _____ | x | 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.ii). |
| _____ | x | D. Identify the municipal commitments necessary to implement the Plan. (Reference Title 25, §71.21.a.7.iii). |
| _____ | xi | E. Provide a schedule of implementation for the project that 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). |
| _____ | xiii | 3. **Municipal Adoption: 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. |
| _____ | xiv | 4. **Planning Commission / County Health Department Comments:** 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 area wide 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. |
| _____ | xix | 5. **Publication:** 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. |
| _____ | xxxv, Apdx. C | 6. **Comments and Responses:** 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. |
| _____ | xxxvi | 7. **Implementation Schedule:** 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 V.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.c). |
| _____ | xxxviii | 8. **Consistency Documentation:** 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)(6)(i-iii). (Reference Title 25, §71.31.e) Appendix B of the Planning Guide. |

## PART 3 GENERAL PLAN CONTENT CHECKLIST

| DEP Use Only | Indicate Page #(s) in Plan | | Item Required |
|---|---|---|---|
| ____ | 1-5 | I. | **Previous Wastewater Planning** |
| | | | A. Identify, describe and briefly analyze all past wastewater planning for its impact on the current planning effort: |
| ____ | 1-4 | | 1. Previously undertaken under the Sewage Facilities Act (Act 537). (Reference-Act 537, Section 5 §d.1). |
| ____ | 4 | | 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. |
| ____ | 4 | | 3. Is anticipated or planned by applicable sewer authorities or approved under a Chapter 94 Corrective Action Plan. (Reference-Title 25, §71.21.a.5.i.A&B). Section V.D. of the Planning Guide. |
| ____ | 4-5 | | 4. Through planning modules for new land development, planning "exemptions" and addenda. (Reference-Title 25, §71.21.a.5.i.A). |
| ____ | 6-13 | 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). |
| ____ | 6 | | A. Identification of planning area(s), municipal boundaries, Sewer Authority/Management Agency service area boundaries. (Reference-Title 25, §71.21.a.1.i). |
| ____ | 6 | | 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). |
| ____ | 6-7 | | C. Soils - Analysis with description by soil type and soils mapping for areas not presently served by sanitary sewer service. Show areas suitable for in-ground onlot 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). |
| ____ | 7-9 | | 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 5 mg/L. (Reference-Title 25, §71.21.a.1.iii). |
| ____ | 10 | | E. Topography - Depict areas with slopes that are suitable for conventional systems; slopes that are suitable for elevated sand mounds and slopes that are unsuitable for onlot systems. (Reference-Title 25, §71.21.a.1.ii). |
| ____ | 10-13 | | F. Potable Water Supplies - Identification through mapping, description and analysis. Include public water supply service areas and 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. |
| ____ | 13 | | 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. |

_____ 14-26 **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:

_____ 14-15 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).

_____ 15-17 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.A).

_____ 17-18 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 DEP. (Reference-Title 25, §71.21.a.2.i.B).

_____ 18 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).

_____ 18 5. A detailed description of the municipality's operation and maintenance requirements for small flow treatment facility systems, including 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).

_____ 19 6. Disposal areas, if other than stream discharge, and any applicable groundwater limitations. (Reference-Title 25, §71.21.a.4.i & ii).

_____ 19 B. Using DEP's publication titled *Sewage Disposal Needs Identification*, identify, map and describe areas that utilize individual and community onlot sewage disposal and, unpermitted collection and disposal systems ("wildcat" sewers, borehole disposal, etc.) and retaining tank systems in the planning area including:

_____ 19-20 1. The types of onlot systems in use. (Reference-Title 25, §71.21.a.2.ii.A).

_____ 20-22 2. A sanitary survey complete with description, map and tabulation 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).

_____ 22-24 3. A comparison of the types of onlot 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).

_____ 24-25 4. An individual water supply survey to identify possible contamination by malfunctioning onlot sewage disposal systems consistent with DEP's *Sewage Disposal Needs Identification* publication. (Reference-Title 25 §71.21.a.2.ii.B).

_____ 25 5. Detailed description of operation and maintenance requirements of the municipality for individual and small volume community onlot systems, including 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).

26 C. Identify wastewater sludge and septage generation, transport and disposal methods. Include this information in the sewage facilities alternative analysis including:

26 1. Location of sources of wastewater sludge or septage (Septic tanks, holding tanks, wastewater treatment facilities). (Reference-Title 25 §71.71).

26 2. Quantities of the types of sludges or septage generated. (Reference-Title 25 §71.71).

26 3. Present disposal methods, locations, capacities and transportation methods. (Reference-Title 25 §71.71).

27-31 **IV. Future Growth and Land Development**

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

27 1. All land use plans and zoning maps that identify residential, commercial, industrial, agricultural, recreational and open space areas. (Reference-Title 25, §71.21.a.3.iv).

27-28 2. Zoning or subdivision regulations that establish lot sizes predicated on sewage disposal methods. (Reference – Title 25§71.21.a.3.iv).

28-29 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.

29 B. Delineate and describe the following through map, text and analysis.

29 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 EDU's remaining to be developed (include time schedule for EDU's remaining to be developed). (Reference-Title 25, §71.21.a.3.i).

29 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).

29-30 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).

30-31 4. Zoning, and/or, subdivision regulations, local, county, or regional comprehensive plans, and existing plans of any other 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).
- public ground/surface water supplies
- recreational water use areas
- groundwater recharge areas
- industrial water use
- wetlands

31 5. Sewage planning necessary to provide adequate wastewater treatment for five and ten year future planning periods based on projected growth of existing and proposed wastewater collection and treatment facilities. (Reference-Title 25, §71.21.a.3.v).

32-50 **V. Identify Alternatives to Provide New or Improved Wastewater Disposal Facilities**

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

35 1. The potential for regional wastewater treatment. (Reference-Title 25, §71.21.a.4).

36 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.ii).

36 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).

36 a. Repair. (Reference-Title 25, §71.21.a.4.ii.A).

26-37 b. Upgrading. (Reference-Title 25, §71.21.a.4.ii.B).

38 c. Reduction of hydraulic or organic loading to existing facilities. (Reference-Title 25, §71.7).

38 d. Improved operation and maintenance. (Reference-Title 25, §71.21.a.4.ii.C).

38 e. Other applicable actions that will resolve or abate the identified problems. (Reference-Title 25, §71.21.a.4.ii.D).

38 4. Repair or replacement of existing collection and conveyance system components. (Reference-Title 25, §71.21.a.4.ii.A).

38-39 5. The need for construction of new community sewage systems including sewer systems and/or treatment facilities. (Reference-Title 25, §71.21.a.4.ii).

39-40 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).

40 B. The use of individual sewage disposal systems including individual residential spray irrigation systems based on:

40 1. Soil and slope suitability. (Reference-Title 25, §71.21.a.2.ii.C).

41 2. Preliminary hydrogeologic evaluation. (Reference-Title 25, §71.21.a.2.ii.C).

41-42 3. The establishment of a sewage management program. (Reference-Title 25, §71.21.a.4.iv). See also Part "F" below.

42 4. The repair, replacement or upgrading of existing malfunctioning systems in areas suitable for onlot disposal considering: (Reference-Title 25, §71.21.a.4).

42-43 a. Existing technology and sizing requirements of Title 25 Chapter 73. (Reference-Title 25, §73.31-73.72).

43 b. Use of expanded absorption areas or alternating absorption areas. (Reference-Title 25, §73.16).

43 c. Use of water conservation devices. (Reference-Title 25, §71.73.b.2.iii).

43 C. The use of small flow sewage treatment facilities or package treatment facilities to serve individual homes or clusters of homes with consideration of: (Reference-Title 25, §71.64.d).

43 1. Treatment and discharge requirements. (Reference-Title 25, §71.64.d).

43 2. Soil suitability. (Reference-Title 25, §71.64.c.i).

43-44 3. Preliminary hydrogeologic evaluation. (Reference-Title 25, §71.64.c.2).

44 4. Municipal, Local Agency or other controls over operation and maintenance requirements through a Sewage Management Program. (Reference-Title 25, §71.64.d). See Part "F" below.

44 D. The use of community land disposal alternatives including:

44 1. Soil and site suitability. (Reference-Title 25, §71.21.a.2.ii.C).

44 2. Preliminary hydrogeologic evaluation. (Reference-Title 25, §71.21.a.2.ii.C).

44 3. Municipality, Local Agency or Other Controls over operation and maintenance requirements through a Sewage Management Program. (Reference-Title25, §71.21.a.2.ii.C). See Part "F" below.

44 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.

45 E. The use of retaining tank alternatives on a temporary or permanent basis including: (Reference- Title 25, §71.21.a.4).

45 1. Commercial, residential and industrial use. (Reference-Title 25, §71.63.e).

45 2 Designated conveyance facilities (pumper trucks). (Reference-Title 25, §71.63.b.2).

45 3. Designated treatment facilities or disposal site. (Reference-Title 25, §71.63.b.2).

45 4. Implementation of a retaining tank ordinance by the municipality. (Reference-Title 25, §71.63.c.3). See Part "F" below.

45 5. Financial guarantees when retaining tanks are used as an interim sewage disposal measure. (Reference-Title 25, §71.63.c.2).

45 F. Sewage Management Programs to assure the future operation and maintenance of existing and proposed sewage facilities through:

46 1. Municipal ownership or control over the operation and maintenance of individual onlot sewage disposal systems, small flow treatment facilities, or other traditionally non-municipal treatment facilities. (Reference-Title 25, §71.21.a.4.iv).

46 2. Required inspection of sewage disposal systems on a schedule established by the municipality. (Reference-Title 25, §71.73.b.1.).

46 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).

46 4. Repair, replacement or upgrading of malfunctioning onlot sewage systems. (Reference-Title 25, §71.21.a.4.iv) and §71.73.b.5 through:

46 a. Aggressive pro-active enforcement of ordinances that require operation and maintenance and prohibit malfunctioning systems. (Reference-Title 25, §71.73.b.5).

47 b. Public education programs to encourage proper operation and maintenance and repair of sewage disposal systems.

47 5. Establishment of joint municipal sewage management programs. (Reference-Title 25, §71.73.b.8).

47 6. Requirements for bonding, escrow accounts, management agencies or associations to assure operation and maintenance for non-municipal facilities. (Reference-Title 25, §71.71).

47

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:

47-48 a. Land use designations. (Reference-Title 25, §71.21.a.4).

47-48 b. Densities. (Reference-Title 25, §71.21.a.4).

47-48 c. Municipal ordinances and regulations. (Reference-Title 25, §71.21.a.4).

47-48 d. Improved enforcement. (Reference-Title 25, §71.21.a.4).

47-48 e. Protection of drinking water sources. (Reference-Title 25, §71.21.a.4).

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

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

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

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

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

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

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

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

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

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

51-65 **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.).

51 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.

51 2. Municipal wasteload management **Corrective Action Plans or Annual Reports** 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.

51 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.

52 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.

52 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.

52 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.

52 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.

52 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.

52 9. **Wetland Protection.** Using wetland mapping developed under Checklist Section II.G, 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. (Reference-Title 25, §71.21.a.5.I.I) Appendix B, Section II.I of the Planning Guide.

53 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 DEP with a copy of the completed Request For PNDI Search document. Also 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. Appendix B, Section II.J of the Planning Guide.

53 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 of 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.

53 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.

54 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.II).

____ 54-62 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).

____ 63 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).

____ 64 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).

____ 64 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).

____ 64 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).

____ 64-65 G. Evaluate administrative organizations and legal authority necessary for plan implementation. (Reference - Title 25, §71.21.a.5.vi.D.).

____ 66-70 **VII. Institutional Evaluation**

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

____ 66 1. Financial and debt status. (Reference-Title 25, §71.61.d.2).

____ 66 2. Available staff and administrative resources. (Reference-Title 25, §71.61.d.2)

____ 66 3. Existing legal authority to:

____ 67 a. Implement wastewater planning recommendations. (Reference-Title 25, §71.61.d.2).

____ 67 b. Implement system-wide operation and maintenance activities. (Reference-Title 25, §71.61.d.2).

____ 67 c. Set user fees and take purchasing actions. (Reference-Title 25, §71.61.d.2).

____ 67 d. Take enforcement actions against ordinance violators. (Reference-Title 25, §71.61.d.2).

____ 67 e. Negotiate agreements with other parties. (Reference-Title 25, §71.61.d.2).

____ 67 f. Raise capital for construction and operation and maintenance of facilities. (Reference-Title 25,§71.61.d.2).

____ 68 B. Provide an analysis and description of the various institutional alternatives necessary to implement the proposed technical alternatives including:

____ 68 1. Need for new municipal departments or municipal authorities. (Reference-Title 25, §71.61.d.2).

____ 68 2. Functions of existing and proposed organizations (sewer authorities, onlot maintenance agencies, etc.). (Reference-Title 25, §71.61.d.2).

____ 68 3. Cost of administration, implementability, and the capability of the authority/agency to react to future needs. (Reference-Title 25, §71.61.d.2).

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

69 1. Incorporation of authorities or agencies. (Reference-Title 25, §71.61.d.2).

69 2. Development of all required ordinances, regulations, standards and inter-municipal agreements. (Reference-Title 25, §71.61.d.2).

69 3. Description of activities to provide rights-of-way, easements and land transfers. (Reference-Title 25, §71.61.d.2).

69 4. Adoption of other municipal sewage facilities plans. (Reference-Title 25, §71.61.d.2).

69 5. Any other legal documents. (Reference-Title 25, §71.61.d.2).

69 6. Dates or timeframes for items 1-5 above on the project's implementation schedule.

69-70 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).

71-77 **VIII. Implementation Schedule and 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:

71-76 1. Existing wastewater disposal needs. (Reference-Title 25, §71.21.a.6)

71-76 2. Future wastewater disposal needs. (five and ten years growth areas). (Reference-Title 25, §71.21.a.6).

71-76 3. Operation and maintenance considerations. (Reference-Title 25, §71.21.a.6).

71-76 4. Cost-effectiveness. (Reference-Title 25, §71.21.a.6).

71-76 5. Available management and administrative systems. (Reference-Title 25, §71.21.a.6).

71-76 6. Available financing methods. (Reference-Title 25, §71.21.a.6).

71-76 7. Environmental soundness and compliance with natural resource planning and preservation programs. (Reference-Title 25, §71.21.a.6).

76 B. Designate and describe the capital financing plan chosen to implement the selected alternative(s). Designate and describe the chosen back-up financing plan. (Reference-Title 25, §71.21.a.6)

76-77 C. Designate and describe the implementation schedule for the recommended alternative, including justification for any proposed phasing of construction or implementation of a Sewage Management Program. (Reference – Title 25 §71.31d)

Apdx. A **IX. Environmental Report (ER) generated from the Uniform Environmental Review Process (UER)**

Apdx. A A. Complete an ER as required by the UER process and as described in the DEP Technical Guidance 381-5511-111. Include this document as "Appendix A" to the Act 537 Plan Update Revision. Note: *An ER is required only for Wastewater projects proposing funding through any of the funding sources identified in the UER.*

PENNVEST I.D. No. _____

## 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 A Guide for Preparing Act 537 Update Revisions (362-0300-003), Appendix N for greater detail or contact the DEP regional office serving your county listed in Appendix J of the same publication.

| DEP Use Only | Indicate Page #(s) in Plan | Item Required |
|---|---|---|
| _____ | Apdx. A | 1. Environmental Impact Assessment. (Planning Phase)<br>The Uniform Environment Review (UER) replaces the Environmental Impact Assessment that was a previous requirement for PENNVEST projects. |
| _____ | Apdx. A | 2. Cost Effectiveness (Planning Phase)<br>The cost-effectiveness analysis should be a present-worth (or equivalent uniform annual) cost evaluation of the principle alternatives using the interest rate that is published annually by the Water Resources Council. Normally, for PENNVEST projects the applicant should select the most cost-effective alternative based upon the above analysis. Once the alternative has been selected the user fee estimates should be developed based upon interest rates and loan terms of the selected funding method. |
| _____ | | 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

**SLUDGE TREATMENT TECHNOLOGIES**

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

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

**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

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

# Instructions for Completing Act 537 Plan Content and Environmental Assessment Checklist

**Remove and recycle these instructions prior to submission**

## CHECKLIST INSTRUCTIONS

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

This checklist is composed of three parts: one for "General Information," one for "Administrative Completeness," and one for "General Plan Content". A plan must be "administratively complete" in order to be formally reviewed by DEP. The General Plan Content portion of the checklist identifies each of the issues that must be addressed in your Act 537 Plan Update based on the pre-planning meeting between you and/or your consultant and DEP.

Use the right-hand column blanks in the checklist to identify the page in the plan on which each planning issue is found or to 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.

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.

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

Wastewater projects proposing funding through the following sources must prepare an "Environmental Report" as described in the Uniform Environmental Review Process (UER) and include it with the plan submission designated as "Plan-Appendix A". The following funding programs use the UER process.

- The Clean Water State Revolving Loan Fund (PENNVEST, DEP, EPA)
- The RUS Water and Waste Disposal Grant and Loan Program (USDA-RD)
- The Community Development Block Grant Program (DCED, HUG)
- Other Federal Funding Efforts (EPA)

The checklist items or portions of checklist items required in the Act 537 Plan Update revision and that are also included in the UER process are indicated by shading. Most of the "Environmental Report" document may be constructed from the Act 537 Official Plan Update revision by using "copy & paste" techniques. The technical guidance document *Uniform Environmental Review Process* (UER) (DEP ID. 381-5511-111) is available electronically on DEP's website at www.dep.state.pa.us.

After Municipal Adoption by Resolution, submit three copies of the plan, any attachments or addenda and this checklist to DEP.

A copy of this completed checklist must be included with your Act 537 plan. DEP will use the "DEP USE ONLY" column during the completeness evaluation of the plan. This column may also be used by DEP during the pre-planning meeting with the municipality to identify planning elements that are not required to be included in the plan.

C.S.Davidson, Inc.
*Excellence in Civil Engineering*

38 N. Duke St. • York, PA 17401 • (717) 846-4805
50 W. Middle St. • Gettysburg, PA 17325 • (717) 337-3021
315 W. James St. • Lancaster, PA 17603 • (717) 481-29

# Act 537 Plan Update

For
West Manheim Township
York County, Pennsylvania

RESOLUTION # 2013-05

Approved

April 4, 2013

# TABLE OF CONTENTS


Plan Summary ..... viii

Municipal Adoption ..... xii

Planning Commission/County Health Department Comments ..... xiv

Publication

Comments and Responses (See Appendix C)

Implementation Schedule

Consistency Documentation

Section 1 – Previous Wastewater Planning ..... 1

I.A.1. Previous Wastewater Planning Undertaken Under the Sewage Facilities Act (Act 537) ..... 1

I.A.2. Previous Planning Not Carried Out per Approved Implementation Schedule ..... 4

I.A.3. Anticipated Wastewater Planning By Others ..... 4

I.A.4. Planning Modules and Other Revisions ..... 4

Section II – Physical and Demographic Analysis Utilizing Written Description and Mapping ..... 6

II.A. Identification of Planning Areas, Municipal Boundaries, Sewer Authority/Management Service Boundaries ..... 6

II.B. Identification of Physical Characteristics – Water Resources ..... 6

II.C. Soils ..... 6

II.D. Geologic Features ..... 7

II.E. Topography ..... 10

II.F. Potable Water Supplies ..... 10

II.G. Wetlands ..... 13

Section III – Existing Sewage Facilities in the Planning Area – Identifying Existing Needs ..... 14

III.A.1. Location, Size and Ownership of Sewage Systems ..... 14

III.A.2 Treatment Facilities Schematic ..... 15

III.A.3. Problems with Existing Facilities ..... 17

III.A.4. Schedule of Upgrades of Treatment Facilities ..... 18

III.A.5. Operation and Maintenance Requirements for Small Flow Treatment Facility Systems ..... 18

III.A.6. Disposal Areas ..... 19

III.B.1. Types of On-lot Systems in Use ..... 19

III.B.2. Sanitary Sewer Survey ..... 20

III.B.3. On-Lot Sewage Systems ..... 22

III.B.4. Water Supply Survey ..... 24

III.B.5. On-Lot Disposal System Operation and Maintenance Requirements ..... 25
III.C.1. Location of Sources of Wastewater Sludge and Septage ..... 26
III.C.2. Quantities and type of Wastewater Sludge Generated ..... 26
III.C.3. Present Disposal Methods ..... 26

Section IV – Future Growth and Land Development ..... 27
IV.A.1. Land Use and Zoning ..... 27
IV.A.2. Lot Size Regulations ..... 27
IV.A.3. Special Protection Areas ..... 28
IV.B.1. Existing and Planned Developments & Subdivisions ..... 29
IV.B.2 Land Use ..... 29
IV.B.3. Future Growth ..... 29
IV.B.4. Protection of Natural Resources ..... 29
IV.B.5. Sewage Planning for Five and Ten Year Projections ..... 31

Section V – Identify Alternatives to Provide for New or Improved Wastewater Disposal Facilities ..... 32
V.A. Conventional Collection, Conveyance, Treatment and Discharge Alternatives ..... 32
V.A.1. Regional WWTP ..... 35
V.A.2. Extension of facilities to areas of need or new development ..... 36
V.A.3. Potential for continued use of sewage facilities ..... 36
a) Repair ..... 36
b) Upgrading ..... 36
c) Reduction of hydraulic of organic loading to existing facilities ..... 38
d) Improved operation and maintenance ..... 38
e) Other applicable actions that will resolve or abate the identified problems ..... 38
V.A.4. Repair or replacement of existing collection or conveyance System components ..... 38
V.A.5. The Need for the construction of a new community sewage systems including sewer systems and/or treatment facilities ..... 38
V.A.6. Use of innovative/alternative methods of collection/conveyance to serve needs areas using existing wastewater treatment facilities ..... 39
V.B. The use of individual sewage disposal systems including individual residential spray irrigation systems ..... 40
V.B.1. Soil and slope suitability ..... 40
V.B.2. Preliminary hydrogeologic evaluation ..... 41
V.B.3. The establishment of a sewage management program ..... 41
V.B.4. The repair, replacement or upgrading of existing malfunctioning systems in areas suitable for on-lot disposal ..... 42
a) Existing technology and sizing requirements of Title 25 Chapter 73 ..... 42
b) Use of expanded absorption areas or alternating absorption areas ..... 43
c) Use of water conservation devices ..... 43
V.C. The use of small flow sewage treatment facilities or package treatment facilities to serve individual homes or clusters of homes ..... 43

V.C.1. Treatment and discharge requirements ..... 43
V.C.2. Soil Suitability ..... 43
V.C.3. Preliminary hydrogeologic evaluation ..... 43
V.C.4. Municipal, Local, Agency or other controls over operation and maintenance requirements through a sewage management program ..... 44
V.D. The use of community land disposal alternatives ..... 44
V.D.1. Soil and site suitability ..... 44
V.D.2. Preliminary hydrogeologic evaluation ..... 44
V.D.3. Municipal, Local, Agency or other controls over operation and maintenance requirements through a sewage management program ..... 44
V.D.4. The rehabilitation or replacement of existing malfunctioning community land disposal systems ..... 44
V.E. The use of retaining tank alternatives on a temporary or permanent basis ..... 45
V.E.1. Commercial, residential and industrial use ..... 45
V.E.2. Designated conveyance facilities ..... 45
V.E.3. Designated treatment facilities or disposal site ..... 45
V.E.4. Implementation of retaining tank ordinance by the municipality
V.E.5. Financial guarantees when retaining tanks are used as an interim sewage disposal measure ..... 45
V.F. Sewage management programs to assure the operation and maintenance of existing and proposed sewage facilities ..... 45
V.F.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 ..... 46
V.F.2. Required inspection of sewage disposal systems on a schedule established by the municipality ..... 46
V.F.3. Required maintenance of sewage disposal systems including septic and aerobic treatment tanks and other system components on a schedule established by the municipality ..... 46
V.F.4 Repair, replacement or upgrading of malfunctioning on-lot sewage systems ..... 46
a) Aggressive pro-active enforcement of ordinances that require operation and maintenance and prohibit malfunctioning systems ..... 46
b) Public education programs to encourage proper operation and repair of sewage disposal systems ..... 47
V.F.5. Establishment of joint municipal sewage management programs ..... 47
V.F. 6. Requirements for bonding, escrow accounts, management agencies or associations to assure operation and maintenance for non-municipal facilities ..... 47
V.G. Non-structural comprehensive planning alternatives that can be undertaken to assist in meeting existing and future sewage disposal needs ..... 47
V.G.1 Modifications of existing comprehensive plans ..... 47
V.G.2. Consideration of a local comprehensive plan to assist in producing sound economic and consistent land development ..... 48

V.G.3. Alternatives for creating or changing municipal subdivision regulations to assure long-term use of on-site sewage disposal that consider lot sizes and protection of replacement areas ..... 48
V.G.4. Evaluation of local agency programs and the need for technical or administrative training ..... 48
V.H. No-action alternative which includes discussion of both short term and long-term impacts ..... 49
V.H.1. Water quality/public health ..... 49
V.H.2. Growth potential ..... 49
V.H.3. Community economic conditions ..... 49
V.H.4. Recreational opportunities ..... 50
V.H.5. Drinking water source ..... 50
V.H.6. Other environmental concerns ..... 50

Section VI – Evaluation of Alternatives ..... 51
VI.A. Consistency Determinations ..... 51
VI.A.1. Applicable Plans Developed and Approved Under Section 4 and 5 of the Clean Streams Law or Section 208 of the Clean Water Act ..... 51
VI.A.2. Municipal Wasteload Management Corrective Action Plans or Annual Reports ..... 51
VI.A.3. Plans Developed Under Title II of the Clean Water Act or Titles II and VI of the Water Quality Act of 1987 ..... 52
VI.A.4. Comprehensive Plans Developed Under the Municipalities Planning Code ..... 52
VI.A.5. Antidegradation Requirements as Contained in PA Code, Title 25, Chapters 93, 95 and 102 ..... 52
VI.A.6. State Water Plans Developed Under the Water Resource Planning Act ..... 52
VI.A.7. Pennsylvania Prime Agricultural Land Policy Contained in Title 4 of the Pennsylvania Code, Chapter 7, Subchapter W. ..... 52
VI.A.8. County Storm Water Management Plans Approved by DEP Under the Storm Water Management Act ..... 52
VI.A.9. Wetland Protection ..... 52
VI.A.10. Protection of Rare, Endangered, or Threatened Plant and Animal Species as Identified by the Pennsylvania Natural Diversity Inventory (PNDI) ..... 53
VI.A.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 ..... 53
VI.B. Inconsistency Resolutions ..... 53
VI.C. Evaluation of Water Quality Standards, Effluent Limitations or Other Technical, Legislative or Legal Requirements ..... 54
VI.D. Cost Estimates ..... 54
VI.E. Funding Analysis ..... 63
VI.F. Implementation Schedule ..... 64
VI.F.1. Description of Activities Necessary to Abate Critical Public Health Hazards Pending Completion of Sewage Facilities or Implementation of Sewage Management Programs ..... 64

VI.F.2. 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 ..... 64

VI.G. Administrative Organization and Legal Authority ..... 64

Section VII – Institutional Evaluation ..... 66
VII.A. Wastewater Treatment Authority Analysis ..... 66
VII.A.1 Financial and Debt Status ..... 66
VII.A.2 Available Staff and Administrative Resources ..... 66
VII.A.3 Existing Legal Authority ..... 66
a) Existing legal authority to implement wastewater planning recommendations ..... 67
b) Existing legal authority to implement system-wide operation and maintenance activities ..... 67
c) Existing legal authority to set user fees and take purchasing actions ..... 67
d) Existing legal authority to take enforcement actions against ordinance violators ..... 67
e) Existing legal authority to negotiate agreements with other parties ..... 67
f) Existing legal authority to raise capital for construction and operation and maintenance of facilities ..... 67
VII.B. Institutional Alternative Analysis ..... 68
VII.B.1. Need for New Municipal Departments or Municipal Authorities ..... 68
VII.B.2. Functions of Existing and Proposed Organizations ..... 68
VII.B.3. Cost Administration, Implementability, and the Capability of the Authority/Agency to React to Future Needs ..... 68
VII.C. Administrative and Legal Activities to be Completed and Adopted to Ensure Implementation of the Recommended Alternative ..... 69
VII.C.1. Incorporation of Authorities or Agencies ..... 69
VII.C.2. Development of all Required Ordinances, Regulations, Standards and Inter-Municipal Agreements ..... 69
VII.C.3. Activities to Provide Rights-of-ways, Easements, and Land Transfers ..... 69
VII.C.4. Adoption of Other Municipal Sewage Facilities Plans ..... 69
VII.C.5. Other Legal Documents ..... 69
VII.C.6. Dates or Timeframes for Administrative or Legal Activities ..... 69
VII.D. Proposed Institutional Alternative ..... 69

Section VIII – Implementation Schedule and Justification for Selected Technical & Institutional Alternatives ..... 71
VIII.A Identify the Technical Wastewater Disposal Alternative Which Best Meets the Wastewater Treatment Needs of Each Study Area of the Municipality ..... 71
VIII.B. Capitol Financing Plan ..... 76
VIII.C. Implementation Schedule ..... 76

**EXHIBITS:**


| | |
|---|---|
| Exhibit I-1 | Hanover Regional Planning Area – Sewerage Plan – Year 2000 |
| Exhibit I-2 | Penn Township Sewage Treatment System |
| Exhibit II-1 | Regional Location Map |
| Exhibit II-2 | Sewer Districts |
| Exhibit II-3 | Water Resources |
| Exhibit II-4 | Flood Prone Areas |
| Exhibit II-5 | Soils |
| Exhibit II-6 | Soils Suitable for Conventional In-Ground and Elevated Sand Mounds |
| Exhibit II-7 | Soils Suitable for Only Elevated Sand Mounds |
| Exhibit II-8 | Soils Suitable for Spray Irrigation Systems |
| Exhibit II-9 | Slopes Unsuitable for On-Lot Disposal Systems |
| Exhibit II-10 | Prime Agricultural Soils |
| Exhibit II-11 | Geologic Features |
| Exhibit II-12 | Topography |
| Exhibit II-13 | Slopes Suitable for Conventional In-Ground and Elevated Sand Mounds |
| Exhibit II-14 | Slopes Suitable for only Elevated Sand Mounds |
| Exhibit II-15 | Total and Fecal Coliform |
| Exhibit II-16 | Nitrates |
| Exhibit II-17 | Wetlands |
| Exhibit II-18 | Hydric Soils |
| Exhibit II-19 | Drainage Basins |
| Exhibit II-20 | Primary Growth Area |
| Exhibit II-21 | Future Sanitary Sewer Treatment and Capacity Projections |
| Exhibit III-1 | Analysis Summary |
| Exhibit III-2 | Existing Sanitary Sewer Collection and Conveyance System |
| Exhibit III-3 | Existing On-Lot Disposal Systems |
| Exhibit III-4 | Tier 1 Sewage Survey Results |
| Exhibit III-5 | Tier 2 Sewage Survey Results |
| Exhibit III-6 | Potential and Known On-Lot Sewer System Malfunction |
| Exhibit III-7 | OLDs Inspection/Certification |
| Exhibit III-8 | OLDs Repair Permits (2010) |
| Exhibit III-9 | Wastewater Treatment Facility Improvements: Penn Township – Existing Site/Demolition Plan |
| Exhibit III-10 | Wastewater Treatment Facility Improvements: Penn Township – New Structure/Piping Plan |
| Exhibit IV-1 | Existing Land Use/Active or Planned Subdivisions |
| Exhibit IV-2 | Future Land Use/Primary Growth and Rural Areas |
| Exhibit IV-3 | Zoning Map |
| Exhibit IV-4 | Zoning Overlay Districts |
| Exhibit IV-5 | Community Facilities and Utilities |

| | |
|---|---|
| Exhibit V-1 | Option1: Gravity Sanitary Sewer Extension & Associated Pump Stations & Force Mains |
| Exhibit V-2 | Option 2: Low Pressure Sanitary Sewer Extension with Portions of Gravity Sewer |
| Exhibit V-3 | Potential Wastewater Treatment Plant Options & Future Sewer Area Layout |


**APPENDIX:**


| | |
|---|---|
| Appendix A | Section IX – Environmental Report |
| Appendix B | Task Activity Report |
| Appendix C | Public Comment and Responses |
| Appendix I-1 | Sewer Capacity Agreement |
| Appendix I-2 | Sewer Capacity Addendum to Agreement |
| Appendix I-3 | Sewer Capacity Amendment to Agreement |
| Appendix I-4 | Feasibility Study – Sanitary Sewerage System for West Manheim Township |
| Appendix I-5 | DGM Joint Venture and West Manheim Township Sewer Agreement |
| Appendix I-6 | Area 3 Interceptor Agreement |
| Appendix I-7 | Penn Township Consent Order and Agreement |
| Appendix I-8 | Penn Township WWTP NPDES Permit No. PA 0037150 |
| Appendix I-9 | Planning Modules |
| Appendix II-1 | Tier II Water Samples |
| Appendix III-1 | Corrective Action Plan for Penn Township, York County NPDES Permit No. PA0037150 |
| Appendix III-2 | West Manheim Township Ordinance No. 04-2010 OLDS Management Ordinance |
| Appendix III-3 | Sewage Needs Mail Survey Examples and Tier I Results (2000) |
| Appendix III-4 | Tier Two OLDS Surveys (2009 & 2000) |
| Appendix III-5 | West Manheim Township OLD's Inspections and Certifications |
| Appendix IV-1 | Sanitary Sewer Projections |
| Appendix V-1 | Holding Tank Ordinance |
| Appendix V-2 | Joshua Hill Wastewater Treatment Plant Agreement |
| Appendix VI-1 | Cost Analysis |
| Appendix VII-1 | West Manheim Township Ordinance No. 11-2004 – Mandatory Connection Ordinance |

## PLAN SUMMARY

This plan represents the Official Sewage Plan (Act 537 Plan) for West Manheim Township, York County, Pennsylvania. The purpose of an Act 537 plan, which is requirement of the Pennsylvania Department of Environmental Protection (PA DEP), is to protect the health, safety, and welfare of the Township's residents by addressing their long-term sewage disposal needs. The alternatives evaluated and considered in this Plan include continued implementation of a strengthened On-Lot Disposal System (OLD's) operation and management program, along with future public sanitary sewer system extensions.

### A. Identification of the Proposed Service Areas and Major Problems Evaluated in the Plan

In accordance with the previous study, West Manheim Township has completed all milestones identified and is completing this plan update to address the remaining areas of need identified. The West Manheim Township Act 537 Plan Update examines the Fuhrman Mill Road and Woodridge Hunt areas in addition to the previously identified service areas 4, 5 and 6, see Exhibit II-2. The plan also serves as a unifying plan to bring the results of the past studies identified in Section 1 of this study and new supplemental data into one document.

The existing needs of the Township's residents and property owners are evaluated through an analysis of the soil properties, topography, geology, historic Sewage Enforcement Officer (SEO) permits, sanitary surveys, well water testing, zoning regulations, current on-lot disposal system (OLDS) inspections, and future alternatives for collection, conveyance and treatment of wastewater.

**Public Sanitary Sewer:**
Three public sewer service areas were previously identified as future service sewer service areas; these areas remain identified as future sewer areas. The designation of future sewer is consistent with the identified needs due to restricting lot sizes, elevated nitrates, age of systems, etc. The Township's OLDS inspection program has also allowed the Township to evaluate and correct on-lot systems that were previously identified as potential problems; see table below. The properties which have been inspected under the 2010 OLDS program are identified in Appendix III-5, and summarized on Exhibit III-7. The areas identified are an extension of existing service areas 1, 2 and 3.

Area 4 (Including Fuhrman Mill Road Area)

Area 4 is a future extension of the sanitary sewer to the south along the Baltimore Pike, and has also been expanded to include a portion of Fuhrman Mill Road. The service area consists of 298 equivalent dwelling units (EDU's). Under the Township's OLDS inspection program, the majority of the properties have been inspected and certified since 2010; see table below.

Area 5

Area 5 is an extension of the sanitary sewer to the west in the Shorb's Hill Road area. The service area consists of 106 EDU's. Under the Township's OLDS inspection program, the majority of the properties have been inspected and certified since 2010; see table below.

Area 6

Area 6 is an extension of the sanitary sewer to the west in the Fairview Road area. The service area consists of 170 EDU's. Under the Township's OLDS inspection program, the majority of the properties have been inspected and certified since 2010; see table below.

| | Potential and/or known malfunctioning on-lot systems | | |
|---|---|---|---|
| Future Sewer Service Area | Number of properties previously identified as potential and/or malfunctioning (2000) | Certifications of these on-lot system (per 2010 OLD's program) | Remaining systems for Township action |
| 4 | 13 | 13 | 0 |
| 5 | 3 | 3 | 0 |
| 6 | 8 | 8 | 0 |

| | Tier 1 Survey | | |
|---|---|---|---|
| Future Sewer Service Area | Number of properties previously identified as having adverse conditions(2000) | Certifications of these on-lot system (per 2010 OLD's program) | Remaining systems for Township action |
| 4 | 8 | 8 | 0 |
| 5 | 3 | 3 | 0 |
| 6 | 5 | 5 | 0 |

| | Tier 2 Survey | | |
|---|---|---|---|
| Future Sewer Service Area | Number of properties previously identified as having adverse conditions(2000) | Certifications of these on-lot system (per 2010 OLD's program) | Remaining systems for Township action |
| 4 | 12 | 12 | 0 |
| 5 | 5 | 5 | 0 |
| 6 | 8 | 8 | 0 |

**On-Lot Sewer:**

During the course of this plan update, in consultation with the Pennsylvania Department of Environmental Protection, the Township requested an amendment to the Task Activity Report (TAR). This request allowed the Township to adopt the West Manheim Township Ordinance No. 04-2010, OLDS Management Ordinance, amending the existing Ordinance. This Ordinance provided the following: established all areas not served by public sewer as an OLD's District; provided procedures for notification by Township; required inspection and certification by the Township SEO. With the enhanced OLD's program, the Township has gathered sufficient data to demonstrate that continued operation and maintenance of on-lot disposal systems meets the current needs of the Township.

Woodridge Hunt

The current OLD's program has demonstrated proper operation of the on-lot systems within this area. The service area consists of 67 EDU's. Future development of the tract known as the Joshua Hill Farm, and associated utilities, could potentially make public sanitary sewer extension to this area feasible. Therefore, the Area is recommended to be re-evaluated as a potential sewer service area in the next Act 537 plan update and may be considered for future public water service by the York Water Company.

## B. Selected Alternatives

This plan identifies all feasible alternatives for the continued management of municipal sewage as well as potential future alternatives for collection, conveyance and treatment of wastewater within the needs areas. The recommendations of this plan are based upon the evaluation of alternatives (Section V), financial analysis (Section VI), and institutional evaluation (Section VII). The plan recommends continued operation and maintenance of all on-lot systems in accordance with the Township's OLD's Ordinance No. 04-2010. The plan also identifies three areas for future public sewer, as warranted by the continued enforcement of the OLD's Ordinance.

The future sewer areas 4, 5 and 6 have been evaluated to be served by future public sanitary sewer extensions, consisting of gravity sanitary sewer, pump stations and associated force mains. Sewage collected by the public sewer system is to be conveyed to the Penn Township Wastewater Treatment Plant (WWTP). Funding for all construction should be pursued through the issue of a General Obligation Bond and/or PennVEST loan. The plan recommends that an update to the Act 537 plan be completed in ten (10) years to determine if extension of public sewer into these areas is warranted, and re-evaluate treatment options.

## C. Cost Summary of Selected Alternative

OLD's Management

The continued OLD's management enforcement program by the Township will result in minimal cost to the Township. As documented in the financial analysis (Section VI) and institutional evaluation (Section VII), no additional resources are required by the Township for implementation. The average property owner cost to complete the required pumping, inspection and certification is approximately $500.00 every four years, excluding any repairs.

The cost analysis completed under this plan for future sewer areas complies with the federal facility planning requirements under the PennVEST State Revolving Fund (SRF). The analysis of Area 4, 5 and 6, (consisting of gravity sanitary sewer and pump stations, and being conveyed to the Penn Twp. WWTP) utilizing the issue of a General Obligation Bond, results in an annual user cost of $2,229.04. This analysis is based upon a tapping fee of $3,000.00. Depending on the current bond market, it may be beneficial to pursue a different finance option at the time of the project.

## D. Required Municipal Commitments for Plan Implementation

West Manheim Township would be required to continue to enforce the OLD's Ordinance No. 04-2010.

## E. Implementation Schedule

| Description | Work Start Date |
|---|---|
| **OLD's Ordinance Update** | |
| Adoption of Ordinance No. 04-2010 | September 2, 2010 |
| Enforcement of Ordinance | October 2010 |
| **ACT 537 Plan** | |
| Submission of Act 537 Plan to PA DEP | March 2013 |
| Act 537 Plan Approval by PA DEP | June 2013 |
| **OLDS Ordinance Enforcement** | |
| Continuation of first four year cycle | October 2010 to October 2014 |
| Second Cycle | October 2014 to October 2018 |
| Third Cycle | October 2018 to October 2022 |
| **Additional ACT 537 Planning** | |
| Re-evaluation of needs areas | June 2023 |

# MUNICIPAL ADOPTION

**RESOLUTION # 2013-05**

**RESOLUTION OF THE BOARD OF SUPERVISORS OF WEST MANHEIM TOWNSHIP, YORK COUNTY, PENNSYLVANIA (hereinafter "the municipality"), FOR THE PLAN REVISION OF WEST MANHEIM TOWNSHIP'S OFFICIAL SEWAGE FACILITIES PLAN "ACT 537", PENNSYLVANIA SEWAGE FACILITIES ACT.**

**WHEREAS**, Section 5 of the Act of January 24, 1996, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the 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 consulting firm of C.S. Davidson, Inc. has prepared an update of the Act 537 Plan, which provides for continued operation of on-lot systems and future sewage facilities in portions of West Manheim Township; and

**WHEREAS**, West Manheim Township finds that the Facility 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 West Manheim hereby adopt and submit to the Department of Environmental Protection for its approval as a revision to the "official Plan" of the municipality, the above referenced Facility 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, Dawn Gately, Secretary, West Manheim Township Board of Supervisors hereby certify that the foregoing is a true copy of the Township's Resolution No. 2013-05, adopted April 4, 2013.

Dawn Gately
Secretary

**WEST MANHEIM TOWNSHIP**
**BOARD OF SUPERVISORS**

Chairman

Vice-Chairman

# PLANNING COMMISSION/COUNTY HEALTH DEPARTMENT COMMENTS*

* Note: York County does not have a County Health Department, therefore no comments have been received.

# YORK COUNTY PLANNING COMMISSION

28 EAST MARKET STREET, YORK, PENNSYLVANIA 17401
TELEPHONE: (717) 771-9870 FAX: (717) 771-9511

March 5, 2010

Mr. Michael Knouse
C.S. Davidson, Inc.
38 North Duke Street
York, PA 17401

Re: West Manheim Township Act 537 Plan Update
West Manheim Township, York County
YCPC Project # 10-020

Dear Mr. Knouse

The above referenced matter was reviewed by the York County Planning Commission at its regular meeting held on Tuesday, March 2, 2010.

By formal action the Commission adopted the attached report as constituting its comments on this matter in accordance with Section 304 of the Pennsylvania Municipalities Planning Code.

You are reminded that the Pennsylvania Municipalities Planning Code requires the submission of a copy of any adopted municipal Zoning Ordinance, Subdivision and Land Development Ordinance, Comprehensive Plan or any amendments to such documents to the York County Planning Commission with thirty days (30) days following the date of adoption.

Very truly yours,

Felicia S. Dell
Director of Planning

FSD/jb
Enc.
cc: West Manheim Township Supervisors, c/o Nancy Smith, Secretary
File

TERRY L. DUNLAP, CHAIRMAN • WALTER A. KUHL, VICE CHAIRMAN • MARY E. COBLE, SECRETARY • MARY KAY REED, TREASURER
BRIAN BRENNEMAN • JOSHUA GEORGE • JEFF PROPPS • JOHN C. MENGES, II • RANDY MEYERHOFF
FELICIA S. DELL, DIRECTOR • JEFFREY L. REHMEYER II, SOLICITOR

EQUAL OPPORTUNITY EMPLOYER

**ACT 537 SEWAGE FACILITIES PLAN UPDATE**
**WEST MANHEIM TOWNSHIP**
**YCPC PROJECT #10-20**

## PROJECT DESCRIPTION

A proposed Act 537 Sewage Facilities Plan Update for West Manheim Township has been submitted to the York County Planning Commission for review and comment, as required by Section 304 of the Pennsylvania Municipalities Planning Code (PA MPC), and Section 71.31(b) of the Pennsylvania Sewage Facilities Act, Act 537.

## PROJECT DISCUSSION

**Background:** The current Official Sewage Facilities Plan for West Manheim Township consists of several documents including the York County Comprehensive Sewerage Study- Phase Two (1972), the Preliminary Feasibility Study for Sanitary Sewerage System (April 1976), the Act 537 Revision to Official Sewage Facilities Plan of September 7, 1976 (December 2, 1982), the Act 537 Revision to Official Sewage Facilities Plan of September 7, 1976 (May 1, 1984), and the West Manheim Township Act 537 Plan Update/ Task Activity Report (March 23, 2000). All these documents, prior to the Update in 2000, called for the sewage disposal needs to be addressed by on-lot sewage disposal systems and did not address current development pressures within the Township. The 2000 Update, identified six (6) sanitary sewer needs areas, of which Area 1 has been constructed, while Areas 2 and 3 are under construction. This Act 537 Plan Update consolidates the previous Act 537 planning that has been completed, as well as re-evaluates Sanitary Sewer Areas 4, 5, and 6 identified in the previous Update, additional areas located in the Woodridge Hunt development, and portions of Fuhrman Mill Road (see attached Exhibit II-2).

**Problems and Issues to be Addressed:** Based on a review of existing and suspected malfunctioning on-lot systems, wildcat sewers, groundwater contamination, soil suitability, slope, and areas with high potential for sewage disposal problems, the Township has identified five (5) study areas for review as sewage disposal needs areas (see attached Exhibit II-2). These areas include:

1) Area 4- Pleasant Hill Area- This area consists of 298 EDU's on small lots (< 1 acre) mostly served by public water. There are five (5) known malfunctions, eight (8) potential malfunctions, and 11 systems located near adverse conditions. Additionally, three (3) wells tested positive for fecal coliform, one (1) well tested positive for total coliform, and six (6) wells tested positive for elevated concentrations ($\geq$ 5 mg/L) of nitrate/nitrogen. Area 4 is considered one (1) of two (2) high priority areas for public sewer.

2) Area 5- Shorbs Hill Area- This area consists of 106 EDU's on small lots (< 1 acre) served entirely by public water. Based on previous surveys, there is one (1) known and two (2) suspected malfunctions in this area. Area 5 is considered to be in need of public sewer within the next five (5) years.

3) Area 6- Fairview Drive Area- A portion of this area is served by public water and there is a total of 170 EDU's on small (< 1 acre) residential lots. Previous surveys identified nine (9) potential malfunctions. Previous well water testing revealed five (5) wells with total and fecal coliform, six

(6) wells with total coliform, and 11 wells with elevated concentrations (≥ 5 mg/L) of nitrate/nitrogen. The elevated nitrate/nitrogen is suspected of being the result of farming activities in the area. Area 6 is considered to be in need of public sewer within the next five (5) years.

4) Woodridge Hunt Area- This area consists of 67 EDU's on newly developed residential lots ranging from one (1) acre to 7.7 acres. These lots are served by elevated sound mounds with denitrification units. There are no known malfunctions in the area, but it was found that several denitrification units are not operable. Well water testing revealed ten (10) positive results for total coliform and 16 positive results for elevated concentrations (≥ 5 mg/L) of nitrate/nitrogen. The Woodridge Hunt area is considered a future needs area (10 year) for public water and sewer.

5) Fuhrman Mill Road Area- This area consists of residential lots averaging approximately one (1) acre. A portion of the area is served by public water. No known malfunctions were identified during the survey, however, the average age of the on-lot systems is 25 years. Previous well water testing indicated that five (5) wells tested positive for total coliform and eight (8) wells tested positive for elevated concentrations (≥ 5 mg/L) of nitrate/nitrogen. The Fuhrman Mill Road area is considered one (1) of two (2) high priority areas for public sewer.

The remainder of the Township is noted as not experiencing widespread or concentrated on-lot system malfunctions. The previous Plan Update revealed eight (8) positive well tests for fecal coliform bacteria, 47 wells (50%) with elevated concentrations (≥ 5 mg/L) of nitrate/nitrogen, and ten (10) wells (10 %) with nitrate/nitrogen concentrations of greater than 10 mg/L.

**Selected Alternatives:** Based upon an evaluation of the alternatives available, financial analysis, and institutional evaluation, the Plan recommends that areas 4, 5, 6 and Fuhrman Mill Road be served by public sanitary sewer extensions consisting of gravity sanitary sewer, pump stations, and associated force mains. The proposed collection system would feed into the Penn Township Wastewater Treatment Plant (WWTP). Funding for these projects would be pursued through a General Obligation Bond and/or PennVest loan. The average annual user fee is anticipated to be $2,229.04 with a tapping fee of $3,000.00.

The Township currently has an adopted On-Lot Management Ordinance consisting of two (2) districts. The Plan proposes to amend the existing Ordinance to define four (4) on-lot management districts (see attached Exhibit II-22) with each having a four (4) year pumping cycle.

Additionally, a private WWTP is proposed for the Joshua Hill development and anticipated to be completed in 2011. The Plan notes that service to the Woodridge Hunt area may be feasible via the proposed WWTP. In the interim, the Woodridge Hunt area is to be included in the updated on-lot management districts.

**Other Alternatives:**

Other alternatives considered by the Plan include the following:

1) Conventional Treatment Systems - Conveyance to Penn Township WWTP is the selected alternative.

2) Individual Sewage Disposal Systems- Selected for remaining areas of Township.
3) Small Flow Treatment Facilities- Possibility of connecting Woodridge Hunt area to proposed Joshua Hill WWTP.
4) Community Wastewater Treatment Facilities- Considered not viable.
5) Holding Tanks- Currently not permitted in Township.
6) Sewage Management Program- Included as part of selected alternative.
7) Non-Structural Comprehensive Planning Activities- The Plan identifies Township staff, ordinances, plans, and the potential for distribution of educational materials via newsletter, web site, and mailings.
8) No Action- Considered not viable due to potential for ground water contamination through malfunction of on-lot systems.

## RECOMMENDATION

West Manheim Township is to be commended for its efforts to address its future sewage disposal needs. A review of the proposed West Manheim Act 537 Plan Update identified several minor inconsistencies between the service areas shown in the Comprehensive Plan and those in the Act 537 Plan. Additionally, it appears that proposed sewer service area 6 is larger than needed and consideration should be given to scaling it back. However, the proposed West Manheim Township Act 537 Plan Update is generally consistent with the York County Comprehensive Plan and it is therefore **recommended that the Plan be adopted,** conditioned upon the consideration of the comments below and changes to the Plan and Township Comprehensive Plan where applicable.

## COMMENTS

**York County Comprehensive Plan Comments:**

1. Exhibit II-2- Minor portions of proposed Sewer Service Area 5 and the Fuhrman Mill Road area extend beyond the service areas previously identified in the Township Comprehensive Plan and the Primary Growth Areas identified in both the Township and York County Comprehensive Plans. The Township Comprehensive Plan should be updated to account for these parcels in the Future Land Use Plan and Primary Growth Areas. This then would be followed by changes to Primary Growth Areas in the County Comprehensive Plan for consistency.

**General Comments:**

2. Exhibit II-2- The configuration of proposed Sewer Service Areas 4 and 5 appear to have been slightly reduced in some areas. These areas should be updated in the Township Comprehensive Plan along with the other needed changes for consistency.

3. Exhibit II-2- A large portion of Sewer Service Area 6, as identified in the Township Comprehensive Plan and located within the adopted Primary Growth Area, is already served by public sewer according Exhibit III-1. However, this area is not identified as an existing service area on Exhibits II-2 or II-15, for example, and has been removed from proposed Sewer Service Area 6. The existing service area should be properly and consistently identified on all the maps.

4. Exhibit V-1- Based on the sanitary sewer layout shown on Exhibit V-1 (too large to reproduce for attachment), a significant amount of large lots adjacent to both sides of Impounding Dam Road are

not proposed to be hooked-up to public sewer. If this is the case and there is no need for sewer in this area to resolve an existing situation, then given the proposed future land use designation of Farming for the area and its location outside of the Primary Growth Area, it should be removed from the proposed sewer service area in the Act 537 Plan and in the Township Comprehensive Plan.

***The preceding comments were prepared by the York County Planning Commission and constitute a professional planning review, not a legal opinion.**

****Please forward the adopted and PA DEP approved version of the Plan to the York County Planning Commission. This will help to keep our files up to date when reviewing future applications regarding Act 537 planning.**

# YORK COUNTY PLANNING COMMISSION

28 EAST MARKET STREET, YORK, PENNSYLVANIA 17401
TELEPHONE: (717) 771-9870 FAX: (717) 771-9511

February 12, 2010

Michael R. Knouse
C.S. Davidson, Inc.
38 North Duke Street
York, PA 17401

Re: Act 537 Plan Update
West Manheim Township, York County
YCPC Project #10-20

Dear Mr. Knouse:

This is to advise you that the above-referenced matter submitted to this office will be considered by the York County Planning Commission at its regular monthly meeting to be held on March 2, 2010. A staff report and recommendation will be prepared and will provide a basis for the Commission's deliberations.

Every effort will be made to prepare a staff report that is comprehensive, factual and objective. However, it is impossible to anticipate all questions or issues that may arise. It would be unfortunate to have a matter rejected or delayed due to the lack of information, therefore, it is in your best interest to attend the above-referenced meeting. **The meeting will be held at the York County 911 Emergency Services Center (in the meeting room off the lobby), 120 Davies Drive, York PA 17402, and will begin promptly at 7:30 p.m.** It is best to arrive early, particularly if you wish to address the Board, as staff reports concerning municipal projects are often voted upon by the Board in a group by consent agenda.

Copies of the staff report may be obtained by interested parties prior to the meeting, but no earlier than the start of business hours on the preceding Friday.

Sincerely,

Roy O. Livergood, Jr., Senior Planner
County Long Range Planning

cc: West Manheim Township Supervisors, c/o Nancy Smith, Secretary

TERRY L. DUNLAP, CHAIRMAN • WALTER A. KUHL, VICE CHAIRMAN • MARY E. COBLE, SECRETARY • MARY KAY REED, TREASURER
BRIAN BRENNEMAN • JOSHUA GEORGE • JEFF PROPPS • JOHN C. MENGES, II • RANDY MEYERHOFF
FELICIA S. DELL, DIRECTOR • JEFFREY L. REHMEYER II, SOLICITOR

EQUAL OPPORTUNITY EMPLOYER

# West Manheim Township

February 18, 2010

West Manheim Township
Board of Supervisors

**RE: Act 537 Plan Updates**

Dear Board of Supervisors:

The West Manheim Township Planning Commission at their January 21, 2010 meeting provided a favorable recommendation of the Act 537 Plan Updates. The Planning Commission recommends the incorporation of the typos and comments as noted in the minutes of the meeting.

Sincerely,

WEST MANHEIM TOWNSHIP
PLANNING COMMISSION

Jim Myers, Chairman
Planning Commission

cc: Board of Supervisors
Nancy Smith, Secretary
Kevin Null, Township Manager
Planning Commission
Planning File

MINUTES
WEST MANHEIM TOWNSHIP
REGULAR PLANNING COMMISSION MEETING
THURSDAY, JANUARY 21, 2010
6:00 PM

ITEM NO. 1 Meeting Called to Order

The regular meeting of the West Manheim Township Planning Commission was called to order at 6:00 p.m., by Chairman Jim Myers, followed by the Pledge of Allegiance.

ITEM NO. 2 Roll Call

The roll was called, and the following Commission Members were present: Chairman, Jim Myers, Darrell Raubenstine, Grant Reichart, Andrew Hoffman and Duane Diehl. Also present was Harold Coldren, Interim Zoning Officer and Mike Knouse, C.S. Davidson.

ITEM NO. 3 Re-Organization – 2010

A. Chairman

Andy Hoffman moved to nominate Jim Myers as Chairman, seconded by Duane Diehl. ***The motion carried.***

B. Vice-Chairman

Darrell Raubenstine moved to nominate Andy Hoffman as Vice-Chairman, seconded by Duane Diehl. ***The motion carried.***

C. Secretary

Duane Diehl moved to nominate Darrell Raubenstine as Secretary, seconded by Andy Hoffman. ***The motion carried.***

D. Recording Secretary

Darrell Raubenstine moved to nominate Laura Gately as Recording Secretary, seconded by Andy Hoffman. ***The motion carried.***

E. Meeting Dates & Times

Darrell Raubenstine made a motion to keep the meetings on the third Thursday of each month starting at 6:00 pm, seconded by Grant Reichart. ***The motion carried.***

ITEM NO. 4 Approval of Minutes

In reference to the December 17, 2009 minutes, Jim Myers noted that on page 4, Item No. 12 Zoning Officer Scott Barnhart, Township Manager/Zoning Officer reported that there would be two conditional use applications forthcoming. It should be corrected to read ham radio tower and not hand radio tower. He also noted on page 4, the second sentence the word sight should changed to be site.

With the following corrections, Andy Hoffman made a motion to approve the minutes from the December 17, 2009 Planning Commission meeting, seconded by Grant Reichart. ***The motion carried.***

ITEM NO. 5 Correspondence

Jim Myers, Chairman reported that the following correspondences were received:

1). Correspondence from Hanover Land Services dated January 11, 2010 regarding a written update for the James Horak & Donald Yorlets Partnership 7 Lot Preliminary Subdivision Plan, Fairview Drive.

ITEM NO. 6 Visitors

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission, and received no reply.

ITEM NO. 7 Public Comment – Items Not Listed on Agenda

Chairman Jim Myers asked if there were any visitors present that wished to discuss anything specific not on the agenda, and received no reply.

ITEM NO. 8 Emergency Services Group Report

Mike Hampton said Emergency Services has not reviewed any new plans since the beginning of the year. He reported that they reviewed a total of 12 preliminary and/or final plans in 2009. He said the Emergency Services Board will be meeting on February 22, 2010 and the meeting is open to the public.

ITEM NO. 9 Report from Zoning/Hearing Board

Harold Coldren, Interim Zoning Officer said there is no activity for January or February.

ITEM NO. 10 Old Business

A. Orchard Estates – Gobrecht – Shorbs Hill Rd. – 56 Lot Preliminary Plan

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission regarding the plan. There was no one present from the public to address the Commission.

Andy Hoffman made a motion to table the Plan, seconded by Grant Reichart. ***The motion carried.***

B. Marlee Hill Farm (Preserve at Codorus Creek IV) – Baltimore Pike – 79 Lot Preliminary Plan

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission regarding the plan.

Marty Hill said he has nothing new to report at this time.

Andy Hoffman made a motion to table the Plan, seconded by Grant Reichart. ***The motion carried.***

C. Homestead Acres – J.A. Myers – Oakwood Dr. & Valley View Dr. – 134 Lot Preliminary Plan

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission regarding the plan. There was no one present from the public to address the Commission.

Darrell Raubenstine made a motion to table the Plan, seconded by Grant Reichart. ***The motion carried.***

D. Northfield Joint Venture c/o Michael Roepcke – Phase II – Pumping Station Rd. & East of Baltimore Pike – 52 Lot Preliminary Subdivision Plan

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission regarding the plan. There was no one present from the public to address the Commission.

Duane Diehl made a motion to table the Plan, seconded by Grant Reichart. ***The motion carried.***

E. Benrus L. Stambaugh II, et al – 1 Lot Land Development Plan – Brunswick Dr. & Oak Hills Dr.

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission regarding the plan. There was no one present from the public to address the Commission.

Darrell Raubenstine made a motion to table the Plan, seconded by Grant Reichart. ***The motion carried.***

F. James E. Horak & Donald L. Yorlets – Fairview Dr. – 6 Lots Preliminary Subdivision Plan

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission regarding the plan.

Kris Raubenstine, Hanover Land Services was present to represent the applicant. He said they are trying to see if it is feasible to run the sewer through the other subdivision to the rear of the property. He said at this time this is not known. He said they will also continue to address the engineering comments.

Andy Hoffman made a motion to table the Plan, seconded by Grant Reichart. ***The motion carried.***

G. Steven J. Dotson – 2150 Baltimore Pike - Lot 2 - Camper Storage Area -1 Lot Minor Subdivision Final Plan

Steve Dotson submitted revised plans to the Planning Commission for review. He said they adjusted the plans and included the information regarding the additional right-of-way at Fuhrman Mill Road and also added the comments on the six month notice for the sidewalks.

Darrell Raubenstine asked why the standard wording was not used.

Mike Knouse said typically with the note the applicant would need to request a waiver for the curbs.

Mr. Dotson said that is what he is trying to do and he didn't know if it needed to be worded differently.

Darrell Raubenstine said there is standard verbage. He asked if Jack Powell could contact Mike Knouse and get the standard note.

Mr. Dotson said Scott Barnhart informed him to come back to the meeting worded as it is currently noted on the plans.

Mike Knouse read the typical note as it is to be stated. He said the applicant has abbreviated the note. In this case a request should be specifically requested marked for curb and widening. It would be done by listing the waiver and the concrete and curbing sections. He will talk to Jack Powell on the verbage.

Andy Hoffman made a motion for a favorable recommendation to the Board of Supervisors pending the waivers is to be noted on the plans, seconded by Duane Diehl. ***The motion carried.***

ITEM NO. 11 New Business

There was no new business to discuss.

ITEM NO. 12 Signing of Approved Plans

There was no new business to discuss.

ITEM NO. 13 Zoning Officer

Harold Coldren, Interim Zoning Officer reported that there will be no Zoning Hearing Board meeting held for the months of January and February.

ITEM NO. 14 Sketch Plans and Other Business

a. ACT 537 Plan Updates

Mike Knouse said the DEP requirements were for the township to submit the changes to township Planning Commission as well as the York County Planning Commission. He said it should be on the York County Planning Commission agenda for the February meeting. He asked the Commission if they had any comments.

Andy Hoffman noted that on the DEP Assessment Checklist, page 9, NO. 44, Item (b): Public education programs to encourage proper operation and maintenance and repair of sewage disposal systems. He asked what is in place at this time.

Mike Knouse said nothing. He said the recommendation is to start out with the website and to post any updates and different happenings. He said the action plan should be implemented once DEP approves the plan. He said regarding on-lot systems it would be valuable to provide information as soon as possible. This is valuable information for property owners.

Andy Hoffman said in the Previous Wastewater Planning section, page 7, third paragraph it notes that approximately 88.65% of the Township soils are generally suitable for individual residential spray irrigation systems. He asked if the township has any spray irrigation systems.

Mike Knouse said no there is zero.

Andy Hoffman said on page 23, last sentence; approximately one half of soils and topography within this study are area capable of conventional on-lot disposal systems. He noted the typo "are area".

Mike Knouse said he would delete the word area to read; "are capable".

Andy Hoffman noted on page 24, first paragraph, Item (3). Samples with greater than five (5) milligrams per liter (mg/L) are an indicator of potentially High Nitrate Levels. He asked if the word nitrate should be added after the amount of milligrams per liter.

Mike Knouse said it would read better the way he is suggesting.

Andy Hoffman noted the typo on page 35, Item C) Reduction of hydraulic of organic loading to existing facilities. The word "of" after hydraulic should be deleted and replaced with the word "and" to read, Reduction of hydraulic and organic loading to existing facilities. He noted on Exhibit 2-20 the location of his house was incorrectly shown.

Chairman Jim Myers asked if there were any additional questions or comments from the Commission.

Mike Knouse said if the Commission has not additional changes and concerns with the plan they would need to make a favorable recommendation to the Board of Supervisors with the corrections and typos as noted during the meeting. It will then be submitted to the York County Planning Commission for comments and then the Board of Supervisors will set the plan for 30 days, and then schedule a public hearing. At that point the Board can choose to adopt the plan.

Chairman Jim Myers asked if there were any additional questions or comments from the Commission. There being no further comments or questions he said he would entertain a motion.

Andy Hoffman made a motion for a favorable recommendation to the Board of Supervisors with the corrections and typos as discussed, seconded by Duane Diehl. ***The motion carried.***

b. Subdivision and Land Development Ordinance (SALDO) Review

Mike Knouse said due to other issues needing to be addressed he will need to postpone discussion of the item until the next meeting.

ITEM NO. 15 Public Comment

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission. There was no one present from the public to address the Commission.

ITEM NO. 16 Next Meeting

The next Planning Commission meeting is scheduled for Thursday, February 18, 2010 at 6:00 pm.

ITEM NO. 17 Adjournment

Adjournment was at 6:50 p.m. in a motion by Duane Diehl, and seconded by Andy Hoffman. ***The motion carried.***

RESPECTFULLY SUBMITTED,

Laura Gately

LAURA GATELY
RECORDING SECRETARY

38 North Duke Street
York, PA 17401
(717) 846-4805
FAX (717) 846-5811

C.S.Davidson, Inc.
*Excellence in Civil Engineering*

csdavidson.com

An Employee Owned Company

York · Gettysburg · Lancaster

January 12, 2010

York County Planning Commission
28 East Market Street
York, PA 17404

Attn: Roy Livergood, Jr.

Re: West Manheim Township, York County
Act 537 Plan Update
Engineer's Project No.: 1204.6.12.00
**Request for Formal Review**

Dear Mr. Livergood:

On behalf of the West Manheim Township Board of Supervisors, C. S. Davidson, Inc., is requesting a formal review of the proposed Act 537 Plan Update for West Manheim Township.

If you have any questions regarding this matter, please contact the writer at our York office.

Sincerely,

C. S. DAVIDSON, INC.

Michael R. Knouse, P.E.

MRK/gkm
Copy: Nancy Smith, West Manheim Township, 2412 Baltimore Pike, Hanover, PA 17331
File

K:\120461200\documents\Act 537 UPDATE\Final\Ltr RequestforFormalReview (01-12-09).doc

38 North Duke Street
York, PA 17401
(717) 846-4805
FAX (717) 846-5811

C.S.Davidson, Inc.
*Excellence in Civil Engineering*

/w.csdavidson.com

An Employee Owned Company

York · Gettysburg · Lancaster

January 8, 2010

West Manheim Township Planning Commission
2412 Baltimore Pike
Hanover, PA 17331

Re: West Manheim Township, York County
Act 537 Plan Update
Engineer's Project No. 1204.6.12.00
**Request for Review**

Dear Planning Commission Member:

On behalf of the West Manheim Township Board of Supervisors, C.S. Davidson, Inc. has completed the Act 537 Plan Update. A copy of the plan is hereby formally submitted for your review and comment in accordance with the PA DEP Guidelines.

If you have any questions regarding this matter, please contact me at our York office.

Sincerely,

C. S. DAVIDSON, INC.

Michael R. Knouse, P.E.

mrk
Copy: Nancy Smith, Secretary, West Manheim Township
File

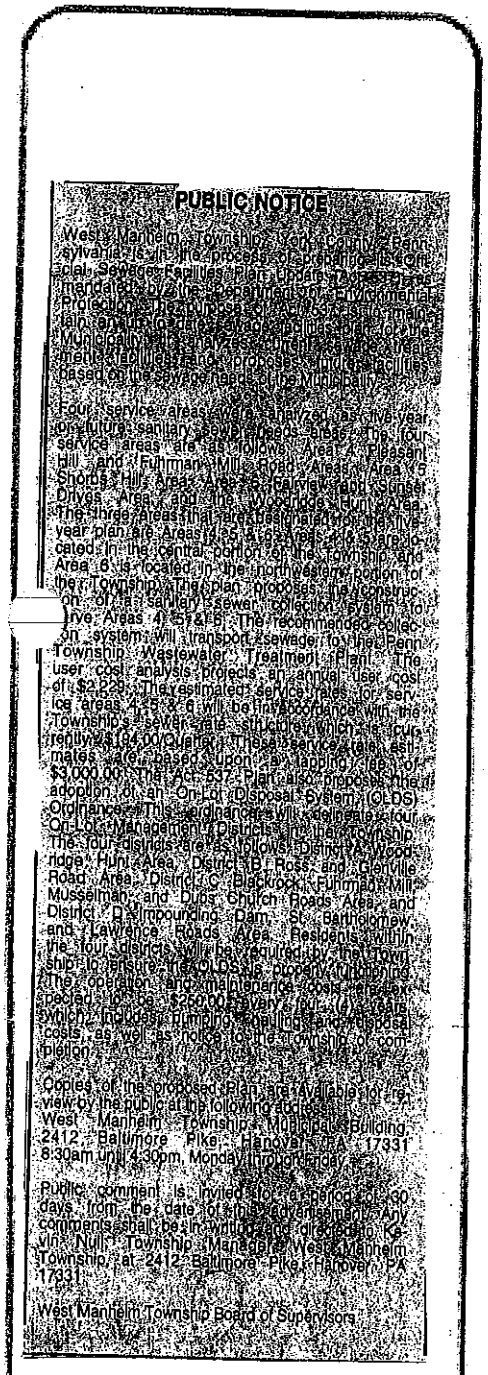
K:\120461200\documents\correspondence\WMT_PC_(1_8_09).doc

# PUBLICATION

# Proof of Publication of Legal Advertisement in The Evening Sun

AD # 2091846

Copy of Advertisement Attached Here



PUBLIC NOTICE

West Manheim Township, York County, Pennsylvania is in the process of updating its Comprehensive Sewage Facilities Plan. Update Needed. There is mandated by the Pennsylvania Department of Environmental Protection (DEP) the purpose of which is to maintain an up-to-date sewage facilities plan for the Municipality. The Plan includes current sewage treatment facilities and future proposed sewage facilities based on the sewage needs of the Municipality.

Four service areas were analyzed as five year, and future sanitary sewage needs exist. The four service areas are as follows: Area A: Pleasant Hill and Fuhrman Mill Road Area; Area B: Shorb's Hill Area; Area C: Fairview and Sunset Drives Area; and the Woodridge Run Area. The three areas that are presented in the five year plan are Areas A, B & C. Areas A & B are located in the central portion of the Township and Area C is located in the northwestern portion of the Township. The plan proposes the construction of a sanitary sewer collection system to serve Areas A, B & C. The recommended collection system will transport sewage to the Penn Township Wastewater Treatment Plant. The user cost analysis projects an annual user cost of $2,229. The estimated service rates for service areas A, B & C will be in accordance with the Township's sewer rate structure which is currently $184.00/quarter. These service rates estimates are based upon an tapping fee of $3,000.00. The Act 537 Plan also proposes the adoption of an On-Lot Disposal System (OLDS) Ordinance. This ordinance will delineate four On-Lot Management Districts in the Township. The four districts are as follows: District A: Woodridge Run Area; District B: Ross and Glenville Road Area; District C: Blackrock, Fuhrman Mill, Musselman, and Dubs Church Roads Area; and District D: Pumpounding Dam, St. Bartholomew and Lawrence Roads Area. Residents within the four districts will be required by the Township to register their OLDS as properly functioning. The operation and maintenance costs of each special district is $250.00/every four (4) years which includes pumping, hauling and disposal costs, as well as notice to the Township of completion.

Copies of the proposed plan are available for review by the public at the following address: West Manheim Township Municipal Building, 2412 Baltimore Pike, Hanover, PA 17331 8:30am until 4:30pm, Monday through Friday.

Public comment is invited for a period of 60 days from the date of this advertisement. Any comments shall be in writing and directed to Kevin Null, Township Manager of West Manheim Township, at 2412 Baltimore Pike, Hanover, PA 17331.

West Manheim Township Board of Supervisors

THE EVENING SUN is the name of a daily newspaper published continuously for more than the last six months at its place of business, 135 Baltimore Street, in the Borough of Hanover, York County, Pennsylvania, which said daily newspaper was established on Feb. 8, 1915.

The printed copy of the advertisement hereto attached is a true copy, exactly as printed and published, of an advertisement printed in the regular issue of the said The Evening Sun published on the following dates, viz:

03/31/2010

RECEIVED
APR – 5 2010
West Manheim Twp

Commonwealth of Pennsylvania
County of York, ss.:

Before me, a Notary Public, personally came Linda Smith who being duly sworn deposes and says that she is the Layout Supervisor of The Evening Sun above mentioned in the foregoing statement, that, the facts set forth in said statement and all the allegations of said statment as to the time, place and character of publication are true, and that the affiant is not interested in the subject matter of the above mentioned advertisement.

Sworn and subscribed to before me this

31 day of March 2010

Sharon K. Wentz
Notary Public

Linda Smith

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Sharon K. Wentz, Notary Public
West Manchester Twp., York County
My Commission Expires March 1, 2013
Member, Pennsylvania Association of Notaries

Received of _____

_____ Dollars
100

The charge for the publication of above mentioned advertisement and the expense of above affidavit.

| | |
|---|---|
| Advertisement Cost | $ 172.82 |
| Affidavit Fee | $ 5.00 |

Reager & Adler, PC

ATTORNEYS AND COUNSELORS AT LAW

30 YEARS

Theodore A. Adler* | Susan H. Confair
David W. Reager | John H. Pielrzak
Linus E. Fenicle | Wayne S. Martin, P.E.
Thomas O. Williams | Neely E. Meals
Peter R. Wilson | Richard J. Joyce**

*Certified Civil Trial Specialist
**Of Counsel

Writer's Email Address:
LFenicle@ReagerAdlerPC.com

March 26, 2010

VIA EMAIL ONLY
Email Address: ESLegals@ync.com

York Newspaper Company
Attn: Legal Ads
1891 Loucks Road
York, PA 17408

**Re: Publication Notice-Sewage Facilities Plan Update-West Manheim Township**

To Whom It May Concern:

Please publish the enclosed Public Notice in the ***The Hanover Evening Sun*** on March 31, 2010, and send the Proof of Publication and invoice directly to West Manheim Township, 2412 Baltimore Pike, Hanover, PA 17331.

Thank you for your kind attention to this matter.

Very truly yours,

Linus E. Fenicle

LEF/sam
Enclosure
cc: Kevin Null, Township Manager (via email only)
Mike Knouse, Township Engineer (via email only)

**PUBLIC NOTICE**

West Manheim Township, York County, Pennsylvania is in the process of preparing its Official Sewage Facilities Plan Update (Act 537), as mandated by the Department of Environmental Protection. The purpose of Act 537 is to maintain an up to date sewage facilities plan for the Municipality. It analyzes current sewage treatment facilities and proposes future facilities based on the sewage needs of the Municipality.

Four service areas were analyzed as five-year or future sanitary sewer needs areas. The four service areas are as follows: Area 4 Pleasant Hill and Fuhrman Mill Road Areas, Area 5 Shorbs Hill Area, Area 6 Fairview and Sunset Drives Area, and the Woodridge Hunt Area. The three areas that are designated for the five-year plan are Areas 4, 5 & 6. Areas 4 & 5 are located in the central portion of the Township and Area 6 is located in the northwestern portion of the Township. The plan proposes the construction of a sanitary sewer collection system to serve Areas 4, 5 & 6. The recommended collection system will transport sewage to the Penn Township Wastewater Treatment Plant. The user cost analysis projects an annual user cost of $2,229. The estimated service rates for service areas 4, 5 & 6 will be in accordance with the Township's sewer rate structure which is currently $194.00/Quarter. These service rate estimates are based upon a tapping fee of $3,000.00. The Act 537 Plan also proposes the adoption of an On-Lot Disposal System (OLDS) Ordinance. This ordinance will delineate four On-Lot Management Districts in the Township. The four districts are as follows: District A Woodridge Hunt Area, District B Ross and Glenville Road Area, District C Blackrock, Fuhrman Mill, Musselman, and Dubs Church Roads Area, and District D Impounding Dam, St. Bartholomew, and Lawrence Roads Area. Residents within the four districts will be required by the Township to ensure the OLDS is properly functioning. The operation and maintenance costs are expected to be $250.00 every four (4) years, which includes pumping, hauling and disposal costs, as well as notice to the Township of completion.

Copies of the proposed Plan are available for review by the public at the following address: West Manheim Township Municipal Building, 2412 Baltimore Pike, Hanover, PA 17331 8:30am until 4:30pm, Monday through Friday.

Public comment is invited for a period of 30 days from the date of this advertisement. Any comments shall be in writing and directed to Kevin Null, Township Manager, West Manheim Township, at 2412 Baltimore Pike, Hanover, PA 17331.

West Manheim Township
Board of Supervisors

# COMMENTS AND RESPONSES

**(see Appendix C)**

# IMPLEMENTATION SCHEDULE

**IMPLEMENTATION SCHEDULE:**

| Description | Work Start Date |
|---|---|
| **OLD's Ordinance Update** | |
| Adoption of Ordinance No. 04-2010 | September 2, 2010 |
| Enforcement of Ordinance | October 2010 |
| **ACT 537 Plan** | |
| Submission of Act 537 Plan to PA DEP | March 2013 |
| Act 537 Plan Approval by PA DEP | June 2013 |
| **OLDS Ordinance Enforcement** | |
| Continuation of first four year cycle | October 2010 to October 2014 |
| Second Cycle | October 2014 to October 2018 |
| Third Cycle | October 2018 to October 2022 |
| **Additional ACT 537 Planning** | |
| Re-evaluation of needs areas | June 2023 |

# CONSISTENCY DOCUMENTATION

1) PNDI
2) PHMC

UNITED STATES POSTAL SERVICE®



# Track & Confirm

## Search Results

Label/Receipt Number: **0307 1790 0001 8531 7583**
Service(s): **Delivery Confirmation™**
Status: **Delivered**

Your item was delivered at 11:36 AM on June 22, 2009 in STATE COLLEGE, PA 16801.

Track & Confirm
Enter Label/Receipt Number.

Go >

### Notification Options

**Track & Confirm by email**

Get current event information or updates for your item sent to you or others by email. Go >



Copyright© 2009 USPS. All Rights Reserved. No FEAR Act EEO Data FOIA

## U.S. Postal Service™ Delivery Confirmation™ Receipt

Postage and Delivery Confirmation fees must be paid before mailing.

Article Sent To: (to be completed by mailer)

US Fish's Wildlife Service
(Please Print Clearly)
315 S Allen St. Suite 322
St. College, PA 16801
1204.612.0 /APS

DELIVERY CONFIRMATION NUMBER: 0307 1790 0001 8531 7583

Apt 537 Update

Postmark Here

**POSTAL CUSTOMER:**
Keep this receipt. For Inquiries:
Access Internet web site at
www.usps.com®
or call 1-800-222-1811

CHECK ONE (POSTAL USE ONLY)
- ☐ Priority Mail™ Service
- ☐ First-Class Mail® parcel
- ☐ Package Services parcel

(See Reverse)

PS Form 152, May 2002

# Pennsylvania Natural Diversity Inventory
## *Project Planning & Environmental Review Form*

This form provides site information necessary to perform an Environmental Review for special concern species and resources listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Pennsylvania Fish and Boat code or the Pennsylvania Game and Wildlife Code.

## Applicant Information

Name: West Manheim Township Board Of Supervisors
Address: 2412 Baltimore Pike, Hanover, Pa 17331
Phone Number: (717) 632-0320 Fax Number: (717) 632-2499

## Contact Person Information - if different from applicant

Name: Adam P. Smith, E.I.T. (C.S. Davidson, Inc.)
Address: 38 N. Duke St., York, Pa 17401
Phone Number: (717) 846-4805 Fax Number: (717) 846-5811

## Project Information

Project Name: West Manheim Township Act 537 Plan Update
Project Location: West Manheim Township
Municipality: West Manheim Township County: York
☒ Attach a copy of a U.S.G.S. 7 ½ Minute Quadrangle Map with Project Boundaries clearly marked.
U.S.G.S. Quad Name:

## Project Description

Proposed Project Activity (including ALL earth disturbance areas and current conditions)

Act 537 Planning Module Update for West Manheim Township. The planning module will propose additional public sanitary sewer facilities (collection and treatment), public education, and defined and enforced on-lot management districts for handling solid wastes.

Total Acres of Property: 1,355 Acreage to be Impacted: 1,355

1. Will the entire project occur in or on an existing building, parking lot, driveway, road, maintained road shoulder, street, runway, paved area, railroad bed, or maintained lawn? Yes ☒ No ☐
2. Are there any waterways or waterbodies (intermittent or perennial rivers, streams, creeks, tributaries, lakes or ponds) in or near the project area, or on the land parcel? If so, how many feet away is the project?
   Yes ☒ 0 Feet No ☐
3. Are wetlands located in or within 300 feet of the project area? Yes ☒ No ☐ If No, is this the result of a wetland delineation?

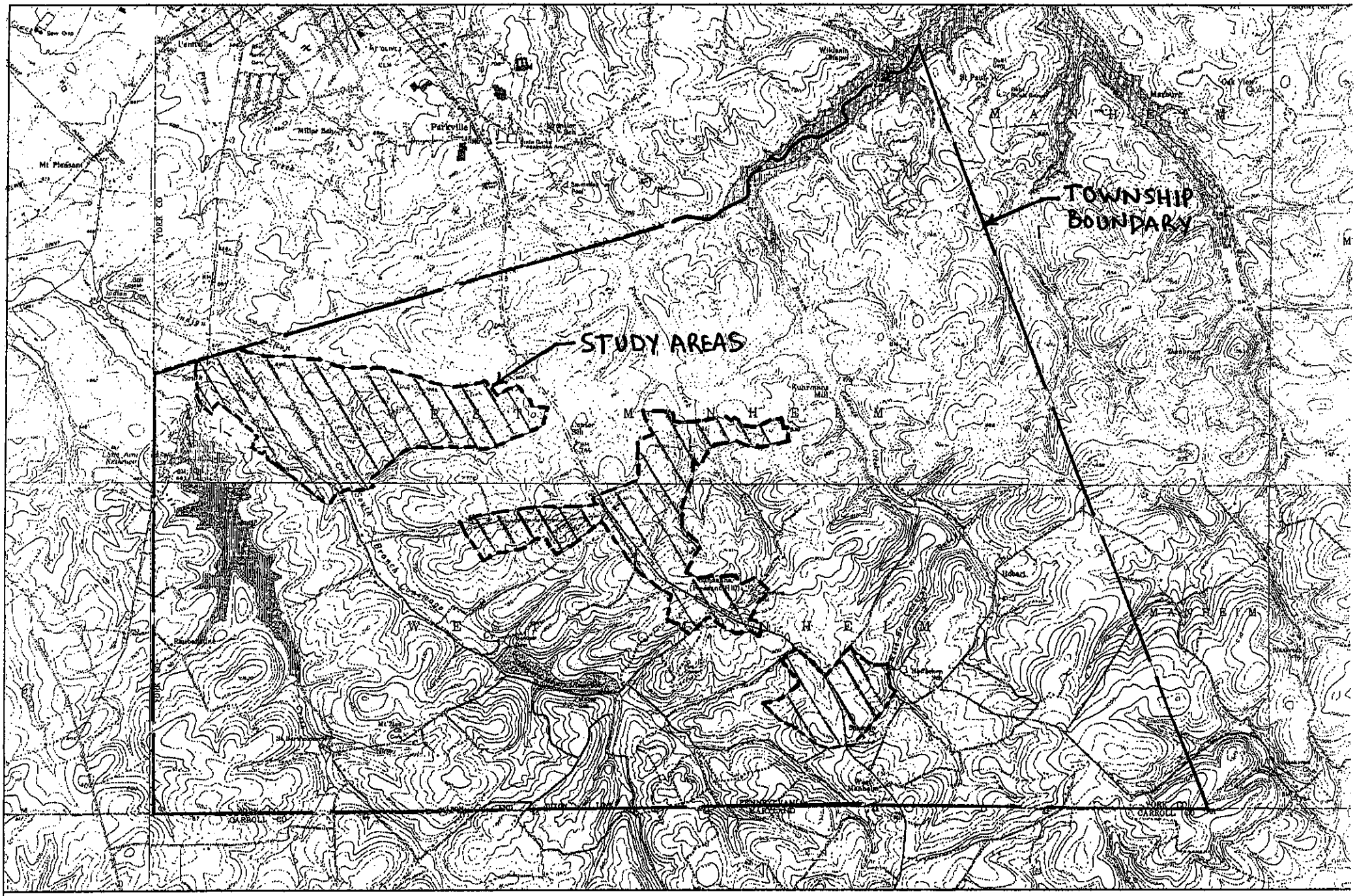
If you have a "PNDI Project Environmental Review Receipt" with potential impacts, please send a receipt copy, this completed form, and a USGS Quad Map to the agency/agencies noted on the receipt. If you are unable to generate a PNDI Receipt because you do not have Internet access, complete this form, attach a USGS Quad Map, and send them to your local DEP or County Conservation District. For review of a "Large Project," please send form and map to all the agencies listed below. See page 2 for more information.

Dept. of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market St., PO Box 8552
Harrisburg, PA 17105
fax: 717-772-0271

PA Fish and Boat Commission
Natural Diversity Section
450 Robinson Lane
Bellefonte, PA 16823
fax 814-359-5175

PA Game Commission
Bureau of Land Management
2001 Elmerton Avenue
Harrisburg, PA 17110-9797
fax: 717-787-6957

US Fish and Wildlife Service
Endangered Species Biologist
315 South Allen St., Suite 322
State College, PA 16801
no faxes please




Name: HANOVER
Date: 6/8/2009
Scale: 1 inch equals 4000 feet .

Location: 039° 45' 11.4" N 076° 56' 27.5" W
Caption: West Manheim Township Act 537 Plan Update

Copyright (C, Maptech, Inc.

pennsylvania
DEPARTMENT OF CONSERVATION
AND NATURAL RESOURCES

BUREAU OF FORESTRY

July 8, 2009 **PNDI Number: 20247**

**Adam P. Smith**
**C.S. Davidson, Inc.**
FAX: 717-846-5811 (hard copy WILL NOT follow)

Re: West Manheim Township Act 537 Plan Update
West Manheim Twp.; York County

Dear Mr. Smith,

Thank you for submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number 20247 for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources of concern under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

**NO IMPACT ANTICIPATED:**

PNDI records indicate species or resources of concern are located in the vicinity of the project. However, based on the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, DCNR has determined that no impact is likely. No further coordination with our agency is needed for this project.

**If any construction is planned, please attempt to avoid or minimize vegetation disturbance in wooded tracts within project study areas.**

This response represents the most up-to-date summary of the PNDI data files and is valid for one (1) year from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on-site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). If the proposed work has not changed and no additional information concerning listed species is found, the project will be cleared for PNDI requirements under this agency for an additional year.

This finding applies to impacts to DCNR only. To complete your review of state and federally-listed threatened and endangered species and species of special concern, please be sure the U.S. Fish and Wildlife Service, PA Game Commission, and the Pennsylvania Fish and Boat Commission have been contacted regarding this project as directed by the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Sincerely,

Mr. Kelly L. Sitch, Environmental Review Specialist FOR Chris Firestone, Wild Plant Program Mgr.
Ph: 717-425-5370 ~ Fax: 717-772-0271 ~ c-ksitch@state.pa.us

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

*"TO MANAGE ALL WILD BIRDS, MAMMALS AND THEIR HABITATS FOR CURRENT AND FUTURE GENERATIONS."*

July 16, 2009 **PNDI Large Project**

Mr. Adam P. Smith
C.S. Davidson, Inc.
38 North Duke Street
York, PA 17401

PNDI Large Project
West Manheim Township Act 537 Plan Update
York County, PA

Dear Mr. Smith:

Thank you for submitting the Pennsylvania Natural Diversity Inventory (PNDI) Large Project Environmental Review Form for review. The Pennsylvania Game Commission (PGC) screened this project for potential impacts to species and resources of concern under PGC responsibility, which includes birds and mammals only.

**No Impact Anticipated**

PNDI records indicate that no known occurrences of species or resources of concern under PGC jurisdiction occur in the vicinity of the project. Therefore, the above-referenced project is not expected to impact any birds or mammals of concern, and no further coordination with the PGC is necessary for this project at this time.

This response represents the most up-to-date summary of the PNDI data files and is valid for one (1) year from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). If the proposed work has not changed and no additional information concerning listed species is found, the project will be cleared for PNDI requirements under this agency for n additional year.

# United States Department of the Interior

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

July 9, 2009

Adam Smith
C.S. Davidson, Inc.
38 North Duke Street
York, PA 17401

RE: USFWS Project #2009-1280

Dear Mr. Smith:

This responds to your letter of June 19, 2009, requesting information about federally listed and proposed endangered and threatened species within the area affected by the proposed West Manheim Township Act 537 Plan located in York County, Pennsylvania. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species.

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

To determine the potential effects of the proposed project on bog turtles and their habitat, begin by identifying all wetlands in, and within 300 feet of, the project area. The project area includes all areas that will be permanently or temporarily affected by any and all project features, including building, roads, staging areas, utility lines, outfall and intake structures, wells, stormwater retention or detention basins, parking lots, driveways, lawns, etc. The area of investigation should be expanded when project effects might extend more than 300 feet from the project footprint. For example, the hydrological effects of some projects (*e.g.*, large residential or commercial developments; golf courses; community water supply wells) might extend well beyond the project footprint due to the effects that impervious surfaces or groundwater pumping may have on the hydrology of nearby groundwater-dependent wetlands. Wetlands should be included on a map showing existing as well as proposed project features.

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

*To avoid potential delays in reviewing your project, please use the above-referenced USFWS project tracking number in any future correspondence regarding this project.*

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

Sincerely,

David Densmore
Supervisor

Enclosures

Pennsylvania Fish & Boat Commission

established 1866

**Division of Environmental Services**
**Natural Diversity Section**
450 Robinson Lane
Bellefonte, PA 16823-9620
*(814) 359-5147* *(814) 359-5175*
July 16, 2009

RECEIVED
JUL 20 2009
BY:

**IN REPLY REFER TO:**
SIR# 32130

ADAM SMITH
C.S. DAVIDSON
38 N DUKE ST
YORK, PA 17401

**RE: Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species**
**West Manheim Township Act 537 Plan**
**WEST MANHEIM Township, YORK County, Pennsylvania**

Dear Mr. SMITH:

I have reviewed the maps for the above-referenced project. Based on records maintained in the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files, the bog turtle (*Glyptemys muhlenbergii*, state endangered, federal threatened) and red-bellied turtle (*Pseudemys rubriventris*, state threatened) are known from the vicinity of the proposed project site.

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

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

Upon completion of the Phase 1 bog turtle survey, the herpetologist is to send a report documenting the survey results to this office (Natural Diversity Section) for our review and comment. The report should include the following information: descriptions of the wetland vegetation, soils, and hydrology on the site; color photographs and maps of suitable habitat; and a list of all herpetofauna observed during the survey. If any bog turtles are observed during the survey, their location(s) should be mapped, and they should be photographed, aged, sexed, and measured. Following our review of the habitat survey, an additional biological

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

PA HISTORICAL AND
MUSEUM COMMISSION
BUREAU OF HISTORIC PRESERVATION
400 NORTH STREET, SECOND FLOOR
HARRISBURG, PA 17120-0093

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature
X [signature] ☐ Agent ☐ Address

B. Received by (Printed Name) C. Date of Delive
OCT 2 0 200

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

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandi
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number
(Transfer from service label) 7008 1140 0001 7332 9958

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-15

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

PA HISTORICAL AND
MUSEUM COMMISSION
BUREAU OF HISTORIC PRESERVATION
400 NORTH STREET, SECOND FLOOR
HARRISBURG, PA 17120-0093

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery
OCT 20 2008

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

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 (Transfer from service label) 7008 1140 0001 7332 9958

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

0120-PM-PY0003 Rev. 5/2006
NOTICE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

# CULTURAL RESOURCE NOTICE

| DEP USE ONLY |
| --- |
| Date Received |
| |

**Read the instructions before completing this form.**

## SECTION A. APPLICANT IDENTIFIER

Applicant Name: West Manheim Township

Street Address: 2412 Baltimore Pike

City: Hanover State: PA Zip: 17331

Telephone Number: (717) 632-0320

Project Title: Act 537 Plan Update

## SECTION B. LOCATION OF PROJECT

Municipality: West Manheim Township County Name: York DEP County Code: 67

## SECTION C. PERMITS OR APPROVALS

Name of Specific DEP Permit or Approval Requested: Pennsylvania Sewage Facilities Act - Act 537 Update

Anticipated federal permits:

- ☐ Surface Mining
- ☐ Army Corps of Engineers
- ☐ 401 Water Quality Certification
- ☐ 404 Water Quality Permit
- ☐ Federal Energy Regulatory Commission
- ☐ Other:

## SECTION D. GOVERNMENT FUNDING SOURCES

- ☐ State: (Name)
- ☒ Local: (Name) West Manheim Township
- ☐ Federal: (Name)
- ☐ Other: (Name)

## SECTION E. RESPONSIBLE DEP REGIONAL, CENTRAL, DISTRICT MINING or OIL & GAS MGMT OFFICE

DEP Regional Office Responsible for Review of Permit Application

- ☐ Central Office (Harrisburg)
- ☐ Southeast Regional Office (Norristown)
- ☐ Northeast Regional Office (Wilkes-Barre)
- ☒ Southcentral Regional Office (Harrisburg)
- ☐ Northcentral Regional Office (Williamsport)
- ☐ Southwest Regional Office (Pittsburgh)
- ☐ Northwest Regional Office (Meadville)
- ☐ District Mining Office:
- ☐ Oil & Gas Office:

## SECTION F. RESPONSIBLE COUNTY CONSERVATION DISTRICT, if applicable.

County Conservation District

Telephone Number, if known

## SECTION G. CONSULTANT

Consultant, if applicable: C.S. Davidson, Inc.

Street Address: 38 N. Duke Street

York State: PA Zip: 17401

Telephone Number: (717) 846-4805

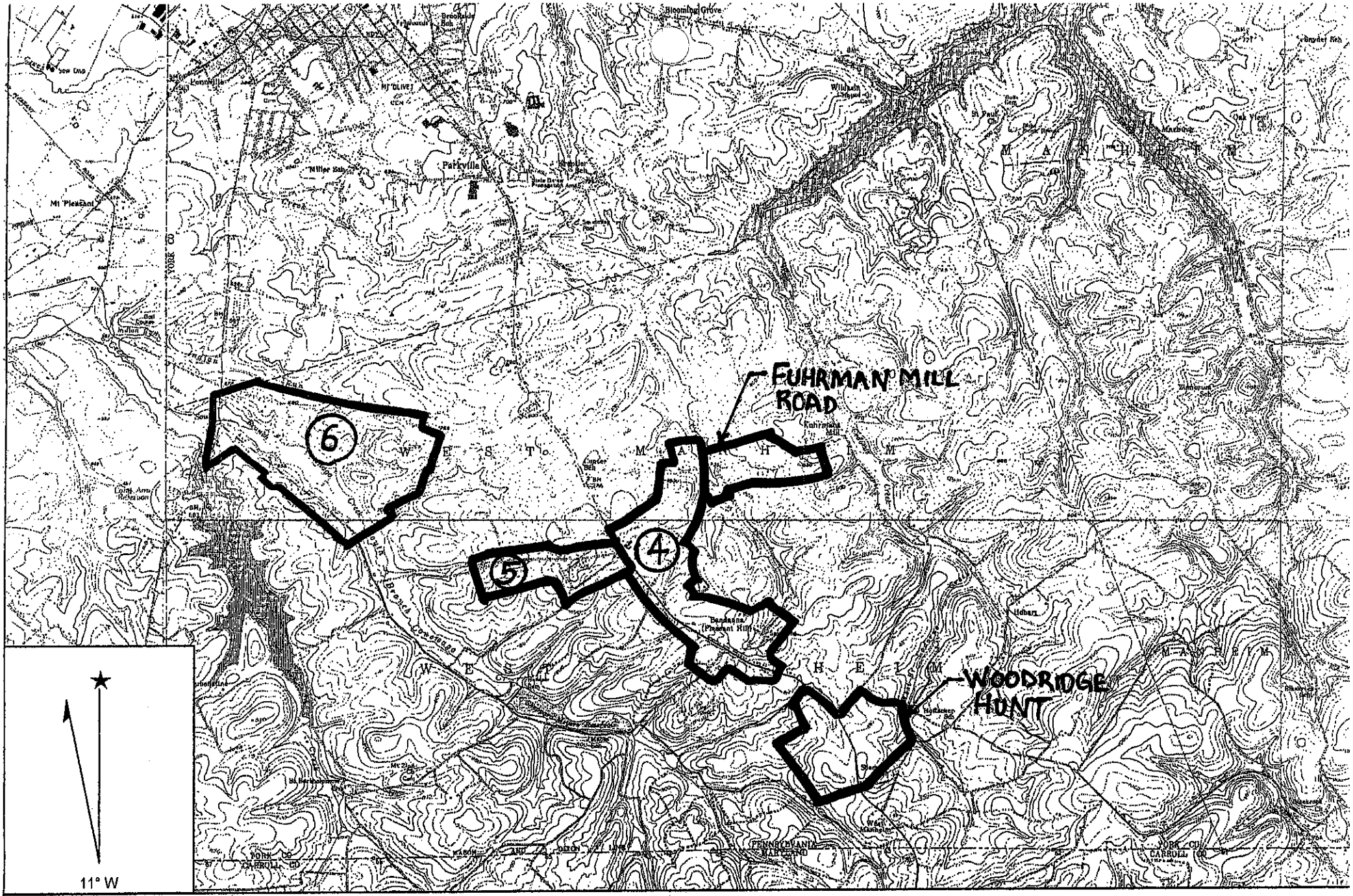
## Cultural Resource Notice Narrative

West Manheim Township is currently undergoing planning efforts for future sanitary sewer needs. An update to the Township's Act 537 – Pennsylvania Sewage Facilities Act, is being developed to identify needs areas within the township boundaries.

One identification area with historic significance is the Pleasant Hill area. Once the project progresses from planning to construction phase an in depth study will be completed to determine historical structures in the area.

An attached map has been included which identifies the sanitary sewer study areas. The study areas are 4, 5, 6, Fuhrman Mill Road, and Woodridge Hunt. Areas 4, 5, and 6 have been identified during the previous Act 537 Plan update, and the Fuhrman Mill Road and Woodridge Hunt areas have been identified by township officials as being priority areas.

No proposed earth disturbance or disturbance to historic structures is proposed with this project. Disturbances will be anticipated in the future as a result of this planning study.




Name: HANOVER
Date: 10/19/2009
Scale: 1 inch equals 4000 feet

Location: 039° 45' 24.6" N 076° 56' 32.6" W
Caption: West Manheim Township - Act 537 Plan Update

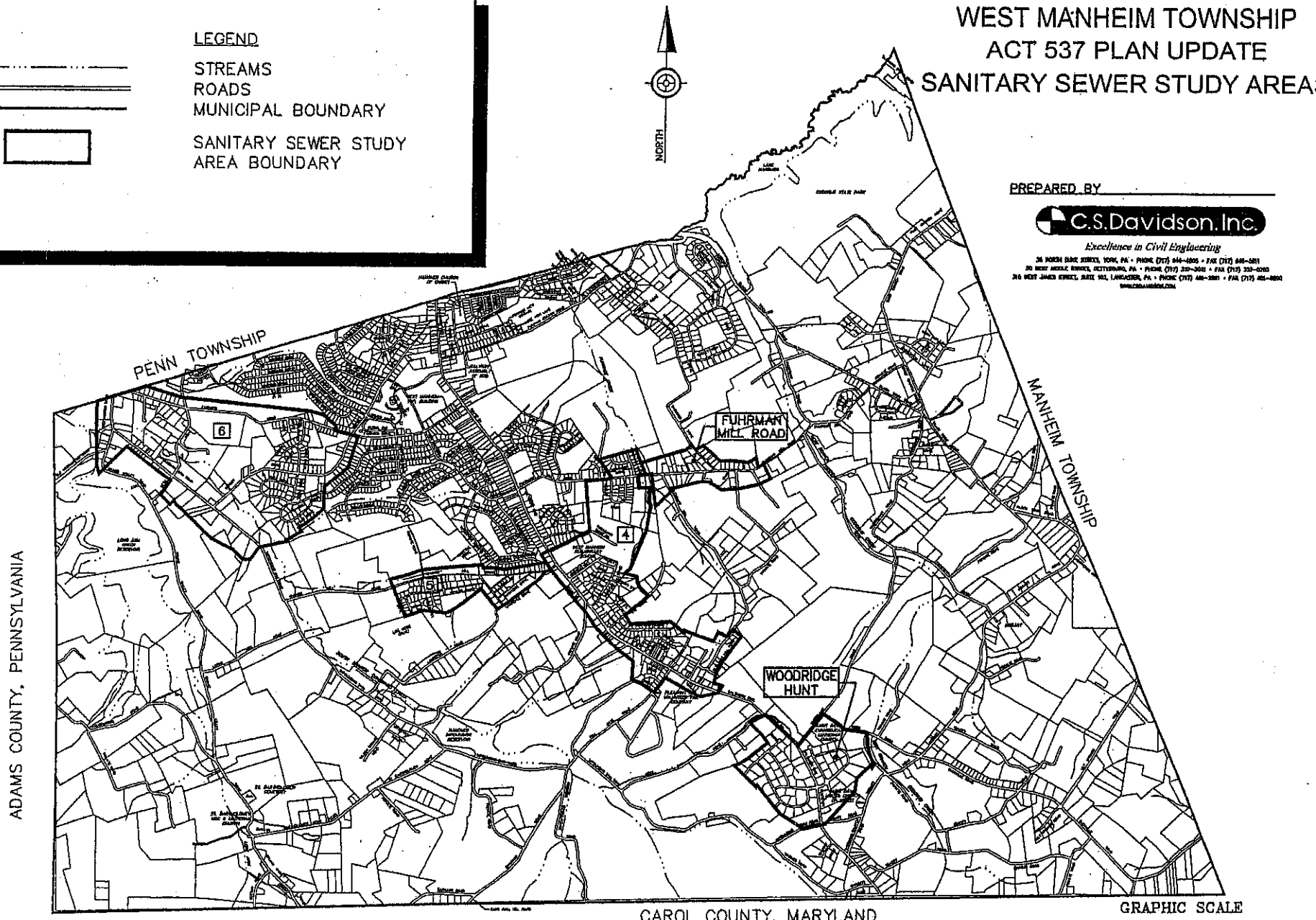
Copyright (C) , Maptech, Inc.

# WEST MANHEIM TOWNSHIP
## ACT 537 PLAN UPDATE
## SANITARY SEWER STUDY AREAS

LEGEND

STREAMS
ROADS
MUNICIPAL BOUNDARY

SANITARY SEWER STUDY AREA BOUNDARY




PREPARED BY

C.S.Davidson, Inc.

*Excellence in Civil Engineering*

GRAPHIC SCALE

( IN FEET )
1 inch = 4000ft

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

October 21, 2009

Adam P. Smith, EIT
C.S. Davidson, Inc.
38 N. Duke Street
York, PA 17401

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

Re: ER #2010-0089-133-A
DEP ACT 537 Program: Pennsylvania Sewage Facilities Act-Act 537 Update, Act 537 Plan Update, West Manheim Twp., York Co.

Dear Mr. Smith:

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

This project is a planning study; therefore this office cannot assess the effects on specific historic and archaeological resources at this time. During the project planning stages, provisions should be made for the identification of historic and archaeological resources listed in or eligible for the National Register of Historic Places and for the assessment of the effects on these resources. The Bureau for Historic Preservation maintains records of National Register listed and eligible resources as well as archaeological surveys (P.A.S.S. files), historic resource survey files and the Cultural Resources GIS. These surveys vary in their scope and methodology. Therefore, we recommend that you contact local historical societies and consult tax and deed records for additional information regarding your project area.

If you need further information concerning archaeological issues please consult Doug McLearen at (717) 772-0925. If you need further information on structures please consult Ann Safley at (717) 787-9121.

Sincerely,

Douglas C. McLearen, Chief
Division of Archaeology &
Protection

CC: DEP, Southcentral Region
DCM/lmm

## SECTION I – PREVIOUS WASTEWATER PLANNING

### I.A.1. Previous Wastewater Planning Undertaken Under the Sewage Facilities Act (Act 537)

| WEST MANHEIM TOWNSHIP PREVIOUS ACT 537 PLANNING | |
|---|---|
| Date: | Title: |
| 1972 | York County Comprehensive Sewage Study – Phase II |
| April 1976 | Preliminary Feasibility Study for Sanitary Sewerage System |
| December 2, 1982 | Act 537 Revision to Official Sewage Facilities Plan of September 7, 1976 |
| May 1, 1984 | Act 537 Revision to Official Sewage Facilities Plan of September 7, 1976 |
| March 1989 | Feasibility Study Sanitary Sewage System |
| February 1993 | Act 537 Official Sewage Plan Update |
| June 15, 1999 | Act 537 Plan Update |
| September 23, 1999 | Act 537 Plan Update (re-submission of June 15 Update) |
| July 11, 2001 | Act 537 Plan Update (conditional approval) |

The York County Comprehensive Sewerage Study was issued in two parts, with Phase One - Inventory released in 1970 and Phase Two - Sewerage Facilities Plan following in June 1972. This report is the most recent study done on a County - wide basis.

The County Plan describes soils in West Manheim Township as "generally good for on-lot disposal, with 82% of the area considered good, and only 18% as having severe limitations." At the time of the Study there were no significant on-lot disposal problem areas in the Township. The Phase Two Study divided the County into 21 regional planning areas, with West Manheim Township being located in two districts. The Township lies in the Hanover Region, designated as area R-10. Regional Planning Area R-10 recommends that flows from the developed areas of West Manheim Township be routed to the Hanover Treatment Plant (See Exhibit I-1 – Hanover Regional Planning Area – Sewerage Plan – Year 2000).

A West Manheim Township Preliminary Feasibility Study for Sanitary Sewerage System was prepared by C.S. Davidson, Inc. bearing an April 1976 date. The adopted and approved plan found that establishing a broad scale sanitary sewer system serving West Manheim Township was unrealistic because it was not economically feasible. Disposal of sewage was achieved by means of on-lot septic systems.

The Township used its comprehensive land use planning and zoning regulations to control subdivision location and lot size for the purpose of managing septic systems. Evidence of septic system failures and increasing subdivision development pressures caused the Township to prepare an update of the Official Act 537 Sewage Plan in 1984. In the adopted and approved Act 537 Revision to the Official Sewage Facilities Plan dated May 1, 1984, the portion of the 1976 Plan addressing the feasibility of a broad scale sanitary sewer system was not altered. To control development in and preserve the rural character of West Manheim Township, the 1984 Revision to the Plan recommended establishment of On-Lot Management Districts (OMDs) to monitor and maintain septic system performance. The Revision to the Plan also called for the adoption of subdivision lot size controls through the Comprehensive Plan and Zoning Ordinance. The OMDs and land use controls were implemented in an effort to maintain orderly growth of a rural character. The 1984 Revision to the Plan also recommended that West Manheim Township

officials negotiate with neighboring Penn Township officials "to obtain a workable sewage reservation agreement enabling potential developers along the corridor adjoining Penn Township to install and have the advantage of sanitary sewer facilities."

On February 20, 1989 West Manheim Township executed an agreement with Penn Township for 250,000 GPD of sanitary sewer capacity in the Penn Township Wastewater Treatment Plant (Penn WWTP) (See Appendix I-1). The 1991 and 1995 addenda to the agreement were adjustments to the payment schedule (See Appendix I-2). The 2004 addendum to the agreement provided for the reservation of an additional 152,000 GPD of sanitary sewer treatment capacity (see Appendix I-3).

L.G. Becker & Associates Inc. was authorized to prepare a feasibility study to provide sanitary sewer service for the area contributing to the Lake Marburg watershed area. This study, known as Feasibility Study for Sanitary Sewerage System for West Manheim Township, was completed in March of 1989 (See Appendix I-4). The 1989 addendum to the Act 537 Plan described the collection and conveyance facilities needed for the Penn WWTP regional alternative. A total of 718 connections were tabulated under existing 1989 conditions. The total project cost, including construction, engineering design and inspection, legal fees, financing costs, land acquisition, rights-of-way, administrative costs and loan and permit fees was estimated to be $8,425,200 (1989 prices) for the 718 connections.

West Manheim Township planned to design and construct a collection system using a combination of gravity collection lines and force mains to transport wastewater to the Penn Township Sewer System. To facilitate this planned increase in flow, in 1990 Penn Township constructed the Breezewood Interceptor at a cost of $410,590 whereby West Manheim Township paid $250,585 (61%) and Penn Township paid $160,005 (39%) of the construction costs. In addition, at that time West Manheim Township agreed to pay a fee to Penn Township of 130% of the user fee charged to Penn Township customers. This fee was based on 250 residential units at 15,000 Gallons/Quarter/Unit to reserve treatment capacity in the Penn WWTP. The approximate cost to West Manheim Township was $8,497 a quarter.

In the West Manheim Township Act 537 Official Sewage Facility Plan, July 1991 Revision to Narrative Description, a revised tabulation was prepared showing 977 existing and proposed connections. No revised cost estimates were made at that time. This revision also noted that a $5,000,000 upgrading of the Penn Township Wastewater Treatment Plant (WWTP) may be required. This would raise the proposed rates to West Manheim customers beyond the maximum affordable rate of $150 per quarter.

During 1996 several developers in the area proposed construction of a sanitary sewer collection system, pump station and force main to the Penn Township, Breezewood Interceptor (see Exhibit I-2 – Penn Township Sewage Treatment System). These developers are namely: C.F.R. Development Inc., Gregory Contractors, Inc., Joseph A. Myers and Lutheran Social Services of South Central Pennsylvania. These various developers are hereinafter referred to as DGM Joint Venture. A copy of the agreement with West Manheim Township is attached herewith (see Appendix I-5). The DGM sanitary sewer collection system, as of August 3, 2000, has been formally accepted by West Manheim Township.

In 1992, Group Hanover, Inc. was authorized to update the 1984 Act 537 plan. The method of wastewater treatment proposed was a reclamation and reuse treatment facility combined with a golf course, residential community and recreation project. The cost estimate for this project was $11,024,900. This plan was submitted to the Pennsylvania Department of Environmental Protection (PA DEP) in May, 1993 for review and comments. The PA DEP submitted various deficiencies in the plan and no action by West Manheim Township was taken, therefore the PA DEP disapproved the plan as of February 12, 1998. The Township did not appeal the Department's disapproval of the Plan Update to the Environmental Hearing Board within the designated time frame.

The Township submitted a Plan Update to the Department on February 19, 1999. By letter dated March 26, 1999, the Department informed the Township that the February 19, 1999 Plan Update was administratively incomplete because it was missing the York County Planning Commission's comments. The Township resubmitted the Plan Update to the Department on June 15, 1999. By letter dated August 10, 1999, the Department informed the Township that the June 15, 1999 Plan Update was technically incomplete. Furthermore, the Township was informed that the June 15, 1999 Plan Update was not done in accordance with the approved Task Activity Report ("TAR") and, therefore, the Township was in violation of the Department's May 13 Order. The Township was also informed that it had thirty (30) days to submit a Plan Update that was consistent with the TAR or it would be subject to civil penalties under the Pennsylvania Sewage Facilities Act, Section 13.1. The Township did not submit a revised Plan Update within thirty (30) days. By letter dated September 20, 1999, the Department informed the Township that it was subject to a civil penalty assessment for ten days of non-compliance with the Department's May 13 Order. The Township resubmitted the Plan Update on September 23, 1999. By letter dated September 24, 1999, the Township requested a hearing to discuss the notice of civil penalty assessment. The Department determined that the September 23 submission of the Plan Update was also inconsistent with the TAR and subsequently, on September 30, 1999, issued a second notice of civil penalty assessment.

C.S. Davidson, Inc. was retained to prepare an Act 537 Plan Update for approval by the PA DEP on December 8, 1999. Following a hearing and additional notice of civil penalty assessments, a meeting was held on December 8, 1999 to discuss the Department of Environmental Protection Consent Order and Agreement against West Manheim Township. At that meeting, West Manheim Township agreed with the content of the Consent Order and to the corrective action stated in the Consent Order. The Consent Order stated that within sixty (60) days of the date of the Consent Order and Agreement, West Manheim Township must submit a Task/Activity Report (TAR). The West Manheim Township Act 537 Plan Update Task/Activity Report prepared by C.S. Davidson, Inc. was approved by DEP on March 23, 2000, within the specified time.

Once the TAR was approved, West Manheim Township had three hundred (300) days in which to submit to the Department an officially adopted Act 537 Official Sewage Facilities Plan Update that addresses the sewage disposal needs of the entire municipality, is consistent with the TAR, and meets the requirements of 25 Pa. Code § § 71.21 and 71.31.

In summary, the current Official Sewage Facilities Plan for West Manheim Township consists of several documents: The York County Comprehensive Sewerage Study - Phase Two (1972); the Preliminary Feasibility Study for Sanitary Sewerage System (April 1976); the Act 537 Revision to Official Sewage Facilities Plan of September 7, 1976 (December 2, 1982); and the Act 537

Revision to Official Sewage Facilities Plan of September 7, 1976 (May 1, 1984). These documents indicate that sewage disposal needs in the Township will be addressed by the use of on-lot sewage disposal systems. The documents do not address the development pressures currently being experienced in the Township.

### I.A.2. Previous Planning Not Carried Out per Approved Implementation Schedule

The York County Comprehensive Sewerage Study "Phase Two - Sewerage Facilities Plan" called for the entire County plan to be essentially completed by 1980. Exhibit I-1 Hanover Regional Planning Area – Sewage Plan – Year 2000 divided West Manheim Township into two districts, R-10 and R-11, while recommending that flows from the developed areas of West Manheim Township be routed to the Hanover Treatment Plant. West Manheim Township, in accordance with the adopted Act 537 Plan, sends all wastewater to the Penn Township WWTP. Conveyance to the Penn Township WWTP is inconsistent with the R-10 district. Also, the sewage facilities illustrated in the York County Comprehensive Sewerage Study were not constructed by the year 2000 as outlined in the plan.

West Manheim Township, after approval of the Act 537 Plan update in 2000, has continued to implement the approved plan. The plan set several target dates for implementation of key sewage management strategies. The key strategies included the adoption and implementation of the OLDS management program, construction of Service Area 1, and construction of Service Area 2. The target dates for each of these strategies have been delayed by approximately four years. West Manheim Township, in accordance with the plans recommendation, is providing this plan update to address the remaining identified needs areas and additional areas of concern.

### I.A.3. Anticipated Wastewater Planning By Others

All wastewater from West Manheim Township is conveyed to Penn Township via an interceptor line. The interceptor line conveys wastewater to the Penn Township Wastewater Treatment Plant. Penn Township is planning to upgrade their wastewater treatment plant and conveyance system to address violations of the Clean Streams Law.

A Consent Order and Agreement, "COA", has been issued by the Commonwealth of Pennsylvania Department of Environmental Protection to the Penn Township Board of Commissioners. The COA has been included as Appendix I-7. This agreement outlines the upgrades needed to Penn Township's sanitary sewer system in order to comply with the violations of the Clean Streams Law. Penn Township has contracted CET Engineering Services, Inc. to draft the township's Act 537 Plan Update. The draft plan update follows the COA issued by PA DEP.

### I.A.4. Planning Modules and Other Revisions

West Manheim Township has utilized several developments within the township to facilitate the installation of conveyance facilities to serve the Sewer Service Areas defined in the previous Act 537 Plan. The following facilities were constructed by developers and dedicated to the township as a result of planned developments submitted as revisions to the official Sewage Plan: DGM pump station and interceptor, South Pointe pump station, Beck Mill pump station, and the Area 3

interceptor. These facilities have allowed West Manheim Township to construct the collection systems identified for Service Areas 1, 2 and 3 to serve existing residents.

The PA DEP York District office was consulted for a listing of approved planning modules within West Manheim Township. As a result, a copy was made of PA DEP log that lists all (i.e. approved, disapproved, exempt, filed or incomplete) planning module applications in the Township from 200 to present to expand the documentation provided in the previous Act 537 plan. Appendix I-9 shows those properties which have been revisions to the Official Plan through submittal of planning modules.

## SECTION II – PHYSICAL AND DEMOGRAPHIC ANALYSIS UTILIZING WRITTEN DESCRIPTION AND MAPPING

### II.A. Identification of Planning Areas, Municipal Boundaries, Sewer Authority/Management Service Boundaries

West Manheim Township was founded in 1858 and encompasses 19.49 square miles, or 12,473 acres. The township is located in the southwestern corner of York County. The location of West Manheim in relation to York County is illustrated on Exhibit II-1 – Regional Location Map. Its western boundary borders Union Township in Adams County. The Township's southern boundary is the Mason Dixon line which divides the Commonwealth of Pennsylvania and Carroll County in the State of Maryland. This municipality is bordered on the north by Penn Township and on the east by Manheim Township, both located in York County. The Township is located two miles south of Hanover Borough. The planning area conducted in the 2000 plan update for the Township is defined by its municipal boundaries. Sanitary Sewer Areas 1, 2 and 3 have been constructed.

This Act 537 Plan Update will re-evaluate the Sanitary Sewer Areas 4, 5, 6, and additional areas located in Woodridge Hunt development and portion of Fuhrman Mill Road, see Exhibit II-2 – Sewer Districts.

### II.B. Identification of Physical Characteristics – Water Resources

Water resources within the planned service areas located in West Manheim Township are shown on Exhibit II-3 – Water Resources. The Township is located within three major drainage basins: South Branch Conewago Creek, West Branch Codorus Creek, and South Branch Gunpowder Falls; however the service areas being evaluated are situated within the South Branch Conewago Creek and West Branch Codorus Creek watersheds. The identified protected uses in the study area are for Warm Water Fisheries (WWF). The Chapter 93 – Water Quality Standards define WWF designation as the "maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat." These watersheds include ephemeral, intermittent, and perennial streams; reservoirs and lakes; and wetlands. In developed areas storm sewer systems collect, detain and retain, and convey runoff to natural drainage conveyance channels.

Exhibit II-4 – Flood Prone Areas shows areas within the township which are prone to flooding. These areas are generally located in valleys and adjacent to Waters of the Commonwealth, such as streams, lakes, reservoirs, and wetlands. Flood prone areas have been identified by the Federal Emergency Management Agency's (FEMA) flood insurance maps and the Floodplain Overlay Conservation Zone defined by West Manheim Township's Zoning Ordinance.

### II.C. Soils

West Manheim Township is predominantly comprised of three well drained soil categories; Chester Glenelg, Mt. Airy-Glenelg-Manor, and Glenelg-Mt. Airy. See Exhibit II-5 - Soils for specific locations and soil classification in the planned sewerage areas. On-Lot Disposal Systems can be in-ground on-lot systems, elevated sand mounds, or individual residential spray irrigation

systems. The following list of exhibits shows soils that are potentially suitable for a variety of on-lot disposal systems:

- Exhibit II-6 – Soils Suitable for Conventional In-Ground and Elevated Sand Mounds;
- Exhibit II-7 – Soils Suitable for Only Elevated Sand Mounds;
- Exhibit II-8 – Soils Suitable for Spray Irrigation Systems;
- Exhibit II-9 – Soils and Slopes Unsuitable for On-Lot Disposal Systems.

This classification system has been directly correlated with the criteria and requirements established by the PA DEP under Title 25 of the Pennsylvania Code. In addition, it should be noted that the above referenced marginal suitability classification indicates that either slopes or soil limiting zones may be unsuitable for on-lot sewage systems, and that further on-site investigation is necessary to make such a determination. The soils and slopes which are limited with respect to suitability for on-lot sewage systems are delineated on Exhibits II-6 and II-13, respectively.

Approximately 28.10% of the Township may be suitable for conventional in-ground and elevated sand mound disposal systems. In addition, another 44.09% of the Township has soils and slopes that are generally suitable only for elevated sand mound use. The final 27.81% of the Township has soils and slopes that are generally unsuitable for any on-lot sewage systems. Approximately 88.65% of the Township soils are generally suitable for individual residential spray irrigation systems.

Soils identified as Class I, II, or III by the Soil Survey of York County, Pennsylvania are considered prime agricultural soils, as set forth in the Pennsylvania Municipalities Planning Code, Act 247. Prime agricultural soils are defined as land best suited for and are available for producing food, feed, forage, fiber, and oilseed crops. The land could be cropland, pastureland, rangeland, forestland, or other land but not built-up land or water. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops economically when treated and managed, including water management, according to modern farming methods. Exhibit II-10 – Prime Farmland exhibits the areas in the township which consist of soils that are ideal for agriculture. The Township has implemented provisions in the zoning ordinance for preservation of Prime Agricultural Soils. The Farming Zone has been developed to discourage development from occurring on productive farm lands, which include soil types designated as prime agricultural soils.

## II.D. Geologic Features

The following information pertaining to geologic features and potable water supplies has been provided by Jim Taylor, Hydrologist for Laboratory Analytical and Biological Services, Inc.

The majority of West Manheim Township is located within the Piedmont Uplands Section of the Piedmont Physiographic Province. Physiographic provinces are characterized by their similar landscapes and geologic formations. The Piedmont Upland Section consists of complex steeply folded and faulted crystalline rock formations. The long period of erosion and varied resistance of the bedrock has formed a landscape of broad, gently rolling hills and valleys with low to moderate relief. Bedrock underlying this portion of the Township consists of the Marburg Schist. The Marburg Schist is described as a bluish-gray to silvery-green fine-grained schist, containing

Muscovite, chlorite, albite or choritoid, and quartz (Lloyd, 1977). Included in the schist are slate beds and thin bands of quartzite at the top of the formation. The regional geology is shown on Exhibit II-11 – Geologic Features.

The Martic Thrust Fault is a major structural feature in York County. The fault line trends northeast and southwest, paralleling and just south of the northern edge of the Township. The Martic Thrust is a massive block of rock (Marburg Schist) that was pushed overtop of younger rocks to the north by mountain building forces from the southeast. South of the fault lay the crystalline, Paleozoic and Precambrian aged bedrock of the Piedmont Upland Section, including the Marburg Schist. North of the thrust fault is the low, broad valley of the Conestoga Valley Section of the Piedmont Physiographic Province. The Conestoga Valley Section is underlain predominately by the dark-gray quartzose phyllite of the Harpers Formation. On the northeast end of the Township, the Codorus Creek valley had locally exposed beds of fine to medium grained phyllitic quartzite (Antietam Formation) and gray limestone (Conestoga Formation). This narrow limestone valley is now under Lake Marburg.

Groundwater within the schist, phyllite and quartzite typically occurs in the intergranular openings within the soil and decomposed bedrock and in the secondary openings (i.e., fractures and joints) of the crystalline bedrock. Within the carbonate bedrock, groundwater occurs in secondary openings, fractures, joints, and bedding planes that have been enlarged into solution openings. A summary of the bedrock and groundwater characteristics is presented in the following table, Table II-1:

**Table II-1: Bedrock and Groundwater Characteristics**

| FORMATION | HYDROGEOLOGIC CHARACTERISTICS | GROUNDWATER QUALITY |
|---|---|---|
| Conestoga Formation<br>Ordovician Period<br>Map Symbol – Oc | Gray impure limestone with black shale parting.<br><br>Water bearing zones less than 200 feet. Specific capacities between 0.04 to 45 gpm/ft with median of 1.3 gpm/ft. Average and maximum yields of 18 and 65 gpm. | Water is calcium bicarbonate type. pH ranges from 6.8 to 8.0 with median of 7.0 Hardness ranges from 100 to 390 mg/l with median of 220 mg/l. Nitrate levels ranges from 8 to 58 with median of 33 mg/l |
| Antietam Formation<br>Cambrian Period<br>Map Symbol – Ca | Fine to medium-grained phyllitic quartzite<br><br>Water bearing zones less than 150 feet. Specific capacities between 0.037 and 5.3 gpm/ft with median of 0.12 gpm/ft. Average and maximum yields of 3 to 40 gpm. | Water is calcium bicarbonate type. pH ranges from 5.5 to 6.5 with median of 6.0. Hardness ranges from 17 to 140 mg/l with median of 50 mg/l. Nitrate ranges from 3 to 26 mg/l with medium of 18 mg/l. |
| Harpers Formation<br>Cambrian Period<br>Map Symbol – Chp | Dark-gray quartzose phyllite.<br><br>Water bearing zones as deep as 250 to 300 feet. Specific capacities between 0.03 to 3 gpm/ft with median of 0.39 gpm/ft. Average and maximum yields of 10 and 100 gpm. | Water is calcium magnesium chloride bicarbonate type. pH ranges from 5.3 to 7.5 with median of 6.0 Hardness ranges from 17 to 260 mg/l with median of 85 mg/l. Nitrate ranges from 0 to 88 mg/l with the median of 11 mg/l. |
| Marburg Schist<br>Paleozoic Period<br>Map Symbol - mg | Bluish-gray to silvery-green fine-grained schist.<br><br>Water bearing zones occur within 200 feet. Specific capacities range from 0.035 to 2.15 gpm/ft with a median of 0.28 gpm/ft. Average and maximum well yields are 15 and 70 gpm. | Water is calcium sodium nitrate bicarbonate type. pH ranges from 5.3 to 6.2 with median of 6.0. Hardness ranges from 1 to 50 mg/l with median of 25 mg/l. Nitrate ranges from 8 to 34 mg/l. |

Sources: Lloyd 1977 and Geyer 1982.

## II.E. Topography

The Township consists of varying topography. Exhibit II-12 – Topography shows the existing topography for the sanitary sewer service areas. Topography will dictate the areas in which on-lot disposal systems are feasible. The Pennsylvania Code, Chapter 73 – Standards for Sewage Disposal Facilities regulates the construction of conventional and alternative on-lot sewage disposal systems (OLDS). The maximum slopes of the undisturbed soil of conventional OLDS are listed in table II-2.

**Table II-2: Maximum Permitted Slopes of the Undisturbed Soil for Conventional On-Lot Sewage Disposal Systems**

| SYSTEM | MAXIMUM SLOPE |
|---|---|
| Standard Trenches | 25% |
| Seepage Bed | 8% |
| Subsurface Sand Filter Trenches | 25% |
| Subsurface Sand Filter Bed | 8% |
| Elevated Sand Mound Bed | 12% |
| Elevated Sand Mound Trenches | 12% |
| IRSIS | 25% |

The following list of exhibits shows slopes that are potentially suitable for a variety of on-lot disposal systems:

- Exhibit II-13 – Slopes Suitable for Conventional In-ground and Elevated Sand Mounds;
- Exhibit II-14 – Slopes Suitable for only Elevated Sand Mounds;
- Exhibit II-9 – Soils and Slopes Unsuitable for On-Lot Disposal Systems.

## II.F. Potable Water Supplies

The majority of the planned sewer service areas are served by public water. The York Water Company bought the West Manheim Township public water supply system in 2007. However, a small number of residents' water supply within the current study area is served by on-lot wells.

### IIF.1 On-Lot Systems:

Well sampling is completed in accordance with PA DEP's publication entitled "A Guide for Preparing ACT 537 Update Revisions". According to this publication, "well water surveys may be completed in similar fashion to Sewage Sanitary Surveys using two tiers (or steps). In "tier one," a minimum of 15 percent of the wells in the general study area must be sampled. In the second tier, potential sewer service areas are again subjected to closer scrutiny. A representative sampling of wells within these smaller, more defined areas must be completed. As a general rule, representative sampling will be required in subareas where total coliform contamination rates are ten percent or greater and fecal coliform contamination rates for those samples testing positive for total coliform are 20 percent or more. In both tier procedures, all wells sampled must be tested for total coliform, fecal coliform and nitrate-nitrogen contamination."

A representative sample is defined as:

| Wells in Service Area | Percent Sampling Required |
|---|---|
| Up to 50 | 50 Percent |
| 51 to 100 | 35 Percent |
| 101 to 500 | 25 Percent |
| 501 to 1,000 | 20 percent |
| Greater than 1,000 | 15 Percent |

Samples were taken from residents on-lot wells to determine the nitrogen/nitrate levels and coliform levels in their well water. A tier one study had been completed during the last update to the Township's Act 537 Plan to determine problem areas within the township. In addition to the tier one study, a tier two study has been performed on the areas served by on-lot wells to acquire a representative sample. Table II-3 below shows sampling requirements for each study area:

**Table II-3: Tier II Well Sampling Requirements (2009)**

| Sewer Area No. | Number of Residences | Residences served by On-Lot Water | Required Sample (%) | Required Number of Samples | Previously Sampled (2000) | Number of Samples Collected (2009) |
|---|---|---|---|---|---|---|
| 4 | 275 | 10 | 50% | 5 | 7 | 1 |
| 5 | 94 | **SERVED ENTIRELY BY PUBLIC WATER** | | | | |
| 6 | 217 | 79 | 35% | 28 | 33 | 0 |
| Woodridge Hunt | 67 | 67 | 35% | 24 | 0 | 24 |
| Fuhrman Mill Road | 43 | 26 | 50% | 13 | 10 | 6 |
| **TOTAL** | **696** | **182** | | **70** | **45** | **31** |

Well sampling and testing was performed by Analytical Laboratory Services, Inc. (ALSI). All drinking water analyses are compliant with the Environmental Protection Agency's publication 40 CFR Part 141, National Primary Drinking Water Regulations. The well water was analyzed for Total Coliform, Fecal Coliform, and Nitrate Levels. The standards used to determine high levels of Total Coliform, Fecal Coliform, and Nitrate Levels are as follows:

1. Samples with greater than one (1) Total Coliform Bacteria per 100 ml constitute a High Total Coliform Level.
2. Samples with greater than one (1) Fecal Coliform Bacteria per 100 ml constitute a High Fecal Coliform Level.
3. Samples with greater than five (5) milligrams per liter (mg/L) are an indicator of potentially High Nitrate Levels.
4. Samples with greater than ten (10) mg/L constitute a High Nitrate Level.

According to ALSI of the total 31 residential samples evaluated, Total Coliform levels ranged from none detected to greater than 201 colonies per 100ml sample. Fecal Coliform levels ranged from none detected to 21 colonies per 100ml sample with only two samples testing positive for fecal coliform. Nitrate levels ranged from 0.5 mg/L to 10.6 mg/L. Only one residence had a nitrate level greater than 10 mg/L.

Previous results from the Township wide Act 537 Plan prepared in 2000 were also incorporated in analyzing the on-lot potable water supplies were completed by Laboratory, Analytical & Biological Services, Inc. (LABS). Table II-4 states the tier two sample summary from the 2000 Plan Update:

**Table II-4: Tier II Well Sampling Summary (2000)**

| Sewer Area No. | Number of Residences | Residences served by On-Lot Water | Required Sample (%) | Number of Samples Collected |
|---|---|---|---|---|
| 4 & Fuhrman Mill Road | 318 | 38 | 50% | 17 |
| 5 | 94 | **SERVED ENTIRELY BY PUBLIC WATER** | | |
| 6 | 217 | 78 | 35% | 33 |
| **TOTAL** | **629** | **116** | | **50** |

According to LABS of the total 41 residential samples evaluated, Total Coliform levels ranged from none detected to 47 colonies per 100ml sample. Fecal Coliform levels ranged from none detected to 22 colonies per 100ml sample with seven samples testing positive for fecal coliform. Nitrate levels ranged from <0.1 mg/L to 12.4 mg/L. Three residences had a nitrate level greater than 10 mg/L.

These water test results as well as the previous Act 537 Plan Update results are shown on Exhibit II-15 – Total and Fecal Coliform, and Exhibit II-16 – Nitrates. The test results area included in this report as Appendix II-1 – Tier Two Water Tests.

There does not appear to be any relationship between elevated concentrations of nitrate and coliform and the underlying bedrock. In general, the groundwater in the Township can be susceptible from a number of sources including: on-site wastewater disposal systems, farming applications, underground storage tanks or industrial waste disposal. Within the crystalline bedrock, impacts are likely to be more localized, while in limestone or other areas with extensive fracture system, impacted groundwater may travel great distances. Older, shallow wells or springs are the most likely to be impacted by land disposal practices. Deep, properly constructed (e.g. steel casing set into bedrock and grouted) wells are less likely to be impacted.

West Manheim Township has enacted Ordinance 03-2002, Well Ordinance. This ordinance provides minimum standards for location, modification, or abandonment of individual water supply wells. These standards help ensure all new construction is adequate to meet the required demands, as well as prevent contamination through abandoned wells.

**Public Water Supply:**
Portions of the Township are served by public water from The York Water Company. Exhibit IV-5 – Community Facilities & Utilities, illustrates The York Water Company's territory within West Manheim Township as approved by the Public Utilities Commission (PUC). This map has been developed and is incorporated in the West Manheim Township Comprehensive Plan. The existing public water system is indicated on Exhibit II-15 – Total and Fecal Coliform.

The York Water Company is an investor-owned public utility providing service to over 20 municipalities in central York County. They currently have approximately 35,000 residential and 5,000 commercial or industrial customers. The capacity of the current system, taking into account raw water sources, treatment capacity, and distribution, is 30.0 million gallons per day (MGD). The current demand on the system is approximately 20.0 MGD.

The York Water Company uses the South and East Branches of the Codorus Creek as its main supply source, with an intake from the Susquehanna River as a secondary source. They utilize Lake Williams and Lake Redman for storage, both of which are located along the East Branch of the Codorus Creek in Springfield and York Townships. The storage capacity of these reservoirs is 1.0 billion gallons and 1.5 billion gallons, respectively. At the water treatment facility, the water is treated with alum, but no fluoride is added to the water.

Water is conveyed to the West Manheim distribution through a sixteen inch diameter water main installed in the western portion of the Township. The water is currently fluorinated at the booster station prior to distribution to the residents in the Township. The facilities located in West Manheim Township have adequate capacity to serve the existing needs and planned growth within the permitted service territory. This available capacity has allowed the extension of public water to the previously defined area of need, Area 2. The available capacity and defined service territory provide the potential for extension to the Fuhrman Mill Road Area and Woodridge Hunt Area, in coordination with planned development in the surrounding areas.

## II.G. Wetlands

Exhibit II-17 – Wetlands show wetlands located within the study area. Wetland locations were acquired from the National Wetland Inventory Mapping (NWI) provided by the United States Fish & Wildlife Service (USF&W). Wetlands in the area of existing sanitary sewer installation have been delineated by Vortex Environmental, KCI Technologies, and Romer Ecological Services.

In addition to the wetlands identified in the NWI, most hydric soils also qualify as wetlands. Hydric soils are soils that in their un-drained condition are flooded, ponded, or saturated enough during the growing season to develop anaerobic conditions. These conditions favor the growth and regeneration of hydrophytic vegetation. Hydric Soils within the proposed sewerage areas have been identified in Exhibit II-18 – Hydric Soils. Hydric soils have been identified by the United States Department of Agriculture (USDA) in "Soil Survey of York County, Pennsylvania."

## SECTION III – EXISTING SEWAGE FACILITIES IN THE PLANNING AREA – IDENTIFYING EXISTING NEEDS

### III.A.1. Location, Size and Ownership of Sewage Systems

Currently there is no treatment facilities located within the municipality. Future sewerage areas 4, 5, 6, Woodridge Hunt, and Fuhrman Mill Road are exclusively served by on-lot disposal systems. Previous sewage planning resulted in construction of collection and conveyance sanitary sewer lines in Sewer Areas 1, 2, and 3. The current collection and conveyance system is provided in Exhibit III-2 – Existing Sanitary Sewer Collection and Conveyance System.

The existing sewage collection and conveyance facilities are owned and operated by West Manheim Township. The collection system is primarily composed of 8" diameter PVC gravity sewer main, with portions flowing to three minor pump stations. The northwestern portion of the collection system, portion of Area 1, is conveyed to the Beck Mill pump station. The Beck Mill Pump station was constructed and implemented in 2005. The pump station is permitted at 315 gallons per minute (gpm) (WQM Part II Permit No. 6703403), and currently operates at 305 gpm. The southwestern portion of the existing system, South Pointe development area, is conveyed to the South Pointe pump Station. The South Pointe pump station was constructed and implemented in 2000. The pump station is permitted at 325 gpm (WQM Part II Permit No. 6703403), and currently operates at 325 gpm. The western portion of the collection system, portion of Area 2, is conveyed to the Area 2 pump station. The Area pump station was constructed in 2010, and is permitted for 80 gpm (WQM Part II Permit No. 6703406).

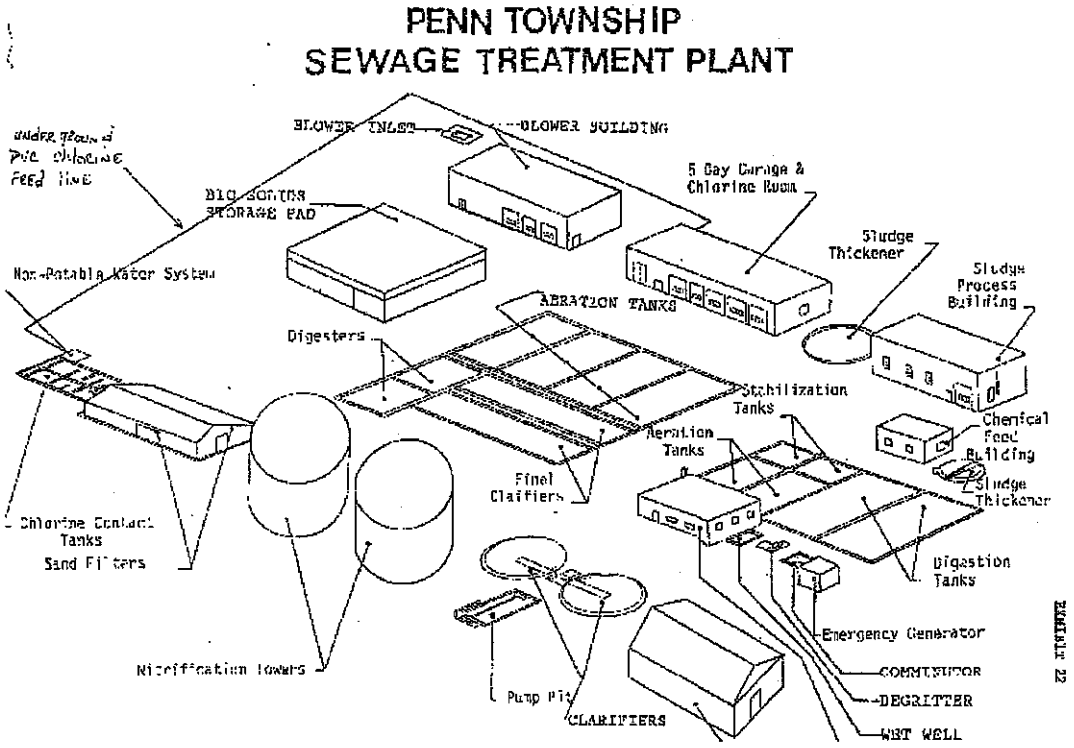
The existing system contains two sanitary sewer interceptors: 1) Area 3 Interceptor, and 2) DGM Interceptor. The Area 3 Interceptor was constructed in 2009, serving Area 3. The interceptor is anticipated to serve future Area 4, 5 and portions of planned residential development. The interceptor consists of 8" and 10" diameter PVC gravity sewer main, with a design capacity of 900,000 gallons per day (GPD) (WQM Part II Permit No. 3703406). Wastewater flow from the Township's collection system is conveyed to the DGM interceptor, constructed in 2000. The DGM Interceptor consists of 8", 10" and recently upgraded portions of 18" diameter PVC gravity sewer main (WQM Part II Permit No. 6703403).

The DGM Interceptor conveys the Township's wastewater to the DGM Pump Station, constructed in 2000. The pump station is permitted at 1,000 gallons per minute (gpm) (WQM Part II Permit No. 6703403), and currently operates at 555 gpm. Flow is transmitted through a 10" diameter PVC force main to an intercepting line in Penn Township (bordering to the north), the Breezewood Interceptor. The majority of the intercepting lines in Penn Township consists of 18 inch diameter pipe and increases to a 20 inch diameter pipe as it enters the wastewater treatment facility. The treatment facility currently has a capacity of 4.2 million gallons per day (MGD) as documented in "Corrective Action Plan for Penn Township, York County NPDES Permit No. PA0037150."

The treatment facility discharges to Oil Creek, a tributary of the West Branch of Codorus Creek. The point of discharge is approximately 5.5 miles upstream from the confluence with the West Branch of Codorus Creek. The Watershed area of Oil Creek upstream of the treatment facility's discharge is approximately 4 square miles. The treatment facilities effluent requirements are

mandated in the Treatment Plants NPDES Permit No. PA 0037150. The permit expires at midnight on February 28, 2013.

### III.A.2 Treatment Facilities Schematic




The original Penn Township Wastewater Treatment Plant (WWTP) (NPDES Permit number is PA0037150) constructed in 1964 was designed to handle an inflow 1.0 MGD. The facility underwent upgrades in 1977 to expand its treatment capabilities to 4.2 MGD. The current WWTP layout, from the Penn Township draft Act 537 plan, is contained in Exhibit III-9 – Wastewater Treatment Facility Improvements: Penn Township – Existing Site/Demolition Plan.

The treatment process consists of manual bar screens, a comminutor, an aerated grit chamber, stabilization tanks, aerators, aerobic digesters, final clarifiers, nitrification towers, sand filters, and chlorine contact tanks. The sludge disposal process consists of thickeners and a belt filer press; Penn Township currently land applies all sludge. Ferrous sulphate (Odophos) is added for phosphorus precipitation and a caustic feed system is available for pH control.

PENN TOWNSHIP WASTEWATER TREATMENT PLANT DESIGN CRITERIA

A. Flow:
2.75 Million Gallons per Day (Residential)
1.75 Million Gallons per Day (Industrial)

B. Wasterwater Characteristics

| | |
|---|---|
| Influent B.O.D. | 600 Milligrams per Liter |
| Influent T.S.S. | 600 Milligrams per Liter |
| Ammonia Nitrogen | 20 Milligrams per Liter |
| Phosphate | 30 Milligrams per Liter |

C. Bar Screen (Both Facilities):
Two (2) which are used in series with the comminutor or can be used independently.

D. Comminutor (Both Facilities):
One (1) twenty inch slotted drum

E. Grit Removal (Both Facilities):
Aerated with mechanical grit removal.

F. Raw Wastewater Pumps (Both Facilities):
Five (5) units, two of which are rated at 700 GPM and three which are rated at 3500 GPM. Two of the 3500 GPM units are variable speed, utilizing a bubbler type level control system.

G. Contact Aeration Tanks (1963 Facility):
Two aeration tanks in parallel utilizing mechanical aeration. These tanks have a total volume of 156,500 gallons per unit.

H. Stabilization Tanks (1978 Facility):
Two aeration tanks in parallel utilizing mechanical aeration. These tanks have a total volume of 448,000 gallons per unit.

I. Aeration Tanks (1978 Facility):
Four in parallel utilizing fine bubble diffusers for aeration. These tanks have a total volume of 448,000 gallons per unit.

J. Secondary Clarifiers (Both Facilities):
1963 Facility – two circular clarifiers running in parallel, with a rotating scraper mechanism utilizing pump withdrawal for solids removal.
1978 Facility – two rectangular clarifiers running in parallel, with a traveling bridge mechanism utilizing siphons for the withdrawal of solids.

K. Biological Nitrification Towers (Both Facilities):
Two in parallel, with plastic fixed media reactors and rotary distributors.

L. Sand Filters (Both Facilities):
Two in parallel, utilizing an automatic traveling carriage for backwashing purposes.

M. Chlorine Contact Tanks (Both Facilities):
Two in parallel with a forty one minute average detention time at design flow.

N. Sludge Recycle Pumps:
1963 Plant – Three 500 GPM pumps
1978 Plant – Two 1400 GPM pumps

O. Nitrification Tower Pumps (Both Facilities):
Four 2600 GPM pumps, utilizing the chlorine contact tank of the 1963 plant as a wet well.

P. Aerobic Digesters:
1963 Plant – Two in parallel, mechanically aerated
1978 Plant – Two in parallel, coarse bubble aerated

Q. Sludge Thickener (Both Facilities):
Two circular type with rotating picket fence with bottom scraper.

R. Belt Filter Press (Both Facilities):
One two meter Komline Sanderson Belt Filter Press

S. Sludge Disposal (Both Facilities):
Agricultural utilization through a private contractor.

### III.A.3. Problems with Existing Facilities

Penn Township: On February 17, 2004 Penn Township received a Notice of Violation from the Pennsylvania Department of Environmental Protection (PA DEP) regarding a raw sewage discharge/surcharge from a manhole located along the Oil Creek. Based on this field investigation Penn Township submitted a Corrective Action Plan (CAP) to alleviate problems with the existing sanitary sewer interceptor into the wastewater treatment plant. The CAP was approved by PA DEP on May 23, 2005 and revised in July 2008 (See Appendix III-1 for CAP). Based upon the CAP, Penn Township must upgrade the capacity of the York Street Interceptor, modify the Treatment Plant headworks, and plan for future plant modification to meet the new NPDES discharge limits. Work is currently proceeding in accordance with the Consent Order and Agreement (COA) issued by the PA DEP.

West Manheim Township: The DGM and South Pointe pump stations were installed in 2000. The Beck Mill Road pump station was installed in 2006 and the Area 2 pump station was installed in 2009. Additional capacity for the DGM pump station was provided in 2009 in accordance with the WQM Permit. The hydraulic design capacity of the wet well and appurtenances, based upon the float settings, creates storage in some of the pipe to minimize pumping cycles. Analysis of the wet well capacity is required for future sewer capacity acquisition to address this situation. All four pump stations are in good condition. Future projects include increasing the capacity of the South Pointe pump

station to accommodate additional sewer capacity. The Township had experienced increased flows at the South Pointe pump station during significant rain events. A problematic manhole has been rehabilitated greatly reducing the I/I problem and additional leaks are being addressed once identified.

### III.A.4. Schedule of Upgrades of Treatment Facilities

Upgrades to the Penn Township WWTP main interceptor are scheduled to be completed in January 2011 through September 2011. As part of the Corrective Action Plan (CAP) Penn Township proposes that a new interceptor be constructed from April 2011 to November 2011. A complete schedule for actions taken and planned to alleviate problems with the main interceptor to Penn Township's Wastewater Treatment Plant is include in the CAP located in Appendix III-1. The formal agreement and schedule of these upgrades are outlined in the Consent Order and Agreement (COA) issued by the Commonwealth of Pennsylvania, Department of Environmental Protection to the Penn Township Board of Supervisors. The COA is located in Appendix I-6.

### III.A.5. Operation and Maintenance Requirements for Small Flow Treatment Facility Systems

West Manheim Township continues to operate under an on-lot management plan. The township adopted Ordinance No. 01-2005, An Ordinance of the Board of Supervisors of West Manheim Township Governing Municipal Management of On-Lot Subsurface Sewage Disposal Facilities in February of 2005 (OLDS Ordinance).

West Manheim Township, in consultation with the PA DEP, filed a revised Task Activity Report (TAR) to extend the deadline for submission of this plan. In accordance with the revised TAR, Ordinance No. 04-2010 was adopted in September 2010, amending the above mentioned Ordinance. This ordinance's purpose is to provide for the inspection, maintenance and rehabilitation of on-lot sewage disposal systems; to further permit the Township to intervene in situations which are public nuisances or hazards to the public health; and to establish penalties and appeal procedures necessary for the proper administration of a sewage management program; certify the operation of on-lot systems through inspection by the Township SEO. A copy of this ordinance, as amended, has been provided in Appendix III-2.

The Ordinance established the entire Township, not served by public sewer, as an OLD's district. The Township has completed 854 on-lot inspections since the implementation of the new OLD's program, primarily targeting the needs areas. Of the inspections completed, all systems have been certified, repaired, or are in process. The data and certifications collected from the implementation of the OLD's program have been utilized in this plan to update previously collected data.

Due to the recent enactment of the OLD's Ordinance, no revision is required. The Township also adopted Ordinance No. 05-2010 establishing regulations for holding tanks. Therefore, no additional regulations are required to be adopted at this time.

### III.A.6. Disposal Areas

The services areas being analyzed in this update are currently served entirely by on-lot disposal systems. Therefore all wastewater is filtered through soil before entering the groundwater table. In low-lying areas on-lot disposal systems' discharges may enter bodies of water as base flow. The use of on-lot systems have resulted in elevated nitrate and coliform concentrations within the proposed service areas.

### III.B.1. Types of On-lot Systems in Use

The areas of West Manheim Township currently not served by the public sewer system are served by on-lot sewage systems. Exhibit III-3 – Existing On-Lot Disposal Systems shows types of existing on-lot disposal systems located within the Township and proposed future Sanitary Sewer Areas Four, Five, Six, Woodridge Hunt and Fuhrman Mill Road. The data shown on the exhibit is a compilation of the information received from the on-lot sewage surveys, historical permitting data, and information obtained from the West Manheim Township Sewage Enforcement Officer (SEO).

The exhibit demonstrates that a variety of on-lot sewage disposal systems are present within West Manheim Township. Areas of interest identified through the compilation of this data are:

Area 4 (Including Fuhrman Mill Road):
Future proposed service Area 4 consists of several homes constructed fifty or more years ago, and contains a variety of on-lot systems, including cisterns, septic tanks with elevated sand mounds or in-ground trenches or in-ground beds.

Area 5:
Future proposed service Area 5 consists primarily of septic tanks with elevated sand-mounds or in-ground trenches or in-ground beds. The systems within this area are generally twenty-five plus years in age.

Area 6:
Future proposed service Area 6 consists of several homes constructed fifty or more years ago, and several homes constructed within the past thirty years. Older sections of the service area consist of multiple types of older on-lot systems, and are generally located on larger lot sizes. While the newer section of the service area primarily septic tanks with elevated sand-mounds or in-ground trenches or in-ground beds and consist of smaller lot sizes.

Woodridge Hunt:
The Woodridge Hunt development was constructed in the past ten years. The development utilizes an on-lot elevated sand-mound disposal system with a de-nitrification unit. The construction of these units required a larger lot size, in excess of two acres.

Glennville Road/Lilly Springs Road:
Development in the Glennville Road/Lilly Springs Road area have occurred in the past twenty-five years. Portions of Glennville Road area are served by elevated sand mounds, and consist of smaller lot sizes. Portions of the Lilly Springs Road area utilize an on-lot elevated sand-mound

disposal system with a de-nitrification unit. The construction of these units required a larger lot size, in excess of two acres.

Dubs Church Road/Skyview Road:
Development in the Dubbs Church Road/Skyview Road area have occurred in the past twenty-five years. The lots within this area generally are served by conventional on-lot systems. Several developments within this area were required to have larger lot sizes, in excess of two acres, due to the nitrates documented by the hydrogeoligic study.

Impounding Dam Road/St. Bartholomew Road:
Development in the Impounding Dam Road/St. Bartholomew Road area consists of several homes constructed fifty or more years ago, and several homes constructed within the past thirty years. Older sections of the area consist of multiple types of older on-lot systems, and are generally located on larger lot sizes. While the newer section of the service area primarily consist of elevated sand-mounds and consist of medium sized lots.

### III.B.2. Sanitary Sewer Survey

The needs identification for West Manheim Township was conducted in accordance with the PA DEP publication titled Sewage Disposal Needs Identification. This publication indicates "these randomly verified field surveys may be conducted in two "tiers" (or steps), depending on the scope of the ACT 537 Official Plan revision being prepared. For "municipality-wide" or large area plans, a general or "tier one" approach is appropriate, especially with a goal of identifying and prioritizing sub-areas for closer scrutiny or simply gathering generic information for a large area. The "tier two" survey provides a much closer scrutiny of a study area and is more appropriate for smaller scale (less than municipality-wide) plans, for accurately defining and documenting suspected problem areas, and for prioritizing the severity of problems found in several areas. The "tier two" survey might also be appropriate for municipal-wide planning where the municipality is uniformly developed throughout or where it is anticipated the rate of sewage disposal problems will be similar in both densely and less densely developed portions of municipalities that have variable development patterns."

"Most "tier one" surveys use a minimum sampling rate of 15 percent; while for the "tier two" survey, representative sampling rates vary with the size of the area. In both cases, obtaining this representative sampling is important, as well as random selection of sampling points and sampling in a pattern that provides accurate, complete coverage of the survey area."

In accordance with the approved task activity report, the plan supplemented the data collected and analyzed in the Act 537 Plan Update from 2000. The data contained in this plan includes Tier I (see Exhibit III-4), or municipality wide, and Tier 2 (see Exhibit III-5), or area specific, survey data from the previous plan (see Appendix III-3 and III-4). Additional Tier II survey data was obtained in accordance with the approved task activity report; the required survey sampling is summarized in Table III-2 – Representative On-lot Sewage System Sampling Requirements

**Table III-2 – Representative On-lot Sewage System Sampling Requirements (2009)**

| Sewer Area No. | Number of Residences | Required Sample (%) | Required Number of Samples | Previously Sampled (2000) | Proposed Number of Samples (2009) |
|---|---|---|---|---|---|
| 4 | 275 | 25 | 69 | 63 | 6 |
| 5 | 94 | 35 | 33 | 22 | 11 |
| 6 | 217 | 25 | 55 | 44 | 11 |
| Woodridge Hunt | 67 | 35 | 24 | 0 | 24 |
| Fuhrman Mill Road | 43 | 50 | 22 | 0 | 22 |
| **TOTAL** | **696** | | **203** | **129** | **74** |

The Tier II survey data collected under this study was completed through a door-to-door survey by the West Manheim Township Sewage Enforcement Officer (SEO). The survey utilized by the study was obtained from the PA DEP publication titled Sewage Disposal Needs Identification. Results from the door-to-door survey are provided in Appendix III-4. The survey results are summarized in Table III-3: Tier II Survey Results.

**Table III-4: Tier II Survey Results (2009)**

| ON-LOT DISPOSAL SYSTEM SURVEY | | | | |
|---|---|---|---|---|
| Service Area | Good Condition | Fair Condition | Malfunctioning | Total |
| 4 | 6 | 0 | 0 | 6 |
| 5 | 11 | 0 | 0 | 11 |
| 6 | 11 | 0 | 0 | 11 |
| Woodridge Hunt | 24 | 0 | 0 | 24 |
| Fuhrman Mill Rd. | 22 | 0 | 0 | 22 |

In addition to the Tier II surveys completed under this plan update, the tier one mail-in survey and tier two door-to-door surveys from the previously approved Act 537 Plan update has also been included to document surveys and inspections township-wide. The data compiled under these surveys is provided in Appendix III-3. Table III-5: Previous On-lot System Survey Results documents the known malfunctions compiled during the previous survey.

**Table III-5: Previous On-lot System Survey Results (2000)**

| Area | On-Lot Systems | Required Rate | Required Surveys | Total Surveys | Adverse Conditions Noted | |
|---|---|---|---|---|---|---|
| | | | | | 1 | 2+ |
| 4 | 240 | 25% | 60 | 103 | 11 | 11 |
| 5 | 93 | 35% | 33 | 39 | 9 | 2 |
| 6 | 225 | 25% | 57 | 87 | 7 | 9 |

The revised TAR submitted for this plan allowed the Township to implement Ordinance No. 04-2010 and begin physical inspection and certification of on-lot systems by the Township SEO. Since the Ordinance adoption on September 2, 2010, 854 on-lot systems have been inspected by the Township SEO. The results of these inspections have been compared to the previous Tier 1 and Tier 2 surveys; the results are summarized in Table III-6: On-lot System Inspection Comparison and are illustrated on Exhibit III-7 and Exhibit III-8.

**Table III-6: On-lot System Inspection Comparison**

| | Potential and/or known malfunctioning on-lot systems | | |
|---|---|---|---|
| Future Sewer Service Area | Number of properties previously identified as potential and/or malfunctioning (2000) | Certifications of these on-lot system (per 2010 OLD's program) | Remaining systems for Township action |
| 4 | 13 | 13 | 0 |
| 5 | 3 | 3 | 0 |
| 6 | 8 | 8 | 0 |

| | Tier 1 Survey | | |
|---|---|---|---|
| Future Sewer Service Area | Number of properties previously identified as having adverse conditions(2000) | Certifications of these on-lot system (per 2010 OLD's program) | Remaining systems for Township action |
| 4 | 8 | 8 | 0 |
| 5 | 3 | 3 | 0 |
| 6 | 5 | 5 | 0 |

| | Tier 2 Survey | | |
|---|---|---|---|
| Future Sewer Service Area | Number of properties previously identified as having adverse conditions(2000) | Certifications of these on-lot system (per 2010 OLD's program) | Remaining systems for Township action |
| 4 | 12 | 12 | 0 |
| 5 | 5 | 5 | 0 |
| 6 | 8 | 8 | 0 |

### III.B.3. On-Lot Sewage Systems

The existing on-lot sewage systems in West Manheim Township have been evaluated based upon the sewage surveys completed and the natural feature suitability. The following list of exhibits shows soils that are potentially suitable for a variety of on-lot disposal systems:

- Exhibit II-6 – Soils Suitable for Conventional In-Ground and Elevated Sand Mounds;
- Exhibit II-7 – Soils Suitable for Only Elevated Sand Mounds;
- Exhibit II-8 – Soils Suitable for Spray Irrigation Systems;
- Exhibit II-9 – Soils and Slopes Unsuitable for On-Lot Disposal Systems.
- Exhibit II-13 – Slopes Suitable for Conventional In-Ground and Elevated Sand Mounds
- Exhibit II-14 – Slopes Suitable for Only Elevated Sand Mounds

As demonstrated by these exhibits, several needs areas demonstrate pockets of area that are not suitable for on-lot sewage disposal.

Four (4) malfunctioning OLDS were documented during the previous Act 537 Plan they are located at the following addresses (see Exhibit III-6):

- 2652 Baltimore Pike
- 2665 Baltimore Pike
- 2812 Baltimore Pike
- 45 Utz Drive

Inspection and certification of these properties, in accordance with Ordinance No. 04-2010, has been completed or is in process by the Township SEO.

In addition to the previous malfunctioning systems, the Township has pursued corrective action in the past for malfunctioning systems located at the following addresses:

- 15 Country Lane – property has been connected to public sewer.
- 42 Lee Ann Court – repair permit issued and system has currently been inspected by Township SEO.
- 350 Fairview Drive – property is currently vacant; connection to public sewer required.

The types of systems and general suitability for on-lot sewage disposal systems within the areas of study are summarized below:

Area Four:
On-lot disposal systems surveys in this area consisted of septic tanks with elevated sand-mounds or in-ground trenches or in-ground beds. The majority of soils and topography within this area are capable of conventional on-lot disposal systems.

Area Five:
The majority of on-lot disposal systems surveys in this area consisted of septic tanks with elevated sand-mounds or in-ground trenches or in-ground beds. Two properties surveyed consisted of cesspools. Both of these on-lot systems are over 50 years old. Two properties surveyed utilized a dry well in the on-lot system. The majority of soils and topography within this area are capable of conventional on-lot disposal systems.

Area Six:
On-lot disposal systems surveys in this area consisted of septic tanks with elevated sand mounds or inground trenches or inground beds. One property surveyed utilized a cesspool and an inground trench. This system was estimated to be nearly 40 years old. The majority of soils and topography within this area are capable of conventional on-lot disposal systems.

Woodridge Hunt:
This area of the township has become developed into residential use over the last ten years. A non-conventional on-lot disposal system utilizing a denitrification unit is utilized by the majority of residents. The majority of soils and topography within this area are capable of conventional on-lot disposal systems.

Fuhrman Mill Road:
The majority of on-lot disposal systems surveys in this area consisted of septic tanks with either elevated sand mounds, or inground trenches, or inground beds. Approximately one half of soils and topography within this study are area capable of conventional on-lot disposal systems.

### III.B.4. Water Supply Survey

The needs identification for West Manheim Township was conducted in accordance with the PA DEP publication titled Sewage Disposal Needs Identification. In accordance with the approved task activity report, the plan supplemented the data collected and analyzed in the Act 537 Plan Update from 2000. The data contained in this plan includes Tier 1, or municipality wide, and Tier 2, or area specific, survey data from the previous plan (see Appendix II-1). Additional Tier 2 survey data was obtained in accordance with the approved task activity report; the required survey sampling is summarized in Table III-6 – Representative On-lot Water Supply Sampling Requirements. A summary of the on-lot well testing data is provided on Exhibit II-15 – Total and Fecal Coliform.

**Table III-6: Representative On-lot Water Supply Sampling Requirements (2009)**

| Sewer Area No. | Number of Residences | Residences served by On-Lot Water | Required Sample (%) | Required Number of Samples | Previously Sampled (2000) | Number of Samples Collected (2009) |
|---|---|---|---|---|---|---|
| 4 | 275 | 10 | 50% | 5 | 7 | 1 |
| 5 | 94 | **SERVED ENTIRELY BY PUBLIC WATER** | | | | |
| 6 | 217 | 79 | 35% | 28 | 33 | 0 |
| Woodridge Hunt | 67 | 67 | 35% | 24 | 0 | 24 |
| Fuhrman Mill Road | 43 | 26 | 50% | 13 | 10 | 6 |
| **TOTAL** | **696** | **182** | | **70** | **45** | **31** |

Well sampling and testing for this plan update was performed by Analytical Laboratory Services, Inc. (ALSI). All drinking water analyses are compliant with the Environmental Protection Agency's publication 40 CFR Part 141, National Primary Drinking Water Regulations. The well water was analyzed for Total Coliform, Fecal Coliform, and Nitrate Levels. The standards used to determine high levels of Total Coliform, Fecal Coliform, and Nitrate Levels are as follows:

1. Samples with greater than one (1) Total Coliform Bacteria per 100 ml constitute a High Total Coliform Level.
2. Samples with greater than one (1) Fecal Coliform Bacteria per 100 ml constitute a High Fecal Coliform Level.
3. Samples with greater than five (5) milligrams per liter (mg/L) are an indicator of potentially High Nitrate Levels.
4. Samples with greater than ten (10) mg/L constitute a High Nitrate Level.

According to ALSI of the total 28 residential samples evaluated, Total Coliform levels ranged from none detected to greater than 201 colonies per 100ml (col/100ml). Two (2) sampled tested positive for Fecal Coliform, levels ranged from none detected to 21 colonies per 100 ml. Nitrate levels ranged from 0.5 mg/L to 10.6 mg/L. Only one residence had a nitrate level greater than 10 mg/L.

The data included in the 2000 plan updated was collected by Laboratory, Analytical & Biological Services, Inc. (LABS). The sampling requirements from the 2000 plan update are summarized in Table III-7: Previous On-lot Water Supply Sampling Requirements.

**Table III-7: Previous On-lot Water Supply Sampling Requirements (2000)**

| Sewer Area No. | Number of Residences | Residences Served by On-Lot Water | Required Sample (%) | Number of Samples Collected |
|---|---|---|---|---|
| 4 | 275 | 38 | 50 | 17 |
| 5 | 94 | SERVED ENTIRELY BY PUBLIC WATER | | |
| 6 | 217 | 78 | 35 | 33 |
| **TOTAL** | **586** | **116** | | **50** |

According to LABS of the total 41 residential samples evaluated, Total Coliform levels ranged from none detected to 47 colonies per 100ml sample. Fecal Coliform levels ranged from none detected to 22 colonies per 100ml sample with seven samples testing positive for fecal coliform. Nitrate levels ranged from <0.1 mg/L to 12.4 mg/L. Three residences had a nitrate level greater than 10 mg/L.

### III.B.5. On-Lot Disposal System Operation and Maintenance Requirements

As stated in section III.A.5 above, an Ordinance has been adopted by West Manheim Township related to On-Lot Disposal Systems installation, operation, maintenance, and inspection requirements (see Appendix III-2). The Ordinance established the entire Township, not served by public sewer, as an OLD's district. In accordance with the Ordinance, property owners are required to perform a system pump-out once every four years; an inspection by the Township SEO is also required at this time. Records of the pump-outs are submitted by the certified hauler and maintained at the West Manheim Township office. Specific penalties for violation of the Ordinance are provided in paragraph 16, for enforcement through the Township and SEO. The Township has complete 854 on-lot inspections since the implementation of the new OLD's program, primarily targeting the needs areas. Of the inspections completed, all systems have been certified, repaired, or are in process. The data and certifications collected from the implementation of the OLD's program have been utilized in this plan to update previously collected data.

Due to the recent enactment of the OLD's Ordinance, no revision is required. The Township also adopted Ordinance No. 05-2010 establishing regulations for holding tanks. Therefore, no additional regulations are required to be adopted at this time.

### III.C.1. Location of Sources of Wastewater Sludge and Septage

All properties located outside the existing West Manheim Township sanitary sewer system, see Exhibit III-2 – Existing Sanitary Sewer Collection and Conveyance System, utilize on-lot disposal for treatment of wastewater. As such, all properties are sources of septage at least once every four years as part of the pump-out mandated by the OLDS Ordinance. OLD's District No. 1 is currently served by public sanitary sewer. Other properties (particularly those utilizing holding tanks) are subject to more frequent pump-outs.

According to the PA DEP records, there are no permits for the Land Application of Sewage Sludge in West Manheim Township.

### III.C.2. Quantities and type of Wastewater Sludge Generated

According to Township Officials there are a total of 2,850 improved properties within the Township, of which there are 1,137 public sewer customers. Assuming an average of 1,000 gallons per pump-out and 25% of the tanks are pumped each year, the annual septage generated by the strict application of the OLDS Ordinance would be approximately 428,250 gallons per year.

### III.C.3. Present Disposal Methods

The OLDS Ordinance requires that all septage be disposed of at sites or facilities approved by the PA DEP and operated in accordance with state regulations. Approved sites or facilities include septage treatment facilities and wastewater treatment plants. The West Manheim Township pump-out service is conducted by a private contractor and the septage generated is currently disposed of at the Penn Township WWTP. West Manheim Township maintains a list of certified haulers for reference by all property owners performing the required pump-out. Records of the pump outs are maintained by West Manheim Township, as well as the quantity received is recorded by the Penn Township WWTP.

# SECTION IV – FUTURE GROWTH AND LAND DEVELOPMENT

## IV.A.1. Land Use and Zoning

West Manheim Township has performed comprehensive planning over the past five years, which defines the Primary Growth Area (PGA) and Rural Growth Area (RGA) within the Township. Zoning Districts have been delineated to reflect both Future Land Use designation and comply with the primary growth area established in the township comprehensive plan. The current zoning map has been included as Exhibit IV-3.

West Manheim Township is comprised of approximately 12,480 acres. Table IV-1: Existing Land Use Designation provides the existing land uses within the township. Table IV-2: Future Land Use Designation provides the future land uses within the township.

**Table IV-1: Existing Land Use Designation**

| Existing Land Use | |
|---|---|
| Land Use Class | Approximate Percent of Township Area |
| Exempt (Municipal, School District, etc.) | 21.7 |
| Farmland/Woodland/Open Space | 53.6 |
| Residential | 23.5 |
| Apartments | 0.36 |
| Commercial | 0.71 |
| Industrial | 0.04 |
| Utility | 0.09 |

**Table IV-2: Future Land Use Designation**

| Future Land Use | |
|---|---|
| Land Use Class | Approximate Percent of Township Area |
| Rural Resource | 17.6 |
| Farming | 58.2 |
| Residential | 19.7 |
| Suburban Residential | 1.5 |
| Commercial/Industrial | 2.0 |
| Business Center | 1.0 |

Existing and Future land use plans are shown in Exhibit IV-1 and Exhibit IV-2, respectively. Also, the Public Utilities Plan is provided in Exhibit IV-5. These plans have been adopted in the West Manheim Township Comprehensive Plan Update, adopted April 26, 2005, and amended September 9, 2009. The future land use designations will be enforced by the recently adopted Zoning Ordinance and a Subdivision and Land Development Ordinance that is currently being reviewed by West Manheim Township. The ordinances were developed in accordance with the York County Comprehensive Plan.

## IV.A.2. Lot Size Regulations

West Manheim Township's Zoning Ordinance, adopted on September 9, 2009, clearly defines lot size restrictions based upon utilities provided to the parcels. Generally, minimum lot sizes will be smaller if public sanitary sewer service and public water service will be provided to the parcels.

Residential, Suburban Residential, and Commercial/Industrial are required to be served by public sewer and public water. Table IV-3: Lot Size Regulations states lot size regulations based upon utility service provided to the parcel, the dwelling type located on the parcel, and the zoning district in which the parcel is located:

**Table IV-3: Lot Size Regulations**

| Lot Size Regulations | | | |
|---|---|---|---|
| **Zone: Residential** | | | |
| Use: | Both Utilities | One Utility | No Utilities |
| Single Family Detached Dwelling | 15,000 Sq.Ft. | 20,000 Sq.Ft. | 40,000 Sq.Ft. |
| Single Family Semi-Detached Dwelling | 10,000 Sq.Ft. | Not Permitted | |
| Two-Family Dwelling | 10,000 Sq.Ft. | Not Permitted | |
| Single Family Attached Dwelling | 2,250 Sq.Ft. | Not Permitted | |
| All Other Uses | 40,0000 Sq.Ft. | | |
| **Zone: Suburban Residential** | | | |
| Single Family Detached Dwelling | 10,000 Sq.Ft. | 20,000 Sq.Ft. | 40,000 Sq.Ft. |
| Single Family Semi-Detached Dwelling | 7,500 Sq.Ft. | Not Permitted | |
| Two-Family Dwelling | 10,000 Sq.Ft. | Not Permitted | |
| Single Family Attached Dwelling | 2,000 Sq.Ft. | Not Permitted | |
| All Other Uses | 40,0000 Sq.Ft. | | |
| **Zone: Business Center** | | | |
| All Uses | 10,000 Sq.Ft. | 20,000 Sq.Ft. | 40,000 Sq.Ft. |
| **Zone: Commercial/Industrial** | | | |
| All Uses | 10,000 Sq.Ft. | 20,000 Sq.Ft. | 40,000 Sq.Ft. |
| **Zone: Farming** | | | |
| All Uses | 1 Acre* | | |
| *Larger based upon nitrate loadings | | | |
| **Zone: Rural Resource** | | | |
| All Uses | 2 Acres | | |

The Township adopted a revised Subdivision and Land Development Ordinance (Ordinance No.02-2011) on June 2, 2011. The sewer feasibility requirements of Section 404.C require all subdivisions proposing the use of on-lot sewer to perform a nitrate study in accordance with PA DEP regulations. These provisions will ensure lots proposing the use of on-lot sewage disposal will be adequately sized to address groundwater nitrates.

### IV.A.3. Special Protection Areas

West Manheim Township Zoning Ordinance, Article 6 – Zoning Overlay Districts, describes Steep Slope Protection, Stream Protection, Surface Water Protection, and Wetland Protection Overlays within the township. These overlays have been determined to protect the natural

resources located within the township and discourage development within the overlay districts. Exhibit IV-4 – Zoning Overlay Districts shows the location of these districts.

The West Manheim Township Stormwater Ordinance, Ordinance No. 2-86, has been developed to protect public health and safety from the effects of land development on stormwater runoff characteristics.
Larger projects and project creating point source discharge points to receiving Waters of the Commonwealth are governed under the PA DEP National Pollutant Discharge Elimination System (NPDES) requirements. This includes construction activities and waste treatment facilities. NPDES requirements regulate the amount of pollutants that leave a facility or construction site.

### IV.B.1. Existing and Planned Developments & Subdivisions

Exhibit IV- 1 – Existing Land Use/Active or Planned Subdivisions has been taken from the West Manheim Township Comprehensive Plan. Appendix IV-1 – Sanitary Sewer Projections contains information regarding the equivalent dwelling units (EDU's) for each development and dates associated with phases and final build out of the developments.

### IV.B.2 Land Use

West Manheim Township Zoning Ordinance, adopted September 9, 2009, defines the township to be comprised of six zones. These zones and acreage are listed in Table IV-4 – West Manheim Township Zones.

**Table IV-4: West Manheim Township Zones**

| West Manheim Township Zones | |
|---|---|
| Zone: | Acres: |
| Rural Resource | 2263 |
| Farming | 7504 |
| Residential | 2536 |
| Suburban Residential | 191 |
| Commercial/Industrial | 259 |
| Business Center | 127 |

As a result of the West Manheim Township Comprehensive Plan a primary growth area has been developed which includes all areas zoned Residential, Suburban Residential, Commercial/Industrial, and Business Center. It is the intent to provide public sanitary sewer service to all residents located within the primary growth area.

### IV.B.3. Future Growth

The West Manheim Township Comprehensive Plan projects growth within the township through four (4) separate methods. The population projections from both the Comprehensive Plan and Previous Act 537 Plan are summarized in Table IV-5: Population Projection Summary.

**Table IV-5: Population Projection Summary**

| Population Projection Summary | | | |
|---|---|---|---|
| | Comprehensive Plan | | Previous Act 537 Plan |
| **Method** | **Year - 2010** | **Year - 2020** | **Year - 2010** |
| Arithmetic | 5,637 | 6,409 | |
| Historical Building Permit | 7,274 | 8,814 | |
| Linear Regression | 5,100 | 5,500 | 5610 |
| York County | 5,353 | 5,820 | |

The Arithmetic Method has been determined by calculating the average increase/decrease of population growth by decade within the township and forecasting the growth based upon this rate.

The Historical Building Permit Method has been determined by the increase in building permits per year and multiplying that by the average number of persons per dwelling unit to forecast the growth rate.

The Linear Regression Method has been determined by creating a best fit curve line on historical population data and forecasting the population growth based on this curve line. This method minimizes the effect of very high or low growth years to the overall growth pattern of the township.

York County Method factors in historical birth and death rates for the township and combines this with the historical number of people moving into and from the township to project the population trend.

The township's population growth trend exceeds the previous Act 537 sewerage planning. Additional sewage capacity has been purchased by the township from the treatment facilities in neighboring Penn Township. West Manheim Township is currently negotiating with Penn Township for the purchase of additional capacity at the Penn Township Wastewater Treatment Plant.

Based upon the Corrective Action Plan for Penn Township, York County NPDES Permit No. PA0037150 (Appendix III-1); West Manheim has a Planned and Projected EDU connection total of 1,990, in addition to the existing sewer customers, for the Penn Township Wastewater Treatment Plant.

### IV.B.4. Protection of Natural Resources

The township has updated its Comprehensive Plan and Zoning Ordinance. The Comprehensive Plan was adopted on April 26, 2005 and amended on September 3, 2009. The Zoning Ordinance

has been adopted on September 3, 2009. Planning and zoning regulations have been developed to conserve the natural resources in West Manheim Township.

The comprehensive plan defines the following strategies for conserving and preserving natural resources:

1. The Township will work with landowners to enroll them in conservation programs to maintain the woodlands and farmlands that characterize the Township
2. Implement agriculture, woodland, and open space provisions as outlined within the comprehensive plan.
3. Encourage all new residential development 15 acres or greater to utilize cluster development styles to permanently preserve natural features within the land development.
4. Protect the recharge areas that surround Hanover Impounding Reservoir and Long Arm Creek Reservoir along with other surface water resources.
5. Develop provisions to protect groundwater resources within the Township's rural resource areas.

The Zoning Ordinance has been updated to encourage cluster developments. Zoning Overlay Districts have been developed to delineate environmentally sensitive areas. The following districts have been developed:

- Natural Features Overlay
    i. Steep Slope Zoning District
    ii. Stream Protection Overlay District
    iii. Surface Water Protection Overlay Zoning District
    iv. Wetland Protection Overlay Zoning District
- Floodplain Protection Overlay
- Historic Preservation Overlay

The update to the zoning ordinance also defines the Conservation Subdivision Overlay. This strategy of land development allows design flexibility for a developer willing to preserve the natural resources within the area of development.

West Manheim Township has also adopted Ordinance No. 03-2002; which has established the minimum standards for location, modification, or abandonment of individual water supply wells.

### IV.B.5. Sewage Planning for Five and Ten Year Projections

The Township is close to reaching its agreement capacity with Penn Township Wastewater Treatment Plant. Township officials are actively negotiating with the neighboring municipality, Penn Township, to acquire reservation with the Penn Township Wastewater Treatment Plant. A reasonable rate for EDU is also being negotiated during this process. West Manheim Township has completed a potential build-out summary for the primary growth area and/or known development (See Appendix IV-1 – Sanitary Sewer Projections). In accordance with these projections, West Manheim Township will require 1 MGD of treatment capacity in the future.

## SECTION V – IDENTIFY ALTERNATIVES TO PROVIDE NEW OR IMPROVED WASTEWATER DISPOSAL FACILITIES

### V.A. Conventional Collection, Conveyance, Treatment and Discharge Alternatives

West Manheim Township's sanitary sewer system currently consists of gravity collection system, portions of gravity conveyance, and a series of pump stations, which ultimately flows to the DGM Pump Station. All sewage conveyed in the Township is then conveyed through the pump station to Penn Township. Flow enters into Penn Township's conveyance system, referred to as the Breezewood Interceptor, which conveys the flow to the Penn Township Wastewater Treatment Plant.

In identifying existing and future sewage disposal needs areas a number of factors must be considered. These factors include existing and suspected malfunctioning on-lot sewage systems, existing unpermitted sewage systems (wildcat sewers), areas with groundwater contamination, and physical limitations to sewage disposal (soil suitability and slope), and areas with high potential for sewage disposal problems (see Exhibit II-15 and II-16). Based on a review of these factors and information from previous Act 537 Planning five (5) specific study areas have been delineated for review as future sewage disposal needs areas within the Township (see Exhibit II-2 – Sewer Districts).

The on-lot inspection, certification and repairs completed under the Township's OLD's Ordinance No. 04-2010 have been utilized to supplement previous data. The results indicate that current operation and maintenance of on-lot systems within these future needs areas is satisfactory. Exhibit III-1 – Analysis Summary provides a re-cap of the criteria evaluated in the identification of the needs areas used for establishment of the future service areas.

Area 4 – Pleasant Hill Area:
This area is mostly made up of residential lots of 0.30 to 0.55 acres and the majority of lots are served by public water provided by the York Water Company. The results of previous on-lot surveys and current on-lot inspections are summarized in the table below:

| | Future Sewer Area 4 | | |
|---|---|---|---|
| | Potential and/or known malfunctioning on-lot systems | Tier 1 Survey | Tier 2 Survey |
| Number of properties previously identified as potential and/or malfunctioning (2000) | 13 | 8 | 12 |
| Certifications of these on-lot system (per 2010 OLD's program) | 13 | 8 | 12 |
| Remaining systems for Township action | 0 | 0 | 0 |

In addition to the previously recorded malfunctions, known or potential, six (6) on lot disposal system investigations were performed as required by representative sampling requirements. No additional known or potential malfunctions were observed during these surveys.

In addition to on lot disposal system surveys, well water was tested for total and fecal coliform and nitrate levels. Results from previous testing and additional test are as follows:

| | Future Sewer Area 4 (Including Fuhrman Mill Road Area) | | | |
|---|---|---|---|---|
| | Number of Wells Sampled | Positive result for total fecal and coliform | Positive result for total coliform | elevated concentration (≥5 mg/L) of nitrate/nitrogen |
| Wells Sampled, Prevous Planning (2000) | 16 | 3 | 2 | 12 |
| Wells Sampled (2009) | 4 | 0 | 4 | 4 |
| Total | 20 | 3 | 6 | 16 |

Area 5 – Shorbs Hill Area:

This area extends from the Baltimore Pike west along Shorbs Hill Road and is served entirely by public water. Shorbs Hill Area consists mainly of small residential lots varying from 0.30 to 0.75 acres. The results of previous on-lot surveys and current on-lot inspections are summarized in the table below:

| | Future Sewer Area 5 | | |
|---|---|---|---|
| | Potential and/or known malfunctioning on-lot systems | Tier 1 Survey | Tier 2 Survey |
| Number of properties previously identified as potential and/or malfunctioning (2000) | 3 | 3 | 5 |
| Certifications of these on-lot system (per 2010 OLD's program) | 3 | 3 | 5 |
| Remaining systems for Township action | 0 | 0 | 0 |

One (1) additional on lot survey was required and yielded no known malfunctions.

This area is served entirely by a public water system. In addition to on lot disposal system surveys, well water was tested for total and fecal coliform and nitrate levels. Results from previous testing and additional test are as follows:

| | Future Sewer Area 5 | | | |
|---|---|---|---|---|
| | Number of Wells Sampled | Positive result for total fecal and collform | Positive result for total coliform | elevated concentration (≥5 mg/L) of nitrate/nitrogen |
| Wells Sampled, Prevous Planning (2000) | N/A | N/A | N/A | N/A |
| Wells Sampled (2009) | N/A | N/A | N/A | N/A |
| Total | N/A | N/A | N/A | N/A |

Area 6 – Fairview Drive Area:

This area extends from the Baltimore Pike west along Fairview in the northwest corner of the Township. A section of this area is served by public water and has small residential lots, ranging from 0.40 to 0.75 acres. The results of previous on-lot surveys and current on-lot inspections are summarized in the table below:

| | Future Sewer Area 6 | | |
|---|---|---|---|
| | Potential and/or known malfunctioning on-lot systems | Tier 1 Survey | Tier 2 Survey |
| Number of properties previously identified as potential and/or malfunctioning (2000) | 8 | 5 | 8 |
| Certifications of these on-lot system (per 2010 OLD's program) | 8 | 5 | 8 |
| Remaining systems for Township action | 0 | 0 | 0 |

Eleven (11) additional on lot surveys were performed as required by sampling rates. These surveys yield no known malfunctioning systems.

A portion of area 6 is served by private wells. This area is located near the Long Arm Dam Reservoir. Well water was tested for total and fecal coliform and nitrate levels in this area. Results from previous testing and additional test are as follows:

| | Future Sewer Area 6 | | | |
|---|---|---|---|---|
| | Number of Wells Sampled | Positive result for total fecal and coliform | Positive result for total coliform | elevated concentration (≥5 mg/L) of nitrate/nitrogen |
| Wells Sampled, Prevous Planning (2000) | 34 | 3 | 6 | 15 |
| Wells Sampled (2009) | 0 | 0 | 0 | 0 |
| Total | 34 | 3 | 6 | 15 |

The elevated nitrate/nitrogen levels are mostly a result of farming activities within this section of the Township.

Woodridge Hunt Area:

This area is located along the Baltimore Pike in the southern section of the township near the Mason-Dixon Line. This area consists of newly developed residential lots varying in size from 1.0 to 7.7 acres. These lots are served by a non-conventional on lot disposal systems consisting of elevated sand mounds in series with a denitrification unit. On lot surveys were conducted on 24 lots in order to retrieve a representative sample of the study area. No known malfunctions were detected during these surveys.

A total of 24 groundwater tests were collected in this area. Well water was tested for total and fecal coliform and nitrate levels in this area. Results from previous testing and additional test are as follows:

| | Woodridge Hunt Area | | | |
|---|---|---|---|---|
| | Number of Wells Sampled | Positive result for total fecal and coliform | Positive result for total coliform | elevated concentration (≥5 mg/L) of nitrate/nitrogen |
| Wells Sampled, Prevous Planning (2000) | 0 | 0 | 0 | 0 |
| Wells Sampled (2009) | 28 | 0 | 10 | 16 |
| Total | 28 | 0 | 10 | 16 |

Fuhrman Mill Road Area:

This area is located along Fuhrman Mill Road extending west of Area 4 near Pleasant Hill Road. A section of this area near Pleasant Hill Road is served by public water. This area consists of

varying sizes of residential lots with the average being nearly an acre. On lot system investigations were conducted on 22 residences in this area. No known malfunctioning systems were observed during the surveys; however, the average age of systems survey is 25 years.

Groundwater tests were also collected in the area served by private wells. Well water was tested for total and fecal coliform and nitrate levels in this area. Results from previous testing are as follows: five (5) residences tested positive for total coliform, and eight (8) residences tested positive for elevated concentration (≥5 mg/L) of nitrate/nitrogen.

The remaining area of the Township has not experienced widespread or concentrated on lot sewage system malfunctions. During the previous sewage planning update eight (8) well tests tested positive for fecal coliform bacteria, and 47 tests results tested positive for an elevated concentration (≥5 mg/L) of nitrate/nitrogen (50% of tests). In addition there were ten test results with nitrate/nitrogen concentrations of greater than 10 mg/L (10% of tests). It is possible that these elevated levels have been affected by the extensive farming activity that occurs in the Township.

It is recommended that the Fuhrman Mill Road Area and Area 4, specifically the Pleasant Hill Area, be monitored through the implementation of the OLD's program. These areas are densely populated with aging systems. Future service of this area could be provided through a conventional conveyance system with the possibility of a pumping system to convey wastewater to an existing wastewater treatment facility. Future consideration should also be provided to extending public water to the Fuhrman Mill Road Area as future development occurs within this area; this area falls within the service territory boundary for the York Water Company.

Area 5 and 6 should continue to be monitored through the implementation of the OLD's program. Future service of this area could be provided through a conventional conveyance system with the possibility of a pumping system to convey wastewater to an existing wastewater treatment facility.

The Woodridge Hunt Area is currently isolated away from existing and/or proposed public sanitary sewer. Consideration should be given to serving this area in through public sewer in the future or connection to a proposed private collection and treatment system. These options will be available as proposed development occurs in the proximity of this area. Consideration should also be provided to extending public water to this area as these developments occur; this area falls within the service territory boundary for the York Water Company.

### V.A.1. Regional WWTP

The Penn Township Waste Water Treatment Plant is a regional facility serving portions of Penn Township, West Manheim Township, and Hanover Borough. Penn Township has received input regarding the surrounding municipalities' planned growth as part of their continuing evaluation of the future needs of the Plant. Penn Township has been required to modify its existing plant to meet the NPDES permit limits established as part of the Chesapeake Bay initiative. The modifications required will incorporate the future needs of the contributing municipalities.

## V.A.2. Extension of facilities to areas of need or new development

West Manheim Township has evaluated two potential options for future extensions of conveyance facilities to the Needs areas as well as future development. Exhibit V-1 – Option 1: Gravity Sanitary Sewer Extension & Associated Pump Stations & Force Mains demonstrates the installation of gravity collection system and associated pump stations required to serve the Needs areas. Exhibit V-2 – Option II: Low Pressure Sanitary Sewer Extension with Portions of Gravity Sanitary Sewer demonstrates the installation of a low pressure sewer system required to serve the Needs areas. These systems, in conjunction with the surrounding proposed development, will allow for the existing residents in the service areas to be provided with a municipal collection system.

The Woodridge Hunt Area, due to the distance from existing and/or proposed municipal collection system has not been identified as a current area of sewer extension. The proposed Joshua Hill development would provide the necessary components for extension of a collection system to this area. Exhibit V-3 – Potential Wastewater Treatment Plant Options & Future Sewer Area Layout demonstrates the future extension of a gravity collection system from the Joshua Hill development to the area. The system proposed under the Joshua Hill development would remain in private ownership, regulated under the Public Utilities Commission (PUC), until such time the system is connected to the West Manheim Township collection system.

## V.A.3. Potential for continued use of sewage facilities

### a) Repair

West Manheim Township conveys all sewage to the Penn Township Waste Water Treatment Plant, therefore, the plan does not address repair to wastewater treatment facilities.

The West Manheim Township collection and conveyance facilities are relatively new, with the original construction beginning in 2000. Therefore, minimal repair to existing facilities is required. All pump stations are checked daily to ensure proper operation, and routine maintenance is performed at each station. The township performs visual inspection and televised inspection of the collection system to detect areas of inflow/infiltration (I/I) and deterioration of main, laterals and manholes. The Township has implemented a manhole rehabilitation program, primarily consisting of manhole lining to address deterioration downstream of the existing force main discharges. Areas of I/I, upon discovery, are evaluated and fixed through the appropriate means for each application (manhole inserts, hydraulic grouting/injection, installation of clay dikes, etc.).

### b) Upgrading

Penn Township is currently under design/construction of the required improvements to meet the new NPDES permit requirements issued as a result of the Chesapeake Bay initiative. The required modifications are established in their current revision of the Penn Township Act 537 Plan, and shown on Exhibit III-10 – Wastewater Treatment Facility Improvements: Penn Township – New Structure/Piping Plan. In addition to the treatment plant upgrades, Penn Township is responsible for completing the improvements identified in the Corrective Action

Plan (See appendix III-1). All Penn Township upgrades have been designed to accommodate the future sewage flows from West Manheim Township.

The extension of a municipal collection and conveyance system, as shown in Exhibit V-1 – Option 1: Gravity Sanitary Sewer Extension & Associated Pump Stations & Force Mains, will impact portions of the existing conveyance system. The impacts and required upgrades resulting from the proposed service areas to limiting components of the municipal sewage system are summarized below.

Area 3 Interceptor

Public sewer service Area 4 will connect to an extension of the Area 3 Interceptor. Public sewer Area 5 will also be conveyed through a portion of the Area 3 gravity collection system to the interceptor. The Area 3 Interceptor, as shown in the Water Quality Permit No. 3703406, was designed and constructed a s a 10" diameter PVC main to accommodate the service area and anticipated surrounding development. Design of the pump stations required to serve Area 4 and 5 will be coordinated to ensure the interceptor does not experience a surcharge. Therefore, no upgrades will be required to serve the needs areas identified in this plan. Additional development in the surrounding area, beyond the projected development, will require an additional evaluation of the interceptor's capacity.

Beck Mill Pump Station

Public sewer Service Area 6 will connect to the Beck Mill Pump Station. The Beck Mill Pump Station, as permitted under Water Quality Permit No. 6703403, is designed and permitted at 315 gpm. Based upon existing and projected flows, the pump station has adequate capacity to handle the proposed service area. Increase in flows in the future may be handled through the change of impellers.

DGM Interceptor

The DGM interceptor, with the construction of area 2 and 3, was upgraded (from the connection point of the Area 3 Interceptor) to an 18" diameter PVC main to accommodate the anticipated flows. Area 4 and 5 have been accommodated through this upgrade as described above in the Area 3 Interceptor section. Area 6, as conveyed by the Beck Mill Pump Station, will not result in an increased flow to the DGM Interceptor. Should a modification in the Beck Mill Pump Station (as described above) or development beyond the anticipated projections occur, the capacity of the interceptor will be re-evaluated.

DGM Pump Station

All sewage flows in West Manheim Township are conveyed to the DGM Pump Station. The DGM Pump Station, as permitted under WQM Permit No. 6703403, is permitted for 1,000 gpm with an impeller change. This modification will handle the projected average daily flow, however, will not meet the peak demand per DEP regulations. In addition, the storage capacity available at the pump station is not sufficient for these flows, resulting in an increased amount of pump cycles. Therefore, the financial evaluation contained in Section VI, considers the installation of a new pump station at this location.

**c) Reduction of hydraulic of organic loading to existing facilities**

The West Manheim Township collection and conveyance facilities currently serve predominantly residential customers and some commercial facilities. Therefore, there is not a large organic loading contributed to the Penn Township WWTP. West Manheim Township has enacted Penn Township's standards for pre-treatment requirements, thereby minimizing the organic loading of future industrial development.

Hydraulic loading is monitored through the Township's I/I program and continuing maintenance described in Section V.A.3.a. In addition to the I/I program, the hydraulic loading may be reduced through public education and water conservation measures as described in Section V.B.4.c.

**d) Improved operation and maintenance**

West Manheim Township is responsible for the operation and maintenance of all collection and conveyance facilities located within the Township. The Township currently employs staff to operate and maintain the facilities through the public works department. Major repairs and televising are currently contracted due to the expenses associated with training and specialty equipment. The Township should continue to develop and strengthen the inter-municipal relationship with Penn Township, allowing for the sharing of resources for operation and maintenance. Through this relationship, joint bids for maintenance items, such as manhole lining and televising, may be received by the municipalities to help reduce costs.

**e) Other applicable actions that will resolve or abate the identified problems**

All identified malfunctioning systems identified are proposed to be served through the extension of the existing municipal sanitary sewer system. The current Zoning Ordinance and proposed Subdivision and Land Development Ordinance will provide an added means for ensuring proper sewer facilities are provided for future development. In addition to these actions, the Township established an OLD's program for all properties not served by public sewer.

### V.A.4. Repair or replacement of existing collection or conveyance system components

The Township, as described above in Section V.A.3, operates, maintains, and repairs the existing system effectively. Due to the age of the system, no known areas of replacement have been identified, excluding the upgrades required to serve the Needs areas.

### V.A.5. The Need for the construction of a new community sewage systems including sewer systems and/or treatment facilities

Section III of this plan identifies three future areas of need to be served by public sewer: Area 4 (including Fuhrman Mill Road), Area 5, and Area 6. The plan calls for these areas to continue under operation, maintenance and inspection under the OLD's program. The Woodridge Hunt This area has been identified for continued operation under the OLD's program, with the future potential for extension of public sewer. Section V.A.2 demonstrates the available alternatives for extending public sewer to these areas.

West Manheim Township has considered three potential options for waste water treatment. Exhibit V-3 – Potential Wastewater Treatment Plant Options & Future Sewer Area Layout demonstrates three options: 1) conveyance to Penn Township WWTP, 2) construction of a West Manheim Township WWTP, 3) conveyance to Joshua Hill WWWTP. The development titled Joshua Hill Farm (Planning Code No. C3-67964-176-3) proposes a private package plant to serve the development and surrounding areas. This system will also allow for the future connection of the Woodridge Hunt as subsequent plan updates or system failure require. The planning module, as approved by the PA DEP, requires the future elimination of the treatment plant as a viable municipal system is available in the area. The package plant would be designed to allow for the conversion to a pump station, allowing connection to the municipal system at such time (pending treatment capacity at the selected alternative). The alternative analysis provided herein considers the Penn Township and West Manheim WWTP options as the viable options for serving the identified needs areas.

### V.A.6. Use of innovative/alternative methods of collection/conveyance to serve needs areas using existing wastewater treatment facilities

In accordance with the PA DEP Guidelines, four alternative methods for collection/conveyance have been examined to convey sewage from the needs area to the Penn Township WWTP. The alternatives are summarized below:

Small Diameter Gravity Sewers:
Small diameter variable grade sewers utilize individual septic tanks to remove solids prior to discharge of the sewage into the gravity sewer system. Sewer pipes can be downsized due to the solid reduction and pipe slopes can be flattened. Cleanouts are utilized instead of manholes for flushing.

This alternative is feasible in the areas where OLDS are in a good working condition. If OLDS are not in good condition it may become a financial burden for the residents to install a new septic tank and connect into the system. Cost-savings are provided in the construction costs in relation to traditional collection and conveyance systems.

The age of several homes and on-lot systems within the needs areas would require extensive improvements by the property owners for this alternative. Additional costs are then associated with routine pumping of the septic tank. Based upon these increased costs to the property owners, this alternative has not been considered in the financial analysis.

Septic Tank Effluent Pump (STEP) Pressure Systems:
STEP pressure systems provide a sewerage solution for low density housing where terrain is undulating with a relatively high relief, or in highly densely populated areas where difficult construction or right-of-way conditions exist. STEP pressure systems are similar to small diameter gravity sewers whereas the existing septic tank is utilized as a settling tank however a pump assembly or a grinder pump assembly is used to convey the wastewater to a "collection system".

This alternative is feasible in portions of several sewer areas, however, the age of several homes and on-lot systems within the needs areas would require extensive improvements by the property

owners for this alternative. A grinder pump or a pump assembly will be utilized rather than construction extremely deep sanitary sewer mains to provide gravity service. For the purpose of the financial analysis, this alternative is considered as a portion of the low pressure sewer alternative.

Vacuum Sewers:
Vacuum sewers utilize a central vacuum station to transport wastewater from residences into a force main. The wastewater exits the house into a valve pit which opens once a predetermined volume collects and is transported to the vacuum station in a collection tank where sewage pumps transport the wastewater to a treatment facility. This alternative most suited to areas that are densely populated and have moderate terrain changes.

This alternative is not feasible due to the changes in topography throughout the township.

Variable Grade Sewers:
These systems collects septic wastewater in small diameter mains laid at grades which follow the terrain. Parts of the line remain full at all times and act as inverted siphons to convey septage to centralized pumping stations. In addition to a septic tank, dwellings in low lying areas may require collection tanks equipped with a pump to discharge into the main.

This is a feasible method to connect additional areas into the existing collection and conveyance system to Penn Township Wastewater Treatment Plant. Additional engineering would need to be provided to analyze the hydraulic loading on the entire variable grade system, but construction costs will decrease as a result of less excavation and smaller diameter mains. Due to the overall topography of the needs areas, this alternative has not been considered in the financial analysis.

### V.B. The use of individual sewage disposal systems including individual residential spray irrigation systems

Permitting of on lot disposal systems is subject to PA DEP regulations, which take into account soil suitability, slope, and proximity of potable water source. In addition to these regulations, West Manheim Township controls the installation of on-lot disposal systems through the Zoning Ordinance and Subdivision and Land Development Ordinance. These Ordinances assist in providing adequate regulations for lot sizes, location of on-lot systems, land uses, and review of nitrates through a hydrogelogic analysis.

### V.B.1. Soil and slope suitability

As shown on Exhibit II-9 – Soils and Slopes Unsuitable for On-Lot Disposal Systems, approximately 25% of the Township appears to be unsuitable for any type of on lot sewage system. This determination was based upon a review of the soil limitations enumerated by the York County Soil Survey for soils found in the Township and the siting and placement requirements for on lot sewage systems as promulgated by PA DEP. The following list of exhibits shows soils that are potentially suitable for a variety of on-lot disposal systems:

- Exhibit II-6 – Soils Suitable for Conventional In-Ground and Elevated Sand Mounds;
- Exhibit II-7 – Soils Suitable for Only Elevated Sand Mounds;
- Exhibit II-8 – Soils Suitable for Spray Irrigation Systems.

### V.B.2. Preliminary hydrogeologic evaluation

Well water testing for the Sanitary Sewer Study Areas has been conducted by Analytical Laboratory Services, Inc (ALSI). ASLI is a National Environmental Laboratory Accreditation Conference (NELAC) accredited laboratory. Tests were completed for nitrate/nitrogen levels, total and fecal coliform levels, and a few tests for presence of ecoli.

In addition to these tests, the tests completed in the previous Act 537 Plan Update have been included in the analysis. Exhibit II-15 – Total and Fecal Coliform, and Exhibit II-16 – Nitrates map the results of all of the well samplings completed. These exhibits demonstrate several areas with high levels of nitrates and/or coliform. In accordance with PA DEP regulations, a hydrogeologic study is required for the installation of on-lot systems within these strained areas to determine the lot area required to sufficiently treat the wastewater generated on each lot. The Township, as part of the proposed Subdivision and Land Development Ordinance, requires a hydrogeologic study to be completed for all developments proposing on-lot systems.

### V.B.3. The establishment of a sewage management program

During the course of this plan update, in consultation with the Pennsylvania Department of Environmental Protection, the Township requested an amendment to the Task Activity Report (TAR). This request allowed the Township to adopt the West Manheim Township Ordinance No. 04-2010, OLDS Management Ordinance, amending the existing Ordinance. This Ordinance provided the following: established all areas not served by public sewer as an OLD's District; provided procedures for notification by Township; required inspection and certification by the Township SEO. With the enhanced OLD's program, the Township has gathered sufficient data to demonstrate that continued operation and maintenance of on-lot disposal systems meets the current needs of the Township.

West Manheim Township, since the adoption of this Ordinance, has actively targeted systems within the previously identified Needs areas. The inspection and certification of the on-lot systems have been used to supplement previous planning surveys and are summarized in the tables below:

| | Future Sewer Area 4 | | |
|---|---|---|---|
| | Potential and/or known malfunctioning on-lot systems | Tier 1 Survey | Tier 2 Survey |
| Number of properties previously identified as potential and/or malfunctioning (2000) | 13 | 8 | 12 |
| Certifications of these on-lot system (per 2010 OLD's program) | 13 | 8 | 12 |
| Remaining systems for Township action | 0 | 0 | 0 |

| | Future Sewer Area 5 | | |
|---|---|---|---|
| | Potential and/or known malfunctioning on-lot systems | Tier 1 Survey | Tier 2 Survey |
| Number of properties previously identified as potential and/or malfunctioning (2000) | 3 | 3 | 5 |
| Certifications of these on-lot system (per 2010 OLD's program) | 3 | 3 | 5 |
| Remaining systems for Township action | 0 | 0 | 0 |

| | Future Sewer Area 6 | | |
|---|---|---|---|
| | Potential and/or known malfunctioning on-lot systems | Tier 1 Survey | Tier 2 Survey |
| Number of properties previously identified as potential and/or malfunctioning (2000) | 8 | 5 | 8 |
| Certifications of these on-lot system (per 2010 OLD's program) | 8 | 5 | 8 |
| Remaining systems for Township action | 0 | 0 | 0 |

Documentation of the on-lot system inspections is provided in Appendix III-5, and summarized on Exhibit III-7. All systems identified have been certified to be working in proper condition.

### V.B.4. The repair, replacement or upgrading of existing malfunctioning systems in areas suitable for on-lot disposal

Through the enforcement of West Manheim Township Ordinance No. 04-2010, OLDS Management Ordinance, the Township has identified and repaired systems where applicable. The repairs completed under this program range from minor repairs to system replacement. Repairs completed under the new OLD's program are summarized in Exhibit III-8.

#### a) Existing technology and sizing requirements of Title 25 Chapter 73

Modifications to existing on-lot systems may be enhanced by modification of the water source and/or on-lot system. The existing technologies available for existing on-lot systems are generally restricted by the existing lot sizes.

Well modification may include any of the following:

- Well Casing
- New Well Drilling
- Well Disinfection
- Ultraviolet Disinfection at the service line

OLDS modifications may include any the following:

- Replacement (dependent on site conditions)
- Small Flow Treatment Facilities to serve existing homes
- Shared System (two homes on one system)

**b) Use of expanded absorption areas or alternating absorption areas**

If lot size and well location permits the addition of an absorption area or increasing the existing absorption area will promote better filtration throughout the site. An alternating absorption field can be controlled by utilizing a valve to cycle flows to different areas. This will allow one area to clean rebound while the other area is in use. Expanded absorption areas spread sewerage over a larger area which allows for the received soils to filter a smaller quantity of waste water. Both of these options will promote soil filtration longevity and extend the life of an OLDS.

**c) Use of water conservation devices**

Water conservation devices are not required by Township policy. These devices will reduce the amount of wastewater entering an OLDS. Utilizing these devices is good practice, but they do not have a large impact on an OLDS. Installing these devices on a hydraulically overloaded or malfunctioning system will provided improvements.

## V.C. The use of small flow sewage treatment facilities or package treatment facilities to serve individual homes or clusters of homes

The use of small flow sewage treatment facility (less than 2000 gpd) involves either stream discharge of treated effluent or discharge to the surface of the ground. A small flow sewage treatment plant would serve no more than six (6) dwellings at 300 gpd/EDU. In order to prevent unplanned expansion of development, small flow treatment facilities should be restricted to uses where PA DEP or the Township determines it necessary to abate an existing nuisance or public health hazard where no public sewer system is available.

### V.C.1. Treatment and discharge requirements

A Small Flow Treatment Facility must be capable of continuously producing a suitable effluent of <10mg/L $BOD_5$ and Total Suspended Suspended Solids (TSS) without causing water pollution or public health hazards.

### V.C.2. Soil Suitability

The discharge of treated effluent from small flow sewage treatment facilities or package treatment facilities may be accomplished through land application. Generally, soils suitable for spray irrigation are also suitable for this application, see Exhibit II-8 – Soils Suitable for Spray Irrigation Systems.

### V.C.3. Preliminary hydrogeologic evaluation

Exhibit II-15 – Total and Fecal Coliform, and Exhibit II-16 – Nitrates map the results of all of the well samplings completed within the Township. These exhibits demonstrate several areas with

high levels of nitrates and/or coliform. The area required for land application or surface water discharge limits established under the PA DEP guidelines, as a result of these elevated readings, limits the applicability of flow sewage treatment facilities or package treatment facilities.

### V.C.4. Municipal, Local, Agency or other controls over operation and maintenance requirements through a sewage management program

No small flow treatment facilities are located within West Manheim Township or have been identified based on the needs study. If a small flow treatment facility is a feasible application within the municipal boundaries it must be in compliance with the Commonwealth's regulations regarding design, installation, operation, and maintenance.

## V.D. The use of community land disposal alternatives

There are currently no land disposal facilities within West Manheim Township. The most common and applicable means of land disposal is spray irrigation.

### V.D.1. Soil and site suitability

Exhibit II-8 – Soils Suitable for Spray Irrigation Systems is representative of the soils within the Township that are suitable for land disposal alternatives.

### V.D.2. Preliminary hydrogeologic evaluation

Exhibit II-15 – Total and Fecal Coliform, and Exhibit II-16 – Nitrates map the results of all of the well samplings completed within the Township. These exhibits demonstrate several areas with high levels of nitrates and/or coliform. The area required for land application established under the PA DEP guidelines, as a result of these elevated readings, limits the applicability of land application alternatives.

### V.D.3. Municipal, Local, Agency or other controls over operation and maintenance requirements through a sewage management program

No land application alternative facilities are located within West Manheim Township or have been identified based on the needs study. If such an alternative is determined to be feasible in the future, it must be in compliance with the Commonwealth's regulations regarding design, installation, operation, and maintenance.

### V.D.4. The rehabilitation or replacement of existing malfunctioning community land disposal systems

There is no known land application alternative facility in West Manheim Township. Design and permitting of such facility in the future would provide sufficient area for a replacement system.

### V.E. The use of retaining tank alternatives on a temporary or permanent basis

West Manheim Township has adopted Ordinance 05-2010, Holding Tank Ordinance, to allow for the correction of malfunctioning systems in the future.

### V.E.1. Commercial, residential and industrial use

Retaining tanks are generally permitted where a public sewer system is anticipated to be available in the near future. All development within the primary growth area (area of concentrated residential development, commercial and industrial development) is scheduled to be served by public sewer under this plan. Therefore, the installation of retaining tanks may only be necessary for an existing residential on-lot system which is malfunctioning. The Township SEO is delegated with determining the appropriate remediation.

### V.E.2. Designated conveyance facilities

All pumping of retaining tanks would be required to be performed by a certified hauler under the Commonwealth of Pennsylvania. Provisions for certification to the Township would be implemented through a Retaining Tank Ordinance.

### V.E.3. Designated treatment facilities or disposal site

Septage generated from retaining tanks would be disposed of in the same means as septage currently generated by pump-out of existing on-lot systems, see Section III.C.3.

### V.E.4. Implementation of retaining tank ordinance by the municipality

West Manheim Township has adopted Ordinance 05-2010, Holding Tank Ordinance, see Appendix V-1.

### V.E.5. Financial guarantees when retaining tanks are used as an interim sewage disposal measure

Any owner proposing a temporary holding tank must conform to the Holding Tank Ordinance; which states the bonding requirements to ensure proper installation, service, maintenance, and pumping for the holding tank(s). As part of the approval of such system, public improvement security shall be furnished to ensure connection to a public sewer system.

### V.F. Sewage management programs to assure the operation and maintenance of existing and proposed sewage facilities

Township sewage management programs involve the institution of increased local government controls that primarily focus on the operation and maintenance of private on-lot sewer disposal systems (OLDS) and other sanitary sewer facilities. These programs may take the form of ordinances requiring periodic inspections, periodic pumping and proper disposal of sludge and septic tank contents. This Act 537 Plan Update analyzed the implementation of a revised On-lot Management Program.

**V.F.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**

West Manheim Township currently owns and operates all public sewer facilities within the Township. The township adopted Ordinance No. 04-210, An Ordinance of the Board of Supervisors of West Manheim Township Governing Municipal Management of On-Lot Subsurface Sewage Disposal Facilities (OLDS Ordinance). This ordinance's purpose is to provide for the inspection, maintenance and rehabilitation of on-lot sewage disposal systems; to further permit the Township to intervene in situations which are public nuisances or hazards to the public health; and to establish penalties and appeal procedures necessary for the proper administration of a sewage management program, perform inspection and certification by the Township SEO. A copy of this ordinance has been provided in Appendix III-2.

**V.F.2. Required inspection of sewage disposal systems on a schedule established by the municipality**

West Manheim Township Ordinance No. 04-2010 requires systems to be pumped and then inspected by the Township SEO once every four years. The inspections and certified systems completed since the adoption of this Ordinance are summarized in Exhibit III-7.

**V.F.3. Required maintenance of sewage disposal systems including septic and aerobic treatment tanks and other system components on a schedule established by the municipality**

The Township shall notify all property owners of properties served by OLDs that their system must be pumped by the end of each calendar year listed within the letter. Commencing from the date of pumping, removal of septage or other solids from treatment tanks shall be performed at least once every four years thereafter. The applicant shall bear the cost of any inspection and any soil or waste sampling conducted.

The owner of a property upon which an on-lot system is constructed shall, at all times, operate and maintain the OLDs in such a condition as will permit it to function in the manner in which it was designed and to prevent the unlawful discharge of sewage.

**V.F.4 Repair, replacement or upgrading of malfunctioning on-lot sewage systems**

Any OLDs or component thereof found to be malfunctioning shall be repaired, modified or replaced pursuant to the direction of the Township and Township SEO as authorized by permit. The rehabilitation shall be performed in accordance with "Chapter 73, Standards for Sewage Disposal Facilities" of Title 25, Rules and Regulations, PA DEP.

**a) Aggressive pro-active enforcement of ordinances that require operation and maintenance and prohibit malfunctioning systems**

West Manheim Township has demonstrated a pro-active role in the enforcement of Ordinance No. 04-2010 to address the continued operation of all systems (see Exhibit III-7) to address existing malfunctions/repairs (See Exhibit III-8). The Township, and its authorized

representatives, has the authority under the Commonwealth of Pennsylvania to strictly enforce the ordinances as adopted. The previous extension of public sewer, mandatory connection ordinance, and OLD's Ordinance require strict enforcement by the Township for a successful sewer management program. The Township, as described in Section VII, has the proper institutional organization to ensure compliance with the sewage management program.

**b) Public education programs to encourage proper operation and repair of sewage disposal systems**

The Township has several resources available to provide public education and informational literature. The Township, through the mailing of the OLD's management notification letter, will be available to notify and distribute educational material. Additional information and resources are distributed by the Township as necessary during the OLD's inspection. Additional material may be distributed through the Township's newsletter and web-site.

### V.F.5. Establishment of joint municipal sewage management programs

West Manheim Township currently does not have a joint sewage management program. However, a joint sewage management program with Penn Township may be feasible in the future. Both municipalities should monitor the staffing requirements needed to enforce the sewage management program to determine if an inter-municipal program would be beneficial. Therefore, this option was not evaluated as part of this Act 537 Plan Update and should be reevaluated in the future.

### V.F. 6. Requirements for bonding, escrow accounts, management agencies or associations to assure operation and maintenance for non-municipal facilities

West Manheim Township has not pursued the adoption of an ordinance regulating the operation and maintenance of non-municipal treatment and collection facilities. However, adequate power exists under the Municipalities Planning Code (MPC), and Township Subdivision and Land Development Ordinance to require appropriate agreements and bonding to be executed. The Joshua Hill development exemplifies a non-municipal system, for which such draft agreements have been prepared (see Appendix V-2). This type of system will require an operation company, which will be regulated by the Public Utilities Commission (PUC).

## V.G. Non-structural comprehensive planning alternatives that can be undertaken to assist in meeting existing and future sewage disposal needs

West Manheim Township is a second class township under the regulations of the Commonwealth of Pennsylvania. Whereby, they are governed by the Second Class Township Code and Municipalities Planning Code with respect to implementing ordinances and regulations.

### V.G.1 Modifications of existing comprehensive plans

West Manheim Township is governed by the York County Comprehensive Plan. In addition to this plan, West Manheim Township has adopted its own comprehensive plan, which has been approved for consistency with the County Plan by the York County Planning Commission.

West Manheim Township approved the West Manheim Township Comprehensive Plan on April 26, 2005, and approved amendments to this plan on September 3, 2009. Chapter 9: Community Facility Plan, Sanitary Sewer Service subsection defines the mission of West Manheim Township to provide affordable public sanitary sewer service within the primary growth boundary as shown on Exhibit IV-2 – Future Land Use/Primary Growth & Rural Areas.

The specific study areas in this update are included within the primary growth boundary except Woodridge Hunt and a few properties in the Fuhrman Mill Road study area. However they are included within the Community Facilities & Utilities Map, shown on Exhibit IV-5.

### V.G.2. Consideration of a local comprehensive plan to assist in producing sound economic and consistent land development

See Section V.G.1.

### V.G.3. Alternatives for creating or changing municipal subdivision regulations to assure long-term use of on-site sewage disposal that consider lot sizes and protection of replacement areas

West Manheim Township adopted a Zoning Ordinance update in July 2007, as amended September 2009. The Zoning Ordinance, as described in Section IV, provides for a Primary Growth Area (PGA) and Rural Growth Area (RGA). The PGA is to be served by the public sewer system, while the RGA provides for the use of on-lot systems. In addition to the larger lot-sizes and other standards defined in the Zoning Ordinance, West Manheim Township updated their Subdivision and Land Development Ordinance in June 2011. This ordinance provides additional regulations, such as the requirement for a hydrogeolgic evaluation, to ensure proper design and construction of on-lot sewage disposal facilities.

### V.G.4. Evaluation of local agency programs and the need for technical or administrative training

West Manheim Township is a municipality regulated under the Second Class Township Code under the regulations of the Commonwealth of Pennsylvania. The Township is regulated by a Board of Supervisor's, whom are elected for a term of six years. The Township employees several full-time staff including: Manager, Secretary, Building/Codes Enforcement Officer, Public Works Department, Utilities Department and support staff. The utilities department is responsible for the operation and maintenance of the Township's sanitary sewer system, as well as enforcement of the OLDS Ordinance. The utilities manger is the licensed operator for the sanitary sewer system in West Manheim Township. The Township retains consulting firms for its Sewage Enforcement Officer and Township Engineer. These consultants are responsible for the technical evaluation of plans, and existing lots for conformity with all PA DEP regulations and local Ordinances. Therefore, this plan does not identify any technical or administrative needs beyond usual training seminars to stay current on new technologies and/or procedures.

## V.H. No-action alternative which includes discussion of both short term and long-term impacts

The no-action alternative means that the current methods of handling wastewater will extend into the future with no anticipated changes. With the exception to those residents served by the West Manheim Township Sewer System and The York Water Company, the majority of Township residents utilize private wells and on-lot sewage disposal systems (OLDS). The inspection and certification of existing OLD's, as summarized in Exhibit III-7, demonstrates the viability for continued operation of these systems.

### V.H.1. Water quality/public health

The short term effects of the no-action alternative would not have a positive impact on water quality and public health. As identified on Exhibit II-15 – Total and Fecal Coliform, and Exhibit II-16 – Nitrates, several wells outside of the public utilities (sewer and water) have experienced elevated readings. With no action, these areas will continue to experience grater loadings and more potential contamination to ground water. Implementation of the OLD's Ordinance, inspection and certification has helped to ensure proper operation of OLD's.

The long term effect of the no-action alternative would not have a positive impact to the overall water quality and public health within the Township. Planning measures identified in Section 4, will help ensure that future OLD's do not adversely impact these resources.

### V.H.2. Growth potential

The no-action alternative is not consistent with the West Manheim Township Comprehensive Plan, Zoning Ordinance and Subdivision and Land Development Ordinance. These ordinances require the Primary Growth Area (PGA) to be served by public utilities (sewer and water). The Township currently has several plans on file within the PGA which include the extension of public utilities to serve the developments. Development would still be permitted in the Rural Growth Area (RGA) through the provisions of on-lot systems.

The no-action alternative, in the short term duration, would not result in an increase or decrease in the potential for growth due to the number of planned developments existing in the Township. The alternative would minimize future development potential in the PGA.

### V.H.3. Community economic conditions

The West Manheim Township economy currently consists primarily of a residential tax base, with some commercial properties. The Township has provided for additional commercial/industrial development through its Comprehensive Plan to provide for a balanced tax basis. The no-action alternative would prohibit the expansion of this growth within the Township, as these types of uses generally require public utilities. Therefore, no short or long term benefit is realized by the no-action alternative for the economic condition in the Township.

### V.H.4. Recreational opportunities

Developments within West Manheim Township are required to provide recreational facilities or a fee in lieu, as required by the Subdivision and Land Development Ordinance. Fees generated by the recreational fee are currently used for the development of a community park within West Manheim Township.

As described in Section V.H.2, several planned development are on file with the Township. Theses developments will be required to pay the recreation fee prior to final plan approval. Therefore, no short-term adverse effect will be experience through the implementation of the no-action alternative. However, this alternative will minimize future growth, including commercial development, and thereby reduce the fees received by the Township. This will result in a long-term decrease in funds available to the Township for recreational opportunities, including expansion of the park and operation and maintenance.

### V.H.5. Drinking water source

The residents in West Manheim Township, outside of the public water system, are served through on-lot wells. The Township also contains two reservoirs, from which the Hanover Borough Water Authority draws water to serve its customers. These drinking water sources are subject to several means of contamination, including malfunctioning OLDS.

The short term effects of the no-action alternative would not have a positive impact on water quality of these drinking water sources. As identified on Exhibit II-15 – Total and Fecal Coliform, and Exhibit II-16 – Nitrates, several wells outside of the public utilities (sewer and water) have experienced elevated readings. The continued enforcement of the OLD's Ordinance will help to ensure proper operation and maintenance to minimize future contamination.

### V.H.6. Other environmental concerns

This plan identifies other environmental features such as wetlands and other watercourses. The no-action alternative does not result in any direct impact, such earth disturbance in these areas. However, the alternative provides for continued short and long term pollution to these features by loadings from OLDS. Therefore, the alternative is considered to have a slight effect on the other environmental features within the Township.

# SECTION VI – EVALUATION OF ALTERNATIVES

## VI.A. Consistency Determinations

The alternatives of a future sewer collection system for each of the five service areas, continued implementation of revised On-lot Disposal System Ordinance, a new Publicly Owned Treatment Works Plant, a new Privately Owned Treatment Works Plant, and sending sewage to the Penn Township Wastewater Treatment Plant were evaluated for consistency with various programs. A matrix of options and their consistency determination is summarized in Table VI-1: Consistency Determination for Technically Feasible Alternatives.

**Table VI-1: Consistency Determination for Technically Feasible Alternatives**

| Consistency Evaluation | West Manheim Township WWTP | Penn Township WWTP | Private WWTP | Area 4 Sanitary Sewer | Area 5 Sanitary Sewer | Area 6 Sanitary Sewer | Fuhrman Mill Road Sanitary Sewer | Woodridge Hunt Sanitary Sewer | OLDS |
|---|---|---|---|---|---|---|---|---|---|
| Clean Streams Law | Consistent | | | | | | | | |
| Wasteload Mgt. Report (Ch.94) | N/A | | | | | | | | |
| Clean Water Act | Consistent | | (1) | Consistent | | | | | |
| Township Comprehensive Plan | Consistent | | | | | | | | |
| Antidegredation Requirements | Consistent | | | | | | | | |
| State Water Plan | Consistent | | | | | | | | |
| Prime Agricultural Land Policy | Consistent | | | | | | | | |
| County Stormwater Mgt. Plan | Consistent | | | | | | | | |
| Wetlands Protection | Consistent | | | (2) | | | | | Consistent |
| PNDI | Consistent | | | | | | | | |
| PHMC | (3) | Consistent | (3) | | | | | | |

Notes:
N/A – Not Applicable
(1) – Special exception would be required
(2) – May Impact wetlands along streams
(3) – A phase I survey would be required

### VI.A.1. Applicable Plans Developed and Approved Under Section 4 and 5 of the Clean Streams Law or Section 208 of the Clean Water Act

Continued use of OLD's and all proposed future sanitary sewer extensions and/or treatment options will be in compliance with the Clean Streams Law. During the design phase of these projects, Pennsylvania Department of Environmental Protection (PA DEP) Water Quality Management Permits will be secured for those projects involving more than 250 EDU's, pump stations/force mains, or interceptor facilities.

### VI.A.2. Municipal Wasteload Management Corrective Action Plans or Annual Reports

West Manheim Township's Annual Municipal Wasteload Report (Chapter 94 Report) consists of a partial report which is submitted in Penn Township's annual report. The proposed sanitary sewer project extensions are consistent with the Chapter 94 Report, and future projections are included in Chapter 94 Report.

### VI.A.3. Plans Developed Under Title II of the Clean Water Act or Titles II and VI of the Water Quality Act of 1987

Continued use of OLD's and the proposed future sanitary sewer extension projects would be in compliance with Title II of the Clean Water Act and Title IV of the Water Quality Act of 1987.

### VI.A.4. Comprehensive Plans Developed Under the Municipalities Planning Code

Continued use of OLD's and all proposed future sanitary sewer extensions are consistent with the West Manheim Township and York County Comprehensive Plans.

### VI.A.5. Antidegradation Requirements as Contained in PA Code, Title 25, Chapters 93, 95 and 102

Continued use of OLD's and all proposed future sanitary sewer extension projects will be in compliance with the Pennsylvania Code; Title 25: Chapters 93, 95, and 102. During the design phase of these projects, soil erosion and sedimentation control plans and NPDES permit will be submitted to the York County Conservation District/PA DEP for review and approval.

### VI.A.6. State Water Plans Developed Under the Water Resource Planning Act

Continued use of OLD's and all proposed future sanitary sewer extension projects are in compliance with the Water Resources Planning Act.

### VI.A.7. Pennsylvania Prime Agricultural Land Policy Contained in Title 4 of the Pennsylvania Code, Chapter 7, Subchapter W.

None of the proposed future sanitary sewer extension projects cross properties identified in the West Manheim Township Agricultural Security Area. Portions of the proposed projects are located in Class I, II, and III Prime Agricultural Soils, as shown on Exhibit II-10 – Prime Farmland. However, lands within the project areas are not currently being utilized for agricultural use; therefore, no adverse effects to prime agricultural land result from the proposed future sanitary sewer extensions.

### VI.A.8. County Storm Water Management Plans Approved by DEP Under the Storm Water Management Act

None of the proposed future sanitary sewer extension projects would adversely impact the existing storm water management recommendations in the Water Resources Plan section of the York County Comprehensive Plan.

### VI.A.9. Wetland Protection

The proposed future sanitary sewer extensions are located along waterways and may potentially conflict with existing wetlands. These conflicts will be reviewed during the design phase with the PA DEP and United States Army Corps of Engineers officials to minimize or negate adverse impacts. In addition, the appropriate PA DEP General Permits will be obtained for all projects.

### VI.A.10. Protection of Rare, Endangered, or Threatened Plant and Animal Species as Identified by the Pennsylvania Natural Diversity Inventory (PNDI)

A Pennsylvania Natural Diversity Inventory (PNDI) Search Form was submitted for the areas of proposed future sanitary sewer extensions. A copy of the PNDI search and letters of "no impact" are included in the Consistency Documentation section.

### VI.A.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

The Pennsylvania Historical and Museum Commission (PHMC) completed a review of the planning areas; see Consistency Documentation section.

## VI.B. Inconsistency Resolutions

(1) Special Exception Required

The West Manheim Township Comprehensive Plan does not project any privately owned and operated treatment facilities within the township. A special exception would need to be obtained from the Township in order to implement this solution.

(2) Wetland Disturbance

All projected future service areas contain streams. The soils adjacent streams usually contain either hydric inclusions or hydric components; which are indicative of wetland. Based upon final layout and alignment of collection and conveyance systems, a detailed field investigation will be required to determine if wetlands are present within the limits of disturbance for the projected sanitary sewer systems. A detailed study would need to be completed if the wetlands are present and to determine if there is impact to any rare, endangered or threatened plant and animal species (i.e. Bog Turtle).

(3) Phase I Survey

A detailed report will need to be submitted to the Pennsylvania Historical and Museum Commission prior to construction of any sanitary sewer systems or treatment facilities if it is determined that the area being disturbed has historical or archeological significance a detailed report will need to be conducted. A cultural resource notification is required during the submission of the required Water Quality Management – Part II application, which includes identification of such resources. Concurrence of this resolution is provided in the PHMC Correspondence described in Section VI.A.11.

The Pleasant Hill Area is a specific area of historical interest. This area of the Township was one of the first places of settlement. It is anticipated that this area will require a detailed archeological survey.

## I.C. Evaluation of Water Quality Standards, Effluent Limitations or Other Technical, Legislative or Legal Requirements

As determined by the State Water Plan there are no impaired streams located in West Manheim Township. In order to maintain this water quality any proposed treatment facilities or existing treatment facilities must be designed and maintained to meet or exceed all applicable effluent limits. A summary of the alternatives provided in Section V are summarized below:

Collection and Conveyance to the Penn Township WWTP:
Collection and conveyance of the proposed service areas, as indicated on Exhibit V-1, to the Penn Township WWTP is consistent with the State Water Plan. The Penn Township WWTP is required to comply with the NPDES discharge limits established by the PA DEP. Penn Township has examined the existing and future needs of West Manheim Township to ensure compliance with these requirements as required in their Corrective Action Plan.

Collection and Conveyance to a West Manheim Township WWTP:
Collection and conveyance of the proposed service areas and existing service areas, as indicated on Exhibit V-3, to a West Manheim Township WWTP would be designed in accordance with the NPDES discharge limits established by the PA DEP. The design and permitting process required will establish the proper discharge limits required, if permitted, for compliance with the State Water Plan.

Collection and Conveyance to a Private WWTP:
Collection and conveyance of the proposed service areas and/or existing service areas to the proposed Joshua Hill WWTP, see Exhibit V-3, would not be consistent with the State Water Plan. The private WWTP has received preliminary NPDES discharge limits, which only consider capacity for the proposed developments along with reservation for the Township in the Pleasant Hill Area and Woodridge Hunt Area.

No Action:
The no action alternative involves the continued implementation of the OLD's Ordinance. Regular pumping, inspection and repairs ensure compliance with the State Water Plan.

## VI.D. Cost Estimates

No Action Alternative:
The continued OLD's management enforcement program by the Township will result in minimal cost to the Township. As documented in the financial analysis (Section VI) and institutional evaluation (Section VII), no additional resources are required by the Township for implementation. The average property owner cost to complete the required pumping, inspection and certification is approximately $500.00 every four years, excluding any repairs.

Future Extension of Public Sewer:
The federal facility planning requirements under the PennVEST State Revolving Fund (SRF) call for a cost effectiveness analysis to be performed for all technically viable alternatives. In order to satisfy these requirements, present worth and projected annual user cost analysis were evaluated. Each analysis completed considers the capital construction, operation and maintenance, and administrative costs over the life of the facility; calculations of these costs are provided in

Appendix VI-1 – Cost Analysis. The analysis is summarized in Table VI-2: Financial Summary of Alternatives.

Tables VI-3, VI-5, VI-7, and VI-9 evaluate the proposed alternative on a present worth cost basis. Similar to these tables, Tables VI-4, VI-6, VI-8, and VI-10 evaluate the finances of the capital construction costs minus tapping fee revenues to determine a projected annual user cost. From these tables, it is recommended that Area 4, 5 and 6 be served in the future through a gravity collection system and be conveyed to the Penn Township WWTP.

**Table VI-2: Financial Summary of Alternatives**

## FUTURE AREA 4, 5, and 6

| Description | Annual Cost Per EDU | |
|---|---|---|
| | Option 1: Gravity Sanitary Sewer and Associated Pump Stations | Option 2: Gravity Sanitary Sewer and Low Pressure Sewer |
| Sanitary Sewer Conveyed to Penn Township Wastewater Treatment Plant (General Obligation Bond) | $2,239.48 | $2,322.54 |
| Sanitary Sewer Conveyed to Penn Township Wastewater Treatment Plant (PennVEST) | $2,243.54 | $2,325.47 |
| Sanitary Sewer Conveyed to West Manheim Township Wastewater Treatment Plant (General Obligation Bond) | $2,335.07 | $2,418.12 |
| Sanitary Sewer Conveyed to West Manheim Township Wastewater Treatment Plant (PennVEST) | $2,356.89 | $2,438.82 |

**Table VI-4: User Cost Analysis for Options Conveyed to Penn Twp. WWTP - General Obligation Bond**

## AREA 4, 5, and 6

### Sanitary Sewer Conveyed to Penn Township Wastewater Treatment Plant (General Obligation Bond)

| Description | Option 1: Gravity Sanitary Sewer and Associated Pump stations | Option 2: Gravity Sanitary Sewer and Low Pressure Sewer |
|---|---|---|
| **A. Capital Costs** | | |
| Total Project Costs | $12,065,977.61 | $11,646,215.96 |
| Capital Reserve Fund (10%) | $1,206,597.76 | $1,164,621.60 |
| **Total Capital Costs** | **$13,272,575.38** | **$12,810,837.56** |
| **B. Tapping Fee Revenue** | | |
| Initial Tapping Fee Per EDU | $3,000.00 | $3,000.00 |
| Total EDU's Served | 574 | 574 |
| **Tapping Fee Revenue** | **$1,722,000.00** | **$1,722,000.00** |
| **C. Total Loan/Bond Principal ("A" - "B")** | **$11,550,575.38** | **$11,088,837.56** |
| **D. Interest Factor for 30 year Loan @ 5.1%** | **0.0726** | **0.0726** |
| **E. Total Projected User Costs** | | |
| Projected Annual Debt Service ("C" x "D") | $838,571.77 | $805,049.61 |
| Operation and Maintenance - Collection and Conveyance | $77,577.76 | $158,774.92 |
| Operation and Maintenance - Treatment | $0.00 | $0.00 |
| Administration - Collection and Conveyance | $91,840.00 | $91,840.00 |
| Administration - Treatment | $277,471.60 | $277,471.60 |
| **Total Projected User Costs** | **$1,285,461.13** | **$1,333,136.12** |
| **F. Total Projected Annual Cost Per User** | **$2,239.48** | **$2,322.54** |

**Table VI-5: Present Worth Cost Analysis for Options Conveyed to Penn Twp. WWTP - PennVest**

## AREA 4, 5, and 6

### Sanitary Sewer Conveyed to Penn Township Wastewater Treatment Plant (PennVEST)

| Description | EDU's | Option 1: Gravity Sanitary Sewer and Associated Pump stations | Option 2: Gravity Sanitary Sewer and Low Pressure Sewer |
|---|---|---|---|
| **A. Total Project Costs** | | | |
| Area 4 | 298 | $4,301,575.00 | $4,530,660.00 |
| Area 5 | 106 | $1,335,775.00 | $1,508,935.00 |
| Area 6 | 170 | $3,572,900.00 | $2,704,045.00 |
| DGM Pump Station Upgrade (Area 4, 5 and 6 proportioned) | | $59,297.52 | $59,297.52 |
| Construction Cost Subtotal | 574 | $9,269,547.52 | $8,802,937.52 |
| Contingency (+/- 10%) | | $926,954.75 | $880,293.75 |
| Total Construction Costs | | $10,196,502.27 | $9,683,231.27 |
| Engineering (+/- 15%) | | $1,529,475.34 | $1,452,484.69 |
| R/W Acquisitions | | $170,000.00 | $340,500.00 |
| Treatment Reservation (Penn Township) | | $170,000.00 | $170,000.00 |
| **Total Project Costs** | | **$11,895,977.61** | **$11,476,215.96** |
| **B. Present Worth Annual Costs** | | | |
| Operation and Maintenance - Collection and Conveyance | | $77,577.76 | $158,774.92 |
| Operation and Maintenance - Treatment | | $0.00 | $0.00 |
| Administration - Collection and Conveyance | | $91,840.00 | $91,840.00 |
| Administration - Treatment | | $277,471.60 | $277,471.60 |
| Subtotal | | $446,889.36 | $528,086.52 |
| Present Worth Factor (20 years @ 4.2%) | | 13.59 | 13.59 |
| **Present Worth Annual Costs** | | **$6,073,226.41** | **$7,176,695.76** |
| **C. Total Present Worth Costs ("A" + "B")** | | **$17,969,204.02** | **$18,652,911.72** |
| **D. Total EDU's Served** | | **574** | **574** |
| **E. Total Cost Per EDU ("C" / "D")** | | **$31,305.23** | **$32,496.36** |

**Table VI-6: User Cost Analysis for Options Conveyed to Penn Twp. WWTP - PennVEST**

## AREA 4, 5, and 6

### Sanitary Sewer Conveyed to Penn Township Wastewater Treatment Plant (PennVEST)

| Description | Option 1: Gravity Sanitary Sewer and Associated Pump stations | Option 2: Gravity Sanitary Sewer and Low Pressure Sewer |
|---|---|---|
| **A. Capital Costs** | | |
| Total Project Costs | $11,895,977.61 | $11,476,215.96 |
| Capital Reserve Fund (10%) | $1,189,597.76 | $1,147,621.60 |
| **Total Capital Costs** | **$13,085,575.38** | **$12,623,837.56** |
| **B. Tapping Fee Revenue** | | |
| Initial Tapping Fee Per EDU | $3,000.00 | $3,000.00 |
| Total EDU's Served | 574 | 574 |
| **Tapping Fee Revenue** | **$1,722,000.00** | **$1,722,000.00** |
| **C. Total Loan/Bond Principal ("A" - "B")** | **$11,363,575.38** | **$10,901,837.56** |
| **D. Interest Factor for 20 year Loan @ 4.2%** | **0.074** | **0.074** |
| **E. Total Projected User Costs** | | |
| Projected Annual Debt Service ("C" x "D") | $840,904.58 | $806,735.98 |
| Operation and Maintenance - Collection and Conveyance | $77,577.76 | $158,774.92 |
| Operation and Maintenance - Treatment | $0.00 | $0.00 |
| Administration - Collection and Conveyance | $91,840.00 | $91,840.00 |
| Administration - Treatment | $277,471.60 | $277,471.60 |
| **Total Projected User Costs** | **$1,287,793.94** | **$1,334,822.50** |
| **F. Total Projected Annual Cost Per User** | **$2,243.54** | **$2,325.47** |

**Table VI-7: Present Worth Cost Analysis for Options Conveyed to West Manheim Twp. WWTP - General Obligation Bond**

## AREA 4, 5, and 6

**Sanitary Sewer Conveyed to West Manheim Township Wastewater Treatment Plant (General Obligation Bond)**

| Description | EDU's | Option 1: Gravity Sanitary Sewer and Associated Pump Stations | Option 2: Gravity Sanitary Sewer and Low Pressure Sewer |
|---|---|---|---|
| **A. Total Project Costs** | | | |
| Area 4 | 298 | $4,301,575.00 | $4,530,660.00 |
| Area 5 | 106 | $1,335,775.00 | $1,508,935.00 |
| Area 6 | 170 | $3,572,900.00 | $2,704,045.00 |
| WMT WWTP (Area 4, 5 and 6 proportioned) | 1 MGD | $1,601,971.65 | $1,601,971.65 |
| Construction Cost Subtotal | 574 | $10,812,221.65 | $10,345,611.65 |
| Contingency (+/- 10%) | | $1,081,222.17 | $1,034,561.17 |
| Total Construction Cost | | $11,893,443.82 | $11,380,172.82 |
| Engineering (+/- 15%) | | $1,784,016.57 | $1,707,025.92 |
| R/W Acquisitions - Collection/Conveyance | | $170,000.00 | $340,500.00 |
| R/W Acquisitions - WWTP | | $80,000.00 | $80,000.00 |
| **Total Project Costs** | | **$13,927,460.39** | **$13,507,698.74** |
| **B. Present Worth Annual Costs** | | | |
| Operation and Maintenance - Collection and Conveyance | | $77,577.76 | $158,774.92 |
| Operation and Maintenance - Treatment | | $91,840.00 | $91,840.00 |
| Administration - Collection and Conveyance | | $91,840.00 | $91,840.00 |
| Administration - Treatment | | $91,840.00 | $91,840.00 |
| Subtotal | | $353,097.76 | $434,294.92 |
| Present Worth Factor (30 years @ 5.1%) | | 15.37 | 15.37 |
| **Present Worth Annual Costs** | | **$5,427,112.58** | **$6,675,112.87** |
| **C. Total Present Worth Costs ("A" + "B")** | | **$19,354,572.97** | **$20,182,811.61** |
| **D. Total EDU's Served** | | **574** | **574** |
| **E. Total Cost Per EDU ("C" / "D")** | | **$33,718.77** | **$35,161.69** |

**Table VI-8: User Cost Analysis for Options Conveyed to West Manheim Twp. WWTP - General Obligation Bond**

## AREA 4, 5, and 6

### Sanitary Sewer Conveyed to West Manheim Township Wastewater Treatment Plant (General Obligation Bond)

| Description | Option 1: Gravity Sanitary Sewer and Associated Pump stations | Option 2: Gravity Sanitary Sewer and Low Pressure Sewer |
|---|---|---|
| **A. Capital Costs** | | |
| Total Project Costs | $13,927,460.39 | $13,507,698.74 |
| Capital Reserve Fund (10%) | $1,392,746.04 | $1,350,769.87 |
| **Total Capital Costs** | **$15,320,206.43** | **$14,858,468.62** |
| **B. Tapping Fee Revenue** | | |
| Initial Tapping Fee Per EDU | $3,000.00 | $3,000.00 |
| Total EDU's Served | 574 | 574 |
| **Tapping Fee Revenue** | **$1,722,000.00** | **$1,722,000.00** |
| **C. Total Loan/Bond Principal ("A" - "B")** | **$13,598,206.43** | **$13,136,468.62** |
| **D. Interest Factor for 30 year Loan @ 5.1%** | **0.0726** | **0.0726** |
| **E. Total Projected User Costs** | | |
| Projected Annual Debt Service ("C" x "D") | $987,229.79 | $953,707.62 |
| Operation and Maintenance - Collection and Conveyance | $77,577.76 | $158,774.92 |
| Operation and Maintenance - Treatment | $91,840.00 | $91,840.00 |
| Administration - Collection and Conveyance | $91,840.00 | $91,840.00 |
| Administration - Treatment | $91,840.00 | $91,840.00 |
| **Total Projected User Costs** | **$1,340,327.55** | **$1,388,002.54** |
| **F. Total Projected Annual Cost Per User** | **$2,335.07** | **$2,418.12** |

**Table VI-9: Present Worth Cost Analysis for Options Conveyed to West Manheim Twp. WWTP - PennVEST**

## AREA 4, 5, and 6

**Sanitary Sewer Conveyed to West Manheim Township Wastewater Treatment Plant (PennVEST)**

| Description | EDU's | Option 1: Gravity Sanitary Sewer and Associated Pump Stations | Option 2: Gravity Sanitary Sewer and Low Pressure Sewer |
|---|---|---|---|
| **A. Total Project Costs** | | | |
| Area 4 | 298 | $4,301,575.00 | $4,530,660.00 |
| Area 5 | 106 | $1,335,775.00 | $1,508,935.00 |
| Area 6 | 170 | $3,572,900.00 | $2,704,045.00 |
| WMT WWTP (Area 4, 5 and 6 proportioned) | 1 MGD | $1,601,971.65 | $1,601,971.65 |
| Construction Cost Subtotal | 574 | $10,812,221.65 | $10,345,611.65 |
| Contingency (+/- 10%) | | $1,081,222.17 | $1,034,561.17 |
| Total Construction Cost | | $11,893,443.82 | $11,380,172.82 |
| Engineering (+/- 15%) | | $1,784,016.57 | $1,707,025.92 |
| R/W Acquisitions - Collection/Conveyance | | $170,000.00 | $340,500.00 |
| R/W Acquisitions - WWTP | | $80,000.00 | $80,000.00 |
| **Total Project Costs** | | **$13,847,460.39** | **$13,427,698.74** |
| **B. Present Worth Annual Costs** | | | |
| Operation and Maintenance - Collection and Conveyance | | $77,577.76 | $158,774.92 |
| Operation and Maintenance - Treatment | | $91,840.00 | $91,840.00 |
| Administration - Collection and Conveyance | | $91,840.00 | $91,840.00 |
| Administration - Treatment | | $91,840.00 | $91,840.00 |
| Subtotal | | $353,097.76 | $434,294.92 |
| Present Worth Factor (20 years @ 4.2%) | | 13.59 | 13.59 |
| **Present Worth Annual Costs** | | **$4,798,598.56** | **$5,902,067.92** |
| **C. Total Present Worth Costs ("A" + "B")** | | **$18,646,058.95** | **$19,329,766.66** |
| **D. Total EDU's Served** | | **574** | **574** |
| **E. Total Cost Per EDU ("C" / "D")** | | **$32,484.42** | **$33,675.55** |

**Table VI-10: User Cost Analysis for Options Conveyed to West Manheim Twp. WWTP - PennVEST**

## AREA 4, 5, and 6

### Sanitary Sewer Conveyed to West Manheim Township Wastewater Treatment Plant (PennVEST)

| Description | Option 1: Gravity Sanitary Sewer and Associated Pump stations | Option 2: Gravity Sanitary Sewer and Low Pressure Sewer |
|---|---|---|
| **A. Capital Costs** | | |
| Total Project Costs | $13,847,460.39 | $13,427,698.74 |
| Capital Reserve Fund (10%) | $1,384,746.04 | $1,342,769.87 |
| **Total Capital Costs** | **$15,232,206.43** | **$14,770,468.62** |
| **B. Tapping Fee Revenue** | | |
| Initial Tapping Fee Per EDU | $3,000.00 | $3,000.00 |
| Total EDU's Served | 574 | 574 |
| **Tapping Fee Revenue** | **$1,722,000.00** | **$1,722,000.00** |
| **C. Total Loan/Bond Principal ("A" - "B")** | **$13,510,206.43** | **$13,048,468.62** |
| **D. Interest Factor for 20 year Loan @ 4.2%** | **0.074** | **0.074** |
| **E. Total Projected User Costs** | | |
| Projected Annual Debt Service ("C" x "D") | $999,755.28 | $965,586.68 |
| Operation and Maintenance - Collection and Conveyance | $77,577.76 | $158,774.92 |
| Operation and Maintenance - Treatment | $91,840.00 | $91,840.00 |
| Administration - Collection and Conveyance | $91,840.00 | $91,840.00 |
| Administration - Treatment | $91,840.00 | $91,840.00 |
| **Total Projected User Costs** | **$1,352,853.04** | **$1,399,881.59** |
| **F. Total Projected Annual Cost Per User** | **$2,356.89** | **$2,438.82** |

## VI.E. Funding Analysis

The future construction of the sewage collection, conveyance, and/or treatment facilities outlined in Section V may be financed through a variety of methods. West Manheim Township has considered and will examine the following methods:

1) PennVEST – West Manheim Township has met with representatives from PennVEST and the Pennsylvania Department of Environmental Protection (PA DEP) on past phases. Funding is granted based upon a qualification basis of three main criteria: 1) economics, 2) needs, and 3) environmental impact. During this meeting it was determined that West Manheim Township would only qualify on the environmental impact basis. Based upon the additional project requirement, rotation for application submission, anticipated rate, and no certain commitment for funding the Township concluded this was not a feasible option. The Township is completing the required Environmental Report as part of this plan update to ensure compliance for this potential funding source.

2) RUS – Township officials contacted representatives of Rural Utility Services (RUS) to review financing options. As with PennVest financing, additional requirements would have to be satisfied. Also, at that time, the RUS representative indicated they were primarily seeking to finance projects which were beginning with the original planning phase. Since West Manheim Township already has an adopted Act 537 Plan and is currently providing an update, they would not fall into these criteria.

3) CDBG – The CDBG program, as administered by the York County Planning Commission, requires project approval on a three-year rotation. Project selection and qualification is based on the medium income of the area. According to the U.S. Census tract, no part of the Township meets the 41.7% requirement for low to moderate income required to qualify for funding.

4) Bank Loans - Several of the surrounding banks were contacted to discuss the possibility of loans for past projects. This option was determined to be feasible, however would require greater fees and a shorter repayment schedule. Also, the Township expressed concern over the impact the debt would have on the Township's borrowing basis.

5) General Obligation Bond – West Manheim Township has a general obligation bond for the Area 1 Sanitary Sewer project and the Area 2/3 Sanitary Sewer Project. This method allowed the debt to be self-liquidating, through the revenue from the sewer system, while maintaining the same tapping fees and customer rates as the existing customers.

## VI.F. Implementation Schedule

| Description | Work Start Date |
|---|---|
| **OLD's Ordinance Update** | |
| Adoption of Ordinance No. 04-2010 | September 2, 2010 |
| Enforcement of Ordinance | October 2010 |
| **ACT 537 Plan** | |
| Submission of Act 537 Plan to PA DEP | March 2013 |
| Act 537 Plan Approval by PA DEP | June 2013 |
| **OLDS Ordinance Enforcement** | |
| Continuation of first four year cycle | October 2010 to October 2014 |
| Second Cycle | October 2014 to October 2018 |
| Third Cycle | October 2018 to October 2022 |
| **Additional ACT 537 Planning** | |
| Re-evaluation of needs areas | June 2023 |

### VI.F.1. Description of Activities Necessary to Abate Critical Public Health Hazards Pending Completion of Sewage Facilities or Implementation of Sewage Management Programs

West Manheim Township shall continue strict enforcement of Ordinance No. 04-2010, OLD's Ordinance to ensure proper operation, maintenance and repair of existing and proposed systems.

### VI.F.2. 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

The implementation schedule provided herein addresses the needs areas concurrently. The schedule will allow for continued monitoring of the entire Township, allowing for adequate planning of future sewer extensions. The schedule also considers the required planning to occur upon completion of two cycles of OLD's inspections, providing sufficient data to determine if the future sewer extensions are required at that time.

## VI.G. Administrative Organization and Legal Authority

West Manheim Township is a municipality regulated under the Second Class Township Code under the regulations of the Commonwealth of Pennsylvania. The Township is regulated by a Board of Supervisor's, whom are elected for a term of six years. The Township employees several full-time staff including: Manager, Secretary, Building/Codes Enforcement Officer,

public Works Department, Utilities Department and support staff. The utilities department is responsible for the operation and maintenance of the Township's sanitary sewer system, as well as enforcement of the OLDS Ordinance.

# SECTION VII – INSTITUTIONAL EVALUATION

## VII.A. Wastewater Treatment Authority Analysis

West Manheim Township's sanitary sewer system is owned and operated by West Manheim Township. The Township has established an authority, under the Second Class Township Code, as an advisory board to the Township. The Township, under order by the PA DEP, has implemented its' ACT 537 Plan and is continuing the responsibility to update the plan. The Township has successfully constructed collection and conveyance facilities to serve the first three public sewer service areas. The Township has also adopted Ordinance No. 04-2010, OLD's Ordinance. The Township, in conjunction with the Township SEO, have aggressively implemented the OLD's Ordinance, competing pumping, inspection, certification and/or repair of existing systems.

## VII.A.1 Financial and Debt Status

West Manheim Township keeps financial records separately for the Sewer Fund in accordance with the Second Class Township Code. The accounts are annually audited to ensure strict compliance with all state statutes. The financing for all Township sanitary sewer construction has been completed through general obligation bonds, which are demonstrated to be self liquidating. The Area 1 Sewer System was funded through the General Obligation Bond – Series 2004, refunded by General Obligation Bond – Series 2010; and the Area 2 & 3 Sewer System was financed through the General Obligation Bond – Series 2008, refunded by General Obligation Bond – Series 2012.

## VII.A.2 Available Staff and Administrative Resources

West Manheim Township is a municipality regulated under the Second Class Township Code under the regulations of the Commonwealth of Pennsylvania. The Township is regulated by a Board of Supervisor's, whom are elected for a term of six years. The Township employees several full-time staff including: Manager, Secretary, Building/Codes Enforcement Officer, Public Works Department, Utilities Department and support staff. The utilities department is responsible for the operation and maintenance of the Township's sanitary sewer system, as well as enforcement of the OLDS Ordinance. The utilities manger is the licensed operator for the sanitary sewer system in West Manheim Township. As the public sewer system expands in the future, the Township will be able to budget for appropriate additional staffing requirements.

## VII.A.3 Existing Legal Authority

West Manheim Township is a municipality regulated under the Second Class Township Code under the regulations of the Commonwealth of Pennsylvania. The powers invested by the Commonwealth of Pennsylvania allow the Township to 1) implement wastewater planning recommendations, 2) implement system wide operation and maintenance, 3) set user fees and take purchasing actions, 4) take enforcement actions against ordinance violators, 5) negotiate agreements with other parties, and 6) raise capitol for the construction and operation and maintenance of facilities.

**a) Existing legal authority to implement wastewater planning recommendations**
In accordance with Pennsylvania Administrative Code of 1929, Chapter 71, the Township has the legal authority to implement the wastewater planning recommendations provided herein. The Township has enacted Ordinance No. 11-2004, Mandatory Sewer Connection Ordinance (See Appendix VII-1) to ensure connection to the public sanitary sewer system. The Township has adopted OLD'S Ordinance No. 04-2010, see Appendix III-2, to ensure proper operation and maintenance of on-lot systems.

**b) Existing legal authority to implement system-wide operation and maintenance activities**

In accordance with Pennsylvania Administrative Code of 1929, Chapter 71, the Township has the responsibility to implement system wide operation and maintenance. The Township has employed staff to ensure operation and maintenance of the public sewer system. The Township has adopted the OLD'S Ordinance No. 04-2010, see Appendix III-2, to ensure proper operation and maintenance of on-lot systems. The Township retains a consultant to perform Sewage Enforcement Officer (SEO) responsibilities.

**c) Existing legal authority to set user fees and take purchasing actions**
The Township has the authority under Administrative Code of 1929, Chapter 71 and other statutes to set user fees and take purchasing actions. The debt service currently incurred by the Township for construction of sanitary sewer facilities has been designated as self-liquidating. However, the Township also retains the right to levy taxes and maintains a borrowing basis to finance such projects.

**d) Existing legal authority to take enforcement actions against ordinance violators**
In accordance with Pennsylvania Administrative Code of 1929, Chapter 71, the Township has the responsibility to take enforcement action against ordinance violators. Enforcement provisions are provided in both the Mandatory Sewer Connection Ordinance and OLDS Ordinance in accordance with state statutes. The Township also retains a consultant for the purpose of Sewage Enforcement Officer (SEO).

**e) Existing legal authority to negotiate agreements with other parties**
In accordance with Pennsylvania Administrative Code of 1929, Chapter 71 and the Second Class Township code, the Township has the authority to negotiate agreements with other parties. West Manheim Township has and continues to negotiate agreements with Penn Township for conveyance and treatment of the Township's municipal sewage; see Appendix I-1.

**f) Existing legal authority to raise capital for construction and operation and maintenance of facilities**
The Township has the authority under Administrative Code of 1929, Chapter 71 to raise capital for the construction and operation and maintenance of facilities. The debt service currently incurred by the Township for construction of sanitary sewer facilities has been designated as self-liquidating. However, the Township also retains the right to levy taxes and maintains a borrowing basis to finance such projects.

## VII.B. Institutional Alternative Analysis

The institutional alternatives available to the Township are the implementation of the plan by the Township itself, or use of a sewer authority. West Manheim Township currently owns and operates the existing public sewer system, as well as enforces other components of the sewage management plan. West Manheim Township has disbanded the West Manheim Township Sewer Authority, who was originally created to perform earlier planning. The Township does not anticipate re-institution of the Sewer Authority.

### VII.B.1. Need for New Municipal Departments or Municipal Authorities

West Manheim Township currently has a public utilities department which is responsible for the operation, maintenance and billing aspects of the public sewer system. A licensed operator is employed within this department, and is ultimately responsible for the operation and maintenance of the sewer system. This department is also responsible for administration of the OLDS Ordinance and other legal provisions adopted by the Township.

The West Manheim Township Sewer Authority was created prior to the construction of a public sewer system. The Authority afforded the Township a financing tool in the future should a "self liquidating debt" not be feasible for future projects. The Authority has since been disbanded and is not anticipated to be re-instated.

Therefore, no additional departments or authorities are recommended under this plan. As additional future areas of public sewer are constructed, the Township will continue to monitor staffing requirements of the Public Utilities Department.

### VII.B.2. Functions of Existing and Proposed Organizations

West Manheim Township, as governed by the Board of Supervisors, shall continue to implement the recommendations of this plan. As such, the duties of the Township shall include: enactment of appropriate Ordinances; design, permitting, financing and construction of applicable public sewer extensions; re-evaluation of the Act 537 plan in accordance with the implementation schedule presented in this plan.

### VII.B.3. Cost Administration, Implementability, and the Capability of the Authority/Agency to React to Future Needs

West Manheim Township is a municipality regulated under the Second Class Township Code under the regulations of the Commonwealth of Pennsylvania. As such, the Board of Supervisors is provided the authority under the statutes of the Commonwealth of Pennsylvania administer and implement the plan as proposed. The Board has the power to address future needs through the following: authority to enact ordinances and regulations, adopt other legal provisions, provide adequate staffing, finance, borrow, set user rates, and levy taxes.

## VII.C. Administrative and Legal Activities to be Completed and Adopted to Ensure Implementation of the Recommended Alternative

No administrative actions are required to fulfill the plan as proposed.

### VII.C.1. Incorporation of Authorities or Agencies

No incorporation of authorities or agencies is proposed as part of this plan.

### VII.C.2. Development of all Required Ordinances, Regulations, Standards and Inter-Municipal Agreements

No adoption of revised or new Ordinance is proposed under this plan. West Manheim Township will be responsible for negotiation of an amendment to the existing inter-municipal agreement with Penn Township for waste water treatment capacity.

### VII.C.3. Activities to Provide Rights-of-ways, Easements, and Land Transfers

West Manheim Township, as the owner and operator of the public sewer system, has uninterrupted right to utilize all Township roadway right-of-ways for the construction of sewer extensions. Construction within the State roadway right-of-way is permissible with the filing of a roadway occupancy permit with the Pennsylvania Department of Transportation. Activities proposed outside of these right-of-ways are accomplished through the acquisition of a sanitary sewer easement from individual property owners. These easement agreements provide for the construction and continued operation and maintenance of the facilities by the Township.

### VII.C.4. Adoption of Other Municipal Sewage Facilities Plans

No adoption of other municipal sewage facilities plans is proposed under this plan.

### VII.C.5. Other Legal Documents

No other legal documents are required to implement or enforce this plan.

### VII.C.6. Dates or Timeframes for Administrative or Legal Activities

No administrative or legal activities are required under this plan.

## VII.D. Proposed Institutional Alternative

Based upon the analysis contained herein, West Manheim Township shall continue to own and operate the sanitary sewer system in West Manheim Township. West Manheim Township, in conjunction with retained consultants for SEO services, shall continue to implement and enforce the OLD's Management program.

Construction of the future phases of sanitary sewer shall be financed through the issue of a general obligation bond or PennVEST funding if available. Debt associated with the construction

of the future service areas shall continue to be maintained as "self liquidating". The Township has the proper legal authority to implement this plan. The Township should continue to monitor staffing needs for operation and maintenance of the collection and conveyance facilities.

## SECTION VIII - IMPLEMENTATION SCHEDULE AND JUSTIFICATION FOR SELECTED TECHNICAL & INSTITUTIONAL ALTERNATIVES

### VIII.A Identify the Technical Wastewater Disposal Alternative Which Best Meets the Wastewater Treatment Needs of Each Study Area of the Municipality

**Area 4 (Including Fuhrman Mill Road Area):**

Area 4 has been identified as an area for future sanitary sewer extension. The inspections and certifications completed by the Township SEO under OLD's program have indicated that there are no malfunctioning systems within the area, therefore, continued operation and maintenance of the OLD's are proposed. The existing properties within the area served by on-lot water supply systems fall within the permitted service territory of the York Water Company, allowing service to these areas as development and extensions occur past these areas.

A summary of the technical justification (seven requirements) is provided below:

1) Existing Wastewater Disposal Needs - This area is mostly made up of residential lots of 0.30 to 0.55 acres and the majority of lots are served by public water provided by the York Water Company. The inspections and certifications completed by the Township SEO under OLD's program have indicated that there are no malfunctioning systems within the area, therefore, continued operation and maintenance of the OLD's are proposed.

2) Future Wastewater Disposal Needs – Continued monitoring of the OLD's within the area is required through strict adherence to the OLD's Ordinance. The Area 4 service area may provide a means for conveyance of the proposed developments to be served by the proposed Joshua Hill WWTP in the future, including the Woodridge Hunt Area. As indicated on Exhibit IV-2 – Future Land Use Plan, there are no additional planned developments within the proposed service area.

3) Operation and Maintenance Considerations – The continued operation and maintenance of OLD's is consistent with the Townships Ordinance No. 04-2010. Inspection, certification and/or repairs as determined by the Township SEO ensures the continued operation of OLD's and reporting for future planning. The operation and maintenance of the future proposed collection system (comprised of gravity sanitary sewer and pump stations) is consistent with the existing sanitary sewer system in the Township.

4) Cost-effectiveness – The cost per user to maintain, operate and perform inspection of the OLD's is minimal compared to the other options evaluated. The anticipated future cost per EDU for public sewer is consistent with the three existing service areas (Area 1, 2 and 3).

5) Available Management and Administration System – As documented in Section VII of this plan, West Manheim Township currently has full-time staff to operate the existing sanitary sewer system and administer the OLD's Management Program. As future service areas are constructed, the Township shall monitor the need for additional staff.

6) Available Financing Methods – The proposed continued operation of OLD's will not result in any financial burden to the Township. However, the Township has the appropriate financing tools through the issue of a General Obligation Bond or PennVEST loan to construct the proposed future facilities. The Township would anticipate maintaining "Self liquidating" debt service, financed solely by the tapping fees and users fees collected, for any future sewer extensions.

7) Environmental Soundness and Compliance with Natural Resource Planning and Preservation Programs – As documented in Section VI, the proposed alternative is consistent with all environmental and natural resource regulations.

**Area 5:**

Area 5 has been identified as an area for future sanitary sewer extension. The inspections and certifications completed by the Township SEO under OLD's program have indicated that there are no malfunctioning systems within the area, therefore, continued operation and maintenance of the OLD's are proposed. The area is served by the York Water Company.

A summary of the technical justification (seven requirements) is provided below:

1) Existing Wastewater Disposal Needs - This area consists mainly of small residential lots varying from 0.30 to 0.75 acres. The inspections and certifications completed by the Township SEO under OLD's program have indicated that there are no malfunctioning systems within the area, therefore, continued operation and maintenance of the OLD's are proposed. This area is served entirely by a public water system.

2) Future Wastewater Disposal Needs – Continued monitoring of the OLD's within the area is required through strict adherence to the OLD's Ordinance. The Area 5 service area may provide a means for conveyance of portions of the development identified as Orchard Estates. As indicated on Exhibit IV-2 – Future Land Use Plan, there are no additional planned developments within the proposed service area. No additional future needs area have been identified within proximity to the service area.

3) Operation and Maintenance Considerations – The continued operation and maintenance of OLD's is consistent with the Townships Ordinance No. 04-2010. Inspection, certification and/or repairs as determined by the Township SEO ensures the continued operation of OLD's and reporting for future planning. The operation and maintenance of the future proposed collection system (comprised of gravity sanitary sewer and pump stations) is consistent with the existing sanitary sewer system in the Township.

4) Cost-effectiveness – The cost per user to maintain, operate and perform inspection of the OLD's is minimal compared to the other options evaluated. The anticipated future cost per EDU for public sewer is consistent with the three existing service areas (Area 1, 2 and 3).

5) Available Management and Administration System – As documented in Section VII of this plan, West Manheim Township currently has full-time staff to operate the existing sanitary sewer system and administer the OLD's Management Program. As future service areas are constructed, the Township shall monitor the need for additional staff.

6) Available Financing Methods – The proposed continued operation of OLD's will not result in any financial burden to the Township. However, the Township has the appropriate financing tools through the issue of a General Obligation Bond or PennVEST loan to construct the proposed future facilities. The Township would anticipate maintaining "Self liquidating" debt service, financed solely by the tapping fees and users fees collected, for any future sewer extensions.

7) Environmental Soundness and Compliance with Natural Resource Planning and Preservation Programs – As documented in Section VI, the proposed alternative is consistent with all environmental and natural resource regulations.

**Area 6:**

Area 6 has been identified as an area for future sanitary sewer extension. The inspections and certifications completed by the Township SEO under OLD's program have indicated that there are no malfunctioning systems within the area, therefore, continued operation and maintenance of the OLD's are proposed. The majority of the existing properties within the area served by on-lot water supply systems fall within the permitted service territory of the York Water Company, allowing service to these areas as development and extensions occur past these areas.

A summary of the technical justification (seven requirements) is provided below:

1) Existing Wastewater Disposal Needs - A section of this area is served by public water and has small residential lots, ranging from 0.40 to 0.75 acres. The inspections and certifications completed by the Township SEO under OLD's program have indicated that there are no malfunctioning systems within the area, therefore, continued operation and maintenance of the OLD's are proposed. A portion of area 6 is served by private wells, located near the Long Arm Dam Reservoir. The elevated nitrate/nitrogen levels in this area are mostly a result of farming activities within this section of the Township. The York Water Service territory extends to most of the area.

2) Future Wastewater Disposal Needs – As indicated on Exhibit IV-2 – Future Land Use Plan, there are no additional planned developments within the proposed service area.

3) Operation and Maintenance Considerations – The continued operation and maintenance of OLD's is consistent with the Townships Ordinance No. 04-2010. Inspection, certification and/or repairs as determined by the Township SEO ensures the continued operation of OLD's and reporting for future planning. The operation and maintenance of the future proposed collection system (comprised of gravity sanitary sewer and pump stations) is consistent with the existing sanitary sewer system in the Township.

4) Cost-effectiveness – The cost per user to maintain, operate and perform inspection of the OLD's is minimal compared to the other options evaluated. The anticipated future cost per EDU for public sewer is consistent with the three existing service areas (Area 1, 2 and 3).

5) Available Management and Administration System – As documented in Section VII of this plan, West Manheim Township currently has full-time staff to operate the existing

sanitary sewer system and administer the OLD's Management Program. As future service areas are constructed, the Township shall monitor the need for additional staff.

6) Available Financing Methods – The proposed continued operation of OLD's will not result in any financial burden to the Township. However, the Township has the appropriate financing tools through the issue of a General Obligation Bond or PennVEST loan to construct the proposed future facilities. The Township would anticipate maintaining "Self liquidating" debt service, financed solely by the tapping fees and users fees collected, for any future sewer extensions.

7) Environmental Soundness and Compliance with Natural Resource Planning and Preservation Programs – As documented in Section VI, the proposed alternative is consistent with all environmental and natural resource regulations.

**Woodridge Hunt:**

The Woodridge Hunt Area has been identified as an area for future sanitary sewer extension. The inspections and certifications completed by the Township SEO under OLD's program have indicated that there are no malfunctioning systems within the area, therefore, continued operation and maintenance of the OLD's are proposed. Service to this Area may be feasible in the future, by being served through the proposed Private WWTP. The planning module for the proposed Joshua Hill development indicates that construction is anticipated in 2011. Construction of the WWTP has not begun and a revised schedule has not been received. The construction of this development would also allow for the extension of public water by the York Water Company; the Woodridge Hunt area is included in the service territory permitted by the Public Utilities Commission.

A summary of the technical justification (seven requirements) is provided below:

1) Existing Wastewater Disposal Needs - This area is located along the Baltimore Pike in the southern section of the township near the Mason-Dixon Line. This area consists of newly developed residential lots varying in size from 1.0 to 7.7 acres. These lots are served by a non-conventional on lot disposal system consisting of elevated sand mounds in series with a denitrification unit. On lot surveys were conducted on 24 lots in order to retrieve a representative sample of the study area. No known malfunctions were detected during these surveys. The inspections and certifications completed by the Township SEO under OLD's program have indicated that there are no malfunctioning systems within the area, therefore, continued operation and maintenance of the OLD's are proposed.

2) Future Wastewater Disposal Needs – The Woodridge Hunt Area should be evaluated for economic feasibility with the proposed future re-evaluation of the Act 537 plan.. As demonstrated on Exhibit IV-2 – Future Land Use Plan, the surrounding developments shall be served by the proposed Joshua Hill WWTP.

3) Operation and Maintenance Considerations – The continued operation and maintenance of OLD's is consistent with the Townships Ordinance No. 04-2010. Inspection, certification and/or repairs as determined by the Township SEO ensures the continued operation of OLD's and reporting for future planning. The Township shall enforce strict compliance with the OLDS Ordinance.

4) Cost-effectiveness – No additional financial burden will be placed on West Manheim Township.

5) Available Management and Administration System – As documented in Section VII of this plan, West Manheim Township currently has full-time staff to operate the proposed system. As service areas are constructed, the Township shall monitor the need for additional staff.

6) Available Financing Methods – No financing will be required at this time.

7) Environmental Soundness and Compliance with Natural Resource Planning and Preservation Programs – As documented in Section VI, the proposed alternative is consistent with all environmental and natural resource regulations

**On-Lot Sewage Management Districts (Township Wide):**

During the course of this plan update, in consultation with the Pennsylvania Department of Environmental Protection, the Township requested an amendment to the Task Activity Report (TAR). This request allowed the Township to adopt the West Manheim Township Ordinance No. 04-2010, OLDS Management Ordinance, amending the existing Ordinance. A copy of the Ordinance is provided in Appendix III-2. This Ordinance provided the following: established all areas not served by public sewer as an OLD's District; provided procedures for notification by Township; required inspection and certification by the Township SEO.

The ordinance defines a four (4) year pumping schedule for residents of the township. The Township initiated the program of pumping, inspection and certification in 2010; results are summarized in Exhibit III-7. The Township targeted the anticipated needs areas in order to furnish additional supporting documentation for this plan.

A summary of the technical justification (seven requirements) is provided below:

1) Existing Wastewater Disposal Needs – The inspections and certifications completed by the Township SEO under OLD's program have indicated that there are no malfunctioning systems within the area, therefore, continued operation and maintenance of the OLD's are proposed.

2) Future Wastewater Disposal Needs – The on-lot management districts are located outside of the primary growth area, see Exhibit IV-2. Therefore, no know future needs have been identified.

3) Operation and Maintenance Considerations - The Township shall enforce strict compliance with the OLDS Ordinance.

4) Cost-effectiveness – No additional financial burden will be placed on West Manheim Township.

5) Available Management and Administration System – As documented in Section VII of this plan, West Manheim Township currently has full-time staff to operate the proposed

system. As service areas are constructed, the Township shall monitor the need for additional staff.

6) Available Financing Methods – No financing will be required at this time.

7) Environmental Soundness and Compliance with Natural Resource Planning and Preservation Programs – As documented in Section VI, the proposed alternative is consistent with all environmental and natural resource regulations

**VIII.B. Capitol Financing Plan**

Proposed Alternative:

The continued implementation of OLD's Management Program will not have a financial burden on West Manheim Township or its residents. This alternative does not require a capitol financing plan.

Future Sewer Extension:

West Manheim Township anticipates constructing the future proposed collection and conveyance facilities for proposed Areas 4, 5 and 6 through the issue of a General Obligation Bond. This method of financing is consistent with the financing completed for Service Areas 1, 2 and 3. Based upon the financial characteristics of the Township, the alternate funding methods described in section VII.E of this plan have not been feasible in the past. The Township continues to operate with a "self liquidating" debt service through close monitoring of the revenue generated from tapping fees and user rates.

West Manheim Township has selected PennVEST Loans as the alternate method for financing the future proposed service areas. The Township, through adoption of this plan, has completed the necessary steps to be considered for PennVEST funding. Due to the restrictions outlined in Section VII, this method has not been considered as the primary financing means. However, this alternate should be considered if the bond market rates are affected by an economic downturn.

The estimated cost per EDU per year was calculated using present worth analysis for a PennVEST loan and conventional general obligation bond issue. The calculations were done assuming no grant money was obtained and there was a $3,000 tapping fee.

**VIII.C. Implementation Schedule**

| Description | Work Start Date |
|---|---|
| **OLD's Ordinance Update** | |
| Adoption of Ordinance No. 04-2010 | September 2, 2010 |
| Enforcement of Ordinance | October 2010 |
| **ACT 537 Plan** | |
| Submission of Act 537 Plan to PA DEP | March 2013 |
| Act 537 Plan Approval by PA DEP | June 2013 |

| | |
|---|---|
| **OLDS Ordinance Enforcement** | |
| Continuation of first four year cycle | October 2010 to October 2014 |
| Second Cycle | October 2014 to October 2018 |
| Third Cycle | October 2018 to October 2022 |
| **Additional ACT 537 Planning** | |
| Re-evaluation of needs areas | June 2023 |

# EXHIBITS


| | |
|---|---|
| Exhibit I-1 | Hanover Regional Planning Area – Sewerage Plan – Year 2000 |
| Exhibit I-2 | Penn Township Sewage Treatment System |
| Exhibit II-1 | Regional Location Map |
| Exhibit II-2 | Sewer Districts |
| Exhibit II-3 | Water Resources |
| Exhibit II-4 | Flood Prone Areas |
| Exhibit II-5 | Soils |
| Exhibit II-6 | Soils Suitable for Conventional In-Ground and Elevated Sand Mounds |
| Exhibit II-7 | Soils Suitable for Only Elevated Sand Mounds |
| Exhibit II-8 | Soils Suitable for Spray Irrigation Systems |
| Exhibit II-9 | Slopes Unsuitable for On-Lot Disposal Systems |
| Exhibit II-10 | Prime Agricultural Soils |
| Exhibit II-11 | Geologic Features |
| Exhibit II-12 | Topography |
| Exhibit II-13 | Slopes Suitable for Conventional In-Ground and Elevated Sand Mounds |
| Exhibit II-14 | Slopes Suitable for only Elevated Sand Mounds |
| Exhibit II-15 | Total and Fecal Coliform |
| Exhibit II-16 | Nitrates |
| Exhibit II-17 | Wetlands |
| Exhibit II-18 | Hydric Soils |
| Exhibit II-19 | Drainage Basins |
| Exhibit II-20 | Primary Growth Area |
| Exhibit II-21 | Future Sanitary Sewer Treatment and Capacity Projections |
| Exhibit III-1 | Analysis Summary |
| Exhibit III-2 | Existing Sanitary Sewer Collection and Conveyance System |
| Exhibit III-3 | Existing On-Lot Disposal Systems |
| Exhibit III-4 | Tier 1 Sewage Survey Results |
| Exhibit III-5 | Tier 2 Sewage Survey Results |
| Exhibit III-6 | Potential and Known On-Lot Sewer System Malfunction |
| Exhibit III-7 | OLDs Inspection/Certification |
| Exhibit III-8 | OLDs Repair Permits (2010) |
| Exhibit III-9 | Wastewater Treatment Facility Improvements: Penn Township – Existing Site/Demolition Plan |
| Exhibit III-10 | Wastewater Treatment Facility Improvements: Penn Township – New Structure/Piping Plan |
| Exhibit IV-1 | Existing Land Use/Active or Planned Subdivisions |
| Exhibit IV-2 | Future Land Use/Primary Growth and Rural Areas |
| Exhibit IV-3 | Zoning Map |
| Exhibit IV-4 | Zoning Overlay Districts |
| Exhibit IV-5 | Community Facilities and Utilities |
| Exhibit V-1 | Option1: Gravity Sanitary Sewer Extension & Associated Pump Stations & Force Mains |
| Exhibit V-2 | Option 2: Low Pressure Sanitary Sewer Extension with Portions of Gravity Sewer |
| Exhibit V-3 | Potential Wastewater Treatment Plant Options & Future Sewer Area Layout |

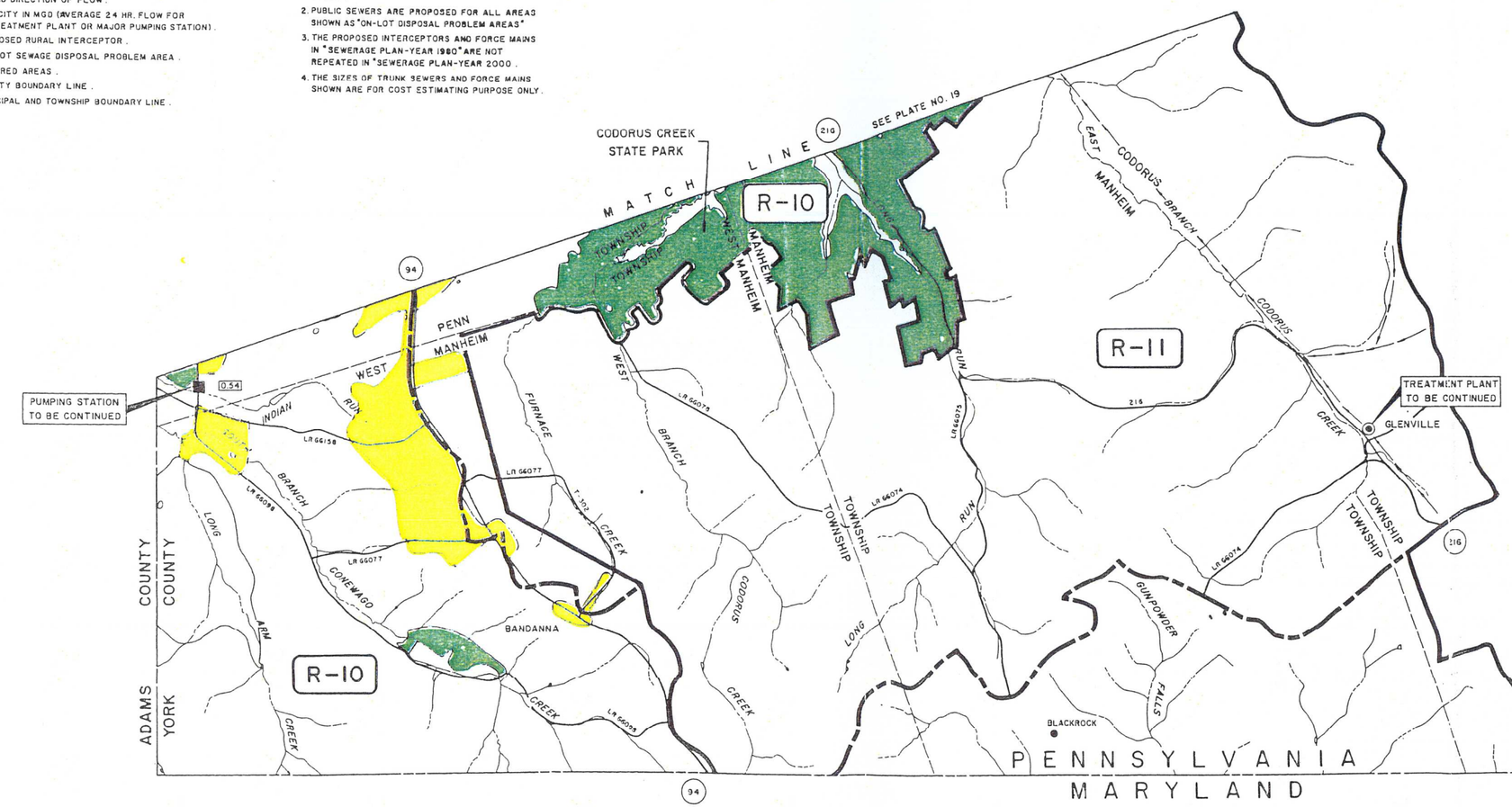
EXHIBIT I-1

MAP LEGEND

- EXISTING MUNICIPAL WASTEWATER TREATMENT PLANT TO BE CONTINUED.
- EXISTING MUNICIPAL OR PRIVATE WASTEWATER TREATMENT PLANT TO BE PHASED OUT.
- PROPOSED REGIONAL OR LONG-TERM WASTEWATER TREATMENT PLANT.
- PROPOSED INTERIM WASTEWATER TREATMENT PLANT.
- EXISTING PRIVATE WASTEWATER TREATMENT PLANT.
- EXISTING INDUSTRIAL WASTE TREATMENT PLANT.
- EXISTING PUMPING STATION.
- PROPOSED PUMPING STATION.
- 10" EXISTING MAIN INTERCEPTOR SHOWING DIAMETER AND DIRECTION OF FLOW.
- 9" PROPOSED MAIN INTERCEPTOR SHOWING DIAMETER AND DIRECTION OF FLOW.
- 4"FM PROPOSED FORCE MAIN SHOWING DIAMETER AND DIRECTION OF FLOW.
- 0.33 CAPACITY IN MGD (AVERAGE 24 HR. FLOW FOR TREATMENT PLANT OR MAJOR PUMPING STATION).
- PROPOSED RURAL INTERCEPTOR.
- ON-LOT SEWAGE DISPOSAL PROBLEM AREA.
- SEWERED AREAS.
- COUNTY BOUNDARY LINE.
- MUNICIPAL AND TOWNSHIP BOUNDARY LINE.

- RESIDENTIAL (MEDIUM TO HIGH DENSITY).
- RESIDENTIAL (LOW TO MEDIUM DENSITY).
- VILLAGE CENTER.
- COMMERCIAL.
- INDUSTRIAL.
- OPEN SPACE, WOODLAND, RECREATION.
- REGIONAL LIMITS.
- DRAINAGE BASIN DIVIDE.
- UNINCORPORATED VILLAGE.
- APPROXIMATE MUNICIPAL BOUNDARIES.
- EXISTING OR PROPOSED DEVELOPMENTS INCLUDING MOBILE HOME PARKS.

NOTES:
1. UNLESS OTHERWISE NOTED, PUBLIC SEWERS ARE PROPOSED FOR ALL DEVELOPMENTS SHOWN IN COLOR.
2. PUBLIC SEWERS ARE PROPOSED FOR ALL AREAS SHOWN AS "ON-LOT DISPOSAL PROBLEM AREAS"
3. THE PROPOSED INTERCEPTORS AND FORCE MAINS IN "SEWERAGE PLAN-YEAR 1980" ARE NOT REPEATED IN "SEWERAGE PLAN-YEAR 2000.
4. THE SIZES OF TRUNK SEWERS AND FORCE MAINS SHOWN ARE FOR COST ESTIMATING PURPOSE ONLY.




NOTE:
- SEE PLATE NO'S 18 AND 19 FOR REMARKS

SCALE 1 0 1/2 1 MILE

SCALE 1000 0 4000 FEET

LOCATION MAP

R-10 HANOVER REGION

R-11 UPPER CODORUS CREEK REGION

SEWERAGE PLAN - YEAR 2000

PLATE NO. 21

DAUPHIN COUNTY

CUMBERLAND COUNTY

LANCASTER COUNTY

ADAMS COUNTY

WEST MANHEIM TOWNSHIP

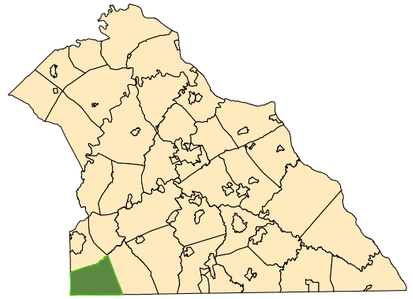
STATE OF MARYLAND

N

W E

S

0 2.5 5 7.5 10 Miles



**Location Map**

West Manheim Township, York County, Pennsylvania

Exhibit II-1:

Regional Location Map

**Legend**

- York County
- Susquehanna River
- West Manheim Township

# West Manheim Township
# Act 537 Plan Update - Jan, 2013

Base Mapping & Data: York County Planning Commission

**Legend**

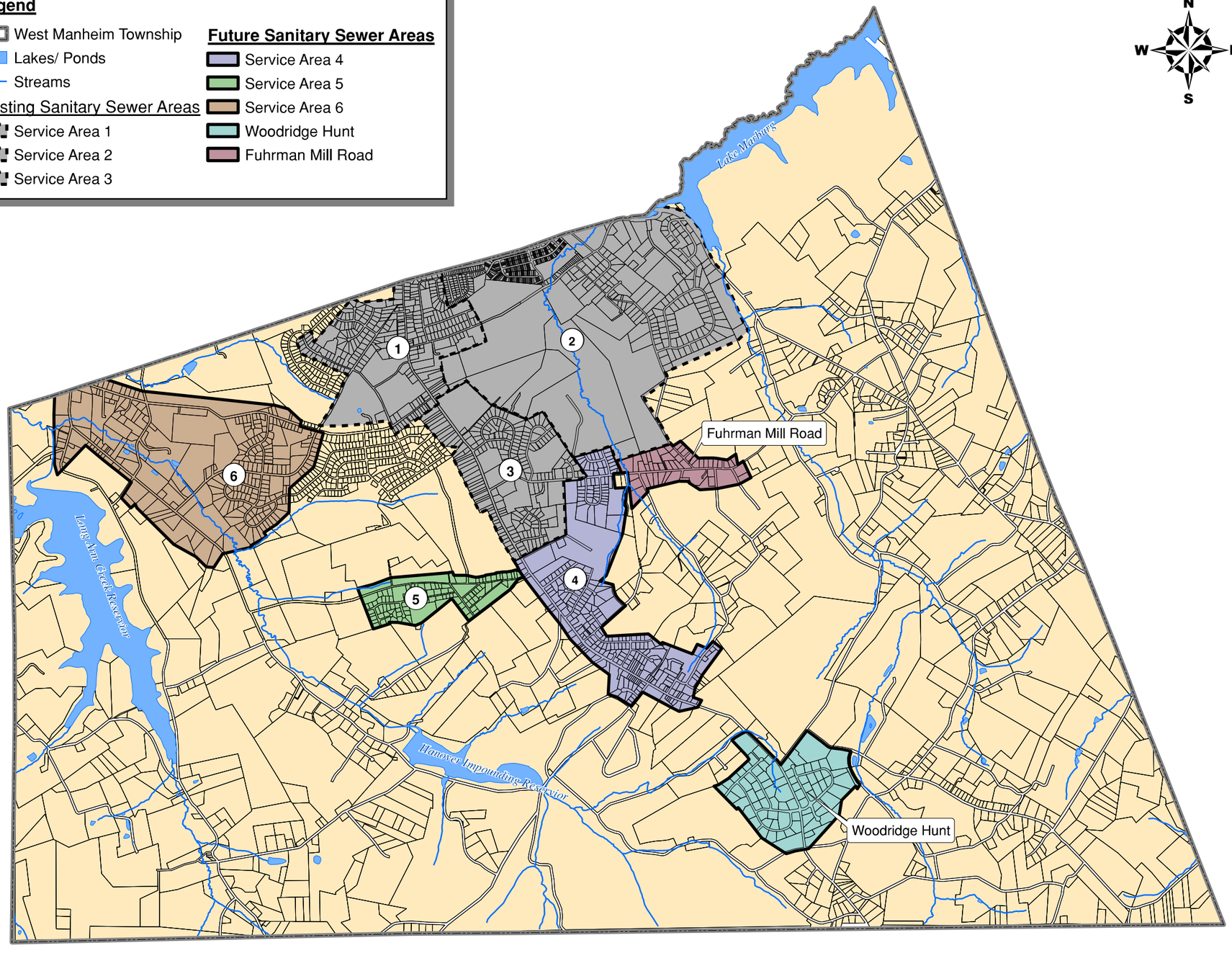
- West Manheim Township
- Lakes/ Ponds
- Streams

Existing Sanitary Sewer Areas

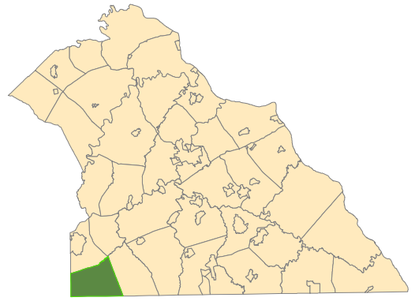
- Service Area 1
- Service Area 2
- Service Area 3

**Future Sanitary Sewer Areas**

- Service Area 4
- Service Area 5
- Service Area 6
- Woodridge Hunt
- Fuhrman Mill Road




N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

0 0.5 1 1.5 2 Miles

Exhibit II-2:
Sewer Districts

# West Manheim Township
# Act 537 Plan Update - Jan, 2013

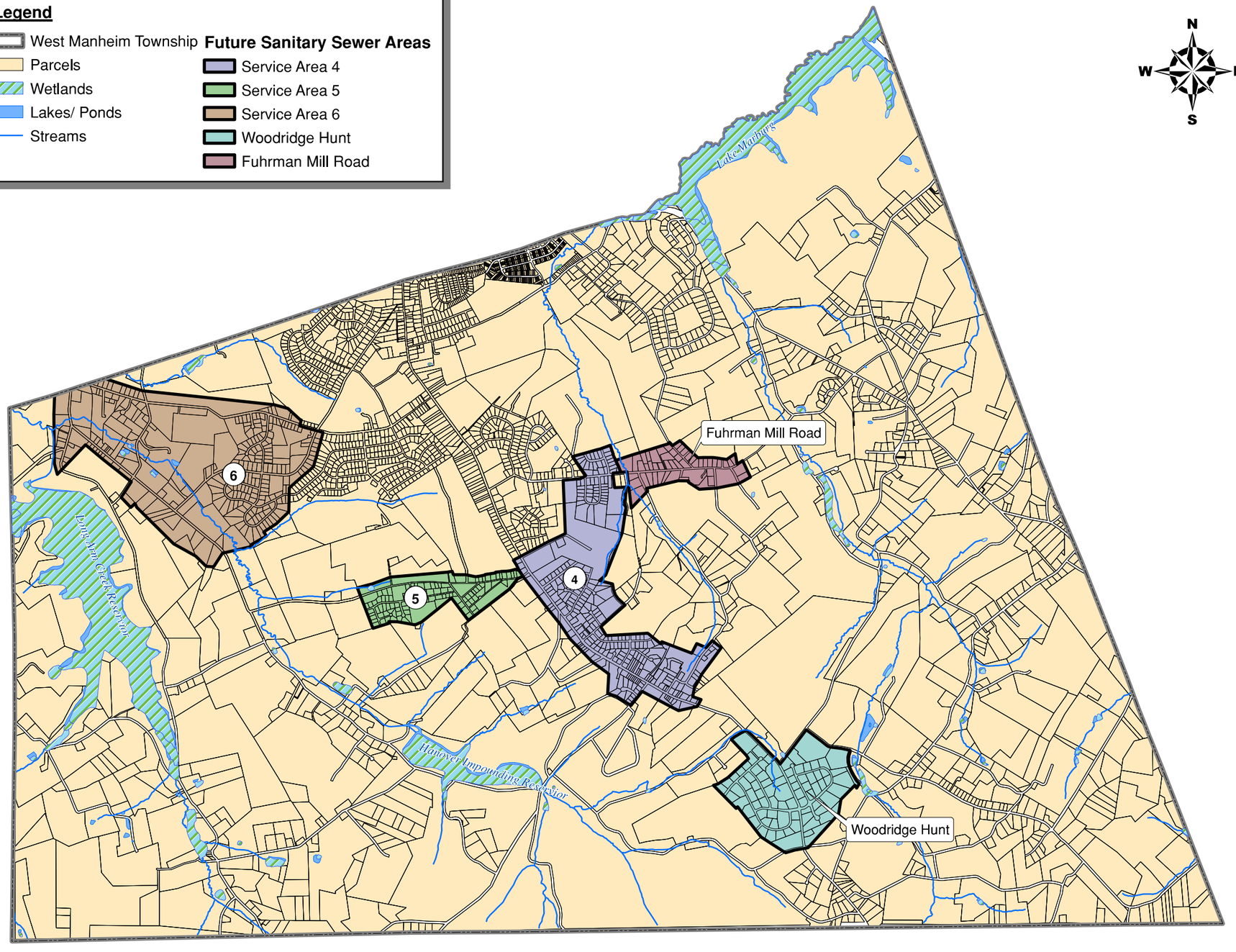
Base Mapping & Data: York County Planning Commission

**Legend**

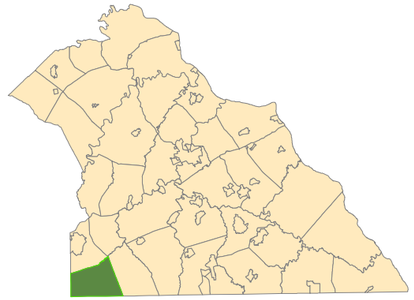
- West Manheim Township
- Parcels
- Wetlands
- Lakes/ Ponds
- Streams

**Future Sanitary Sewer Areas**

- Service Area 4
- Service Area 5
- Service Area 6
- Woodridge Hunt
- Fuhrman Mill Road




N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

0 0.5 1 1.5 2 Miles

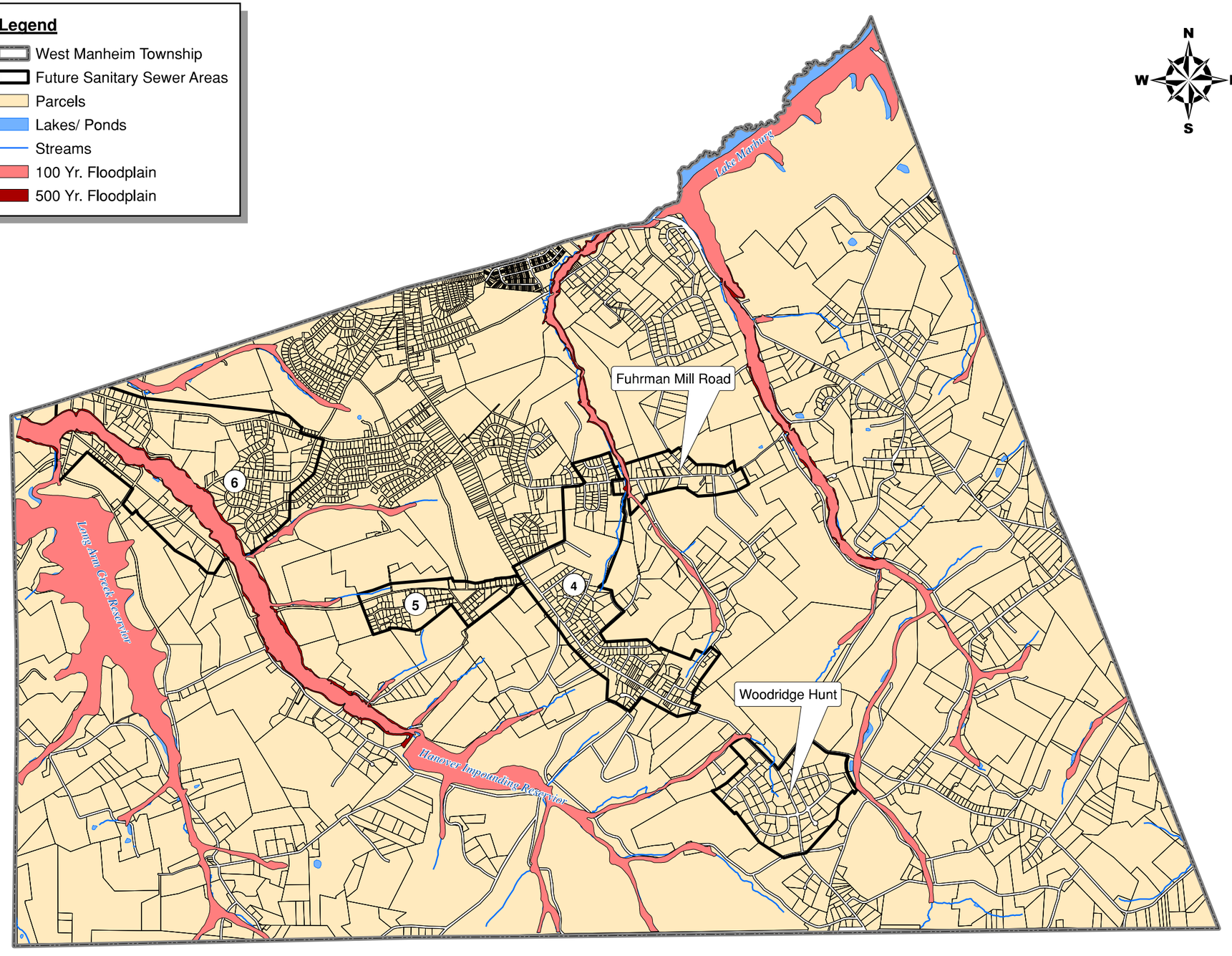
Exhibit II-3:
Water Resources

# West Manheim Township
# Act 537 Plan Update - Jan, 2013

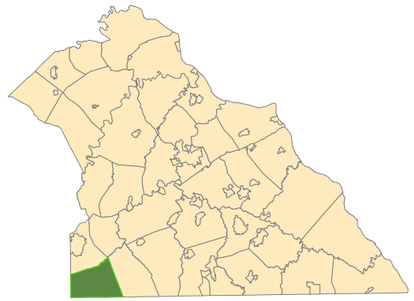
Base Mapping & Data: York County Planning Commission

**Legend**

- West Manheim Township
- Future Sanitary Sewer Areas
- Parcels
- Lakes/ Ponds
- Streams
- 100 Yr. Floodplain
- 500 Yr. Floodplain




N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

Exhibit II-4:
Flood Prone Areas

# West Manheim Township
# Act 537 Plan Update - Jan, 2013

0 0.5 1 1.5 2 Miles

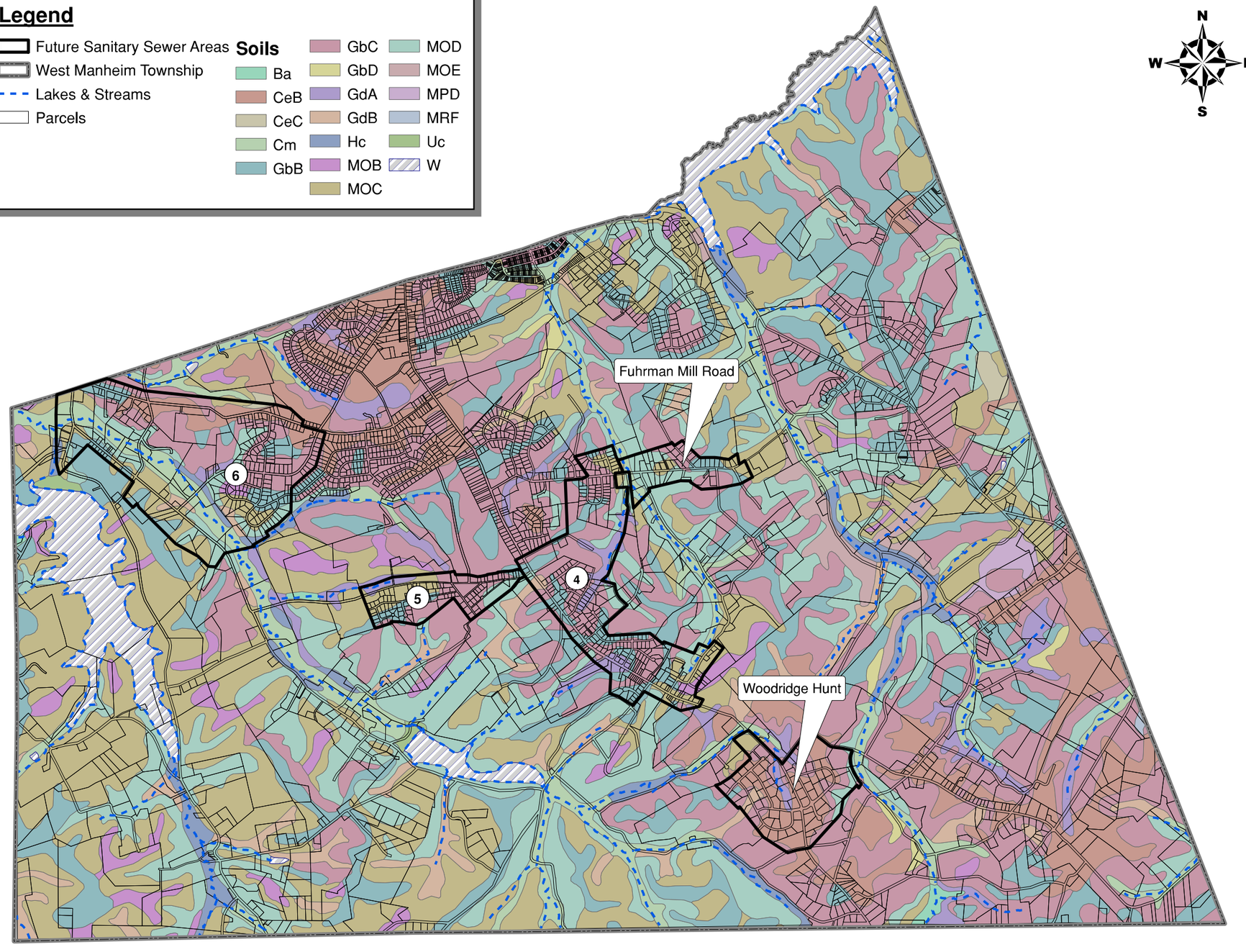
Base Mapping & Data: York County Planning Commission

## Legend

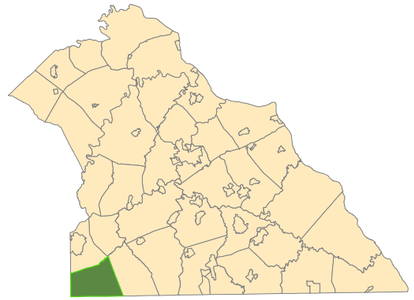
- Future Sanitary Sewer Areas
- West Manheim Township
- Lakes & Streams
- Parcels

**Soils**

Ba, CeB, CeC, Cm, GbB, GbC, GbD, GdA, GdB, Hc, MOB, MOC, MOD, MOE, MPD, MRF, Uc, W




N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

0 0.5 1 1.5 2 Miles

Exhibit II-5:
Soils

# West Manheim Township
# Act 537 Plan Update - Jan, 2013

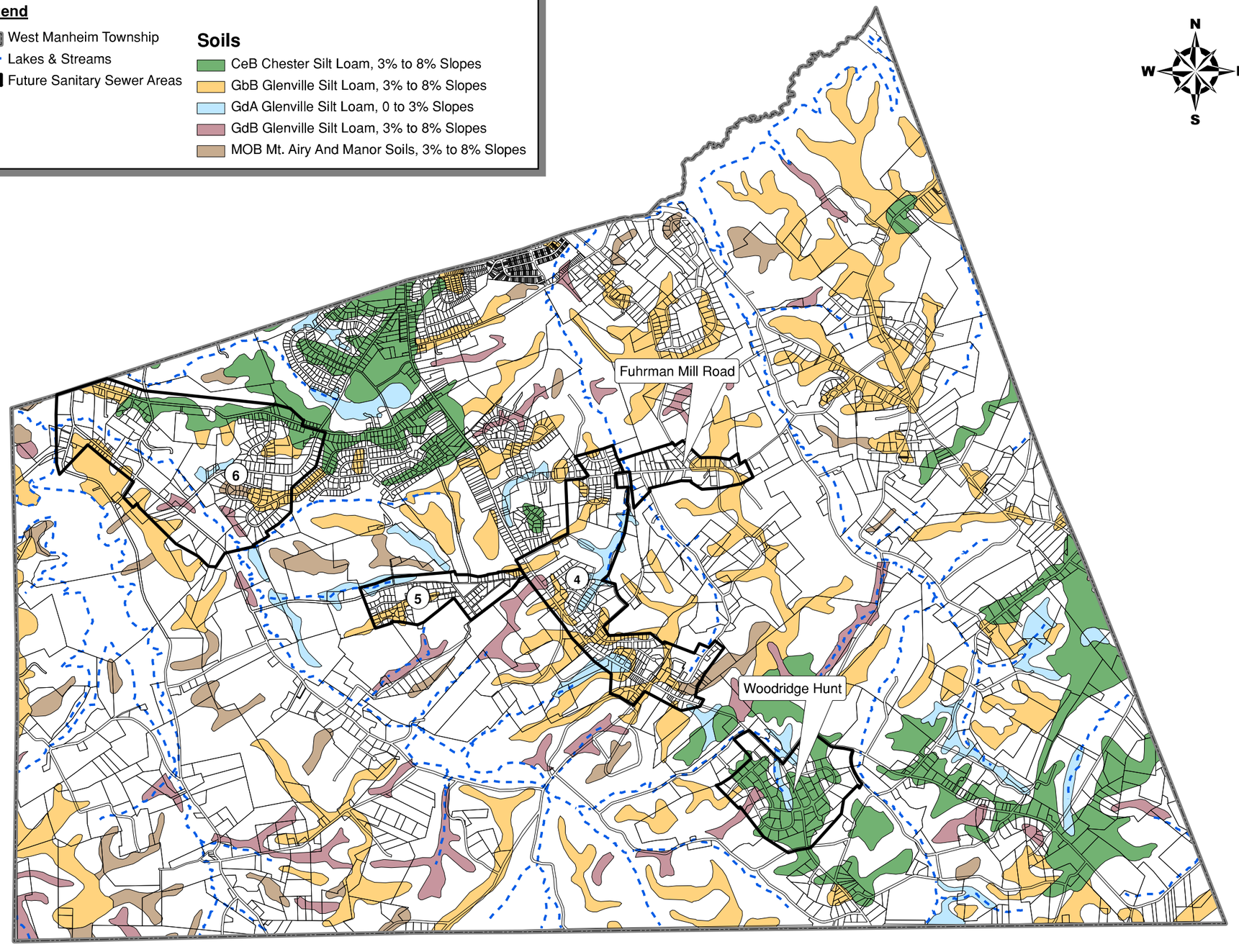
Base Mapping & Data: York County Planning Commission

**Legend**

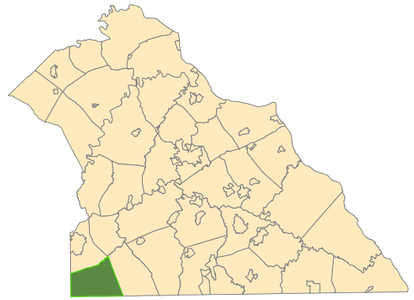
- West Manheim Township
- Lakes & Streams
- Future Sanitary Sewer Areas

**Soils**

- CeB Chester Silt Loam, 3% to 8% Slopes
- GbB Glenville Silt Loam, 3% to 8% Slopes
- GdA Glenville Silt Loam, 0 to 3% Slopes
- GdB Glenville Silt Loam, 3% to 8% Slopes
- MOB Mt. Airy And Manor Soils, 3% to 8% Slopes




N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

0 0.5 1 1.5 2 Miles

Exhibit II-6:
Soils Suitable for
Conventional In-Ground and
Elevated Sand Mounds

**West Manheim Township**
**Act 537 Plan Update - Jan, 2013**

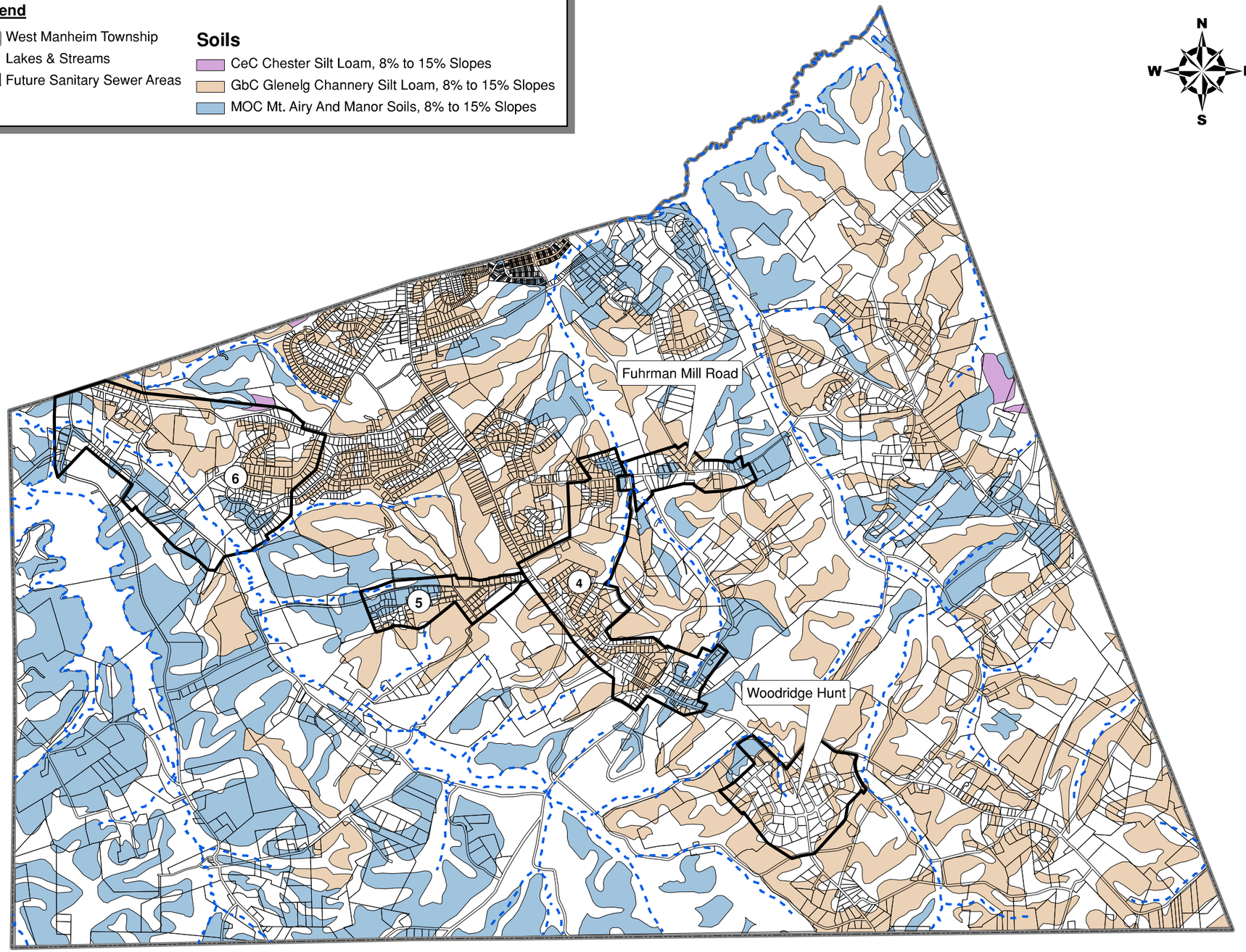
Base Mapping & Data: York County Planning Commission

**Legend**

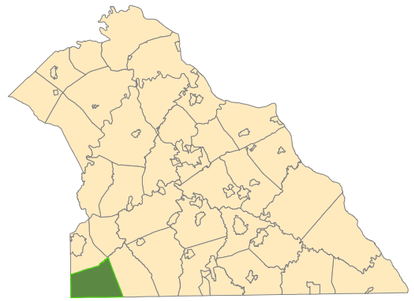
- West Manheim Township
- Lakes & Streams
- Future Sanitary Sewer Areas

**Soils**

- CeC Chester Silt Loam, 8% to 15% Slopes
- GbC Glenelg Channery Silt Loam, 8% to 15% Slopes
- MOC Mt. Airy And Manor Soils, 8% to 15% Slopes




N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

0 0.5 1 1.5 2 Miles

Exhibit II-7:
Soils Suitable for
Only Elevated Sand Mounds

**West Manheim Township**
**Act 537 Plan Update - Jan, 2013**

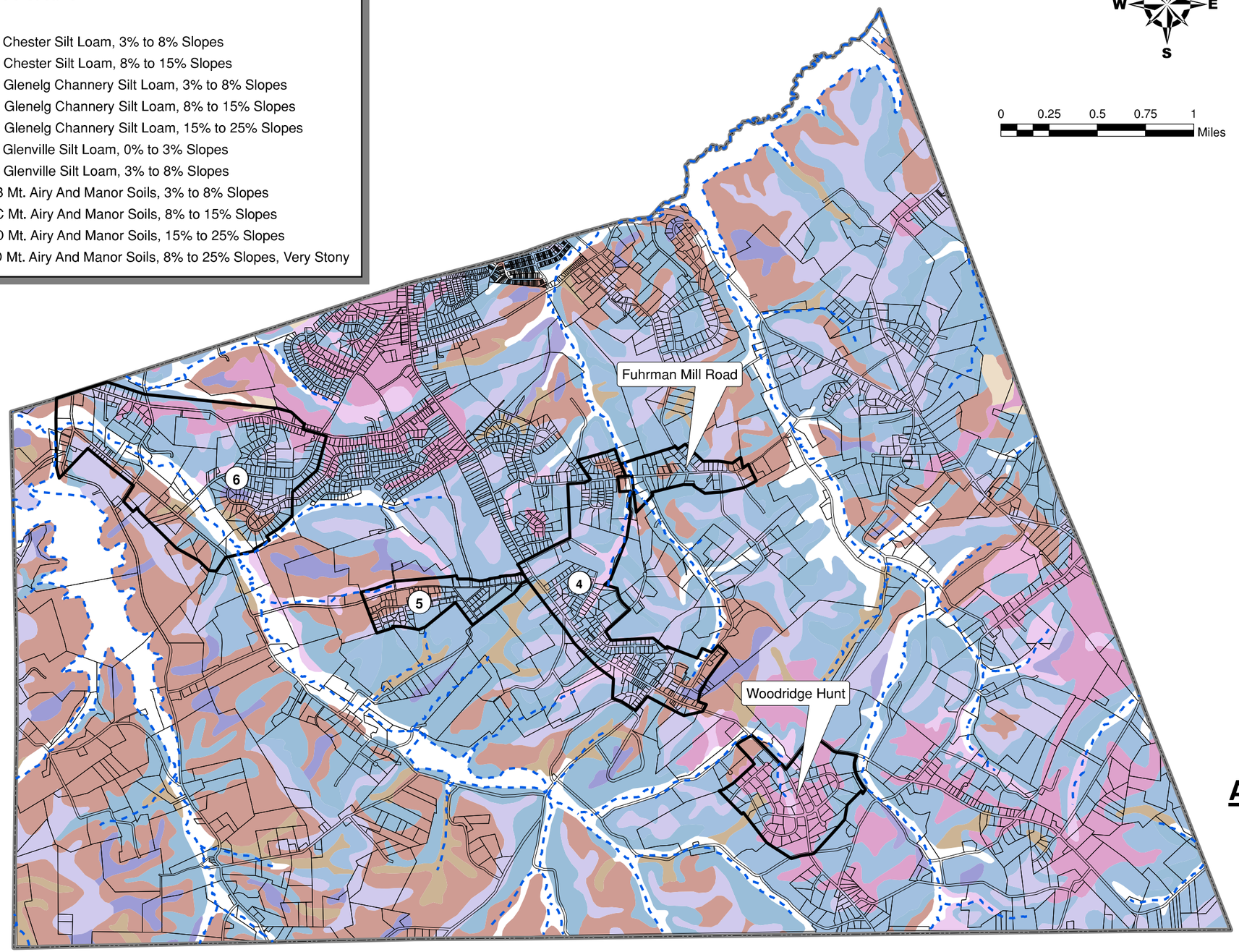
Base Mapping & Data: York County Planning Commission

## Legend

- West Manheim Township
- Future Sanitary Sewer Areas
- Lakes & Streams

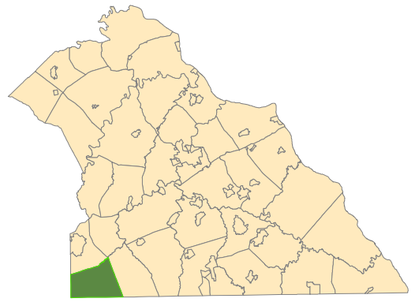
### Soils

- CeB Chester Silt Loam, 3% to 8% Slopes
- CeC Chester Silt Loam, 8% to 15% Slopes
- GbB Glenelg Channery Silt Loam, 3% to 8% Slopes
- GbC Glenelg Channery Silt Loam, 8% to 15% Slopes
- GbD Glenelg Channery Silt Loam, 15% to 25% Slopes
- GdA Glenville Silt Loam, 0% to 3% Slopes
- GdB Glenville Silt Loam, 3% to 8% Slopes
- MOB Mt. Airy And Manor Soils, 3% to 8% Slopes
- MOC Mt. Airy And Manor Soils, 8% to 15% Slopes
- MOD Mt. Airy And Manor Soils, 15% to 25% Slopes
- MPD Mt. Airy And Manor Soils, 8% to 25% Slopes, Very Stony




N
W E
S

0 0.25 0.5 0.75 1
Miles



**Location Map**

West Manheim Township York County, Pennsylvania

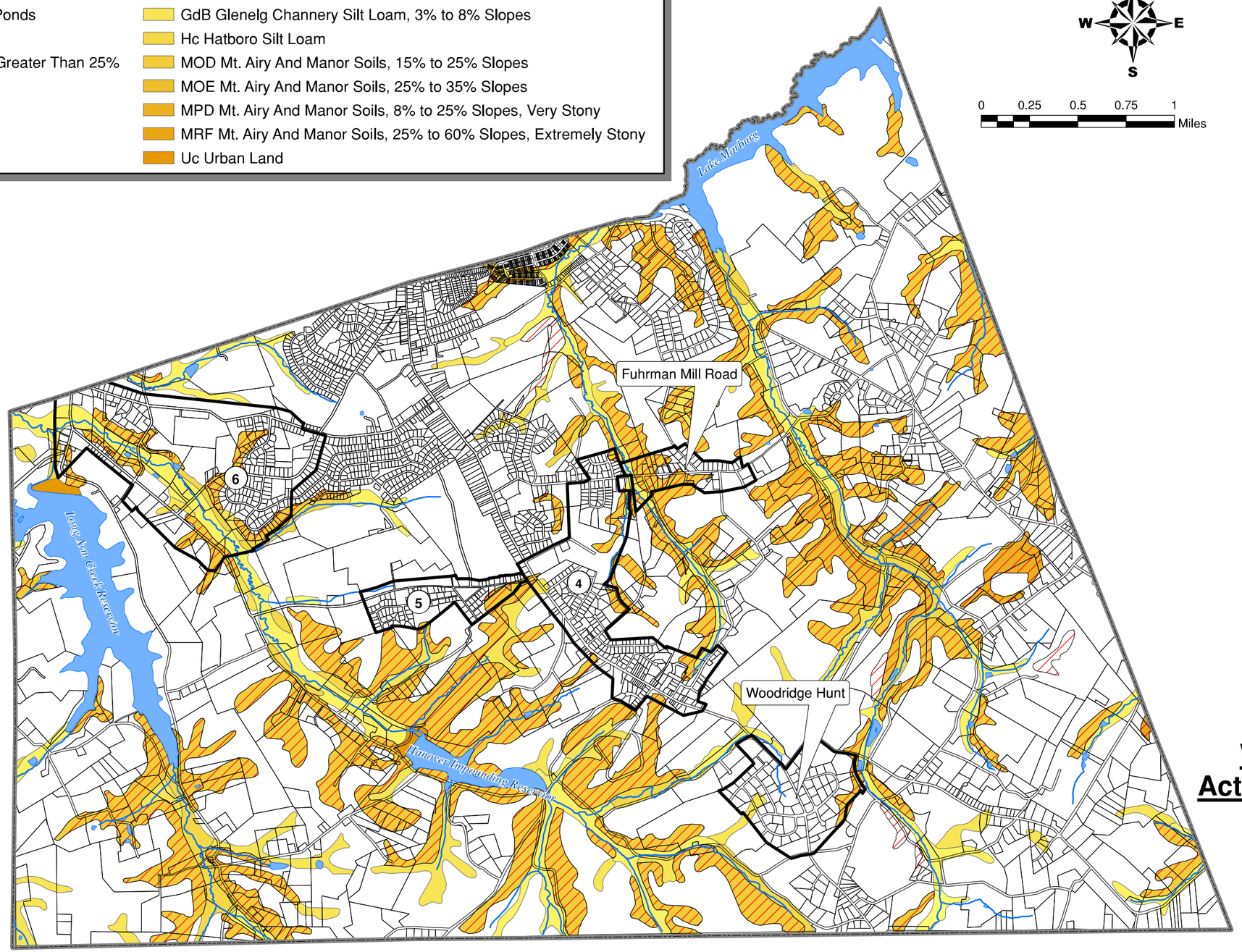
Exhibit II-8:
Soils Suitable for
Spray Irrigation Systems

**West Manheim Township**
**Act 537 Plan Update - Jan, 2013**

Base Mapping & Data: York County Planning Commission

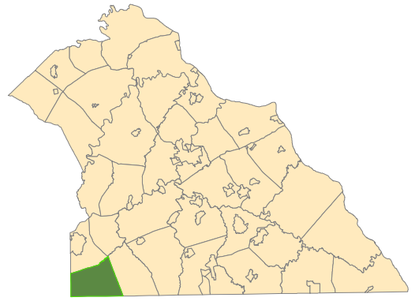
**Legend**

- West Manheim Township
- Future Sanitary Sewer Areas
- Lakes/ Ponds
- Streams
- Slopes Greater Than 25%
- Ba Baile Silt Loam
- Cm Codorus Silt Loam
- GdB Glenelg Channery Silt Loam, 3% to 8% Slopes
- Hc Hatboro Silt Loam
- MOD Mt. Airy And Manor Soils, 15% to 25% Slopes
- MOE Mt. Airy And Manor Soils, 25% to 35% Slopes
- MPD Mt. Airy And Manor Soils, 8% to 25% Slopes, Very Stony
- MRF Mt. Airy And Manor Soils, 25% to 60% Slopes, Extremely Stony
- Uc Urban Land




N
W E
S

0 0.25 0.5 0.75 1 Miles



**Location Map**

West Manheim Township York County, Pennsylvania

Exhibit II-9:
Slopes Unsuitable for
On-Lot Disposal Systems

**West Manheim Township**
**Act 537 Plan Update - Jan, 2013**

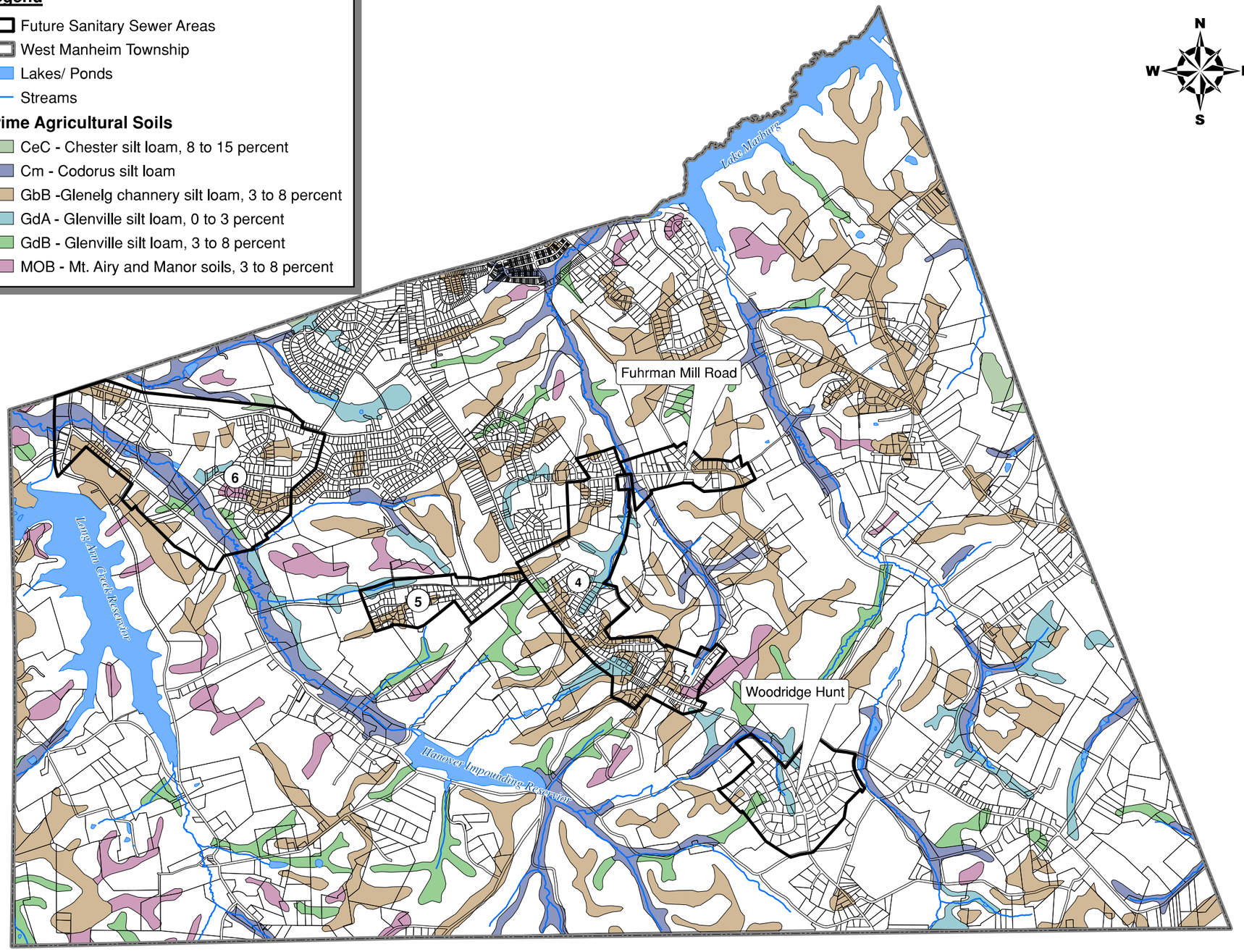
Base Mapping & Data: York County Planning Commission

**Legend**

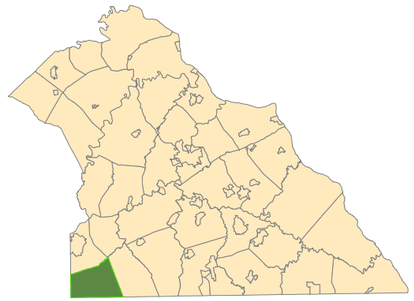
- Future Sanitary Sewer Areas
- West Manheim Township
- Lakes/ Ponds
- Streams

**Prime Agricultural Soils**

- CeC - Chester silt loam, 8 to 15 percent
- Cm - Codorus silt loam
- GbB -Glenelg channery silt loam, 3 to 8 percent
- GdA - Glenville silt loam, 0 to 3 percent
- GdB - Glenville silt loam, 3 to 8 percent
- MOB - Mt. Airy and Manor soils, 3 to 8 percent




N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

Exhibit II-10:
Prime Agricultural Soils

**West Manheim Township**
**Act 537 Plan Update - Jan, 2013**

0 0.5 1 1.5 2 Miles

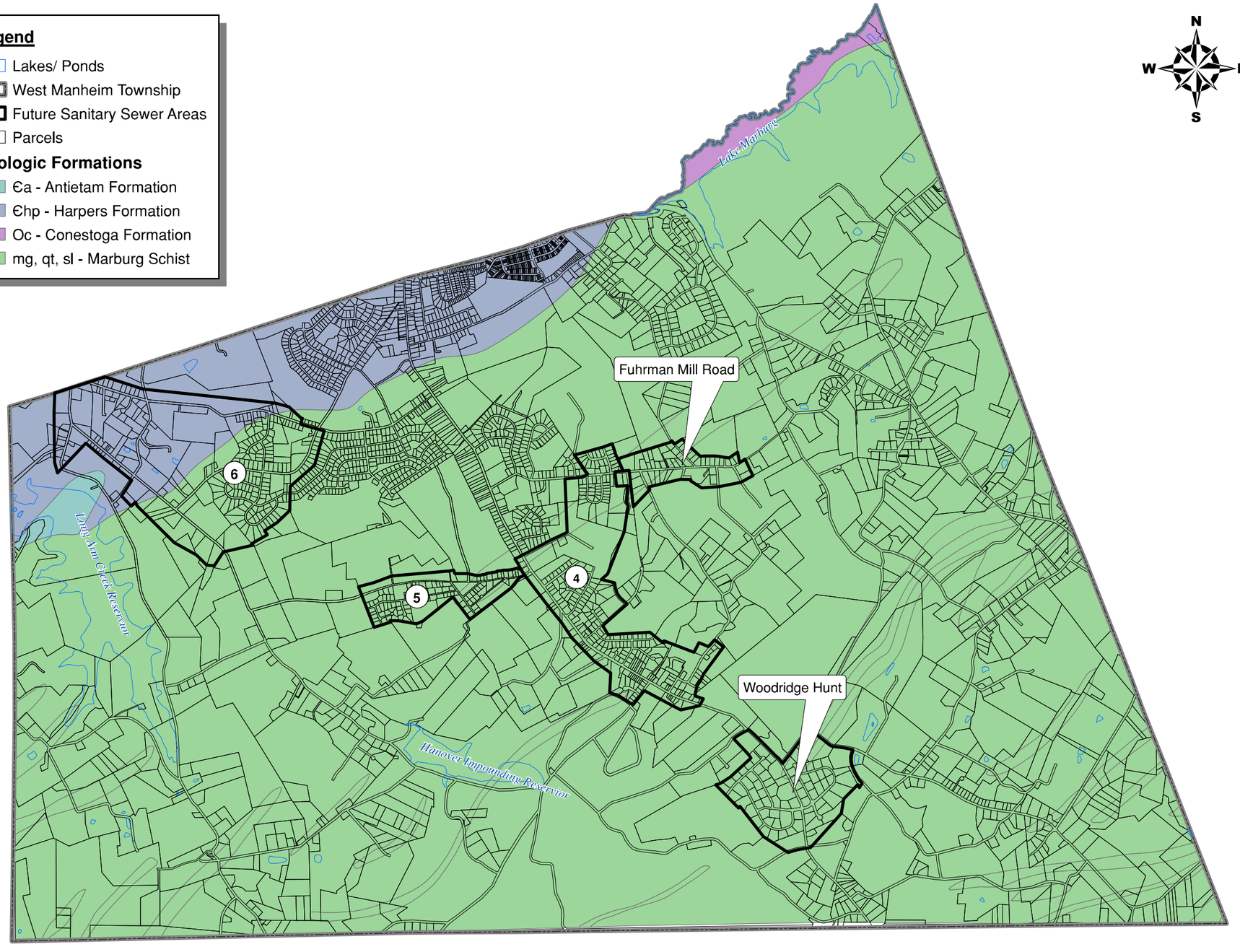
Base Mapping & Data: York County Planning Commission

**Legend**

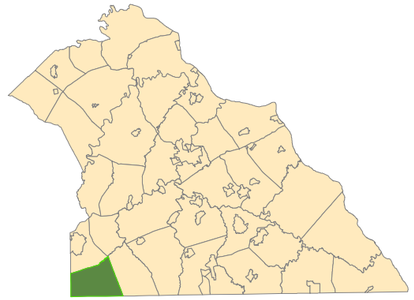
- Lakes/ Ponds
- West Manheim Township
- Future Sanitary Sewer Areas
- Parcels

**Geologic Formations**

- Ca - Antietam Formation
- Chp - Harpers Formation
- Oc - Conestoga Formation
- mg, qt, sl - Marburg Schist




N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

Exhibit II-11:
Geologic Features

# West Manheim Township
# Act 537 Plan Update - Jan, 2013

0 0.5 1 1.5 2 Miles

Base Mapping & Data: York County Planning Commission

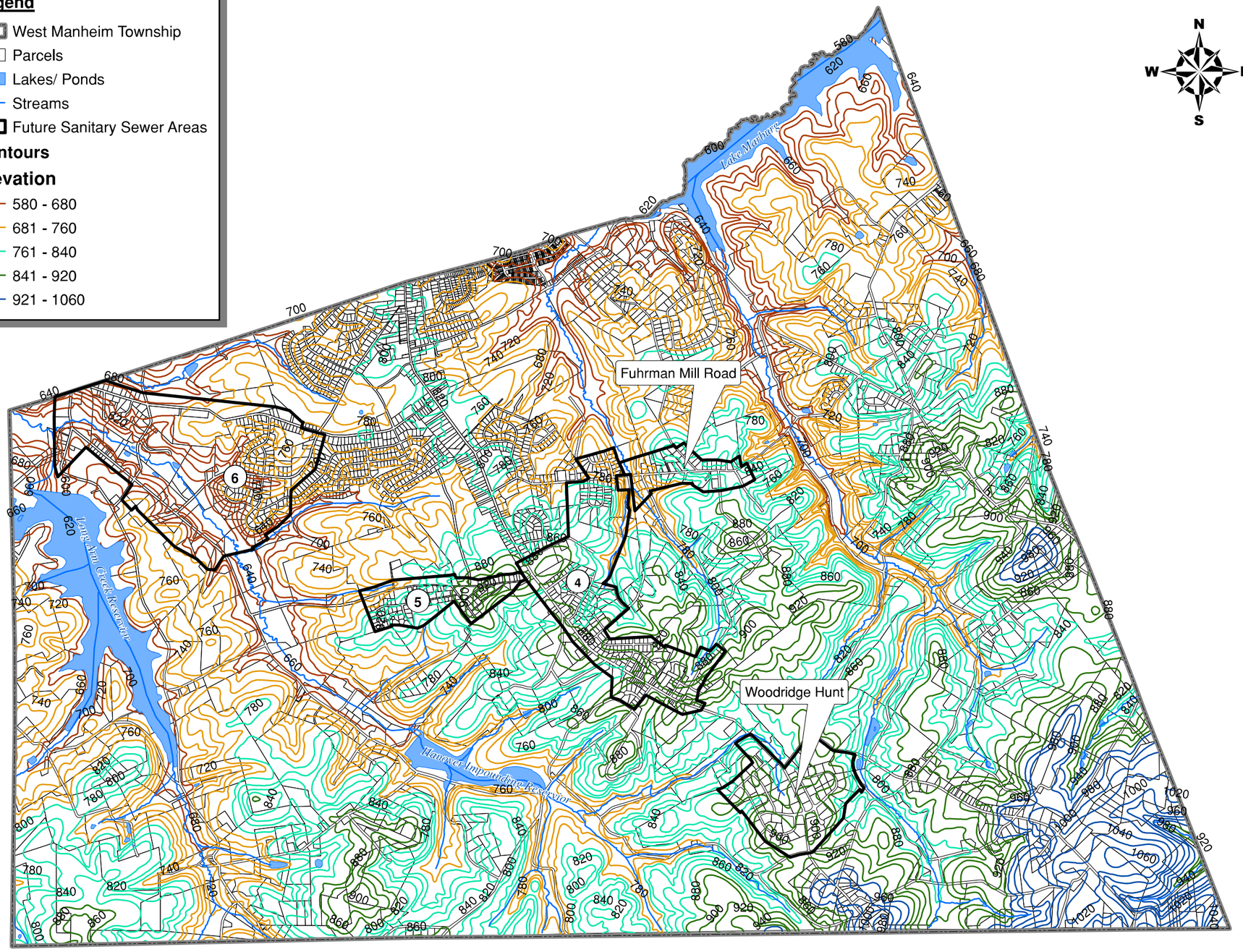
**Legend**

- West Manheim Township
- Parcels
- Lakes/ Ponds
- Streams
- Future Sanitary Sewer Areas

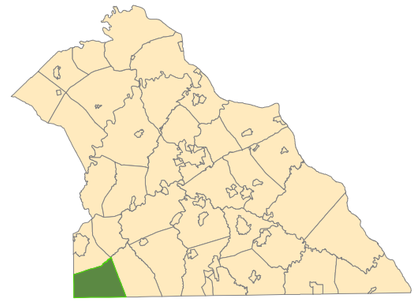
**Contours**

**Elevation**

- 580 - 680
- 681 - 760
- 761 - 840
- 841 - 920
- 921 - 1060




N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

Exhibit II-12:
Topography

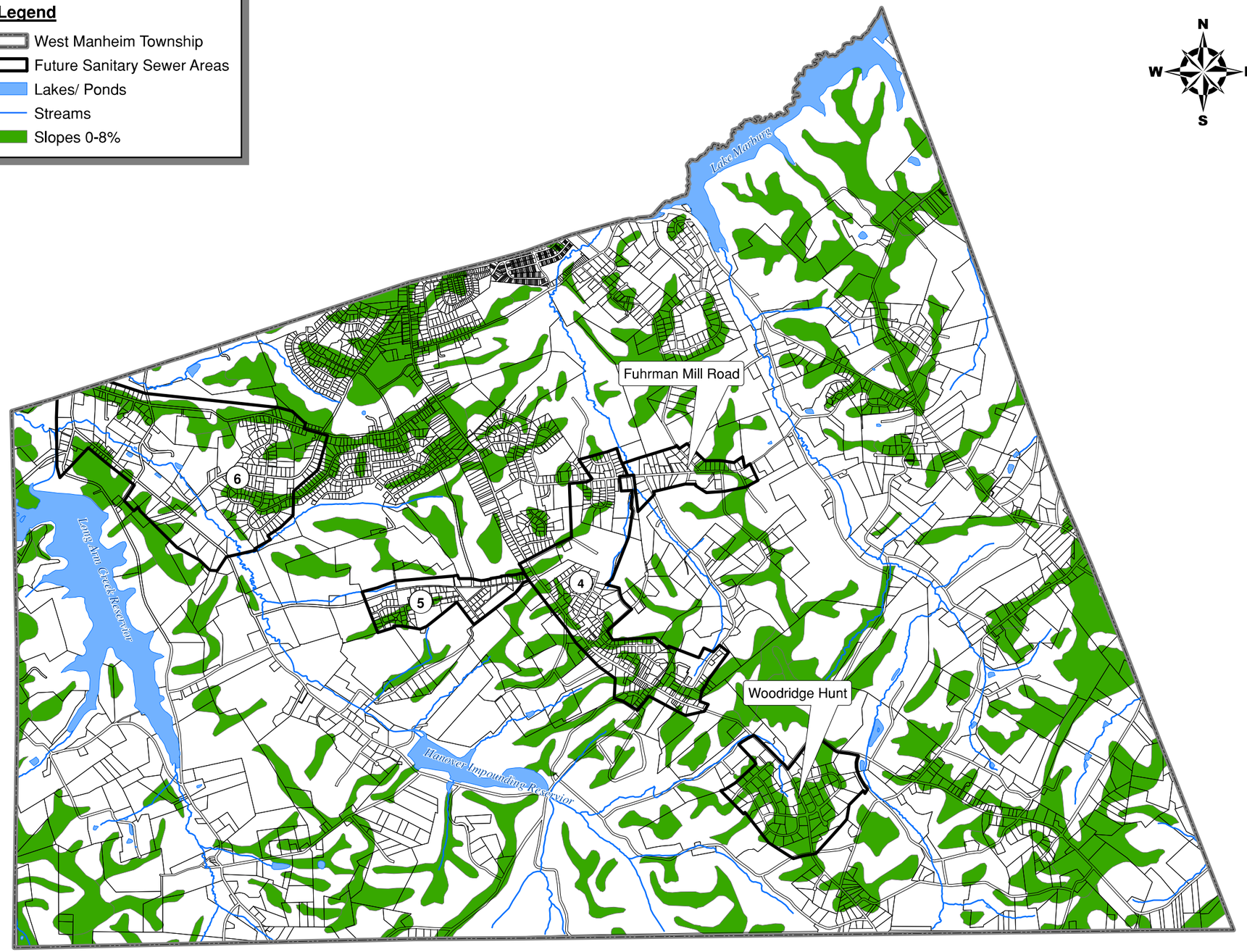
# West Manheim Township
# Act 537 Plan Update - Jan, 2013

0 0.5 1 1.5 2 Miles

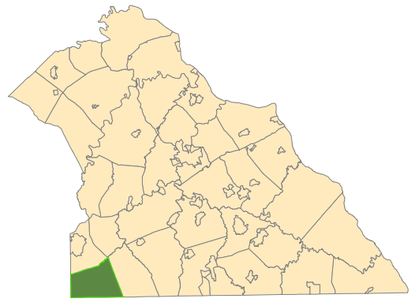
Base Mapping & Data: York County Planning Commission

**Legend**

- West Manheim Township
- Future Sanitary Sewer Areas
- Lakes/ Ponds
- Streams
- Slopes 0-8%




N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

Exhibit II-13:
Slopes Suitable for
Conventional In-Ground
and Elevated Sand Mounds

**West Manheim Township**
**Act 537 Plan Update - Jan, 2013**

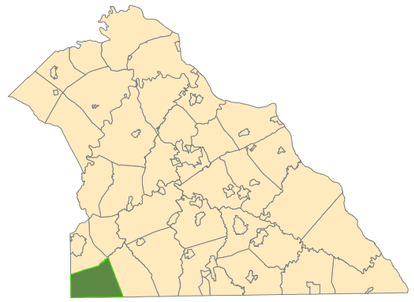
0 0.5 1 1.5 2
Miles

Base Mapping & Data: York County Planning Commission

**Legend**

- West Manheim Township
- Future Sanitary Sewer Areas
- Lakes/ Ponds
- Streams
- Slopes 0-15%

N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

Exhibit II-14:
Slopes Suitable for
Only Elevated Sand Mounds

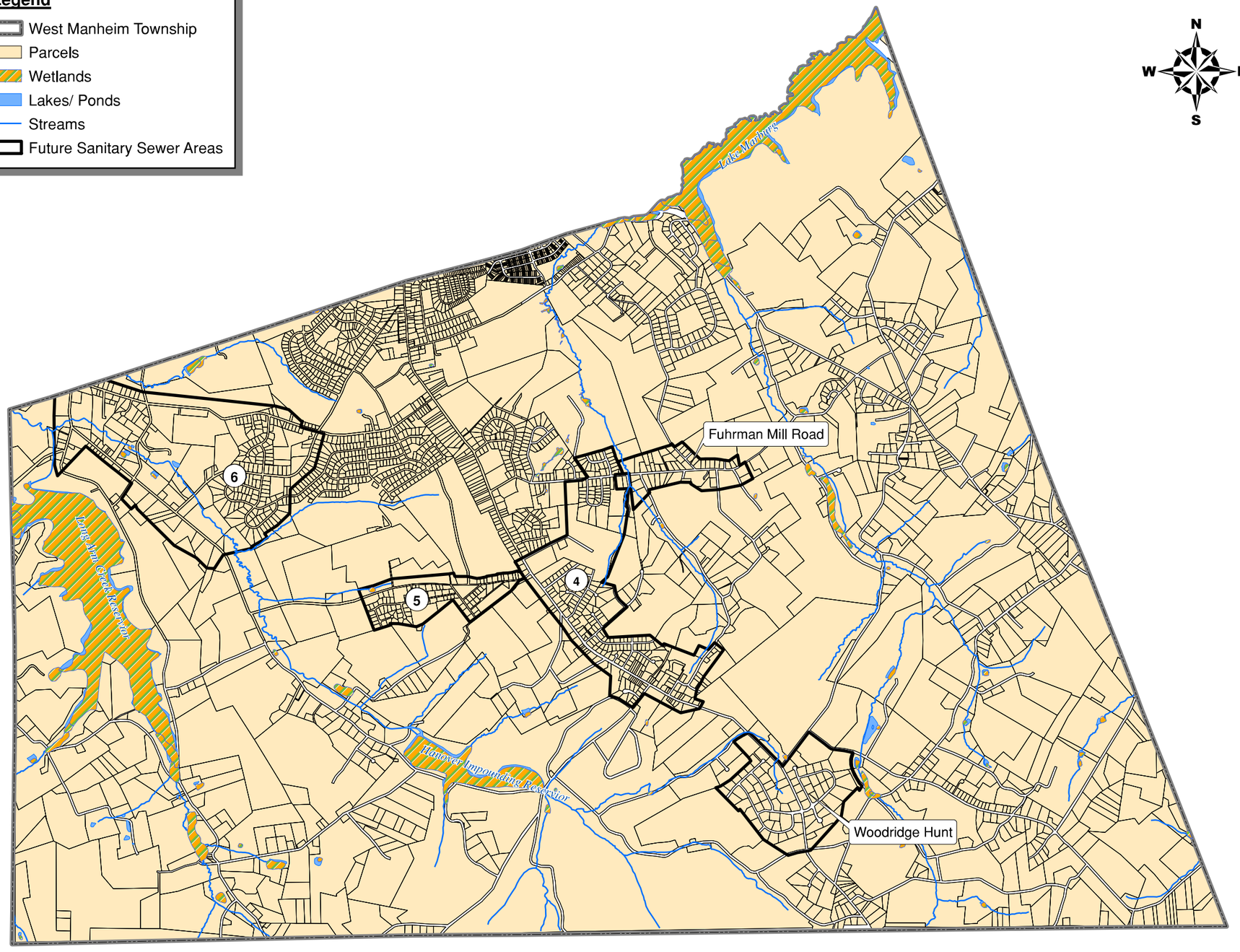
**West Manheim Township**
**Act 537 Plan Update - Jan, 2013**

0 0.5 1 1.5 2 Miles

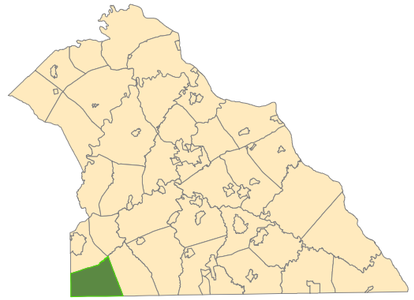
Base Mapping & Data: York County Planning Commission

**Legend**

- West Manheim Township
- Parcels
- Wetlands
- Lakes/ Ponds
- Streams
- Future Sanitary Sewer Areas




N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

Exhibit II-17:
Wetlands

**West Manheim Township**
**Act 537 Plan Update - Jan, 2013**

0 0.5 1 1.5 2
Miles

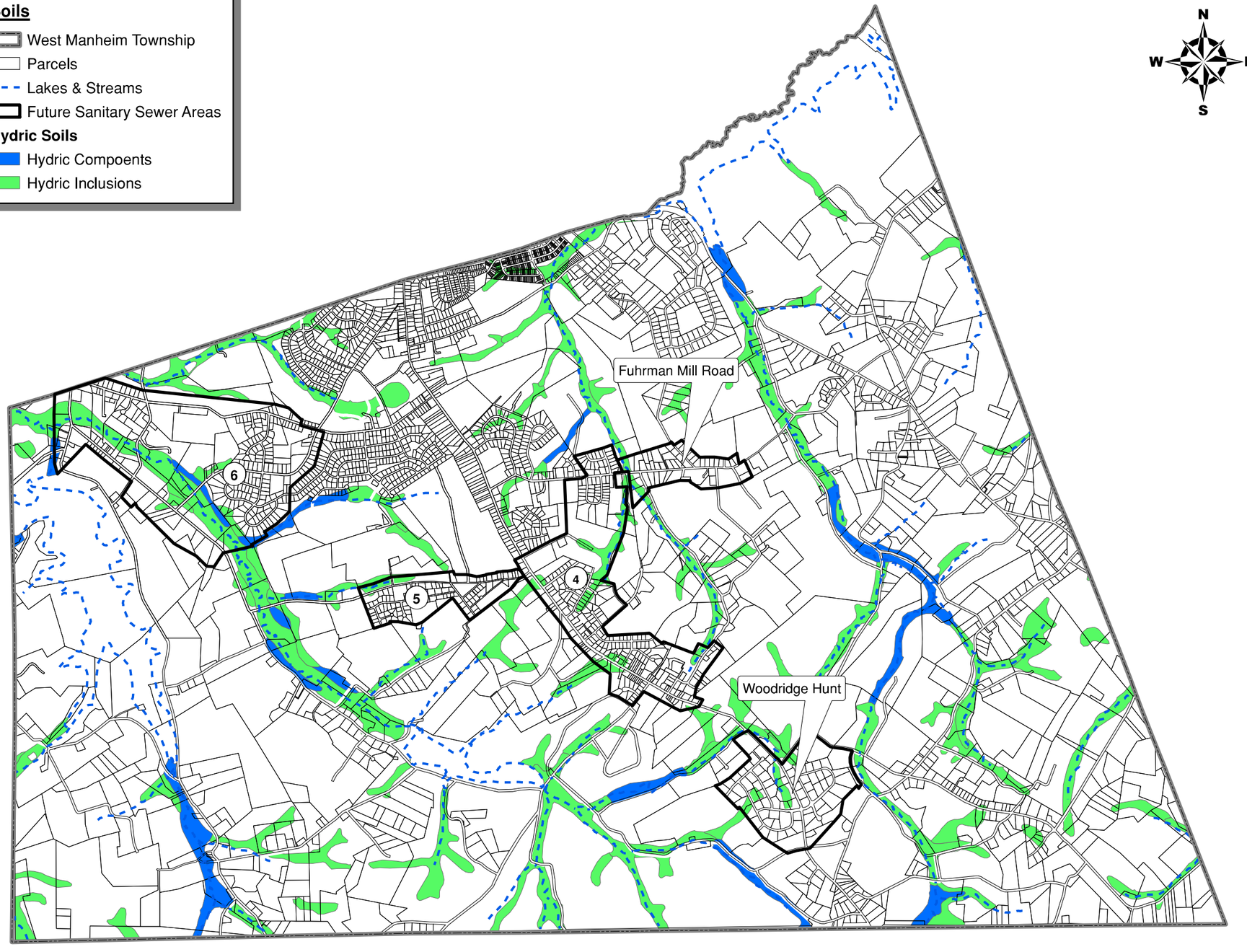
Base Mapping & Data: York County Planning Commission

**Soils**

- West Manheim Township
- Parcels
- Lakes & Streams
- Future Sanitary Sewer Areas

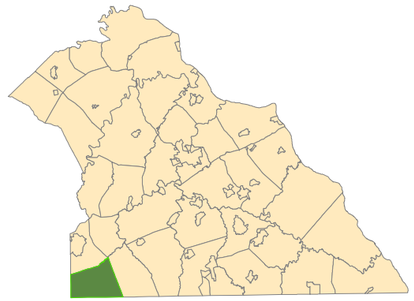
**Hydric Soils**

- Hydric Compoents
- Hydric Inclusions




0 0.5 1 1.5 2 Miles

N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

Exhibit II-18:
Hydric Soils

# West Manheim Township
# Act 537 Plan Update - Jan, 2013

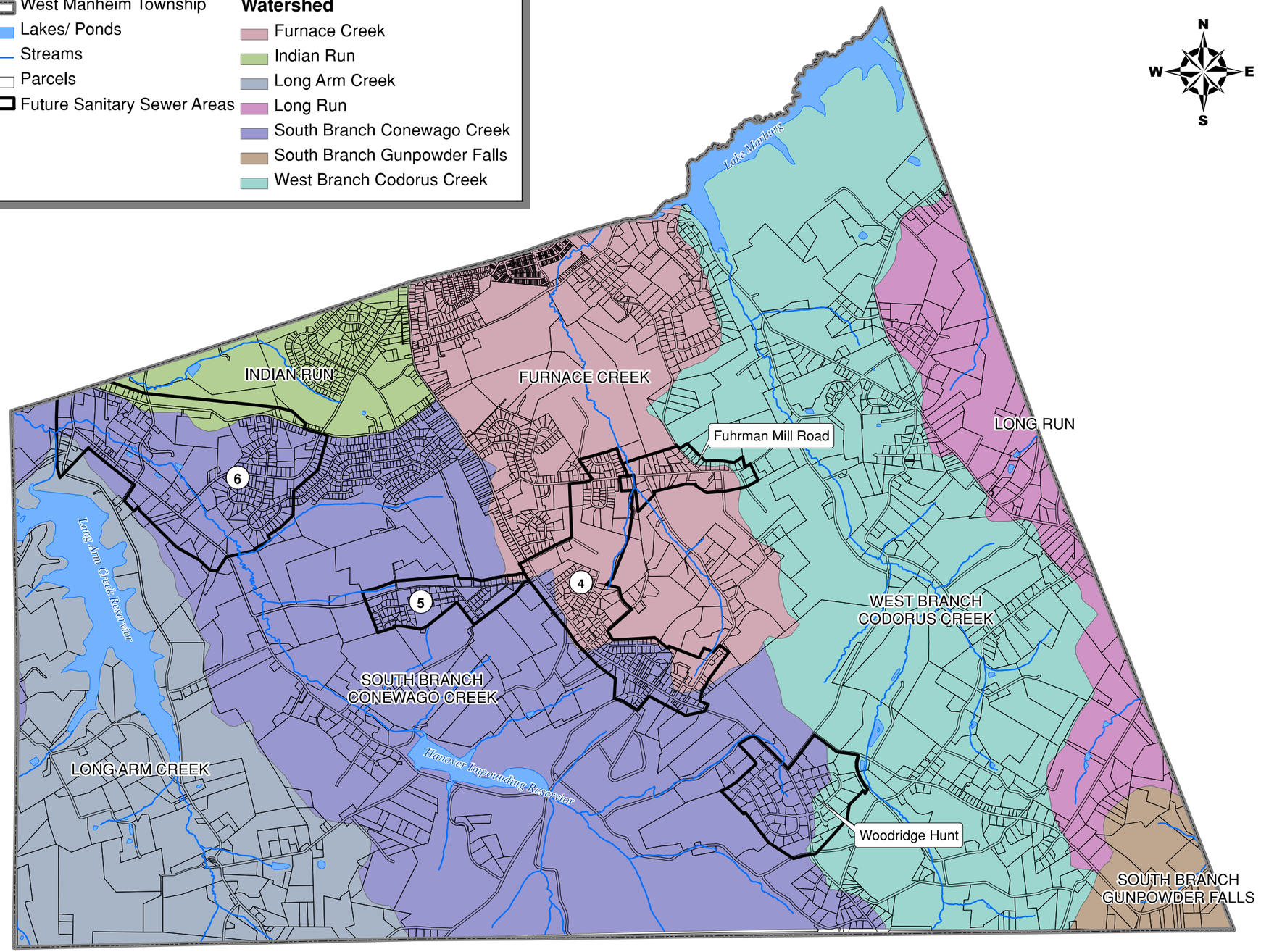
Base Mapping & Data: York County Planning Commission

**Legend**

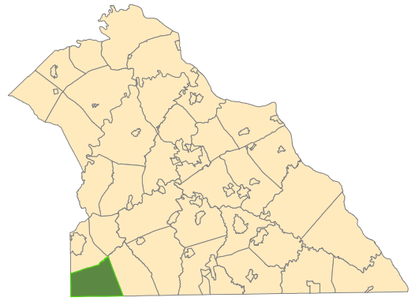
- West Manheim Township
- Lakes/ Ponds
- Streams
- Parcels
- Future Sanitary Sewer Areas

**Watershed**

- Furnace Creek
- Indian Run
- Long Arm Creek
- Long Run
- South Branch Conewago Creek
- South Branch Gunpowder Falls
- West Branch Codorus Creek




N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

0 0.5 1 1.5 2 Miles

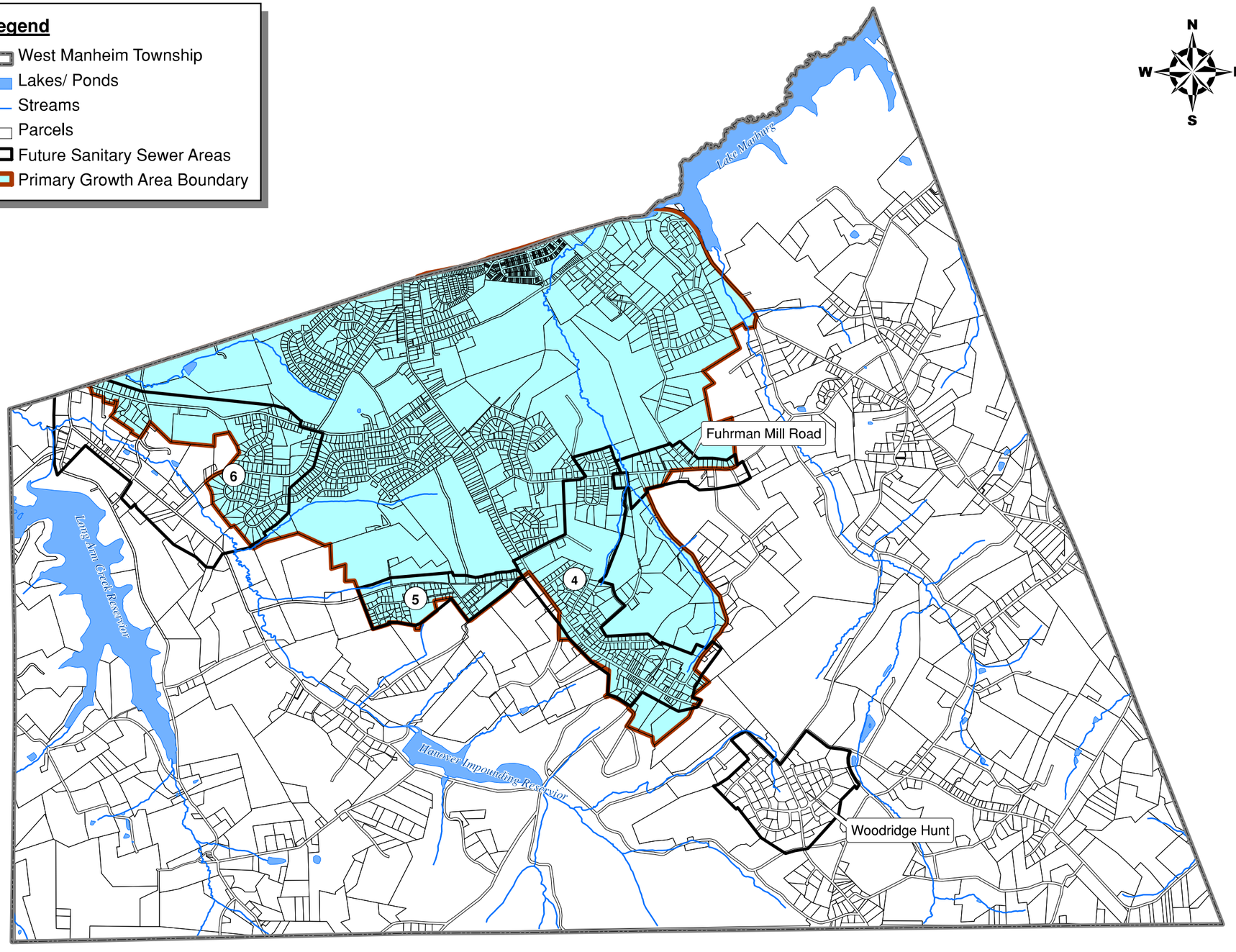
Exhibit II-19:
Drainage Basins

**West Manheim Township**
**Act 537 Plan Update - Jan, 2013**

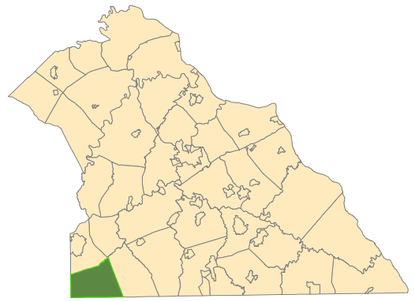
Base Mapping & Data: York County Planning Commission

**Legend**

- West Manheim Township
- Lakes/ Ponds
- Streams
- Parcels
- Future Sanitary Sewer Areas
- Primary Growth Area Boundary




N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

Exhibit II-20:
Primarty Growth Area

# West Manheim Township
# Act 537 Plan Update - Jan, 2013

0 0.5 1 1.5 2 Miles

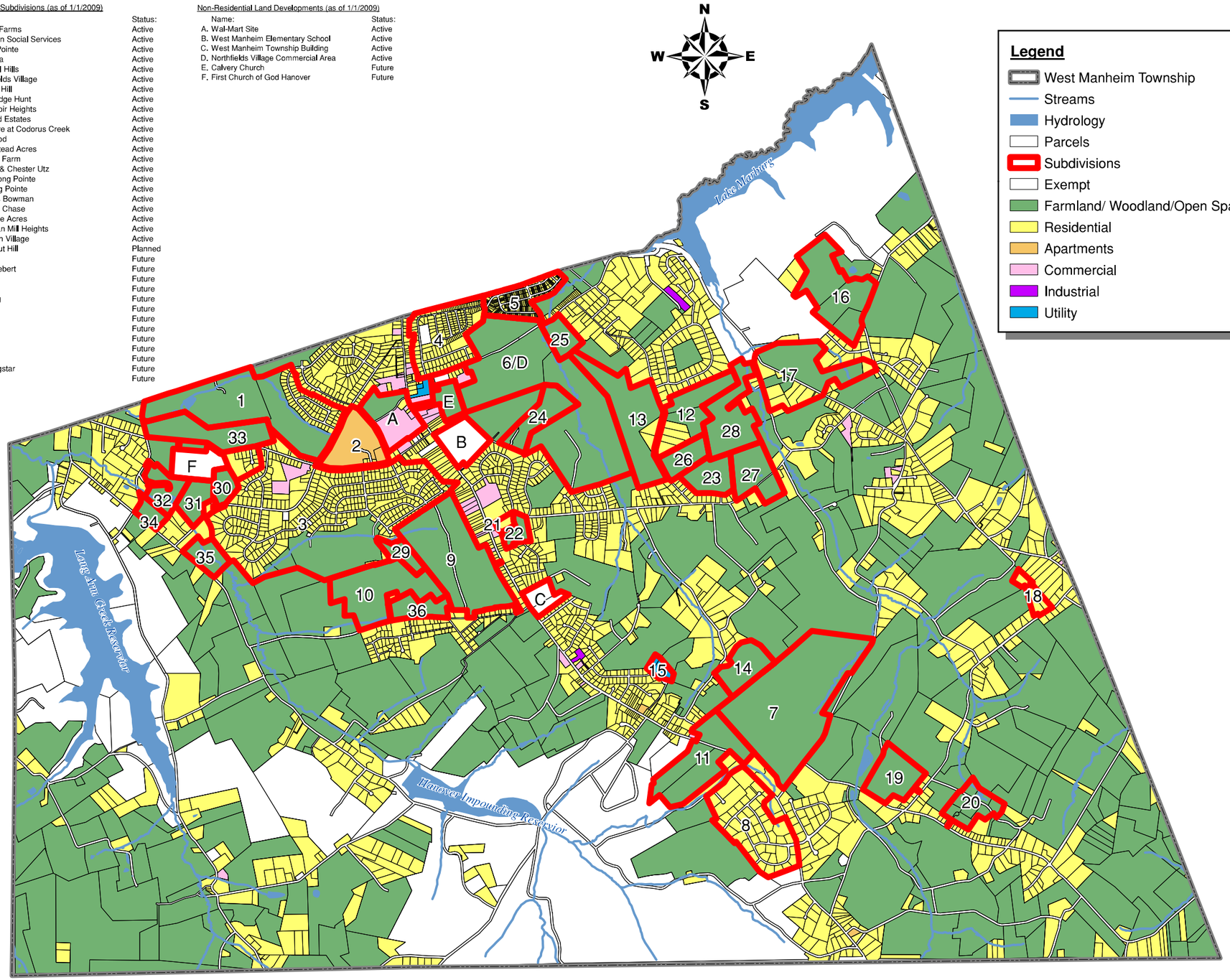
Base Mapping & Data: York County Planning Commission

Residential Subdivisions (as of 1/1/2009)

| | Name: | Status: |
|---|---|---|
| 1 | Rogen Farms | Active |
| 2 | Lutheran Social Services | Active |
| 3 | South Pointe | Active |
| 4 | Merlena | Active |
| 5 | Colonial Hills | Active |
| 6 | Northfields Village | Active |
| 7 | Joshua Hill | Active |
| 8 | Woodridge Hunt | Active |
| 9 | Reservoir Heights | Active |
| 10 | Orchard Estates | Active |
| 11 | Preserve at Codorus Creek | Active |
| 12 | Oakwood | Active |
| 13 | Homestead Acres | Active |
| 14 | Werner Farm | Active |
| 15 | Margie & Chester Utz | Active |
| 16 | Wyndsong Pointe | Active |
| 17 | Marburg Pointe | Active |
| 18 | Charles Bowman | Active |
| 19 | Steeple Chase | Active |
| 20 | Paradise Acres | Active |
| 21 | Fuhrman Mill Heights | Active |
| 22 | Fox Run Village | Active |
| 23 | Chestnut Hill | Planned |
| 24 | Hetrick | Future |
| 25 | Ruth Rebert | Future |
| 26 | Warner | Future |
| 27 | Kindon | Future |
| 28 | Yingling | Future |
| 29 | Rebert | Future |
| 30 | Wright | Future |
| 31 | Kalda | Future |
| 32 | Boyce | Future |
| 33 | Nace | Future |
| 34 | Noel | Future |
| 35 | Morningstar | Future |
| 36 | Burns | Future |

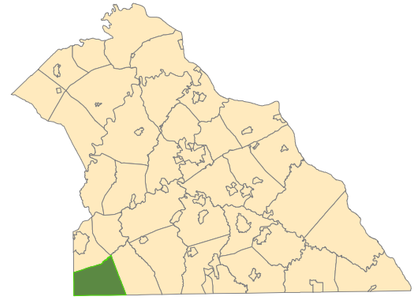
Non-Residential Land Developments (as of 1/1/2009)

| | Name: | Status: |
|---|---|---|
| A. | Wal-Mart Site | Active |
| B. | West Manheim Elementary School | Active |
| C. | West Manheim Township Building | Active |
| D. | Northfields Village Commercial Area | Active |
| E. | Calvery Church | Future |
| F. | First Church of God Hanover | Future |




**Legend**

- West Manheim Township
- Streams
- Hydrology
- Parcels
- Subdivisions
- Exempt
- Farmland/ Woodland/Open Space
- Residential
- Apartments
- Commercial
- Industrial
- Utility



**Location Map**

West Manheim Township York County, Pennsylvania

Exhibit II-21:
Future Sanitary Sewer
Treatment Capacity Projections

**West Manheim Township**
**Act 537 Plan Update - Jan, 2013**

Base Mapping & Data: York County Planning Commission

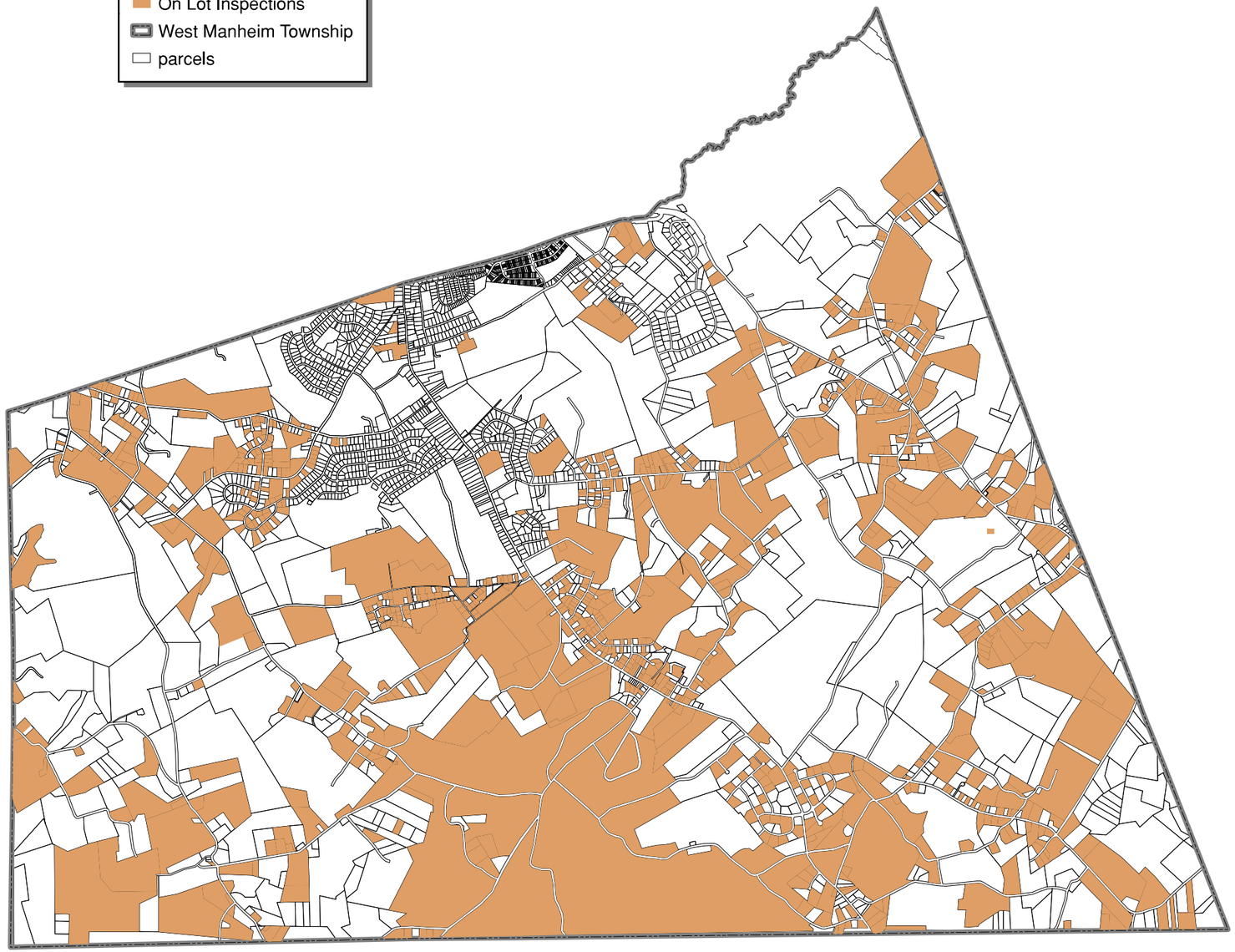
N

W E

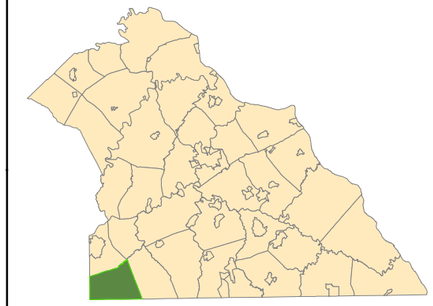
S

**Legend**

- On Lot Inspections
- West Manheim Township
- parcels



0 0.25 0.5 0.75 1 Miles



**Location Map**

West Manheim Township York County, Pennsylvania

Exhibit III-7 :
OLDs Inspection/Certification (2010)

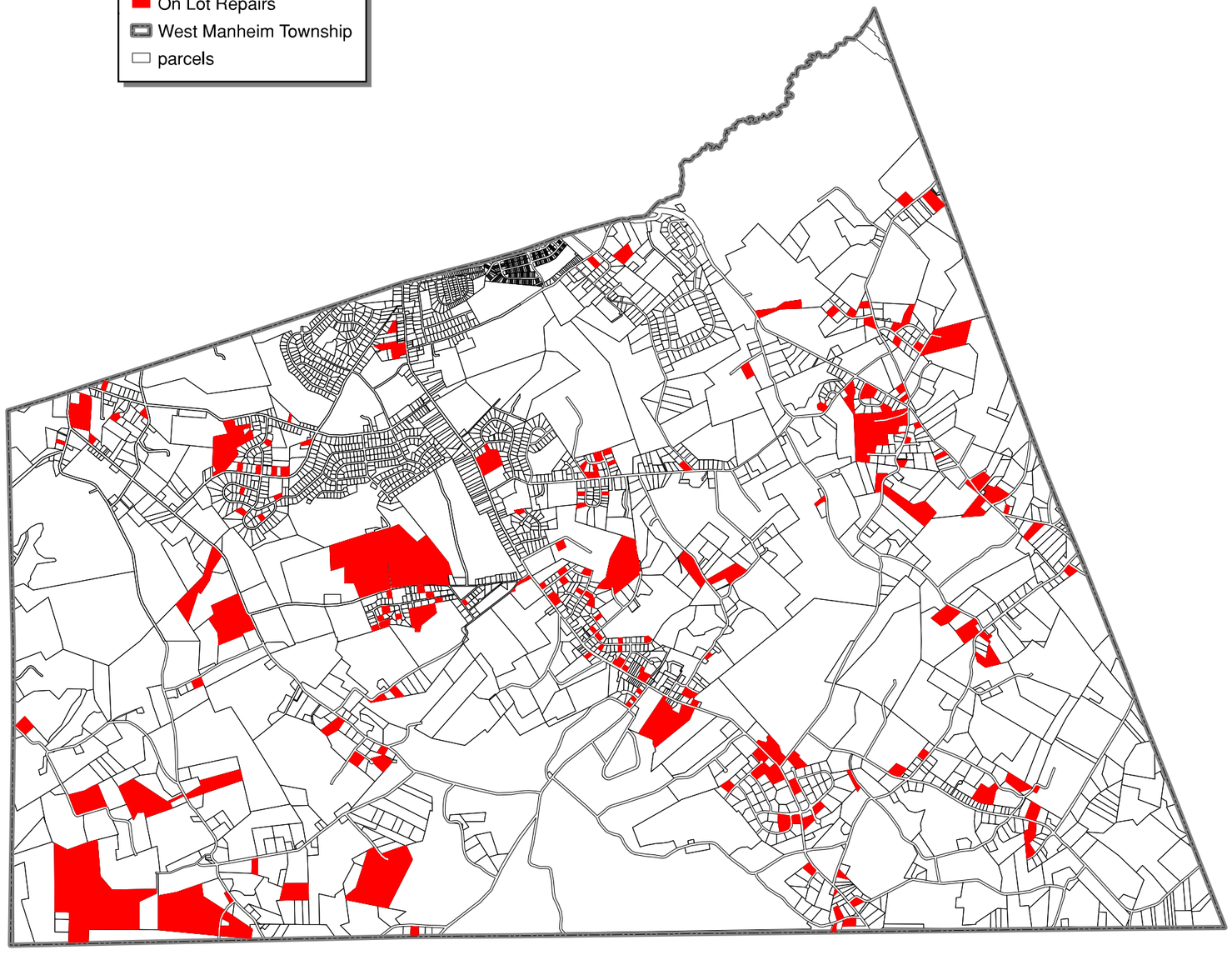
# West Manheim Township
# Act 537 Plan Update - Jan, 2013

Base Mapping & Data: York County Planning Commission

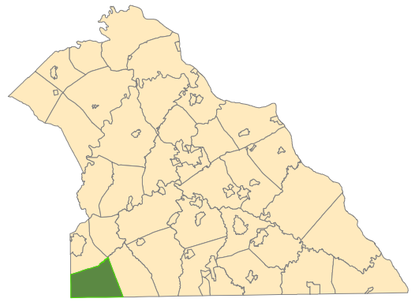
N
W E
S

**Legend**

- On Lot Repairs
- West Manheim Township
- parcels



0 0.25 0.5 0.75 1 Miles



**Location Map**

West Manheim Township York County, Pennsylvania

Exhibit III-8:
OLDs Repair Permits (2010)

# West Manheim Township
# Act 537 Plan Update - Jan, 2013

Base Mapping & Data: York County Planning Commission

Active or Planned Residential Subdivisions (as of 1/1/2009)

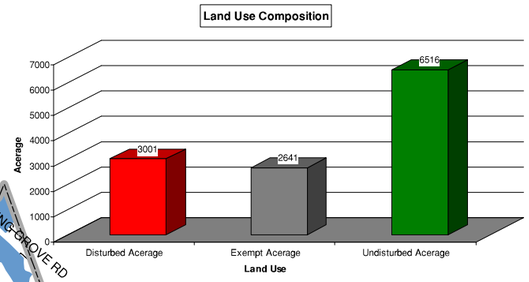
| | Name: | Status: |
|---|---|---|
| 1 | Rogen Farms | Active |
| 2 | Lutheran Social Services | Active |
| 3 | South Pointe | Active |
| 4 | Menlena | Active |
| 5 | Colonial Hills | Active |
| 6 | Northfields Village | Active |
| 7 | Joshua Hill | Active |
| 8 | Woodridge Hunt | Active |
| 9 | Reservoir Heights | Active |
| 10 | Orchard Estates | Active |
| 11 | Preserve at Codorus Creek | Active |
| 12 | Oakwood | Active |
| 13 | Homestead Acres | Active |
| 14 | Werner Farm | Active |
| 15 | Margie & Chester Utz | Active |
| 16 | Wyndsong Pointe | Active |
| 17 | Marburg Pointe | Active |
| 18 | Charles Bowman | Active |
| 19 | Steeple Chase | Active |
| 20 | Paradise Acres | Active |
| 21 | Fuhrman Mill Heights | Active |
| 22 | Fox Run Village | Active |
| 23 | Chestnut Hill | Planned |

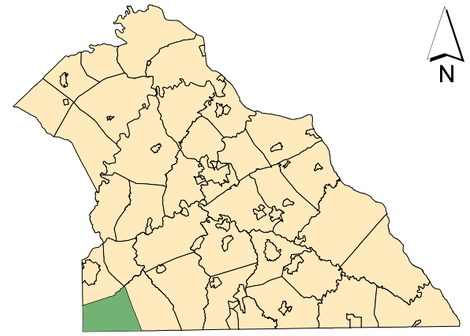
Active or Planned Non-Residential Land Developments (as of 1/1/2009)

| | Name: | Status: |
|---|---|---|
| A. | Wal-Mart Site | Active |
| B. | West Manheim Elementary School | Active |
| C. | West Manheim Township Building | Active |
| D. | Northfields Village Commercial Area | Active |

Existing Land Use Acreage:

| | |
|---|---|
| Exempt | 2641 |
| Farmland/Woodland/Open Space | 6516 |
| Residential | 2855 |
| Apartments | 44 |
| Commercial | 86 |
| Industrial | 5 |
| Utility | 11 |




**Location Map**

West Manheim Township York County, Pennsylvania

# Exhibit IV-1: Existing Land Use/ Active or Planned Subdivisions

0 1,500 3,000 6,000 9,000 Feet

**Legend**

- Residential Subdivisions
- Township Boundary
- Streams
- Hydrology
- Parcels

**West Manheim Land Use**

- Exempt
- Farmland/ Woodland/Open Space
- Residential
- Apartments
- Commercial
- Industrial
- Utility

YORK COUNTY PLANNING COMMISSION

C.S.Davidson, Inc.
Excellence in Civil Engineering

Base Mapping & Data: York County Planning Commission

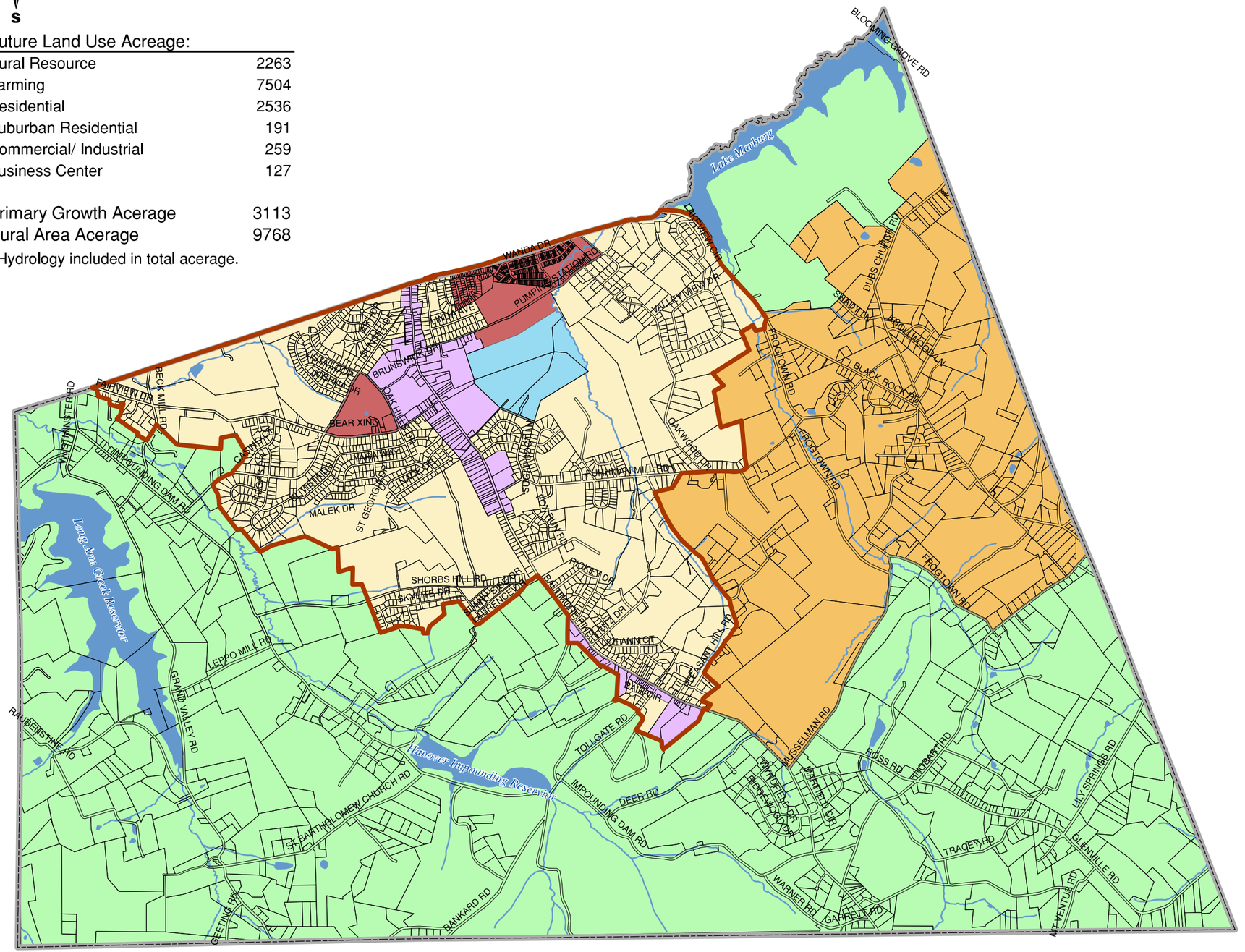
N

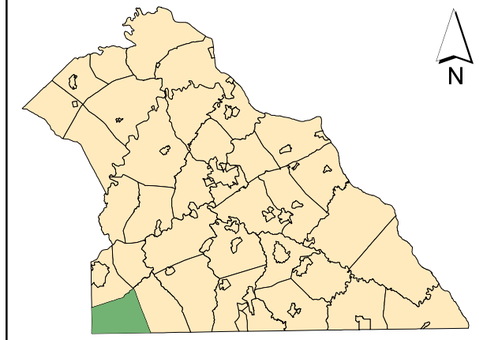
W E

S

| Future Land Use Acreage: | |
|---|---|
| Rural Resource | 2263 |
| Farming | 7504 |
| Residential | 2536 |
| Suburban Residential | 191 |
| Commercial/ Industrial | 259 |
| Business Center | 127 |
| | |
| Primary Growth Acerage | 3113 |
| Rural Area Acerage | 9768 |

*Hydrology included in total acerage.




**Location Map**

West Manheim Township York County, Pennsylvania

# Exhibit IV-2: Future Land Use/ Primary Growth & Rural Areas

0 1,550 3,100 6,200 9,300

Feet

**Legend**

- Township Boundary
- Parcels
- Hydrology

**Future Land Use Classification**

- Rural Resource
- Farming
- Residential
- Suburban Residential
- Commercial/ Industrial
- Business Center
- Primary Growth Area Boundary

WEST MANHEIM TWP. YORK COUNTY, PA

YORK COUNTY PLANNING COMMISSION

C.S.Davidson, Inc.
*Excellence in Civil Engineering*

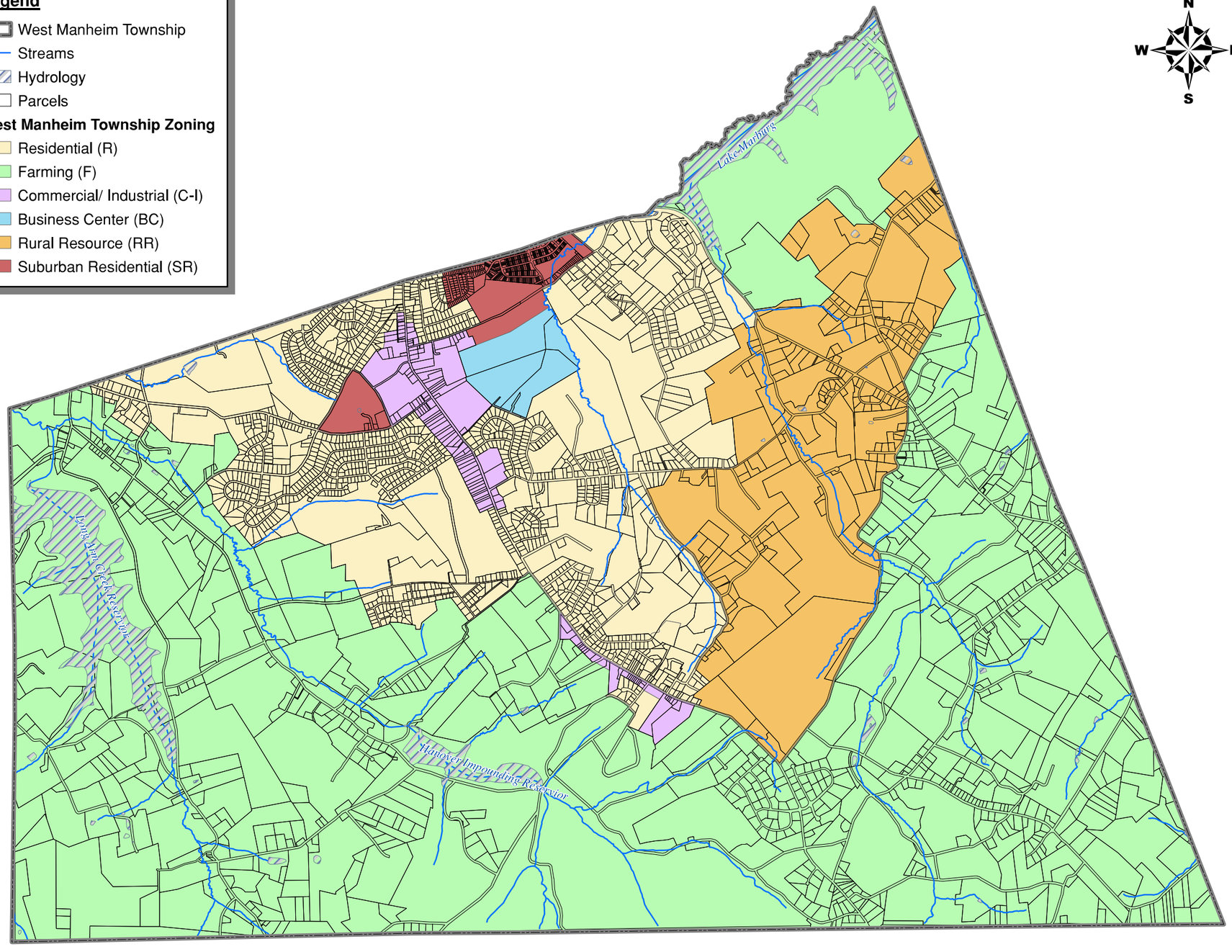
Base Mapping & Data: York County Planning Commission

**Legend**

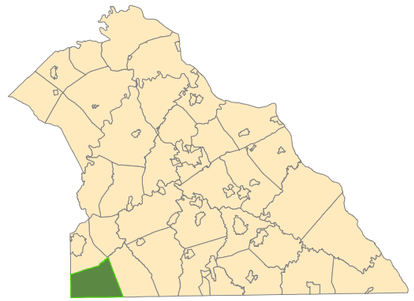
- West Manheim Township
- Streams
- Hydrology
- Parcels

**West Manheim Township Zoning**

- Residential (R)
- Farming (F)
- Commercial/ Industrial (C-I)
- Business Center (BC)
- Rural Resource (RR)
- Suburban Residential (SR)




N
W E
S



**Location Map**

West Manheim Township York County, Pennsylvania

0 0.5 1 1.5 2 Miles

Exhibit IV-3:
Zoning Map

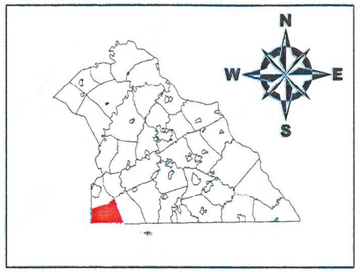
# West Manheim Township
# Act 537 Plan Update - Jan, 2013

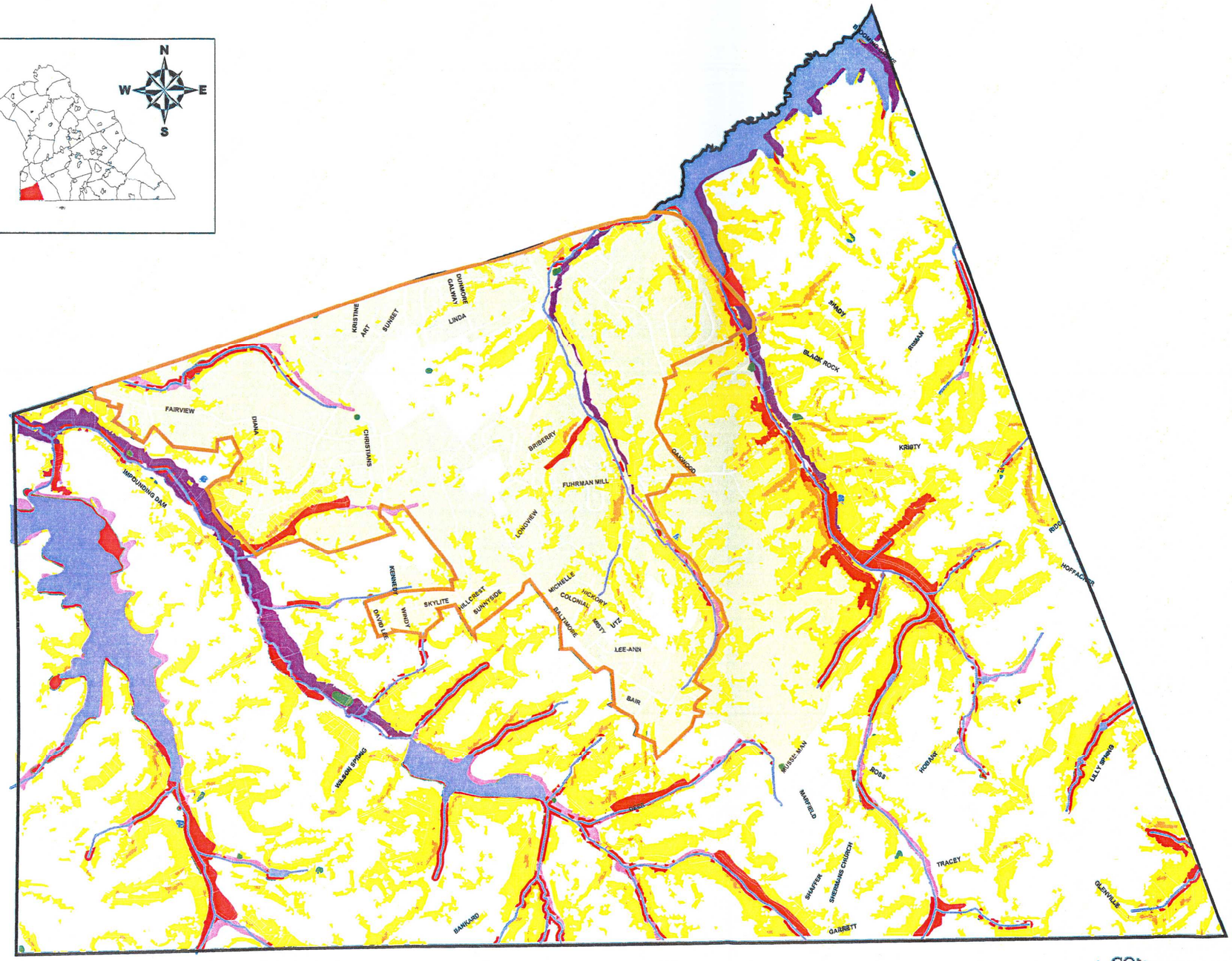
Base Mapping & Data: York County Planning Commission

Exhibit IV-4

# Zoning Overlays

West Manheim Township,
York County,
Pennsylvania




## Legend

- Roads
- Streams
- Lakes/Ponds
- Tax Parcels
- Primary Growth/Rural Area Boundary
- Moderately Steep Slopes (12.00% - 24.99%) Overlay
- Steep Slopes (>25.00%) Overlay
- Stream Protection Overlay Critical Areas
- Stream Protection Overlay
- Surface Water Protection Overlay
- Wetland Protection Overlay
- Floodway Zone
- General Floodplain Zone
- Flood-Fringe Zone
- Conservation Subdivision Overlay

Date: 05 July 2007
PA State Plane South, NAD 1927
Copyright (c) 2002. York County, PA.
Copyright (c) 2006. RETTEW Associates, Inc.
All Rights Reserved.

0 750 1,500 3,000 4,500 Feet

YORK COUNTY PLANNING COMMISSION

WEST MANHEIM TWP. YORK COUNTY, PA

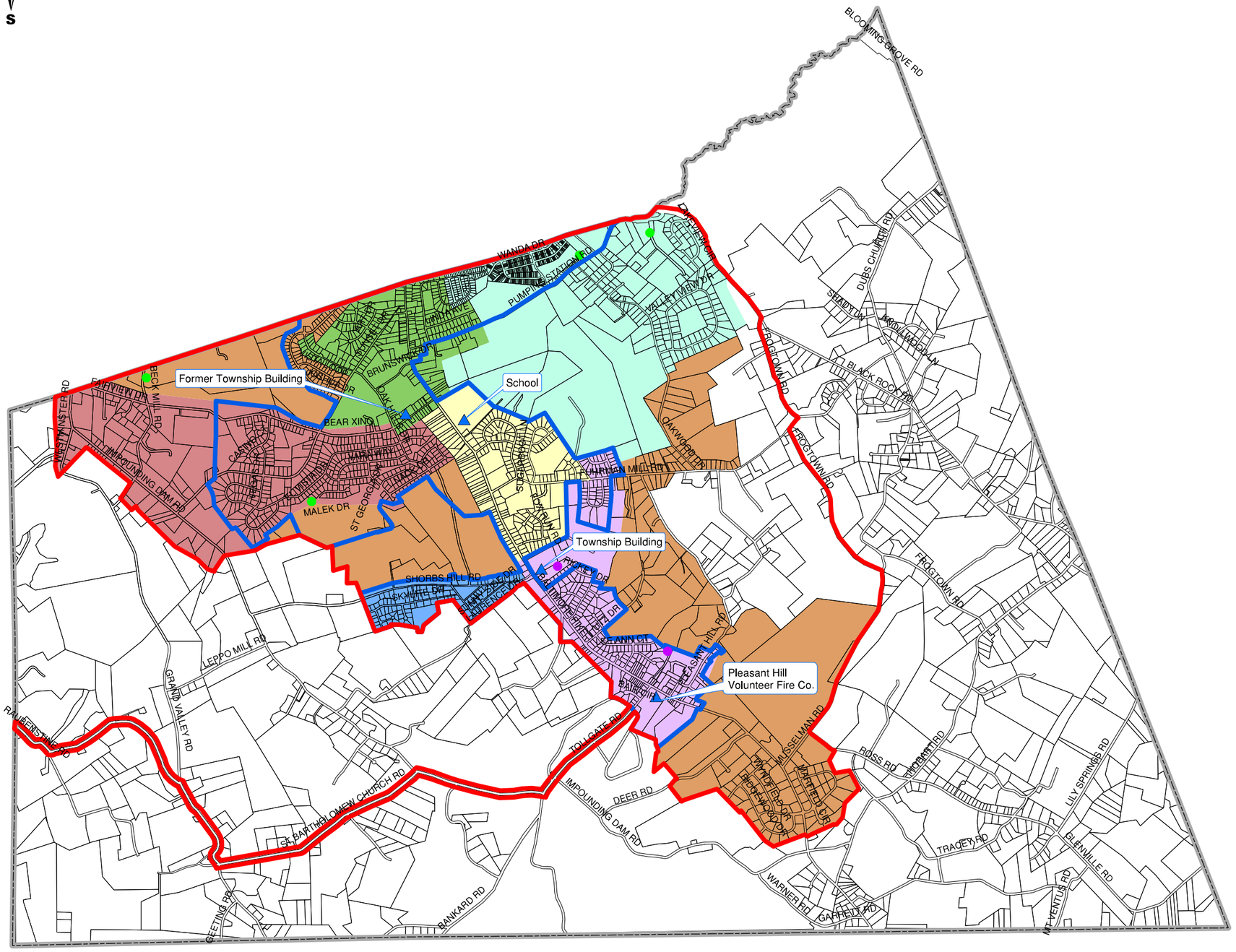
RETTEW

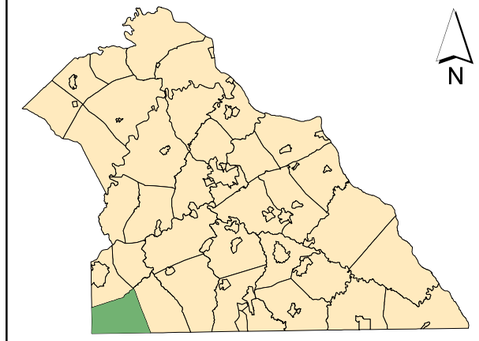
H:\05\05-05535-004\GIS\Overlays_070507.mxd

N

W E

S



**Location Map**

West Manheim Township York County, Pennsylvania

# Exhibit IV- 5: Community Facilities & Utilities

0 1,500 3,000 6,000 9,000 Feet

**Legend**

- Township Boundary
- Parcels
- Buildings of Note
- Existing Pump Station
- Water Storage Tank
- Water Service Area
- York Water Service Territory

***Sewer Service Areas***

- 1
- 2
- 3
- 4
- 5
- 6
- Anticipated Public Sewer Sevice Area

WEST MANHEIM TWP. YORK COUNTY, PA

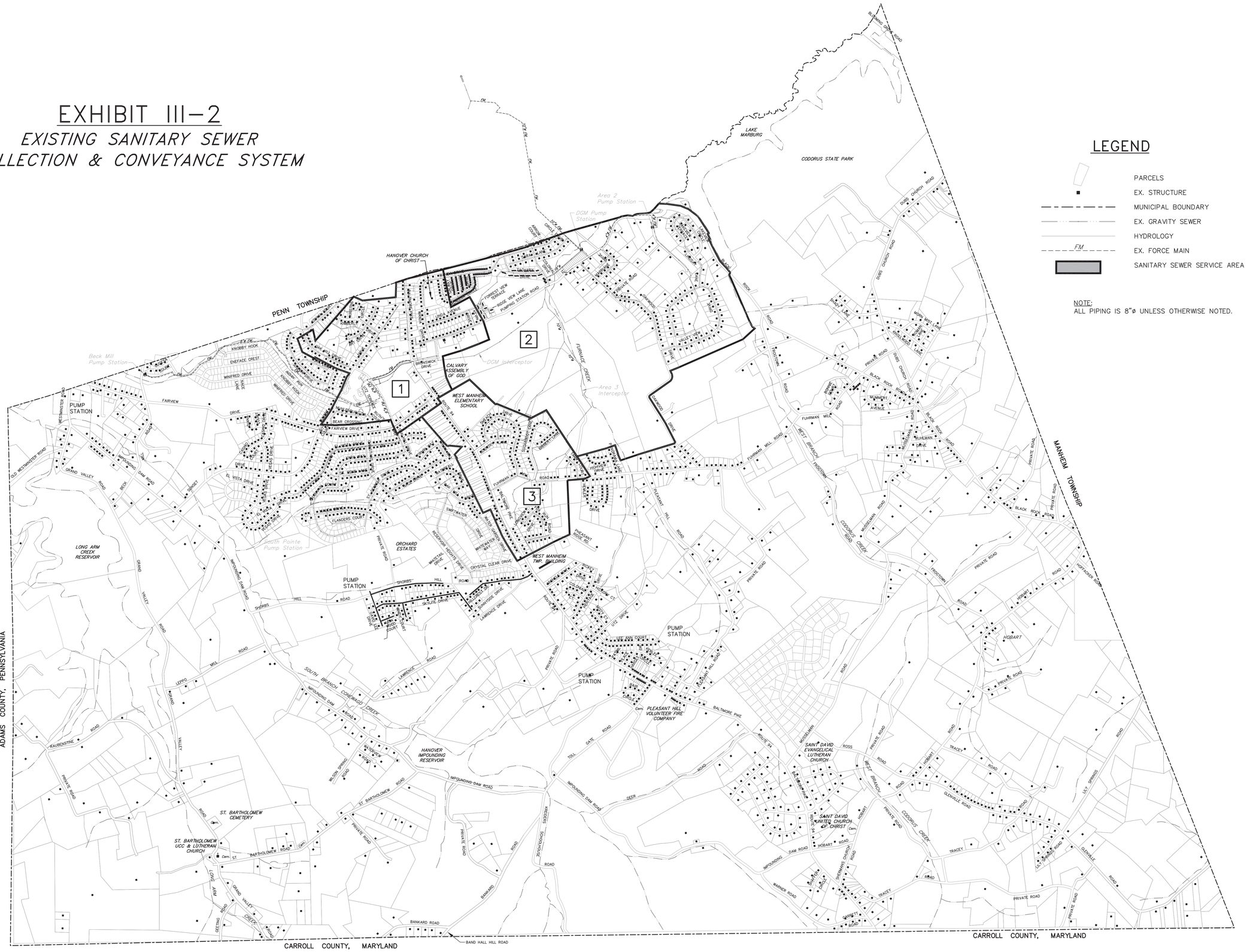
YORK COUNTY PLANNING COMMISSION

C.S.Davidson, Inc.
*Excellence in Civil Engineering*

Base Mapping & Data: York County Planning Commission

# EXHIBIT III–2

## *EXISTING SANITARY SEWER COLLECTION & CONVEYANCE SYSTEM*




## LEGEND

- PARCELS
- EX. STRUCTURE
- MUNICIPAL BOUNDARY
- EX. GRAVITY SEWER
- HYDROLOGY
- FM — EX. FORCE MAIN
- SANITARY SEWER SERVICE AREA BOUNDARY

NOTE:
ALL PIPING IS 8"ø UNLESS OTHERWISE NOTED.

GRAPHIC SCALE

1,000 0 1,000 2,000

( IN FEET )

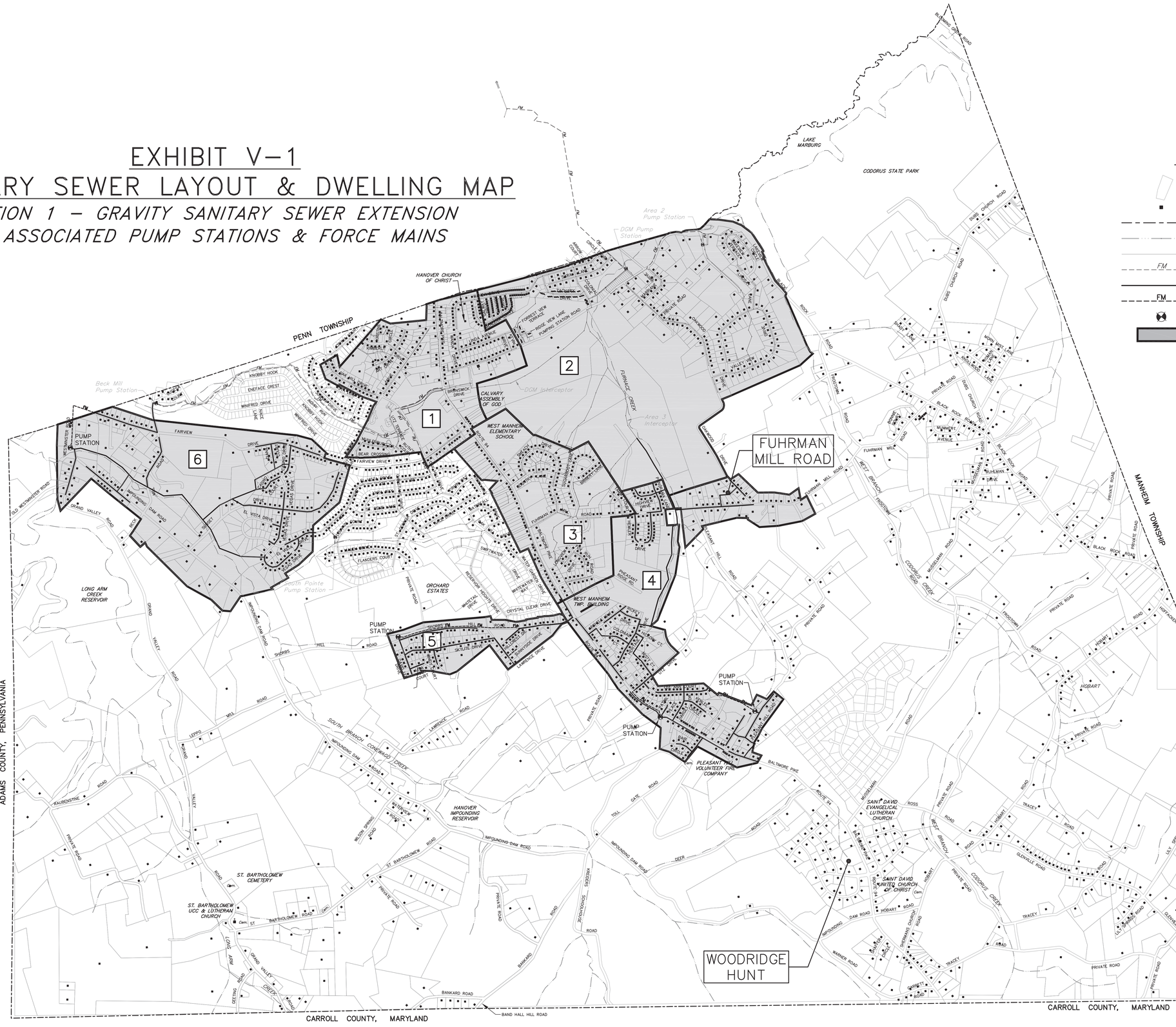
1 INCH = 1,000 FT.


C.S.Davidson, Inc.

*Excellence in Civil Engineering*

38 NORTH DUKE STREET, YORK, PA • PHONE (717) 846-4805 • FAX (717) 846-5811
50 WEST MIDDLE STREET, GETTYSBURG, PA • PHONE (717) 337-3021 • FAX (717) 337-0782
315 WEST JAMES STREET, SUITE 102, LANCASTER, PA • PHONE (717) 481-2991 • FAX (717) 481-8690
WWW.CSDAVIDSON.COM

# EXHIBIT V-1
# SANITARY SEWER LAYOUT & DWELLING MAP
## *OPTION 1 – GRAVITY SANITARY SEWER EXTENSION & ASSOCIATED PUMP STATIONS & FORCE MAINS*



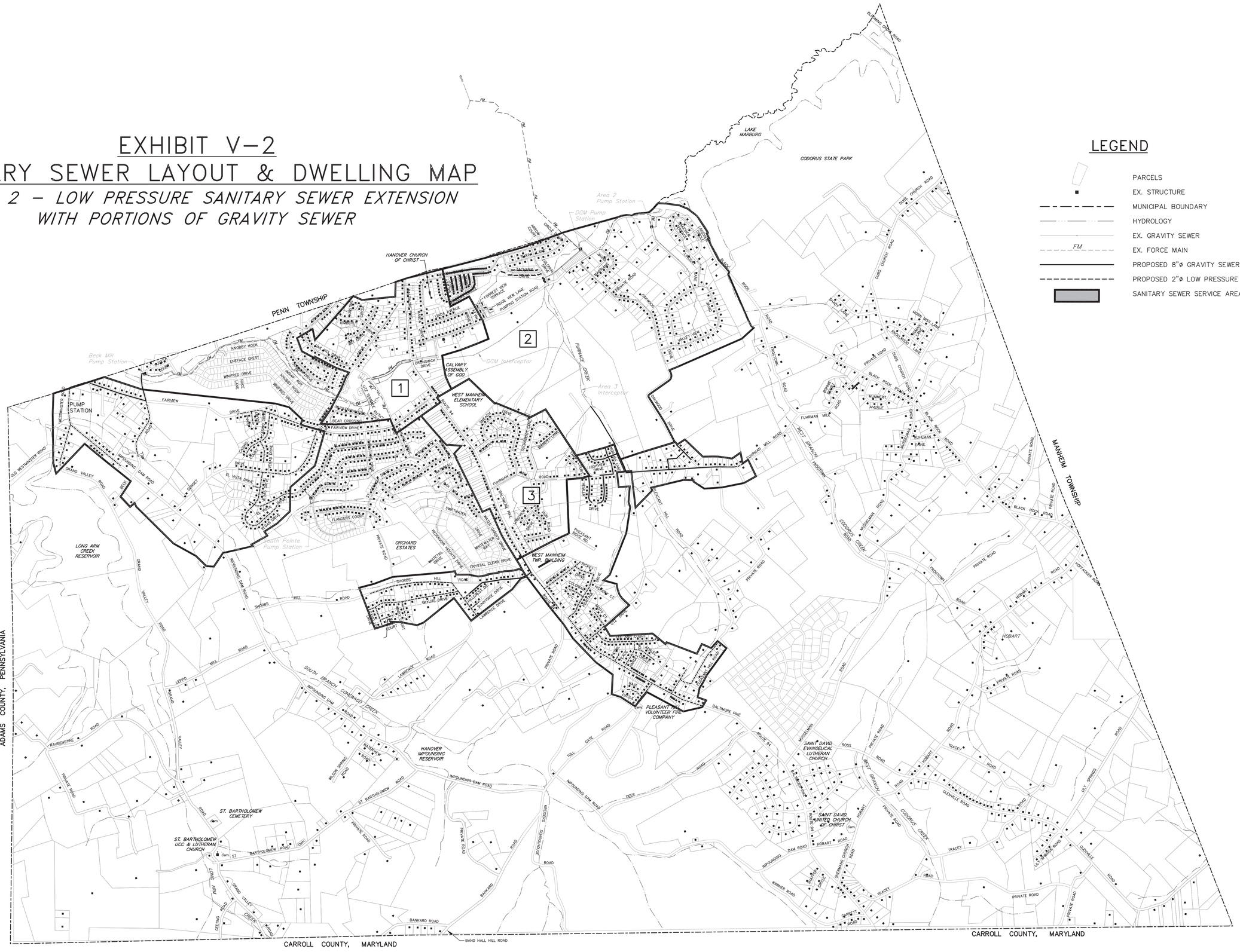


C.S.Davidson, Inc.

*Excellence in Civil Engineering*

38 NORTH DUKE STREET, YORK, PA • PHONE (717) 846-4805 • FAX (717) 846-5811
50 WEST MIDDLE STREET, GETTYSBURG, PA • PHONE (717) 337-3021 • FAX (717) 337-0782
315 WEST JAMES STREET, SUITE 102, LANCASTER, PA • PHONE (717) 481-2991 • FAX (717) 481-8690
WWW.CSDAVIDSON.COM

# EXHIBIT V-2
# SANITARY SEWER LAYOUT & DWELLING MAP
*OPTION 2 – LOW PRESSURE SANITARY SEWER EXTENSION WITH PORTIONS OF GRAVITY SEWER*



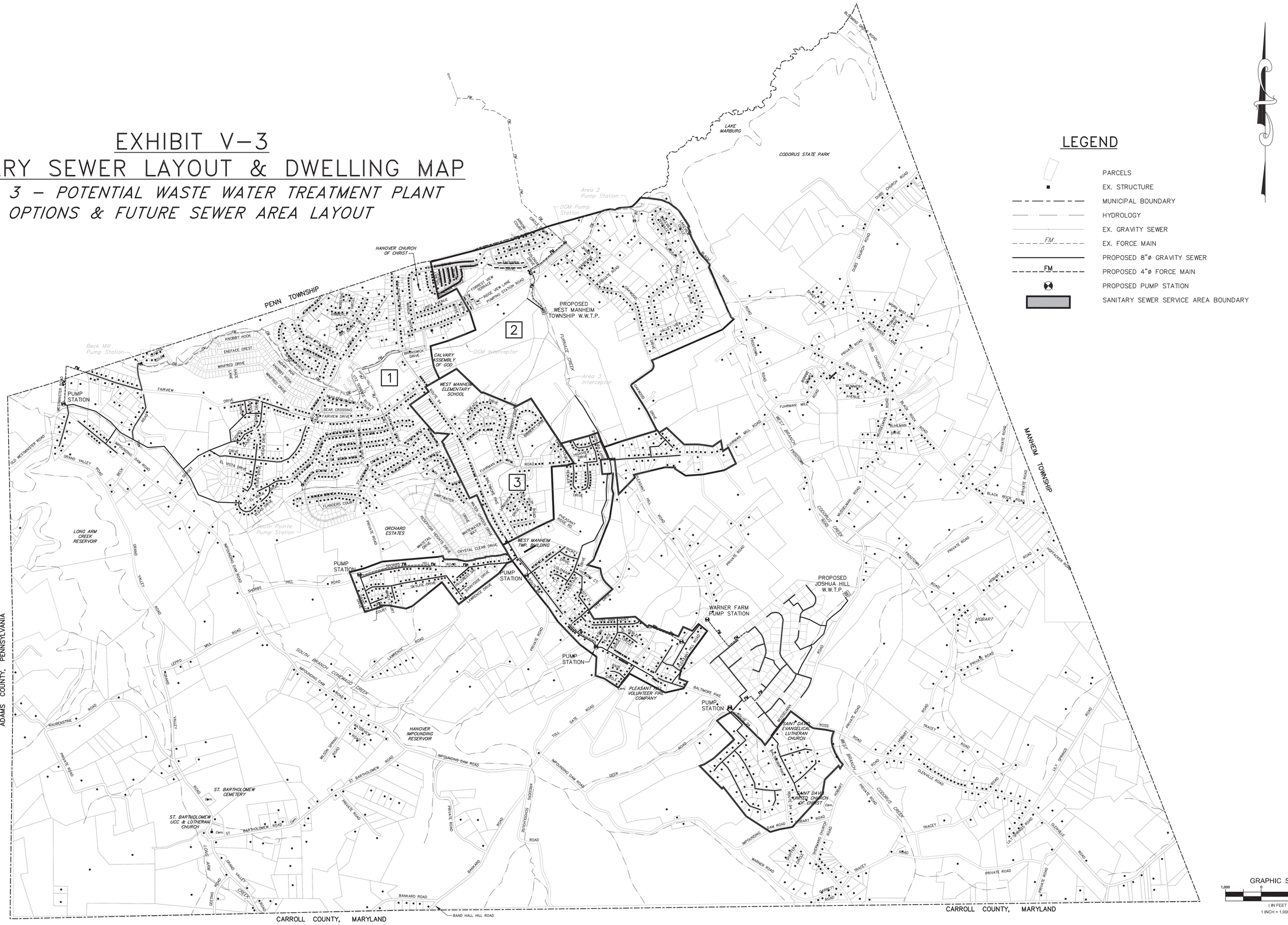

## LEGEND

- PARCELS
- EX. STRUCTURE
- MUNICIPAL BOUNDARY
- HYDROLOGY
- EX. GRAVITY SEWER
- EX. FORCE MAIN
- PROPOSED 8"ø GRAVITY SEWER
- PROPOSED 2"ø LOW PRESSURE MAIN
- SANITARY SEWER SERVICE AREA BOUNDARY

GRAPHIC SCALE
1,000 0 1,000 2,000
( IN FEET )
1 INCH = 1,000 FT.


C.S.Davidson, Inc.
*Excellence in Civil Engineering*
38 NORTH DUKE STREET, YORK, PA • PHONE (717) 846-4805 • FAX (717) 846-5811
50 WEST MIDDLE STREET, GETTYSBURG, PA • PHONE (717) 337-3021 • FAX (717) 337-0782
315 WEST JAMES STREET, SUITE 102, LANCASTER, PA • PHONE (717) 481-2991 • FAX (717) 481-8690
WWW.CSDAVIDSON.COM

# EXHIBIT V-3
# SANITARY SEWER LAYOUT & DWELLING MAP
## *OPTION 3 – POTENTIAL WASTE WATER TREATMENT PLANT OPTIONS & FUTURE SEWER AREA LAYOUT*





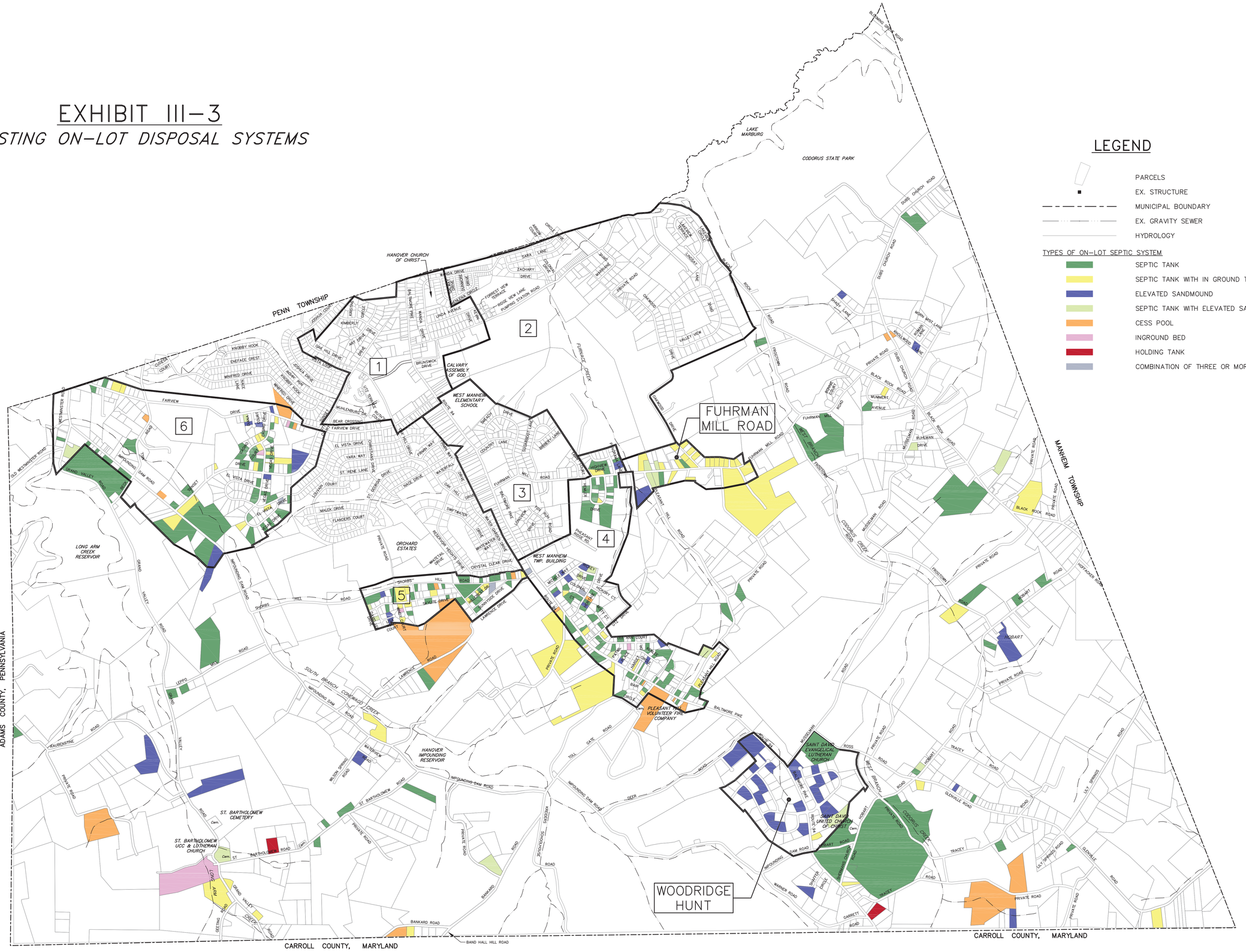
C.S.Davidson, Inc.

*Excellence in Civil Engineering*

38 NORTH DUKE STREET, YORK, PA • PHONE (717) 846-4805 • FAX (717) 846-5811
50 WEST MIDDLE STREET, GETTYSBURG, PA • PHONE (717) 337-3021 • FAX (717) 337-0782
315 WEST JAMES STREET, SUITE 102, LANCASTER, PA • PHONE (717) 481-2991 • FAX (717) 481-8690
WWW.CSDAVIDSON.COM

# EXHIBIT III-3

## *EXISTING ON-LOT DISPOSAL SYSTEMS*




## LEGEND

- PARCELS
- EX. STRUCTURE
- MUNICIPAL BOUNDARY
- EX. GRAVITY SEWER
- HYDROLOGY

TYPES OF ON-LOT SEPTIC SYSTEM

- SEPTIC TANK
- SEPTIC TANK WITH IN GROUND TRENCH
- ELEVATED SANDMOUND
- SEPTIC TANK WITH ELEVATED SAND MOUND
- CESS POOL
- INGROUND BED
- HOLDING TANK
- COMBINATION OF THREE OR MORE OF THE ABOVE

GRAPHIC SCALE

1,000 0 1,000 2,000

( IN FEET )

1 INCH = 1,000 FT.


C.S.Davidson, Inc.

*Excellence in Civil Engineering*

38 NORTH DUKE STREET, YORK, PA • PHONE (717) 846-4805 • FAX (717) 846-5811

50 WEST MIDDLE STREET, GETTYSBURG, PA • PHONE (717) 337-3021 • FAX (717) 337-0782

315 WEST JAMES STREET, SUITE 102, LANCASTER, PA • PHONE (717) 481-2991 • FAX (717) 481-8690

WWW.CSDAVIDSON.COM

EXHIBIT III - 4

# WEST MANHEIM TOWNSHIP

YORK COUNTY, PENNSYLVANIA

TIER I
SEWAGE SURVEY RESULTS

SCALE: 1"=1000'

JAN, 2013

NORTH

LEGEND

- NO REPORTED CONDITIONS NEAR SEPTIC SYSTEM (2000 & 2009 Data)
- ONE ADVERSE CONDITION REPORTED NEAR SEPTIC SYSTEM (2000 & 2009 Data)
- TWO OR MORE ADVERSE CONDITIONS REPORTED NEAR SEPTIC SYSTEM (2000 & 2009 Data)
- DWELLING (UTILIZING ON-LOT SEWAGE DISPOSAL)
- (A) SURVEY NUMBER
- SEWER SERVICE BOUNDARY AREA
- [1] SEWER SERVICE AREA
- ON - LOT INSPECTIONS AND CERTIFICATIONS (2010 to Present)
- ON - LOT REPAIRS (2010 to Present)

PENN TOWNSHIP

MANHEIM TOWNSHIP

ADAMS COUNTY, PENNSYLVANIA

CARROLL COUNTY, MARYLAND

CARROLL COUNTY, MARYLAND

LAKE MARBURG

CODORUS STATE PARK

HANOVER CHURCH OF CHRIST

COLONIAL HILLS (PUBLIC SEWER)

MENLENA (PUBLIC SEWER)

PUMPING STATION ROAD

Ex. Sanitary Sewer (Approx. Location)

CALVARY ASSEMBLY OF GOD

WEST MANHEIM TWP. BUILDING

SOUTH POINT (PUBLIC SEWER)

WEST MANHEIM ELEMENTARY SCHOOL

PLEASANT VOLUNTEER FIRE COMPANY

SAINT DAVID EVANGELICAL LUTHERAN CHURCH

SAINT DAVID UNITED CHURCH OF CHRIST

ST. BARTHOLOMEW CEMETERY

ST. BARTHOLOMEW UCC & LUTHERAN CHURCH

LONG ARM CREEK RESERVOIR

HANOVER IMPOUNDING RESERVOIR

HOBART

FURNACE CREEK

SOUTH BRANCH CODORUS CREEK

CODORUS CREEK

LONG ARM CREEK

WEST BRANCH CODORUS CREEK

GRAPHIC SCALE

1000 0 1000 2000

( IN FEET )
1 inch = 1000 ft.

1204603A.DWG

EXHIBIT III - 5

# WEST MANHEIM TOWNSHIP

YORK COUNTY, PENNSYLVANIA

TIER 2
SEWAGE SURVEY RESULTS
SCALE: 1"=1000'

JAN, 2013

LEGEND
- NO REPORTED CONDITIONS NEAR SEPTIC SYSTEM (2000 & 2009 Data)
- ONE ADVERSE CONDITION REPORTED NEAR SEPTIC SYSTEM (2000 & 2009 Data)
- TWO OR MORE ADVERSE CONDITIONS REPORTED NEAR SEPTIC SYSTEM (2000 & 2009 Data)
- DWELLING (UTILIZING ON-LOT SEWAGE DISPOSAL)
- (1) SURVEY NUMBER
- SEWER SERVICE BOUNDARY AREA
- [1] SEWER SERVICE AREA
- ON - LOT INSPECTIONS AND CERTIFICATIONS (2010 to Present)
- ON - LOT REPAIRS (2010 to Present)

2000 SURVEY NUMBER 1-294
2009 SURVEY NUMBER 1A - 74A

NORTH

PENN TOWNSHIP

MANHEIM TOWNSHIP

ADAMS COUNTY, PENNSYLVANIA

CARROLL COUNTY, MARYLAND

CARROLL COUNTY, MARYLAND

LAKE MARBURG

CODORUS STATE PARK

HANOVER CHURCH OF CHRIST

COLONIAL HILLS (PUBLIC SEWER)

MENDENA (PUBLIC SEWER)

PUMPING STATION ROAD

Ex. Sanitary Sewer (Approx. Location)

FURNACE CREEK

CALVARY ASSEMBLY OF GOD

WEST MANHEIM TWP. BUILDING

SOUTH POINT (PUBLIC SEWER)

WEST MANHEIM ELEMENTARY SCHOOL

LONG ARM CREEK RESERVOIR

HANOVER IMPOUNDING RESERVOIR

SOUTH BRANCH CODORUS CREEK

CODORUS CREEK

ST. BARTHOLOMEW CEMETERY

ST. BARTHOLOMEW UCC & LUTHERAN CHURCH

SAINT DAVID EVANGELICAL LUTHERAN CHURCH

SAINT DAVID UNITED CHURCH OF CHRIST

HOBART

PLEASANT VALLEY VOLUNTEER FIRE COMPANY

GRAPHIC SCALE
1000 0 1000 2000
( IN FEET )
1 inch = 1000 ft.

1204603A.DWG

EXHIBIT III - 6

# WEST MANHEIM TOWNSHIP

YORK COUNTY, PENNSYLVANIA

## POTENTIAL AND KNOWN ON-LOT SEWER SYSTEM MALFUNCTIONS

SCALE: 1"=1000'

Jan, 2013

**LEGEND**

- DWELLING (UTILIZING ON-LOT SEWAGE DISPOSAL)
- EXISTING PUBLIC WATER LINE
- AA – TIER 1 POTENTIAL MALFUNCTION (2000 & 2009 Data)
- 10 – TIER 2 POTENTIAL MALFUNCTION (2000 & 2009 Data)
- KNOWN MALFUNCTION (2000 & 2009 Data)
- SEWER SERVICE BOUNDARY AREA
- 2 SEWER SERVICE AREA
- ON-LOT INSPECTION AND CERTIFICATIONS (2010 to Present)
- ON-LOT REPAIRS (2010 to Present)

NORTH

PENN TOWNSHIP

MANHEIM TOWNSHIP

ADAMS COUNTY, PENNSYLVANIA

CARROLL COUNTY, MARYLAND

CARROLL COUNTY, MARYLAND

LAKE MARBURG

CODORUS STATE PARK

HANOVER CHURCH OF CHRIST

COLONIAL HILLS (PUBLIC SEWER)

MENLENA (PUBLIC SEWER)

PUMPING STATION ROAD

Ex. Sanitary Sewer (Approx. Location)

CALVARY ASSEMBLY OF GOD

WEST MANHEIM TWP. BUILDING

SOUTH POINT (PUBLIC SEWER)

FURNACE CREEK

WEST BRANCH CODORUS CREEK

LONG ARM CREEK RESERVOIR

WEST MANHEIM ELEMENTARY SCHOOL

HANOVER IMPOUNDING RESERVOIR

SOUTH BRANCH CODORUS CREEK

ST. BARTHOLOMEW CEMETERY

ST. BARTHOLOMEW UCC & LUTHERAN CHURCH

SAINT DAVID EVANGELICAL LUTHERAN CHURCH

SAINT DAVID UNITED CHURCH OF CHRIST

HOBART

BAND HALL HILL ROAD

GRAPHIC SCALE

1000 0 1000 2000

( IN FEET )

1 inch = 1000 ft.

1204603A.DWG

EXHIBIT II-15

# WEST MANHEIM TOWNSHIP

YORK COUNTY, PENNSYLVANIA

## TOTAL AND FECAL COLIFORM

SCALE: 1"=1000'

Jan, 2013

**LEGEND**

- CLEAN TEST
- TOTAL COLIFORM
- TOTAL AND FECAL COLIFORM
- DWELLING (UTILIZING ON-LOT SEWAGE DISPOSAL)
- (10) TEST WELL GRID NUMBER
- SEWER SERVICE BOUNDARY AREA
- [2] SEWER SERVICE AREA
- EXISTING PUBLIC WATER LINE
- YORK WATER SERVICE TERRITORY

NORTH

PENN TOWNSHIP

MANHEIM TOWNSHIP

ADAMS COUNTY, PENNSYLVANIA

CARROLL COUNTY, MARYLAND

CARROLL COUNTY, MARYLAND

LAKE MARBURG

CODORUS STATE PARK

HANOVER CHURCH OF CHRIST

CALVARY ASSEMBLY OF GOD

WEST MANHEIM TWP. BUILDING

SOUTH POINT (PUBLIC SEWER)

WEST MANHEIM ELEMENTARY SCHOOL

PLEASANT HILL VOLUNTEER FIRE COMPANY

HANOVER IMPOUNDING RESERVOIR

LONG ARM CREEK RESERVOIR

ST. BARTHOLOMEW CEMETERY

ST. BARTHOLOMEW UCC & LUTHERAN CHURCH

SAINT DAVID EVANGELICAL LUTHERAN CHURCH

SALEM UNION CHURCH

HOSKART

WOODRIDGE HUNT

FURNACE CREEK

SOUTH BRANCH CODORUS CREEK

WEST BRANCH CODORUS CREEK

CODORUS CREEK

GRAPHIC SCALE

1000 0 1000 2000

( IN FEET )

1 inch = 1000 ft.

120461200A.DWG

EXHIBIT II-16

# WEST MANHEIM TOWNSHIP

YORK COUNTY, PENNSYLVANIA

NITRATES

SCALE: 1"=1000'

Jan, 2013

LEGEND

- NITRATES < 5
- NITRATES 5 OR MORE
- DWELLING (UTILIZING ON-LOT SEWAGE DISPOSAL)
- (10) TEST WELL GRID NUMBER
- SEWER SERVICE BOUNDARY AREA
- [5] SEWER SERVICE AREA
- EXISTING PUBLIC WATER LINE
- 1/4 MILE RADIUS AROUND WELL TEST WITH GREATER THAN 5 MG/L NITRATES.
- YORK WATER SERVICE TERRITORY

NORTH

PENN TOWNSHIP

MANHEIM TOWNSHIP

ADAMS COUNTY, PENNSYLVANIA

CARROLL COUNTY, MARYLAND

CARROLL COUNTY, MARYLAND

LAKE MARBURG

CODORUS STATE PARK

HANOVER CHURCH OF CHRIST

CALVARY ASSEMBLY OF GOD

WEST MANHEIM TWP. BUILDING

WEST MANHEIM ELEMENTARY SCHOOL

SOUTH POINT (PUBLIC SEWER)

LONG ARM CREEK RESERVOIR

HANOVER IMPOUNDING RESERVOIR

PLEASANT HILL VOLUNTEER FIRE COMPANY

ST. BARTHOLOMEW CEMETERY

ST. BARTHOLOMEW UCC & LUTHERAN CHURCH

SAINT DAVIDS EVANGELICAL LUTHERAN CHURCH

SAINT PAUL'S UNITED METHODIST CHURCH

HOBART

WOODRIDGE HUNT

FURNACE CREEK

SOUTH BRANCH CODORUS CREEK

WEST BRANCH CODORUS CREEK

CODORUS CREEK

GRAPHIC SCALE

1000 0 1000 2000

( IN FEET )

1 inch = 1000 ft.

120461200_B.DWG

EXHIBIT III-I

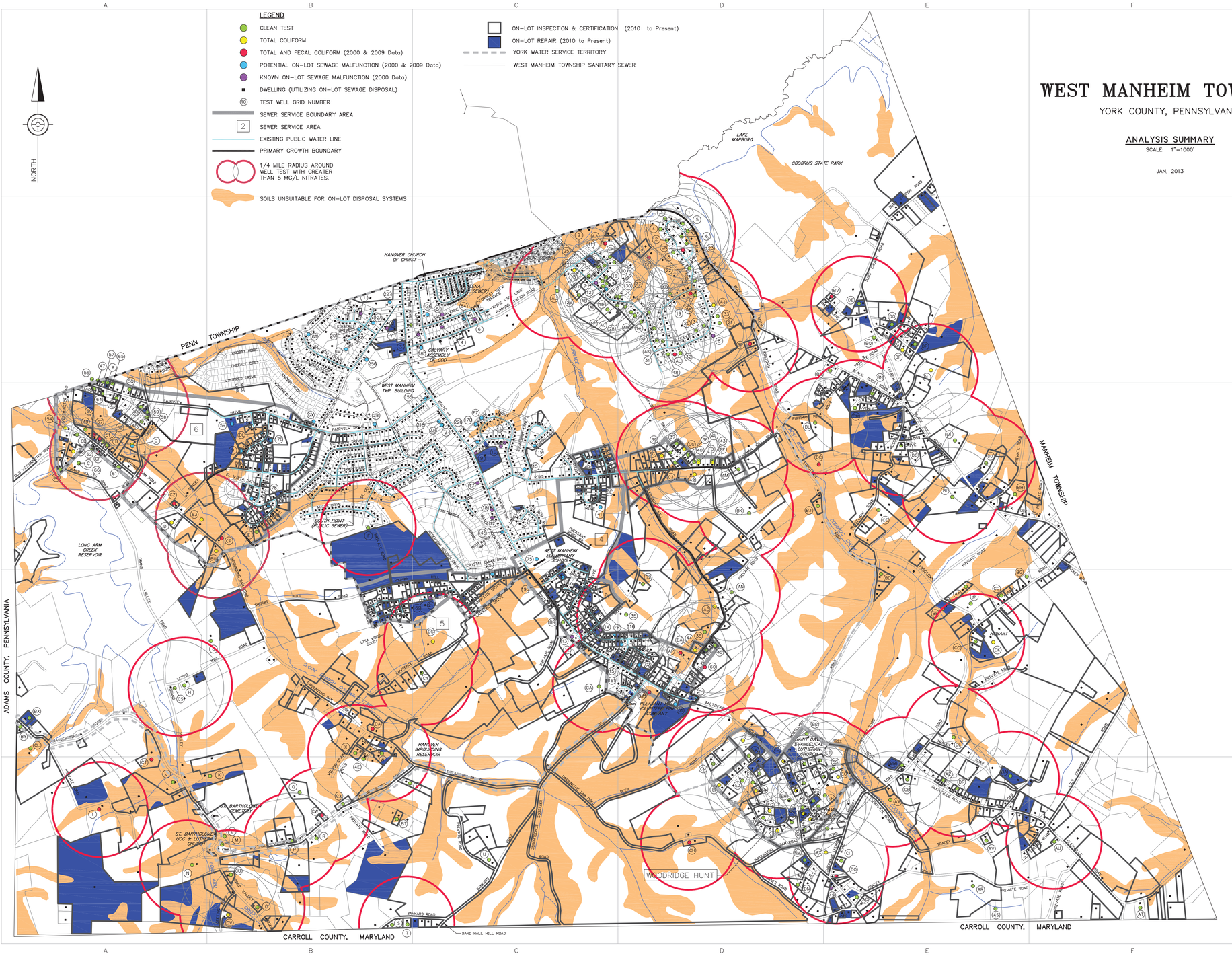
# WEST MANHEIM TOWNSHIP

YORK COUNTY, PENNSYLVANIA

ANALYSIS SUMMARY

SCALE: 1"=1000'

JAN, 2013




GRAPHIC SCALE

1000 0 1000 2000

( IN FEET )

1 inch = 1000 ft.

EXHIBIT II-23_ANALYSIS SUMMARY.DWG

# APPENDIX

| | |
|---|---|
| Appendix A | Section IX – Environmental Report |
| Appendix B | Task Activity Report |
| Appendix C | Public Comment and Responses |
| Appendix I-1 | Sewer Capacity Agreement |
| Appendix I-2 | Sewer Capacity Addendum to Agreement |
| Appendix I-3 | Sewer Capacity Amendment to Agreement |
| Appendix I-4 | Feasibility Study – Sanitary Sewerage System for West Manheim Township |
| Appendix I-5 | DGM Joint Venture and West Manheim Township Sewer Agreement |
| Appendix I-6 | Area 3 Interceptor Agreement |
| Appendix I-7 | Penn Township Consent Order and Agreement |
| Appendix I-8 | Penn Township WWTP NPDES Permit No. PA 0037150 |
| Appendix I-9 | Planning Modules |
| Appendix II-1 | Tier II Water Samples |
| Appendix III-1 | Corrective Action Plan for Penn Township, York County NPDES Permit No. PA0037150 |
| Appendix III-2 | West Manheim Township Ordinance No. 04-2010 OLDS Management Ordinance |
| Appendix III-3 | Sewage Needs Mail Survey Examples and Tier I Results (2000) |
| Appendix III-4 | Tier Two OLDS Surveys (2009 & 2000) |
| Appendix III-5 | West Manheim Township OLD's Inspections and Certifications |
| Appendix IV-1 | Sanitary Sewer Projections |
| Appendix V-1 | Holding Tank Ordinance |
| Appendix V-2 | Joshua Hill Wastewater Treatment Plant Agreement |
| Appendix VI-1 | Cost Analysis |
| Appendix VII-1 | West Manheim Township Ordinance No. 11-2004 – Mandatory Connection Ordinance |

# APPENDIX A

## SECTION IX – ENVIRONMENTAL REPORT

## SECTION IX – ENVIRONMENTAL REPORT

### 1.0 PROJECT DESCRIPTION AND NEED

### 1.1 Purpose and Need for Project

The West Manheim Township Act 537 Plan, adopted June 2001, defined six (6) Sanitary Sewer Service Areas. Currently, three (3) service areas have been constructed and are in use by township residents. All of West Manheim Township's wastewater is conveyed to the Penn Township Wastewater Treatment Plant (WWTP). West Manheim Township has allocated its treatment capacity agreement with Penn Township, and Penn Township is currently evaluating treatment plant upgrades to fulfill the terms of its National Pollution Discharge Elimination System (NPDES) permit as well as the terms of the Corrective Action Plan approved by the Pennsylvania Department of Environmental Protection (PA DEP).

This plan represents the Official Sewage Plan (Act 537 Plan) for West Manheim Township, York County, Pennsylvania. The purpose of an Act 537 plan, which is requirement of the Pennsylvania Department of Environmental Protection (PA DEP), is to protect the health, safety, and welfare of the Township's residents by addressing their long-term sewage disposal needs. The alternatives evaluated and considered in this Plan include continued implementation of a strengthened On-Lot Disposal System (OLD's) operation and management program, along with future public sanitary sewer system extensions.

In accordance with the previous study, West Manheim Township has completed all milestones identified and is completing this plan update to address the remaining areas of need identified. The West Manheim Township Act 537 Plan Update examines the Fuhrman Mill Road and Woodridge Hunt areas in addition to the previously identified service areas 4, 5 and 6, see Exhibit II-2. The plan also serves as a unifying plan to bring the results of the past studies identified in Section 1 of this study and new supplemental data into one document.

The existing needs of the Township's residents and property owners are evaluated through an analysis of the soil properties, topography, geology, historic Sewage Enforcement Officer (SEO) permits, sanitary surveys, well water testing, zoning regulations, current on-lot disposal system (OLDS) inspections, and future alternatives for collection, conveyance and treatment of wastewater.

The financing evaluation contained in the plan considers use of the Clean Water State Revolving Loan Fund (PennVEST) as a financing tool for construction of the proposed sanitary sewer collection systems. Funding under this program must be consistent with the National Environmental Policy Act (NEPA). Therefore, this Environmental Report has been prepared in accordance with the PA DEP *Guidelines for the Uniform Environmental Review Process* to ensure the Township is eligible for federal funding at the time of construction.

### 1.2 Project Description:

**Future Public Sanitary Sewer:**
Three public sewer service areas were previously identified as future service sewer service areas; these areas remain identified as future sewer areas. The designation of future sewer is consistent

with the identified needs due to restricting lot sizes, elevated nitrates, age of systems, etc. The Township's OLDS inspection program has also allowed the Township to evaluate and correct on-lot systems that were previously identified as potential problems; see table below. The properties which have been inspected under the 2010 OLDS program are identified in Appendix III-5, and summarized on Exhibit III-7. The areas identified are an extension of existing service areas 1, 2 and 3.

Area 4 (Including Fuhrman Mill Road Area)

Area 4 is a future extension of the sanitary sewer to the south along the Baltimore Pike, and has also been expanded to include a portion of Fuhrman Mill Road. The service area consists of 298 equivalent dwelling units (EDU's). Under the Township's OLDS inspection program, the majority of the properties have been inspected and certified since 2010; see table below.

Area 5

Area 5 is an extension of the sanitary sewer to the west in the Shorb's Hill Road area. The service area consists of 106 EDU's. Under the Township's OLDS inspection program, the majority of the properties have been inspected and certified since 2010; see table below.

Area 6

Area 6 is an extension of the sanitary sewer to the west in the Fairview Road area. The service area consists of 170 EDU's. Under the Township's OLDS inspection program, the majority of the properties have been inspected and certified since 2010; see table below.

| | Potential and/or known malfunctioning on-lot systems | | |
|---|---|---|---|
| Future Sewer Service Area | Number of properties previously identified as potential and/or malfunctioning (2000) | Certifications of these on-lot system (per 2010 OLD's program) | Remaining systems for Township action |
| 4 | 13 | 13 | 0 |
| 5 | 3 | 3 | 0 |
| 6 | 8 | 8 | 0 |

| | Tier 1 Survey | | |
|---|---|---|---|
| Future Sewer Service Area | Number of properties previously identified as having adverse conditions(2000) | Certifications of these on-lot system (per 2010 OLD's program) | Remaining systems for Township action |
| 4 | 8 | 8 | 0 |
| 5 | 3 | 3 | 0 |
| 6 | 5 | 5 | 0 |

| | Tier 2 Survey | | |
|---|---|---|---|
| Future Sewer Service Area | Number of properties previously identified as having adverse conditions(2000) | Certifications of these on-lot system (per 2010 OLD's program) | Remaining systems for Township action |
| 4 | 12 | 12 | 0 |
| 5 | 5 | 5 | 0 |
| 6 | 8 | 8 | 0 |

**On-Lot Sewer:**
During the course of this plan update, in consultation with the Pennsylvania Department of Environmental Protection, the Township requested an amendment to the Task Activity Report (TAR). This request allowed the Township to adopt the West Manheim Township Ordinance No. 04-2010, OLDS Management Ordinance, amending the existing Ordinance. This Ordinance provided the following: established all areas not served by public sewer as an OLD's District; provided procedures for notification by Township; required inspection and certification by the Township SEO. With the enhanced OLD's program, the Township has gathered sufficient data to demonstrate that continued operation and maintenance of on-lot disposal systems meets the current needs of the Township.

Woodridge Hunt

The current OLD's program has demonstrated proper operation of the on-lot systems within this area. The service area consists of 67 EDU's. Future development of the tract known as the Joshua Hill Farm, and associated utilities, could potentially make public sanitary sewer extension to this area feasible. Therefore, the Area is recommended to be re-evaluated as a potential sewer service area in the next Act 537 plan update and should be considered for future public water service by the York Water Company.

This plan identifies all feasible alternatives for the continued management of municipal sewage as well as potential future alternatives for collection, conveyance and treatment of wastewater within the needs areas. The recommendations of this plan are based upon the evaluation of alternatives (Section V), financial analysis (Section VI), and institutional evaluation (Section VII). The plan recommends continued operation and maintenance of all on-lot systems in accordance with the Township's OLD's Ordinance No. 04-2010. The plan also identifies three areas for future public sewer, as warranted by the continued enforcement of the OLD's Ordinance.

The future sewer areas 4, 5 and 6 have been evaluated to be served by future public sanitary sewer extensions, consisting of gravity sanitary sewer, pump stations and associated force mains. Sewage collected by the public sewer system is to be conveyed to the Penn Township Wastewater Treatment Plant (WWTP). Funding for all construction should be pursued through the issue of a General Obligation Bond and/or PennVEST loan. The plan recommends that an update to the Act 537 plan be completed in ten (10) years to determine if extension of public sewer into these areas is warranted, and re-evaluate treatment options.

**Project Costs:**

OLD's Management

The continued OLD's management enforcement program by the Township will result in minimal cost to the Township. As documented in the financial analysis (Section VI) and institutional evaluation (Section VII), no additional resources are required by the Township for implementation. The average property owner cost to complete the required pumping, inspection and certification is approximately $500.00 every four years, excluding any repairs.

Future Public Sanitaary

The primary funding source for future sewer extensions has been slated as a General Obligation Bond, however, the plan recommends the use of PennVEST funding depending on economic conditions. The federal facility planning requirements under the PennVEST State Revolving Fund (SRF) call for a cost effectiveness analysis to be performed for all technically viable alternatives. In order to satisfy these requirements, present worth and projected annual user cost analysis were evaluated. Each analysis completed considers the capital construction, operation and maintenance, and administrative costs over the life of the facility. A summary of the Act 537 Plan Update financial analysis is provided in Table 1.1 – Financial Summary of Alternatives.

**Table 1.1 – Financial Summary of Alternatives**

**AREA 4, 5, and 6**

| Description | Annual Cost Per EDU | |
|---|---|---|
| | Option 1: Gravity Sanitary Sewer and Associated Pump stations | Option 2: Gravity Sanitary Sewer and Low Pressure Sewer |
| Sanitary Sewer Conveyed to Penn Township Wastewater Treatment Plant (General Obligation Bond) | $2,239.48 | $2,322.54 |
| Sanitary Sewer Conveyed to Penn Township Wastewater Treatment Plant (PennVEST) | $2,243.54 | $2,325.47 |
| Sanitary Sewer Conveyed to West Manheim Township Wastewater Treatment Plant (General Obligation Bond) | $2,335.07 | $2,418.12 |
| Sanitary Sewer Conveyed to West Manheim Township Wastewater Treatment Plant (PennVEST) | $2,356.89 | $2,438.82 |

The anticipated construction costs associated with the extension of public sanitary sewer service to Areas 4, 5, and 6 with treatment being provided from Penn Township Wastewater Treatment Plant is $9,267,031.50. This results in an annual user cost of $2,229.04. This analysis is based upon a tapping fee of $3,000.00.

## 2.0 SUMMARY OF REASONABLE ALTERNATIVES CONSIDERED

### 2.1 Alternatives Considered

**No Action:**
The no action alternative involves the continued implementation of the OLD's Ordinance. Regular pumping, inspection and repairs ensure compliance with the State Water Plan.

**Collection and Conveyance Alternatives:**
The West Manheim Township Act 537 Plan update considered two feasible alternatives for collection and conveyance for future service to the needs areas: 1) gravity sanitary sewer with pump stations, and 2) low pressure sanitary sewer. These extensions of the existing sanitary sewer satisfy the requirements of the needs areas to address public health, safety and environmental impacts resulting from malfunctioning on-lot systems. The selected alternative consists of a gravity sanitary sewer collection system and associated pump stations, as shown in Exhibit 1 – Needs Areas.

**Wastewater Treatment Alternatives:**
The West Manheim Township Act 537 Plan update considered three feasible alternatives for treatment of wastewater: 1) Penn Township WWTP, 2) construction of West Manheim Township WWTP, and 3) Private WWWTP. These alternatives satisfy the requirements of the future sewer extensions to address public health, safety and environmental impacts. Based upon the environmental impacts, financial evaluation, and regional planning aspects contained in the plan, the alternative selected is the continuation of conveyance of sewage to the Penn Township WWTP.

**Financing Alternatives:**
The West Manheim Township Act 537 Plan update considered two feasible alternatives for financing of the proposed facilities to provide for future sewer extensions: 1) general obligation bond, and 2)PennVEST loans. The plan recommends the use of a general obligation bond, however, based upon economic conditions the use of a PennVEST loan may be beneficial at the time of construction.

### 2.2 Comparison of Alternatives:
The no-action alternative selected will allow for the continued operation, maintenance, inspection and certification of existing on-lot systems through enforcement of the OLD's Ordinance. Data obtained through this process will be utilized to determine the appropriate timing for extension of public sewer to these areas. The no-action alternative will not provide for new affected areas, will not affect/disturb environmental resources, and will not have a significant change in environmental conditions. The continued OLD's management enforcement program by the Township will result in minimal cost to the Township. As documented in the financial analysis (Section VI) and institutional evaluation (Section VII), no additional resources are required by the Township for implementation. The average property owner cost to complete the required pumping, inspection and certification is approximately $500.00 every four years, excluding any repairs.

The West Manheim Township Act 537 Plan Update – 2013 evaluated two options for future collection and conveyance to the Penn Township WWTP. These options include the extension of public sewer to the needs areas by: 1) gravity sanitary sewer with associated pump stations, and 2) low pressure sewer with associated gravity sanitary sewer. The federal facility planning requirements under the PennVEST State Revolving Fund (SRF) call for a cost effectiveness analysis to be performed for all technically viable alternatives. In order to satisfy these requirements, present worth and projected annual user cost analysis were evaluated; see Table 2.1 – Present Worth Cost Analysis for Options Conveyed to Penn Township WWTP – PennVest, and Table 2.2 – User Cost Analysis for Options Conveyed to Penn Twp. WWTP – PennVEST.

## Table 2.1 – Present Worth Cost Analysis for Options Conveyed to Penn Township WWTP – PennVest

**AREA 4, 5, and 6**

**Sanitary Sewer Conveyed to Penn Township Wastewater Treatment Plant (PennVEST)**

| Description | EDU's | Option 1: Gravity Sanitary Sewer and Associated Pump stations | Option 2: Gravity Sanitary Sewer and Low Pressure Sewer |
|---|---|---|---|
| **A. Total Project Costs** | | | |
| Area 4 | 298 | $4,301,575.00 | $4,530,660.00 |
| Area 5 | 106 | $1,335,775.00 | $1,508,935.00 |
| Area 6 | 170 | $3,572,900.00 | $2,704,045.00 |
| DGM Pump Station Upgrade (Area 4, 5 and 6 proportioned) | | $59,297.52 | $59,297.52 |
| Construction Cost Subtotal | 574 | $9,269,547.52 | $8,802,937.52 |
| Contingency (+/- 10%) | | $926,954.75 | $880,293.75 |
| Total Construction Costs | | $10,196,502.27 | $9,683,231.27 |
| Engineering (+/- 15%) | | $1,529,475.34 | $1,452,484.69 |
| R/W Acquisitions | | $170,000.00 | $340,500.00 |
| Treatment Reservation (Penn Township) | | $170,000.00 | $170,000.00 |
| **Total Project Costs** | | **$11,895,977.61** | **$11,476,215.96** |
| **B. Present Worth Annual Costs** | | | |
| Operation and Maintenance - Collection and Conveyance | | $77,577.76 | $158,774.92 |
| Operation and Maintenance - Treatment | | $0.00 | $0.00 |
| Administration - Collection and Conveyance | | $91,840.00 | $91,840.00 |
| Administration - Treatment | | $277,471.60 | $277,471.60 |
| Subtotal | | $446,889.36 | $528,086.52 |
| Present Worth Factor (20 years @ 4.2%) | | 13.59 | 13.59 |
| **Present Worth Annual Costs** | | **$6,073,226.41** | **$7,176,695.76** |
| **C. Total Present Worth Costs ("A" + "B")** | | **$17,969,204.02** | **$18,652,911.72** |
| **D. Total EDU's Served** | | **574** | **574** |
| **E. Total Cost Per EDU ("C" / "D")** | | **$31,305.23** | **$32,496.36** |

**Table 2.2 – User Cost Analysis for Options Conveyed to Penn Twp. WWTP – PennVEST**
**AREA 4, 5, and 6**
**Sanitary Sewer Conveyed to Penn Township Wastewater Treatment Plant (PennVEST)**

| Description | Option 1: Gravity Sanitary Sewer and Associated Pump stations | Option 2: Gravity Sanitary Sewer and Low Pressure Sewer |
|---|---|---|
| **A. Capital Costs** | | |
| Total Project Costs | $11,895,977.61 | $11,476,215.96 |
| Capital Reserve Fund (10%) | $1,189,597.76 | $1,147,621.60 |
| **Total Capital Costs** | **$13,085,575.38** | **$12,623,837.56** |
| **B. Tapping Fee Revenue** | | |
| Initial Tapping Fee Per EDU | $3,000.00 | $3,000.00 |
| Total EDU's Served | 574 | 574 |
| **Tapping Fee Revenue** | **$1,722,000.00** | **$1,722,000.00** |
| **C. Total Loan/Bond Principal ("A" - "B")** | **$11,363,575.38** | **$10,901,837.56** |
| **D. Interest Factor for 20 year Loan @ 4.2%** | **0.074** | **0.074** |
| **E. Total Projected User Costs** | | |
| Projected Annual Debt Service ("C" x "D") | $840,904.58 | $806,735.98 |
| Operation and Maintenance - Collection and Conveyance | $77,577.76 | $158,774.92 |
| Operation and Maintenance - Treatment | $0.00 | $0.00 |
| Administration - Collection and Conveyance | $91,840.00 | $91,840.00 |
| Administration - Treatment | $277,471.60 | $277,471.60 |
| **Total Projected User Costs** | **$1,287,793.94** | **$1,334,822.50** |
| **F. Total Projected Annual Cost Per User** | **$2,243.54** | **$2,325.47** |

The two collection and conveyance options analyzed will have almost identical areas and impacts to environmental resources. A summary of the area to be affected, environmental resources to be affected, and expected environmental effects or consequences for each alternative is summarized below.

**Gravity Sanitary Sewer and Associated Pump Stations:**

1) Area to be Affected
The construction of a gravity sewer system to serve areas 4, 5 and 6 will impact approximately 31.5 Acres.

2) Environmental Resources to be Affected
The construction of a gravity sewer system to serve areas 4, 5 and 6 will temporarily impact floodplains, watercourses, and wetlands. These resources are located along tributaries to the South Branch of the Conewago Creek, and Furnace Creek. All temporary construction impacts will be required to be permitted through the PA DEP.

3) Expected Environmental Effects or Consequences
The construction of a gravity sewer system to serve areas 4, 5 and 6 will eliminate the existing malfunctioning on-lot sewage disposal systems. This will result in no additional pollution to the groundwater and/or water courses within the project area.

**Low Pressure Sanitary Sewer and Associated Gravity Sanitary Sewer:**

1) Area to be Affected
The construction of a low pressure sewer system to serve areas 4, 5 and 6 will impact approximately 25.7 Acres.

2) Environmental Resources to be Affected

The construction of a low pressure sewer system to serve areas 4, 5 and 6 will temporarily impact floodplains, watercourses, and wetlands. These resources are located along tributaries to the South Branch of the Conewago Creek, and Furnace Creek. All temporary construction impacts will be required to be permitted through the PA DEP. The impacts resulting from the installation of a low pressure are approximately 2/3 of the impacts from the installation of a gravity sanitary sewer system.

3) Expected Environmental Effects or Consequences

The construction of a low pressure sewer system to serve areas 4, 5 and 6 will eliminate the existing malfunctioning on-lot sewage disposal systems. This will result in no additional pollution to the groundwater and/or water courses within the project area. Individual property ownership and maintenance of the grinder pump could result in unlawful discharge of sewage due to improper use and maintenance.

## 3.0 Environmental Consequences of this Project

**No-Action:**

The no-action alternative means that the current methods of handling wastewater will extend into the future with no anticipated changes. With the exception to those residents served by the West Manheim Township Sewer System and The York Water Company, the majority of Township residents utilize private wells and on-lot sewage disposal systems (OLDS). The inspection and certification of existing OLD's, as summarized in Exhibit III-7, demonstrates the viability for continued operation of these systems.

1) Direct Effects:

The no-action alternative will not directly impact/disturb environmentally sensitive features,

2) Indirect Effects:

The no-action alternative will not have any immediate indirect affects on the Township.

3) Cumulative Effects

The no-action alternative will: not have a significant impact on the residents; will not have a significant impact on future social or economic growth of the Township; will not have significant impact on environmental resources; will allow for proper operation and management of on-lot disposal systems.

**Future Public Sewer:**

The future collection and conveyance method that was selected is the Gravity Sanitary Sewer and Associated Pump Stations. However portions of these systems will utilize low pressure sanitary sewer where existing physical feature prevent a gravity system. A combination of the two options has been selected for both financial and physical reasons. The alignment of sewer systems has been selected to be placed within township roadways whenever possible to minimally impact any natural resources.

1) Direct Effects:
Any environmentally sensitive natural features (such as wetlands, steep slope, rock outcropping, etc.) will be avoided; however, if any of these features will be impacted mitigation will be performed to create an equivalent habitat or the habitat will be restored to existing conditions prior to installation of the system. All stream crossings and wetland crossings will be permitted through the PA DEP.

2) Indirect Effects:
The Act 537 Plan Update addresses known or potential growth within the area to be served by public sewer. The proposed service areas are consistent with the growth plan contained within the West Manheim Township Comprehensive. Therefore, no anticipated indirect effects are indicated as a result of the construction of the sanitary sewer system.

3) Cumulative Effects
The selected alternative, construction of a gravity collection sewer system and conveyance to the Penn Township WWTP, will help alleviate contamination to environmental resources through removal of malfunctioning on-lot disposal systems. The construction will result in temporary impacts to Waters of the Commonwealth, however, these impacts will be minimized through the application to the PA DEP for a General Permit, Erosion and Sedimentation Control Plan Approval, and National Pollution Discharge Elimination System (NPDES) Permit.

## 3.1 Land Use/Important Farmland/Formally Classified Lands

The West Manheim Township Act 537 Plan update was submitted to the York County Planning Commission (YCPC) and West Manheim Township Planning Commission for review and comment; comments received are included in Exhibit 2 – planning Agency Comments.

Land Use:

The Act 537 Plan Update study areas are located within the Primary Growth Boundary defined in the West Manheim Township Comprehensive Plan, September 2009, with the exception being a small portion of the Fuhrman Mill Road area. The Fuhrman Mill Road area is located within both the Primary Growth and Rural Growth areas delineated in the comprehensive plan.

Zoning:

Service Areas 4, 5 and 6 are generally located within the Primary Growth Area (PGA), as defined in the West Manheim Township Zoning Ordinance, September 2009. The PGA consists of Suburban Residential, Residential, Commercial/Industrial, and Business Center zones. In accordance with the PGA provisions, all proposed development is to be served by public water and sewer. The zoning districts contained in each service area are summarized in Table 3.1 – Zoning Districts.

**Table 3.1 – Zoning Districts**

| Study Area | Zones |
|---|---|
| 4 | Commercial/Industrial, Residential |
| 5 | Farming, Residential |
| 6 | Farming, Residential |

Farmland:

Several soil types within the township boundaries are designated as prime farmland. See Exhibit II-10 – Prime Farmland for delineation of prime farmlands within the study areas. Impacts to Prime Farmland will be minimal. The proposed sanitary sewer lines will serve areas of the township that have been developed into residential use. The interceptor extension will minimally impact prime farmland. The in-situ soils will be returned to the trench once the pipeline has been constructed, returning the area to farmland use.

The following table shows the existing urban build-up located within each study area. This rate is defined as being more than 30 existing structures within a forty-acre area. The rate is equal to 0.75 structures/acre.

| Study Area | Area (acres) | Structures | Rate (Structures/Acre) |
|---|---|---|---|
| 4 | 320 | 275 | 0.86 |
| 5 | 99 | 96 | 0.97 |
| 6 | 520 | 216 | 0.42 |
| **Cumulative Project Impact** | 939 | 587 | **0.63** |

Parks and Recreation:

No national or state parks are located within a mile radius of the proposed study areas, but a portion of the Codorus State Park is located within the township boundaries. The proposed actions of the Act 537 Plan Update will not have a detrimental impact on these activities or land use.

National Landmarks:

No National Historic Landmarks are located within West Manheim Township.

**3.2 – Floodplains**

The Federal Emergency Management Agency's 100 year floodplains are located within several of the study areas. See Exhibit II-4 – Floodprone Areas which shows FEMA delineated floodplains. Earth disturbance within delineated floodplains will be avoided wherever possible; if sewer line in placed within a designated floodplain, measures will be taken make the sewer line watertight and not impact floodplain elevations.

West Manheim Township currently participates in the State and Federal Floodplain protection program. The zoning ordinance restricts development within delineated floodplains as well as assumed floodways; which are defined as being 50 wide on either side of a creek.

### 3.3 – Wetlands

Wetlands provide a natural filtration function for stormwater runoff, because of this natural vital function are protected against development. The National Wetland Inventory has delineated wetlands located within the township's sanitary sewer study areas. These wetlands will be avoided in the design of sanitary sewer facilities and conveyance systems. See Exhibit II-17 – Wetlands for the locations of wetlands located within the township. This exhibit was developed using information from the National Wetland Inventory and field delineated wetlands from sanitary sewer areas one, two, and three surveys.

A PA DEP permit will be required if a wetland is disturbed based on the results of this sewer planning study. A permit for the proposed activity must be obtained prior to any earthmoving activities.

### 3.4 – Historic Resources

West Manheim Township was formed out of neighboring Manheim Township in 1858. The township has several historical significant resource located within its border; however, only one is located within the sanitary sewer study areas.

Study Area 4 contains the historic Village of Pleasant Hill. This village was one of the earliest settlements in the township. A Cultural Resource Notice will be conducted prior to the design phase within this area to ensure that no historically relevant properties or structures be altered. A Cultural Resource Notice will be conducted for the remaining areas to determine if the study areas have any type of historical and/or cultural importance. A copy of the correspondence completed as part of the Act 537 Plan Update is located in Exhibit 6 – PHMC Correspondence.

### 3.5 – Sensitive Biological Resources

A Pennsylvania Natural Diversity Inventory (PNDI) review will be conducted prior to the design phase of any sanitary sewer study area. A copy of the PNDI search results and correspondence conducted as part of the Act 537 Plan Update is located in Exhibit 7 – PNDI Search Results.

### 3.6 Water Quality Issues

Groundwater:
As stated in the West Manheim Township Comprehensive Plan the townships groundwater quality varies depending on the area in the township. Historically the township's primary use has been agriculture. As a result fertilizers and manure have polluted some groundwater with nitrates and phosphates.

More recently a residential development boom has depleted groundwater within the region. However, an extensive public water system has been constructed to serve the majority of West Manheim Township residents within the primary growth boundary.

The residential boom also created another problem for groundwater, contamination. Contamination occurs when malfunctioning on-lot disposal systems discharge improperly treated sewage into the groundwater resource. This plan identifies that the OLD's Management Inspection and Certification plan has documented all systems to be operational.

Surface Water:

West Manheim Township has several creeks, reservoirs and one lake located within its borders. Construction activities located within the associated watershed will be prone to sediment pollution during the construction phase. An Erosion and Sedimentation Pollution Control Plan must be approved prior to any construction activities.

All wastewater will be conveyed to the Penn Township Wastewater Treatment Plant that discharges to Oil Creek. The treatment plant is covered under NPDES Discharge Permit No. PA0037150.

### 3.7 Coastal Resources

The study area is not located within a Coastal Resource Region.

### 3.8 Socio-Economic Issues

No-Action Alternative
The proposed no-action alternative will not result in socio-economic issues within the Township.

Future Public Sewer
Implementing the plan update may result in minimal socio-economic issues within the township. Construction of a sanitary sewer service line may raise the value of the existing house which had an on-lot system. If a large increase occurs some families may not be able to afford living in their house.

As shown as Exhibit 8 – West Manheim Township Low/Moderate Income Map there are no widespread Low to Moderate income areas located within West Manheim Township, but isolated areas exist where people are living at or below poverty levels.

### 3.9 Air Quality

No-Action Alternative
The proposed no-action alternative will not result in air quality impacts.

Future Public Sewer
An increase of dust may occur as a result of construction activities associated with the proposed actions of this plan update. As a requirement from the York County Conservation District dust must be treated to maintain the existing level of air quality.

No odor problems will be generated within West Manheim Township as a result to the construction and operation of sanitary sewer collection and conveyance systems.

### 3.10 Transportation

No-Action Alternative

The proposed no-action alternative will not result in transportation impacts.

Future Public Sewer

Transportation patterns within the study area will not permanently change as a result of the proposed improvements. Traffic patterns will change to accommodate construction equipment and to maintain a level of safety for all construction laborers when work is being completed within the road or alongside the road. Transportation patterns will be returned to pre-existing conditions once construction is complete.

### 3.11 Noise Abatement and Control

No-Action Alternative

The proposed no-action alternative will not result in noise impacts.

Future Public Sewer

Noise generated from pumping stations will be minimal. The pumps being utilized operate on cycles that run periodically throughout the day during high flow time period, morning and evening. If it is deemed necessary, a sound reducing insulation or material will be utilized at the pumping station.

### 3.12 Wild and Scenic Rivers

The study areas are not located within this area.

### 3.13 Miscellaneous Environmental Considerations

Not applicable

### 4.0 Summary of Mitigation

No-Action Alternative

The proposed no-action alternative will not require mitigation.

Future Public Sewer

Watercourses of the Commonwealth may be disturbed during construction of the interceptor extension. A field survey will be conducted prior to design of the sanitary sewer alignment to map all environmental resources within the project area. During the field survey, a wetland survey will be conducted by an experienced professional. If wetlands are present they will be avoided; however, if a wetland needs to be disturbed it shall be returned to its natural site, as permitted by the PA DEP.

### 5.0 Public Participation

The Pennsylvania Department of Environmental Protection requires a 30 day public comment period for all Act 537 Plan Updates. See Exhibit 9 – Advertisement for newspaper advertisement, public meeting agenda and minutes, all public comments and responses addressing public comments.

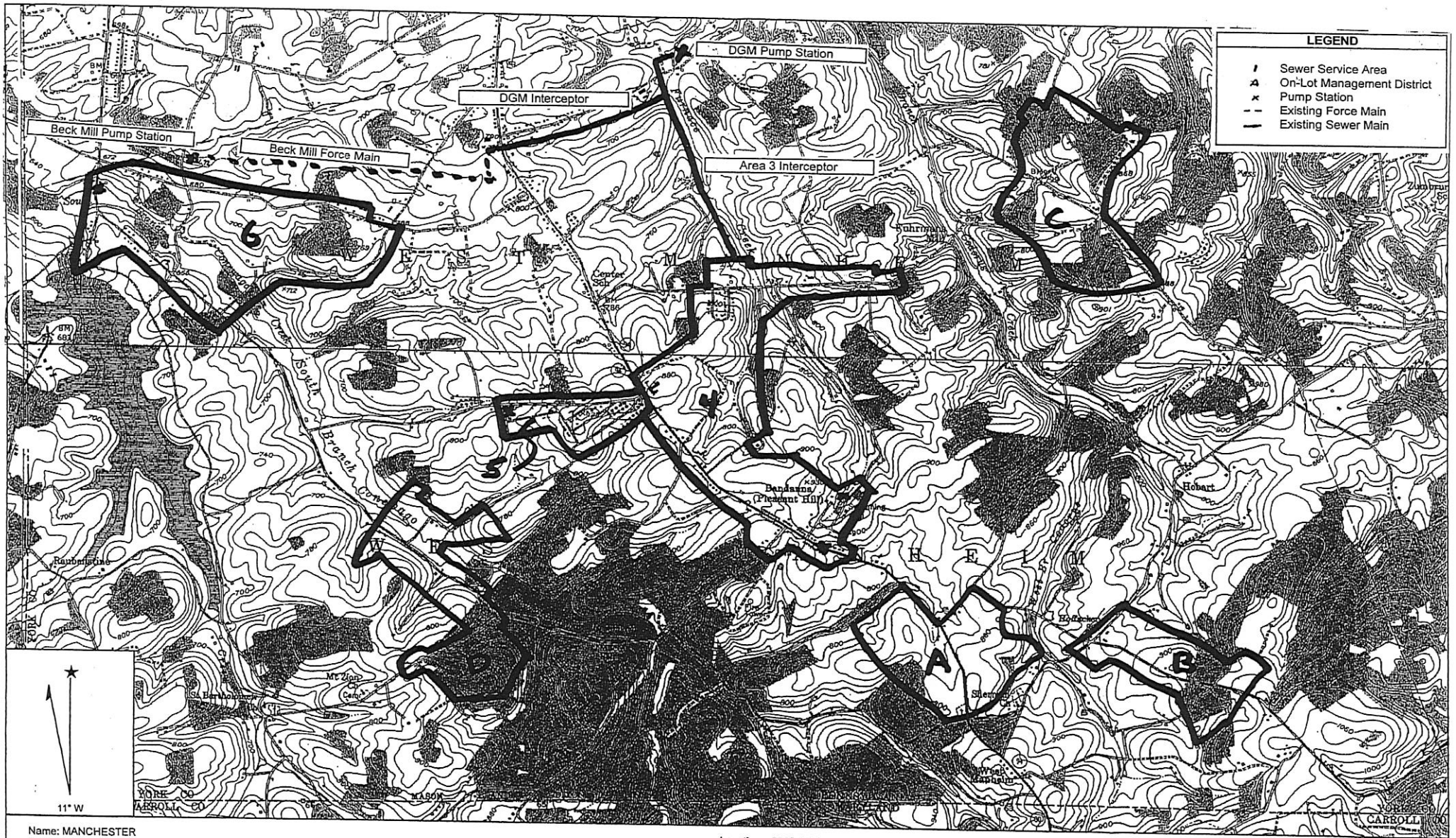
The plan has been submitted to the York County Planning Commission (YCPC) for comment, and to the West Manheim Planning Commission for comment. After approval from both planning agencies it was advertised to provide a public comment period as required.

## 6.0 EXHIBITS

| Exhibit No. | Description |
|---|---|
| 1 | Needs Area |
| 2 | Planning Agency Comments |
| 3 | Act 537 Plan Exhibit II-10 – Prime Farmland |
| 4 | Act 537 Plan Exhibit II-4 – Floodprone Areas |
| 5 | Act 537 Plan Exhibit II-17 – Wetlands |
| 6 | PHMC Correspondence |
| 7 | PNDI Search Results |
| 8 | West Manheim Township Low to Moderate Income Map |
| 9 | Advertisement |

**EXHIBIT 1**

**NEEDS AREAS**




Copyright (C) 1997, Maptech, Inc.

**EXHIBIT 2**

**PALNNING AGENCY COMMENTS**

# YORK COUNTY PLANNING COMMISSION

28 EAST MARKET STREET, YORK, PENNSYLVANIA 17401
TELEPHONE: (717) 771-9870 FAX: (717) 771-9511

March 5, 2010

Mr. Michael Knouse
C.S. Davidson, Inc.
38 North Duke Street
York, PA 17401

Re: West Manheim Township Act 537 Plan Update
West Manheim Township, York County
YCPC Project # 10-020

Dear Mr. Knouse

The above referenced matter was reviewed by the York County Planning Commission at its regular meeting held on Tuesday, March 2, 2010.

By formal action the Commission adopted the attached report as constituting its comments on this matter in accordance with Section 304 of the Pennsylvania Municipalities Planning Code.

You are reminded that the Pennsylvania Municipalities Planning Code requires the submission of a copy of any adopted municipal Zoning Ordinance, Subdivision and Land Development Ordinance, Comprehensive Plan or any amendments to such documents to the York County Planning Commission with thirty days (30) days following the date of adoption.

Very truly yours,

Felicia S. Dell

Felicia S. Dell
Director of Planning

FSD/jb
Enc.
cc: West Manheim Township Supervisors, c/o Nancy Smith, Secretary
File

TERRY L. DUNLAP, CHAIRMAN • WALTER A. KUHL, VICE CHAIRMAN • MARY E. COBLE, SECRETARY • MARY KAY REED, TREASURER
BRIAN BRENNEMAN • JOSHUA GEORGE • JEFF PROPPS • JOHN C. MENGES, II • RANDY MEYERHOFF
FELICIA S. DELL, DIRECTOR • JEFFREY L. REHMEYER II, SOLICITOR

EQUAL OPPORTUNITY EMPLOYER

**ACT 537 SEWAGE FACILITIES PLAN UPDATE**
**WEST MANHEIM TOWNSHIP**
**YCPC PROJECT #10-20**

## PROJECT DESCRIPTION

A proposed Act 537 Sewage Facilities Plan Update for West Manheim Township has been submitted to the York County Planning Commission for review and comment, as required by Section 304 of the Pennsylvania Municipalities Planning Code (PA MPC), and Section 71.31(b) of the Pennsylvania Sewage Facilities Act, Act 537.

## PROJECT DISCUSSION

**Background:** The current Official Sewage Facilities Plan for West Manheim Township consists of several documents including the York County Comprehensive Sewerage Study- Phase Two (1972), the Preliminary Feasibility Study for Sanitary Sewerage System (April 1976), the Act 537 Revision to Official Sewage Facilities Plan of September 7, 1976 (December 2, 1982), the Act 537 Revision to Official Sewage Facilities Plan of September 7, 1976 (May 1, 1984), and the West Manheim Township Act 537 Plan Update/ Task Activity Report (March 23, 2000). All these documents, prior to the Update in 2000, called for the sewage disposal needs to be addressed by on-lot sewage disposal systems and did not address current development pressures within the Township. The 2000 Update, identified six (6) sanitary sewer needs areas, of which Area 1 has been constructed, while Areas 2 and 3 are under construction. This Act 537 Plan Update consolidates the previous Act 537 planning that has been completed, as well as re-evaluates Sanitary Sewer Areas 4, 5, and 6 identified in the previous Update, additional areas located in the Woodridge Hunt development, and portions of Fuhrman Mill Road (see attached Exhibit II-2).

**Problems and Issues to be Addressed:** Based on a review of existing and suspected malfunctioning on-lot systems, wildcat sewers, groundwater contamination, soil suitability, slope, and areas with high potential for sewage disposal problems, the Township has identified five (5) study areas for review as sewage disposal needs areas (see attached Exhibit II-2). These areas include:

1) Area 4- Pleasant Hill Area- This area consists of 298 EDU's on small lots (< 1 acre) mostly served by public water. There are five (5) known malfunctions, eight (8) potential malfunctions, and 11 systems located near adverse conditions. Additionally, three (3) wells tested positive for fecal coliform, one (1) well tested positive for total coliform, and six (6) wells tested positive for elevated concentrations ($\geq$ 5 mg/L) of nitrate/nitrogen. Area 4 is considered one (1) of two (2) high priority areas for public sewer.

2) Area 5- Shorbs Hill Area- This area consists of 106 EDU's on small lots (< 1 acre) served entirely by public water. Based on previous surveys, there is one (1) known and two (2) suspected malfunctions in this area. Area 5 is considered to be in need of public sewer within the next five (5) years.

3) Area 6- Fairview Drive Area- A portion of this area is served by public water and there is a total of 170 EDU's on small (< 1 acre) residential lots. Previous surveys identified nine (9) potential malfunctions. Previous well water testing revealed five (5) wells with total and fecal coliform, six

(6) wells with total coliform, and 11 wells with elevated concentrations (≥ 5 mg/L) of nitrate/nitrogen. The elevated nitrate/nitrogen is suspected of being the result of farming activities in the area. Area 6 is considered to be in need of public sewer within the next five (5) years.

4) Woodridge Hunt Area- This area consists of 67 EDU's on newly developed residential lots ranging from one (1) acre to 7.7 acres. These lots are served by elevated sound mounds with denitrification units. There are no known malfunctions in the area, but it was found that several denitrification units are not operable. Well water testing revealed ten (10) positive results for total coliform and 16 positive results for elevated concentrations (≥ 5 mg/L) of nitrate/nitrogen. The Woodridge Hunt area is considered a future needs area (10 year) for public water and sewer.

5) Fuhrman Mill Road Area- This area consists of residential lots averaging approximately one (1) acre. A portion of the area is served by public water. No known malfunctions were identified during the survey, however, the average age of the on-lot systems is 25 years. Previous well water testing indicated that five (5) wells tested positive for total coliform and eight (8) wells tested positive for elevated concentrations (≥ 5 mg/L) of nitrate/nitrogen. The Fuhrman Mill Road area is considered one (1) of two (2) high priority areas for public sewer.

The remainder of the Township is noted as not experiencing widespread or concentrated on-lot system malfunctions. The previous Plan Update revealed eight (8) positive well tests for fecal coliform bacteria, 47 wells (50%) with elevated concentrations (≥ 5 mg/L) of nitrate/nitrogen, and ten (10) wells (10 %) with nitrate/nitrogen concentrations of greater than 10 mg/L.

**Selected Alternatives:** Based upon an evaluation of the alternatives available, financial analysis, and institutional evaluation, the Plan recommends that areas 4, 5, 6 and Fuhrman Mill Road be served by public sanitary sewer extensions consisting of gravity sanitary sewer, pump stations, and associated force mains. The proposed collection system would feed into the Penn Township Wastewater Treatment Plant (WWTP). Funding for these projects would be pursued through a General Obligation Bond and/or PennVest loan. The average annual user fee is anticipated to be $2,229.04 with a tapping fee of $3,000.00.

The Township currently has an adopted On-Lot Management Ordinance consisting of two (2) districts. The Plan proposes to amend the existing Ordinance to define four (4) on-lot management districts (see attached Exhibit II-22) with each having a four (4) year pumping cycle.

Additionally, a private WWTP is proposed for the Joshua Hill development and anticipated to be completed in 2011. The Plan notes that service to the Woodridge Hunt area may be feasible via the proposed WWTP. In the interim, the Woodridge Hunt area is to be included in the updated on-lot management districts.

**Other Alternatives:**

Other alternatives considered by the Plan include the following:

1) Conventional Treatment Systems - Conveyance to Penn Township WWTP is the selected alternative.

2) Individual Sewage Disposal Systems- Selected for remaining areas of Township.
3) Small Flow Treatment Facilities- Possibility of connecting Woodridge Hunt area to proposed Joshua Hill WWTP.
4) Community Wastewater Treatment Facilities- Considered not viable.
5) Holding Tanks- Currently not permitted in Township.
6) Sewage Management Program- Included as part of selected alternative.
7) Non-Structural Comprehensive Planning Activities- The Plan identifies Township staff, ordinances, plans, and the potential for distribution of educational materials via newsletter, web site, and mailings.
8) No Action- Considered not viable due to potential for ground water contamination through malfunction of on-lot systems.

## RECOMMENDATION

West Manheim Township is to be commended for its efforts to address its future sewage disposal needs. A review of the proposed West Manheim Act 537 Plan Update identified several minor inconsistencies between the service areas shown in the Comprehensive Plan and those in the Act 537 Plan. Additionally, it appears that proposed sewer service area 6 is larger than needed and consideration should be given to scaling it back. However, the proposed West Manheim Township Act 537 Plan Update is generally consistent with the York County Comprehensive Plan and it is therefore **recommended that the Plan be adopted,** conditioned upon the consideration of the comments below and changes to the Plan and Township Comprehensive Plan where applicable.

## COMMENTS

**York County Comprehensive Plan Comments:**

1. Exhibit II-2- Minor portions of proposed Sewer Service Area 5 and the Fuhrman Mill Road area extend beyond the service areas previously identified in the Township Comprehensive Plan and the Primary Growth Areas identified in both the Township and York County Comprehensive Plans. The Township Comprehensive Plan should be updated to account for these parcels in the Future Land Use Plan and Primary Growth Areas. This then would be followed by changes to Primary Growth Areas in the County Comprehensive Plan for consistency.

**General Comments:**

2. Exhibit II-2- The configuration of proposed Sewer Service Areas 4 and 5 appear to have been slightly reduced in some areas. These areas should be updated in the Township Comprehensive Plan along with the other needed changes for consistency.

3. Exhibit II-2- A large portion of Sewer Service Area 6, as identified in the Township Comprehensive Plan and located within the adopted Primary Growth Area, is already served by public sewer according Exhibit III-1. However, this area is not identified as an existing service area on Exhibits II-2 or II-15, for example, and has been removed from proposed Sewer Service Area 6. The existing service area should be properly and consistently identified on all the maps.

4. Exhibit V-1- Based on the sanitary sewer layout shown on Exhibit V-1 (too large to reproduce for attachment), a significant amount of large lots adjacent to both sides of Impounding Dam Road are

not proposed to be hooked-up to public sewer. If this is the case and there is no need for sewer in this area to resolve an existing situation, then given the proposed future land use designation of Farming for the area and its location outside of the Primary Growth Area, it should be removed from the proposed sewer service area in the Act 537 Plan and in the Township Comprehensive Plan.

***The preceding comments were prepared by the York County Planning Commission and constitute a professional planning review, not a legal opinion.**

****Please forward the adopted and PA DEP approved version of the Plan to the York County Planning Commission. This will help to keep our files up to date when reviewing future applications regarding Act 537 planning.**

# YORK COUNTY PLANNING COMMISSION

28 EAST MARKET STREET, YORK, PENNSYLVANIA 17401
TELEPHONE: (717) 771-9870 FAX: (717) 771-9511

February 12, 2010

Michael R. Knouse
C.S. Davidson, Inc.
38 North Duke Street
York, PA 17401

Re: Act 537 Plan Update
West Manheim Township, York County
YCPC Project #10-20

Dear Mr. Knouse:

This is to advise you that the above-referenced matter submitted to this office will be considered by the York County Planning Commission at its regular monthly meeting to be held on March 2, 2010. A staff report and recommendation will be prepared and will provide a basis for the Commission's deliberations.

Every effort will be made to prepare a staff report that is comprehensive, factual and objective. However, it is impossible to anticipate all questions or issues that may arise. It would be unfortunate to have a matter rejected or delayed due to the lack of information, therefore, it is in your best interest to attend the above-referenced meeting. **The meeting will be held at the York County 911 Emergency Services Center (in the meeting room off the lobby), 120 Davies Drive, York PA 17402, and will begin promptly at 7:30 p.m.** It is best to arrive early, particularly if you wish to address the Board, as staff reports concerning municipal projects are often voted upon by the Board in a group by consent agenda.

Copies of the staff report may be obtained by interested parties prior to the meeting, but no earlier than the start of business hours on the preceding Friday.

Sincerely,

Roy O. Livergood, Jr., Senior Planner
County Long Range Planning

cc: West Manheim Township Supervisors, c/o Nancy Smith, Secretary

TERRY L. DUNLAP, CHAIRMAN • WALTER A. KUHL, VICE CHAIRMAN • MARY E. COBLE, SECRETARY • MARY KAY REED, TREASURER
BRIAN BRENNEMAN • JOSHUA GEORGE • JEFF PROPPS • JOHN C. MENGES, II • RANDY MEYERHOFF
FELICIA S. DELL, DIRECTOR • JEFFREY L. REHMEYER II, SOLICITOR

EQUAL OPPORTUNITY EMPLOYER

# West Manheim Township

February 18, 2010

West Manheim Township
Board of Supervisors

**RE: Act 537 Plan Updates**

Dear Board of Supervisors:

The West Manheim Township Planning Commission at their January 21, 2010 meeting provided a favorable recommendation of the Act 537 Plan Updates. The Planning Commission recommends the incorporation of the typos and comments as noted in the minutes of the meeting.

Sincerely,

WEST MANHEIM TOWNSHIP
PLANNING COMMISSION

Jim Myers, Chairman
Planning Commission

cc: Board of Supervisors
Nancy Smith, Secretary
Kevin Null, Township Manager
Planning Commission
Planning File

MINUTES
WEST MANHEIM TOWNSHIP
REGULAR PLANNING COMMISSION MEETING
THURSDAY, JANUARY 21. 2010
6:00 PM

ITEM NO. 1 Meeting Called to Order

The regular meeting of the West Manheim Township Planning Commission was called to order at 6:00 p.m., by Chairman Jim Myers, followed by the Pledge of Allegiance.

ITEM NO. 2 Roll Call

The roll was called, and the following Commission Members were present: Chairman, Jim Myers, Darrell Raubenstine, Grant Reichart, Andrew Hoffman and Duane Diehl. Also present was Harold Coldren, Interim Zoning Officer and Mike Knouse, C.S. Davidson.

ITEM NO. 3 Re-Organization – 2010

A. Chairman

Andy Hoffman moved to nominate Jim Myers as Chairman, seconded by Duane Diehl.
***The motion carried.***

B. Vice-Chairman

Darrell Raubenstine moved to nominate Andy Hoffman as Vice-Chairman, seconded by Duane Diehl.
***The motion carried.***

C. Secretary

Duane Diehl moved to nominate Darrell Raubenstine as Secretary, seconded by Andy Hoffman.
***The motion carried.***

D. Recording Secretary

Darrell Raubenstine moved to nominate Laura Gately as Recording Secretary, seconded by Andy Hoffman.
***The motion carried.***

E. Meeting Dates & Times

Darrell Raubenstine made a motion to keep the meetings on the third Thursday of each month starting at 6:00 pm, seconded by Grant Reichart. ***The motion carried***.

ITEM NO. 4 Approval of Minutes

In reference to the December 17, 2009 minutes, Jim Myers noted that on page 4, Item No. 12 Zoning Officer Scott Barnhart, Township Manager/Zoning Officer reported that there would be two conditional use applications forthcoming. It should be corrected to read ham radio tower and not hand radio tower. He also noted on page 4, the second sentence the word sight should changed to be site.

With the following corrections, Andy Hoffman made a motion to approve the minutes from the December 17, 2009 Planning Commission meeting, seconded by Grant Reichart. ***The motion carried.***

ITEM NO. 5 Correspondence

Jim Myers, Chairman reported that the following correspondences were received:

1). Correspondence from Hanover Land Services dated January 11, 2010 regarding a written update for the James Horak & Donald Yorlets Partnership 7 Lot Preliminary Subdivision Plan, Fairview Drive.

ITEM NO. 6 Visitors

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission, and received no reply.

ITEM NO. 7 Public Comment – Items Not Listed on Agenda

Chairman Jim Myers asked if there were any visitors present that wished to discuss anything specific not on the agenda, and received no reply.

ITEM NO. 8 Emergency Services Group Report

Mike Hampton said Emergency Services has not reviewed any new plans since the beginning of the year. He reported that they reviewed a total of 12 preliminary and/or final plans in 2009. He said the Emergency Services Board will be meeting on February 22, 2010 and the meeting is open to the public.

ITEM NO. 9 Report from Zoning/Hearing Board

Harold Coldren, Interim Zoning Officer said there is no activity for January or February.

ITEM NO. 10 Old Business

A. Orchard Estates – Gobrecht – Shorbs Hill Rd. – 56 Lot Preliminary Plan

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission regarding the plan. There was no one present from the public to address the Commission.

Andy Hoffman made a motion to table the Plan, seconded by Grant Reichart. ***The motion carried.***

B. Marlee Hill Farm (Preserve at Codorus Creek IV) – Baltimore Pike – 79 Lot Preliminary Plan

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission regarding the plan.

Marty Hill said he has nothing new to report at this time.

Andy Hoffman made a motion to table the Plan, seconded by Grant Reichart. ***The motion carried.***

C. Homestead Acres – J.A. Myers – Oakwood Dr. & Valley View Dr. – 134 Lot Preliminary Plan

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission regarding the plan. There was no one present from the public to address the Commission.

Darrell Raubenstine made a motion to table the Plan, seconded by Grant Reichart. ***The motion carried.***

D. Northfield Joint Venture c/o Michael Roepcke – Phase II – Pumping Station Rd. & East of Baltimore Pike – 52 Lot Preliminary Subdivision Plan

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission regarding the plan. There was no one present from the public to address the Commission.

Duane Diehl made a motion to table the Plan, seconded by Grant Reichart. ***The motion carried.***

E. Benrus L. Stambaugh II, et al – 1 Lot Land Development Plan – Brunswick Dr. & Oak Hills Dr.

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission regarding the plan. There was no one present from the public to address the Commission.

Darrell Raubenstine made a motion to table the Plan, seconded by Grant Reichart. ***The motion carried.***

F. James E. Horak & Donald L. Yorlets – Fairview Dr. – 6 Lots Preliminary Subdivision Plan

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission regarding the plan.

Kris Raubenstine, Hanover Land Services was present to represent the applicant. He said they are trying to see if it is feasible to run the sewer through the other subdivision to the rear of the property. He said at this time this is not known. He said they will also continue to address the engineering comments.

Andy Hoffman made a motion to table the Plan, seconded by Grant Reichart. ***The motion carried.***

G. Steven J. Dotson – 2150 Baltimore Pike - Lot 2 - Camper Storage Area -1 Lot Minor Subdivision Final Plan

Steve Dotson submitted revised plans to the Planning Commission for review. He said they adjusted the plans and included the information regarding the additional right-of-way at Fuhrman Mill Road and also added the comments on the six month notice for the sidewalks.

Darrell Raubenstine asked why the standard wording was not used.

Mike Knouse said typically with the note the applicant would need to request a waiver for the curbs.

Mr. Dotson said that is what he is trying to do and he didn't know if it needed to be worded differently.

Darrell Raubenstine said there is standard verbage. He asked if Jack Powell could contact Mike Knouse and get the standard note.

Mr. Dotson said Scott Barnhart informed him to come back to the meeting worded as it is currently noted on the plans.

Mike Knouse read the typical note as it is to be stated. He said the applicant has abbreviated the note. In this case a request should be specifically requested marked for curb and widening. It would be done by listing the waiver and the concrete and curbing sections. He will talk to Jack Powell on the verbage.

Andy Hoffman made a motion for a favorable recommendation to the Board of Supervisors pending the waivers is to be noted on the plans, seconded by Duane Diehl. ***The motion carried.***

ITEM NO. 11 New Business

There was no new business to discuss.

ITEM NO. 12 Signing of Approved Plans

There was no new business to discuss.

ITEM NO. 13 Zoning Officer

Harold Coldren, Interim Zoning Officer reported that there will be no Zoning Hearing Board meeting held for the months of January and February.

ITEM NO. 14 Sketch Plans and Other Business

a. ACT 537 Plan Updates

Mike Knouse said the DEP requirements were for the township to submit the changes to township Planning Commission as well as the York County Planning Commission. He said it should be on the York County Planning Commission agenda for the February meeting. He asked the Commission if they had any comments.

Andy Hoffman noted that on the DEP Assessment Checklist, page 9, NO. 44, Item (b): Public education programs to encourage proper operation and maintenance and repair of sewage disposal systems. He asked what is in place at this time.

Mike Knouse said nothing. He said the recommendation is to start out with the website and to post any updates and different happenings. He said the action plan should be implemented once DEP approves the plan. He said regarding on-lot systems it would be valuable to provide information as soon as possible. This is valuable information for property owners.

Andy Hoffman said in the Previous Wastewater Planning section, page 7, third paragraph it notes that approximately 88.65% of the Township soils are generally suitable for individual residential spray irrigation systems. He asked if the township has any spray irrigation systems.

Mike Knouse said no there is zero.

Andy Hoffman said on page 23, last sentence; approximately one half of soils and topography within this study are area capable of conventional on-lot disposal systems. He noted the typo "are area".

Mike Knouse said he would delete the word area to read; "are capable".

Andy Hoffman noted on page 24, first paragraph, Item (3). Samples with greater than five (5) milligrams per liter (mg/L) are an indicator of potentially High Nitrate Levels. He asked if the word nitrate should be added after the amount of milligrams per liter.

Mike Knouse said it would read better the way he is suggesting.

Andy Hoffman noted the typo on page 35, item C) Reduction of hydraulic of organic loading to existing facilities. The word "of" after hydraulic should be deleted and replaced with the word "and" to read, Reduction of hydraulic and organic loading to existing facilities. He noted on Exhibit 2-20 the location of his house was incorrectly shown.

Chairman Jim Myers asked if there were any additional questions or comments from the Commission.

Mike Knouse said if the Commission has not additional changes and concerns with the plan they would need to make a favorable recommendation to the Board of Supervisors with the corrections and typos as noted during the meeting. It will then be submitted to the York County Planning Commission for comments and then the Board of Supervisors will set the plan for 30 days, and then schedule a public hearing. At that point the Board can choose to adopt the plan.

Chairman Jim Myers asked if there were any additional questions or comments from the Commission. There being no further comments or questions he said he would entertain a motion.

Andy Hoffman made a motion for a favorable recommendation to the Board of Supervisors with the corrections and typos as discussed, seconded by Duane Diehl. ***The motion carried.***

b. Subdivision and Land Development Ordinance (SALDO) Review

Mike Knouse said due to other issues needing to be addressed he will need to postpone discussion of the item until the next meeting.

ITEM NO. 15 Public Comment

Chairman Jim Myers asked if there were any visitors present that wished to address the Commission. There was no one present from the public to address the Commission.

ITEM NO. 16 Next Meeting

The next Planning Commission meeting is scheduled for Thursday, February 18, 2010 at 6:00 pm.

ITEM NO. 17 Adjournment

Adjournment was at 6:50 p.m. in a motion by Duane Diehl, and seconded by Andy Hoffman. ***The motion carried.***

RESPECTFULLY SUBMITTED,

Laura Gately

LAURA GATELY
RECORDING SECRETARY

38 North Duke Street
York, PA 17401
(717) 846-4805
FAX (717) 846-5811

C.S.Davidson, Inc.
*Excellence in Civil Engineering*

w.csdavidson.com

An Employee Owned Company

York · Gettysburg · Lancaster

January 12, 2010

York County Planning Commission
28 East Market Street
York, PA 17404

Attn: Roy Livergood, Jr.

Re: West Manheim Township, York County
Act 537 Plan Update
Engineer's Project No.: 1204.6.12.00
**Request for Formal Review**

Dear Mr. Livergood:

On behalf of the West Manheim Township Board of Supervisors, C. S. Davidson, Inc., is requesting a formal review of the proposed Act 537 Plan Update for West Manheim Township.

If you have any questions regarding this matter, please contact the writer at our York office.

Sincerely,

C. S. DAVIDSON, INC.

Michael R. Knouse, P.E.

MRK/gkm
Copy: Nancy Smith, West Manheim Township, 2412 Baltimore Pike, Hanover, PA 17331
File

K:\120461200\documents\Act 537 UPDATE\Final\Ltr RequestforFormalReview (01-12-09).doc

38 North Duke Street
York, PA 17401
(717) 846-4805
FAX (717) 846-5811
/w.csdavidson.com

C.S.Davidson, Inc.
*Excellence in Civil Engineering*

An Employee Owned Company

York · Gettysburg · Lancaster

January 8, 2010

West Manheim Township Planning Commission
2412 Baltimore Pike
Hanover, PA 17331

Re: West Manheim Township, York County
Act 537 Plan Update
Engineer's Project No. 1204.6.12.00
**Request for Review**

Dear Planning Commission Member:

On behalf of the West Manheim Township Board of Supervisors, C.S. Davidson, Inc. has completed the Act 537 Plan Update. A copy of the plan is hereby formally submitted for your review and comment in accordance with the PA DEP Guidelines.

If you have any questions regarding this matter, please contact me at our York office.

Sincerely,

C. S. DAVIDSON, INC.

Michael R. Knouse, P.E.

mrk
Copy: Nancy Smith, Secretary, West Manheim Township
File

K:\120461200\documents\correspondence\WMT_PC_(1_8_09).doc

**EXHIBIT 3**

**ACT 537 PLAN EXHIBIT II-10 –**
**PRIME FARMLAND**

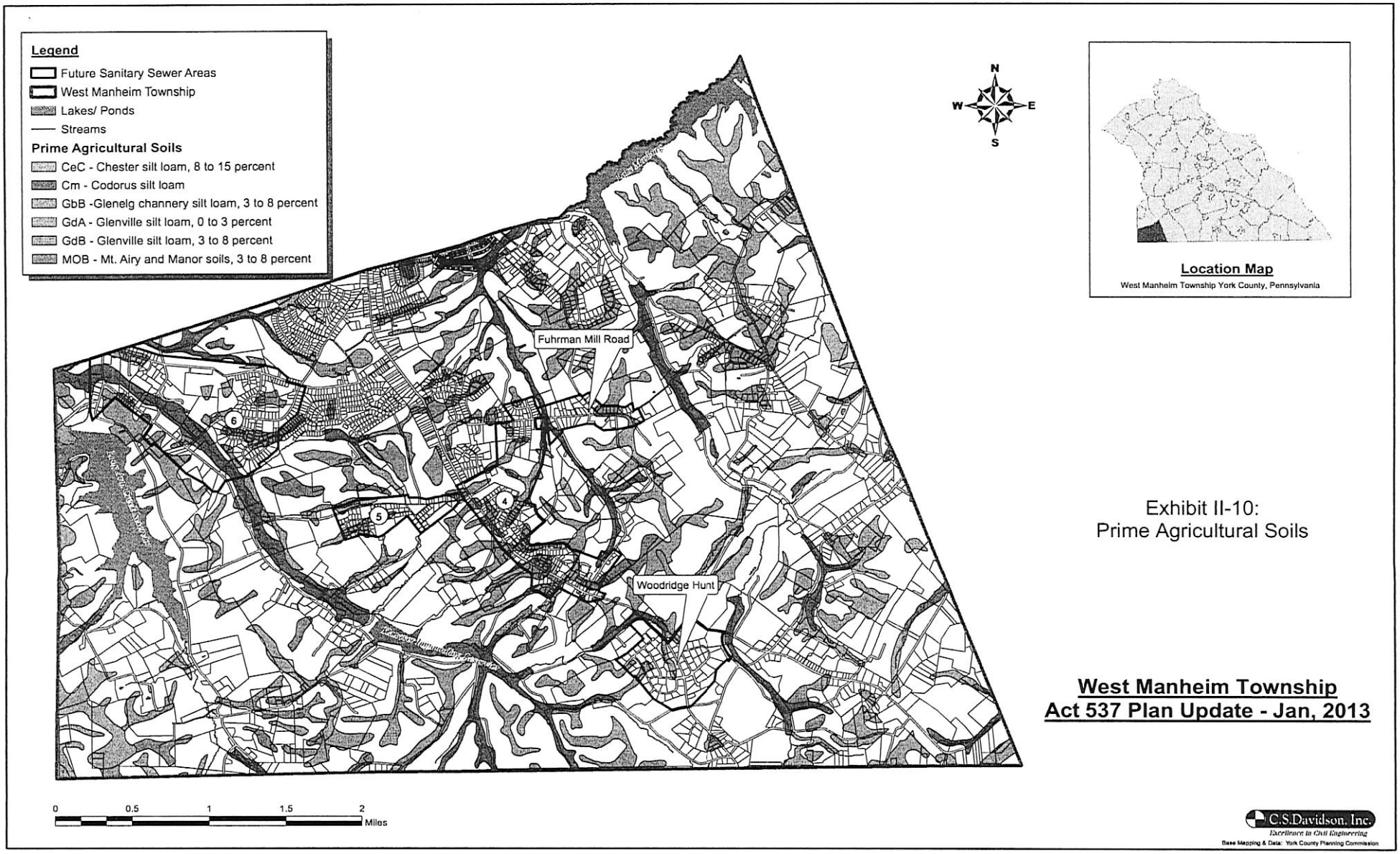

Legend
Future Sanitary Sewer Areas
West Manheim Township
Lakes/ Ponds
Streams
Prime Agricultural Soils
CeC - Chester silt loam, 8 to 15 percent
Cm - Codorus silt loam
GbB -Glenelg channery silt loam, 3 to 8 percent
GdA - Glenville silt loam, 0 to 3 percent
GdB - Glenville silt loam, 3 to 8 percent
MOB - Mt. Airy and Manor soils, 3 to 8 percent
N
W
E
S
Fuhrman Mill Road
Woodridge Hunt
6
5
4
0
0.5
1
1.5
2
Miles
Location Map
West Manheim Township York County, Pennsylvania
Exhibit II-10:
Prime Agricultural Soils
West Manheim Township
Act 537 Plan Update - Jan, 2013
C.S.Davidson, Inc.
Excellence in Civil Engineering
Base Mapping & Data: York County Planning Commission

**EXHIBIT 4**

**ACT 537 PLAN EXHIBIT II-4 –**
**FLOODPRONE AREAS**

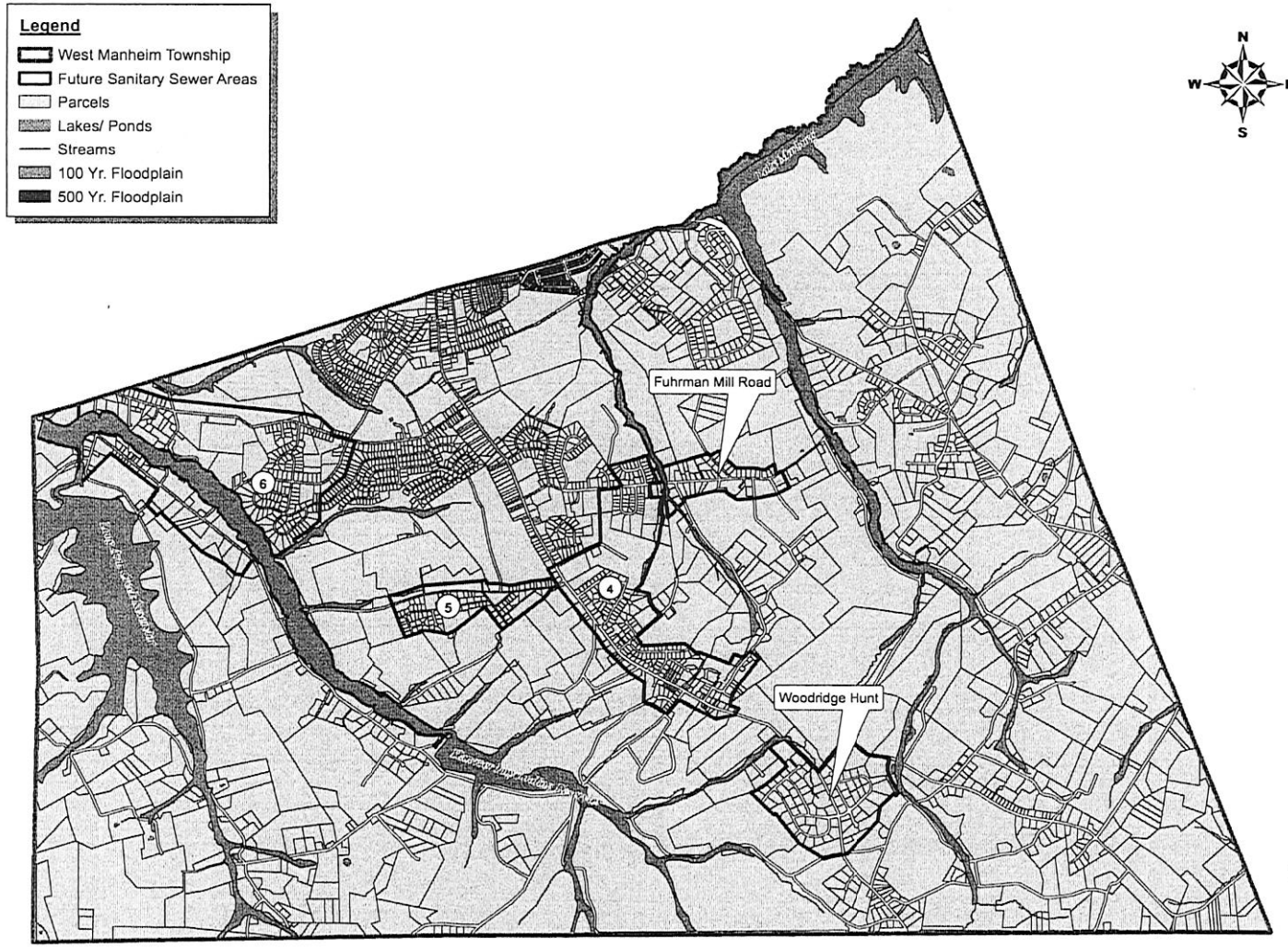


Exhibit II-4:
Flood Prone Areas

**West Manheim Township**
**Act 537 Plan Update - Jan, 2013**

C.S.Davidson, Inc.
*Excellence in Civil Engineering*
Base Mapping & Data: York County Planning Commission

**EXHIBIT 5**

**ACT 537 PLAN EXHIBIT II-17 –**
**WETLANDS**

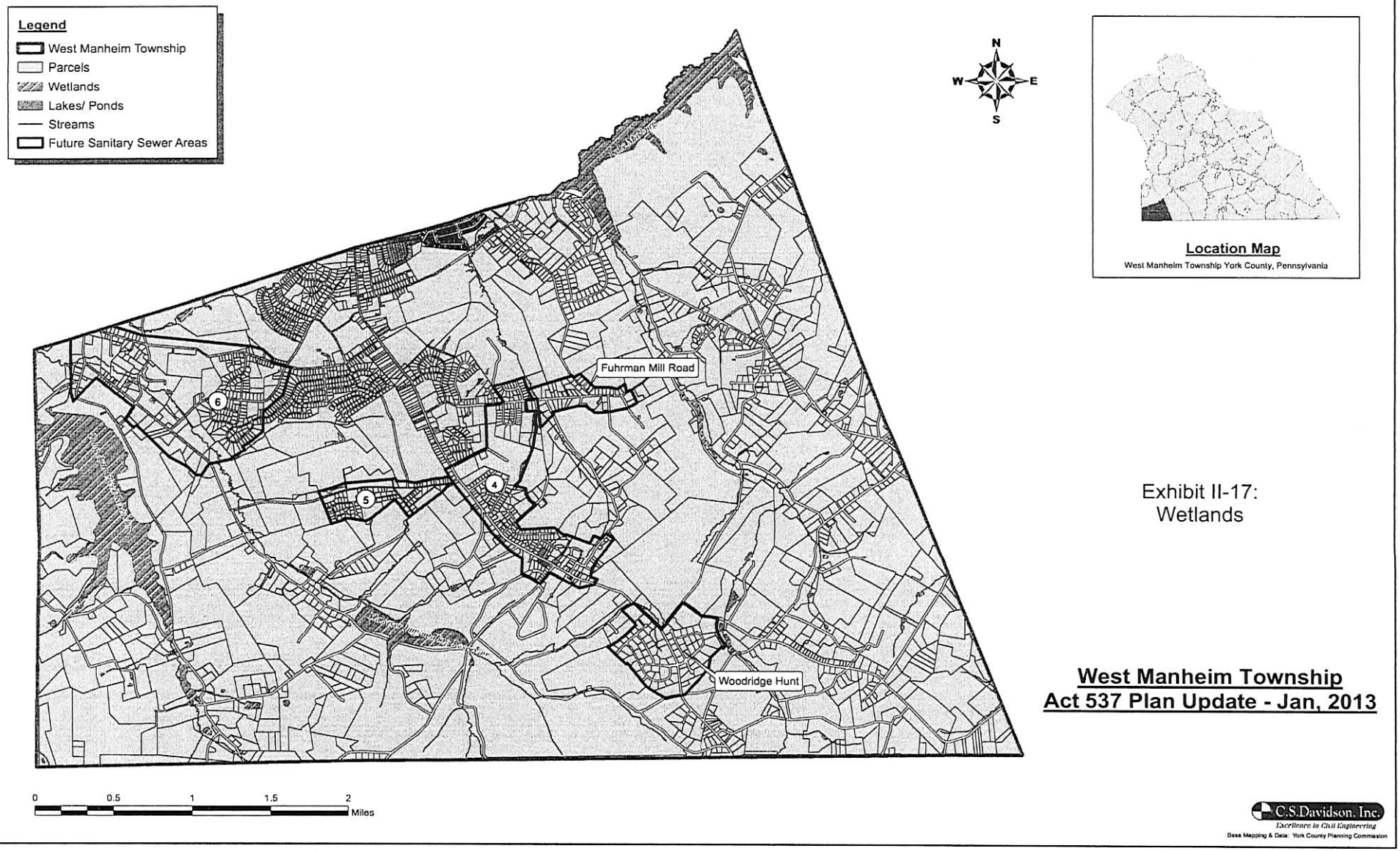

Legend
West Manheim Township
Parcels
Wetlands
Lakes/ Ponds
Streams
Future Sanitary Sewer Areas
N
W
E
S
Fuhrman Mill Road
Woodridge Hunt
6
5
4
0
0.5
1
1.5
2
Miles
Location Map
West Manheim Township York County, Pennsylvania
Exhibit II-17:
Wetlands
West Manheim Township
Act 537 Plan Update - Jan, 2013
C.S.Davidson, Inc.
Excellence in Civil Engineering
Base Mapping & Data: York County Planning Commission

**EXHIBIT 6**

**PHMC CORRESPONDENCE**

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

October 21, 2009

Adam P. Smith, EIT
C.S. Davidson, Inc.
38 N. Duke Street
York, PA 17401

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

Re: ER #2010-0089-133-A
DEP ACT 537 Program: Pennsylvania Sewage Facilities Act-Act 537 Update, Act 537 Plan Update, West Manheim Twp., York Co.

Dear Mr. Smith:

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

This project is a planning study; therefore this office cannot assess the effects on specific historic and archaeological resources at this time. During the project planning stages, provisions should be made for the identification of historic and archaeological resources listed in or eligible for the National Register of Historic Places and for the assessment of the effects on these resources. The Bureau for Historic Preservation maintains records of National Register listed and eligible resources as well as archaeological surveys (P.A.S.S. files), historic resource survey files and the Cultural Resources GIS. These surveys vary in their scope and methodology. Therefore, we recommend that you contact local historical societies and consult tax and deed records for additional information regarding your project area.

If you need further information concerning archaeological issues please consult Doug McLearen at (717) 772-0925. If you need further information on structures please consult Ann Safley at (717) 787-9121.

Sincerely,

Douglas C. McLearen, Chief
Division of Archaeology & Protection

CC: DEP, Southcentral Region
DCM/lmm

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

PA HISTORICAL AND
MUSEUM COMMISSION
BUREAU OF HISTORIC PRESERVATION
400 NORTH STREET, SECOND FLOOR
HARRISBURG, PA 17120-0093

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature
X
☐ Agent
☐ Addressee

B. Received by ( *Printed Name*)
C. Date of Delivery
OCT 20 2008

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

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
*(Transfer from service label)* 7008 1140 0001 7332 9958

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

0120-PM-PY0003 Rev. 5/2006
NOTICE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

# CULTURAL RESOURCE NOTICE

| DEP USE ONLY |
| --- |
| Date Received |

**Read the instructions before completing this form.**

## SECTION A. APPLICANT IDENTIFIER

Applicant Name: West Manheim Township

Street Address: 2412 Baltimore Pike

City: Hanover State: PA Zip: 17331

Telephone Number: (717) 632-0320

Project Title: Act 537 Plan Update

## SECTION B. LOCATION OF PROJECT

Municipality: West Manheim Township County Name: York DEP County Code: 67

## SECTION C. PERMITS OR APPROVALS

Name of Specific DEP Permit or Approval Requested: Pennsylvania Sewage Facilities Act - Act 537 Update

Anticipated federal permits:

- ☐ Surface Mining
- ☐ Army Corps of Engineers
- ☐ 401 Water Quality Certification
- ☐ 404 Water Quality Permit
- ☐ Federal Energy Regulatory Commission
- ☐ Other: _____

## SECTION D. GOVERNMENT FUNDING SOURCES

- ☐ State: (Name) _____
- ☒ Local: (Name) West Manheim Township
- ☐ Federal: (Name) _____
- ☐ Other: (Name) _____

## SECTION E. RESPONSIBLE DEP REGIONAL, CENTRAL, DISTRICT MINING or OIL & GAS MGMT OFFICE

DEP Regional Office Responsible for Review of Permit Application

- ☐ Central Office (Harrisburg)
- ☐ Southeast Regional Office (Norristown)
- ☐ Northeast Regional Office (Wilkes-Barre)
- ☒ Southcentral Regional Office (Harrisburg)
- ☐ Northcentral Regional Office (Williamsport)
- ☐ Southwest Regional Office (Pittsburgh)
- ☐ Northwest Regional Office (Meadville)
- ☐ District Mining Office: _____
- ☐ Oil & Gas Office: _____

## SECTION F. RESPONSIBLE COUNTY CONSERVATION DISTRICT, if applicable.

County Conservation District _____ Telephone Number, if known _____

## SECTION G. CONSULTANT

Consultant, if applicable: C.S. Davidson, Inc.

Street Address: 38 N. Duke Street

City: York State: PA Zip: 17401

Telephone Number: (717) 846-4805

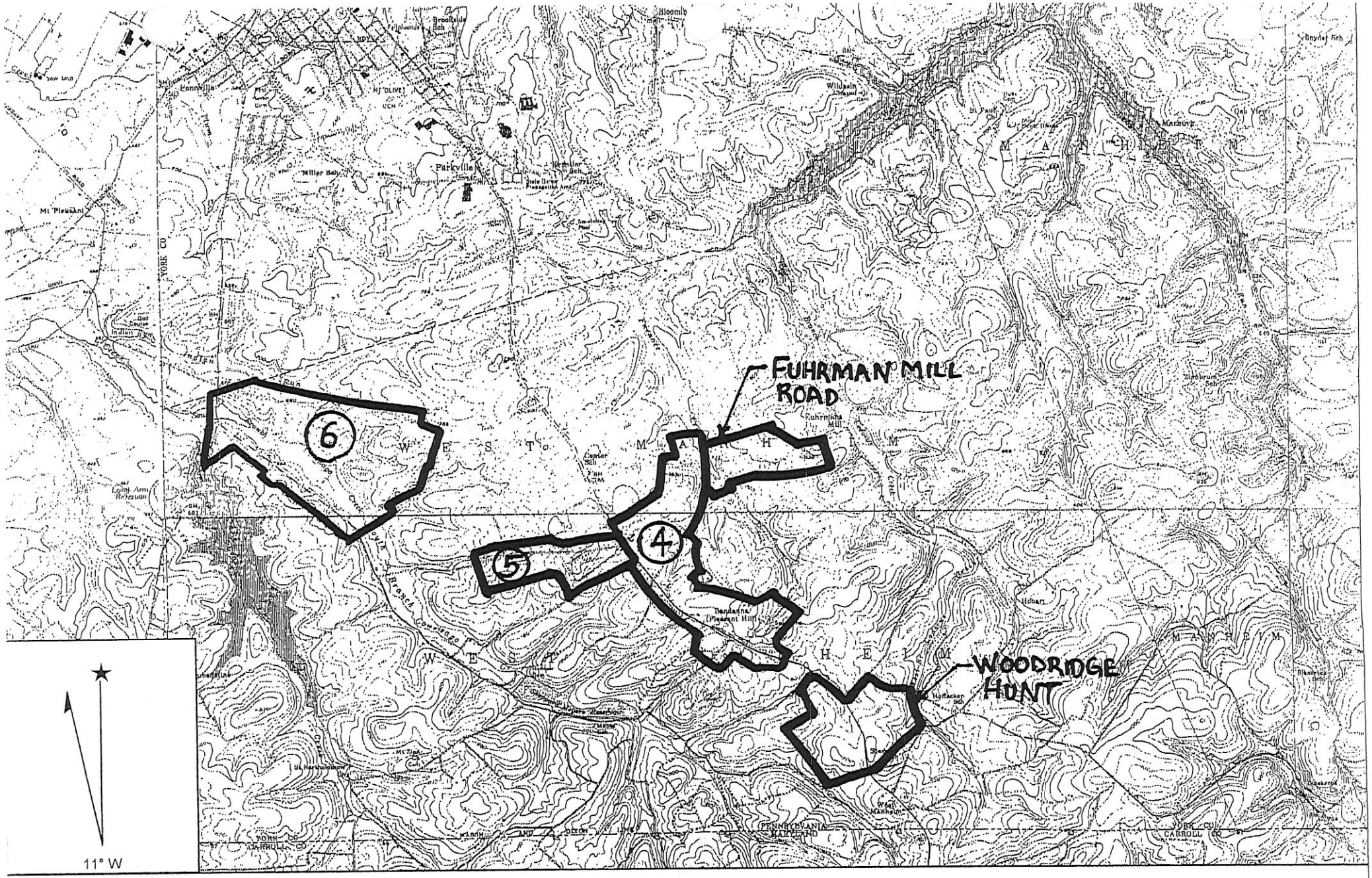
## Cultural Resource Notice Narrative

West Manheim Township is currently undergoing planning efforts for future sanitary sewer needs. An update to the Township's Act 537 – Pennsylvania Sewage Facilities Act, is being developed to identify needs areas within the township boundaries.

One identification area with historic significance is the Pleasant Hill area. Once the project progresses from planning to construction phase an in depth study will be completed to determine historical structures in the area.

An attached map has been included which identifies the sanitary sewer study areas. The study areas are 4, 5, 6, Fuhrman Mill Road, and Woodridge Hunt. Areas 4, 5, and 6 have been identified during the previous Act 537 Plan update, and the Fuhrman Mill Road and Woodridge Hunt areas have been identified by township officials as being priority areas.

No proposed earth disturbance or disturbance to historic structures is proposed with this project. Disturbances will be anticipated in the future as a result of this planning study.




Name: HANOVER
Date: 10/19/2009
Scale: 1 inch equals 4000 feet

Location: 039° 45' 24.6" N 076° 56' 32.6" W
Caption: West Manheim Townsip - Act 537 Plan Update

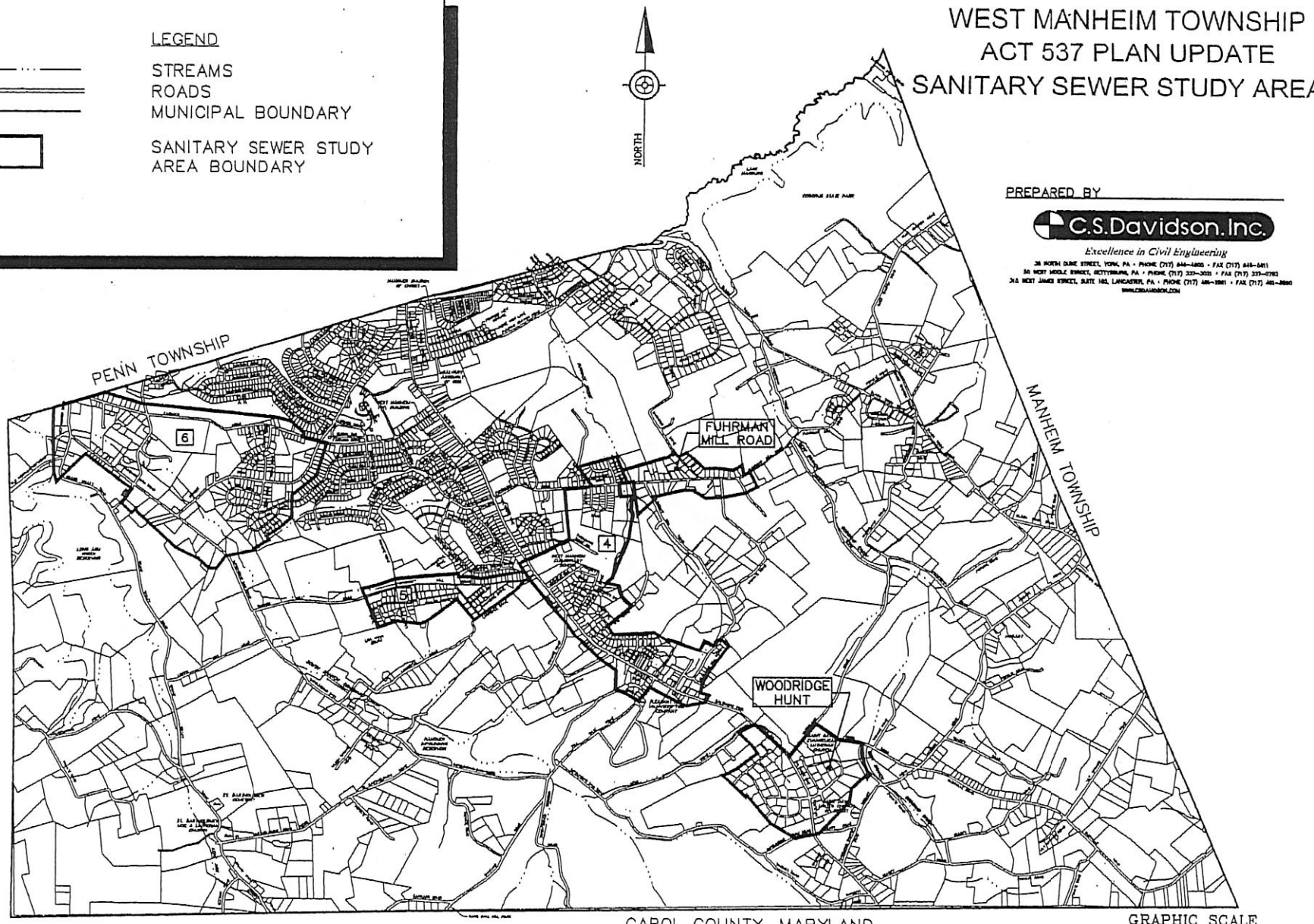
Copyright (C) , Maptech, Inc.

# WEST MANHEIM TOWNSHIP
# ACT 537 PLAN UPDATE
# SANITARY SEWER STUDY AREAS

LEGEND

STREAMS
ROADS
MUNICIPAL BOUNDARY

SANITARY SEWER STUDY AREA BOUNDARY




PREPARED BY

C.S.Davidson.Inc.

*Excellence in Civil Engineering*

GRAPHIC SCALE

4000 0 4000 8000

( IN FEET )

1 inch = 4000ft

**EXHIBIT 7**

**PNDI SEARCH RESULTS**

UNITED STATES POSTAL SERVICE®



# Track & Confirm

## Search Results

Label/Receipt Number: **0307 1790 0001 8531 7583**
Service(s): **Delivery Confirmation™**
Status: **Delivered**

Your item was delivered at 11:36 AM on June 22, 2009 in STATE COLLEGE, PA 16801.

Track & Confirm
Enter Label/Receipt Number.
Go >

Notification Options

**Track & Confirm by email**

Get current event information or updates for your item sent to you or others by email. Go >



Copyright© 2009 USPS. All Rights Reserved. No FEAR Act EEO Data FOIA

## U.S. Postal Service™ Delivery Confirmation™ Receipt

Postage and Delivery Confirmation fees must be paid before mailing.

Article Sent To: (to be completed by mailer)
US Fish's Wildlife Service
(Please Print Clearly)
315 S. Allen St. Suite 322
St. College, PA 16801
1204.42.10 /APS

DELIVERY CONFIRMATION NUMBER: 0307 1790 0001 8531 7583

Apr 537 Postmark Here
Update

PS Form 152, May 2002

**POSTAL CUSTOMER:**
Keep this receipt. For Inquiries:
Access internet web site at
www.usps.com®
or call 1-800-222-1811

CHECK ONE (POSTAL USE ONLY)
☐ Priority Mail™ Service
☐ First-Class Mail® parcel
☐ Package Services parcel
(See Reverse)

# Pennsylvania Natural Diversity Inventory
## *Project Planning & Environmental Review Form*

This form provides site information necessary to perform an Environmental Review for special concern species and resources listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Pennsylvania Fish and Boat code or the Pennsylvania Game and Wildlife Code.

## Applicant Information

Name: West Manheim Township Board Of Supervisors
Address: 2412 Baltimore Pike, Hanover, Pa 17331
Phone Number: (717) 632-0320 Fax Number: (717) 632-2499

## Contact Person Information - if different from applicant

Name: Adam P. Smith, E.I.T. (C.S. Davidson, Inc.)
Address: 38 N. Duke St., York, Pa 17401
Phone Number: (717) 846-4805 Fax Number: (717) 846-5811

## Project Information

Project Name: West Manheim Township Act 537 Plan Update
Project Location: West Manheim Township
Municipality: West Manheim Township County: York
☒ Attach a copy of a U.S.G.S. 7 ½ Minute Quadrangle Map with Project Boundaries clearly marked.
U.S.G.S. Quad Name:

## Project Description

Proposed Project Activity (including ALL earth disturbance areas and current conditions)

Act 537 Planning Module Update for West Manheim Township. The planning module will propose additional public sanitary sewer facilities (collection and treatment), public education, and defined and enforced on-lot management districts for handling solid wastes.

Total Acres of Property: 1,355 Acreage to be Impacted: 1,355

1. Will the entire project occur in or on an existing building, parking lot, driveway, road, maintained road shoulder, street, runway, paved area, railroad bed, or maintained lawn? Yes ☒ No ☐
2. Are there any waterways or waterbodies (intermittent or perennial rivers, streams, creeks, tributaries, lakes or ponds) in or near the project area, or on the land parcel? If so, how many feet away is the project?
   Yes ☒ 0 Feet No ☐
3. Are wetlands located in or within 300 feet of the project area? Yes ☒ No ☐ If No, is this the result of a wetland delineation?

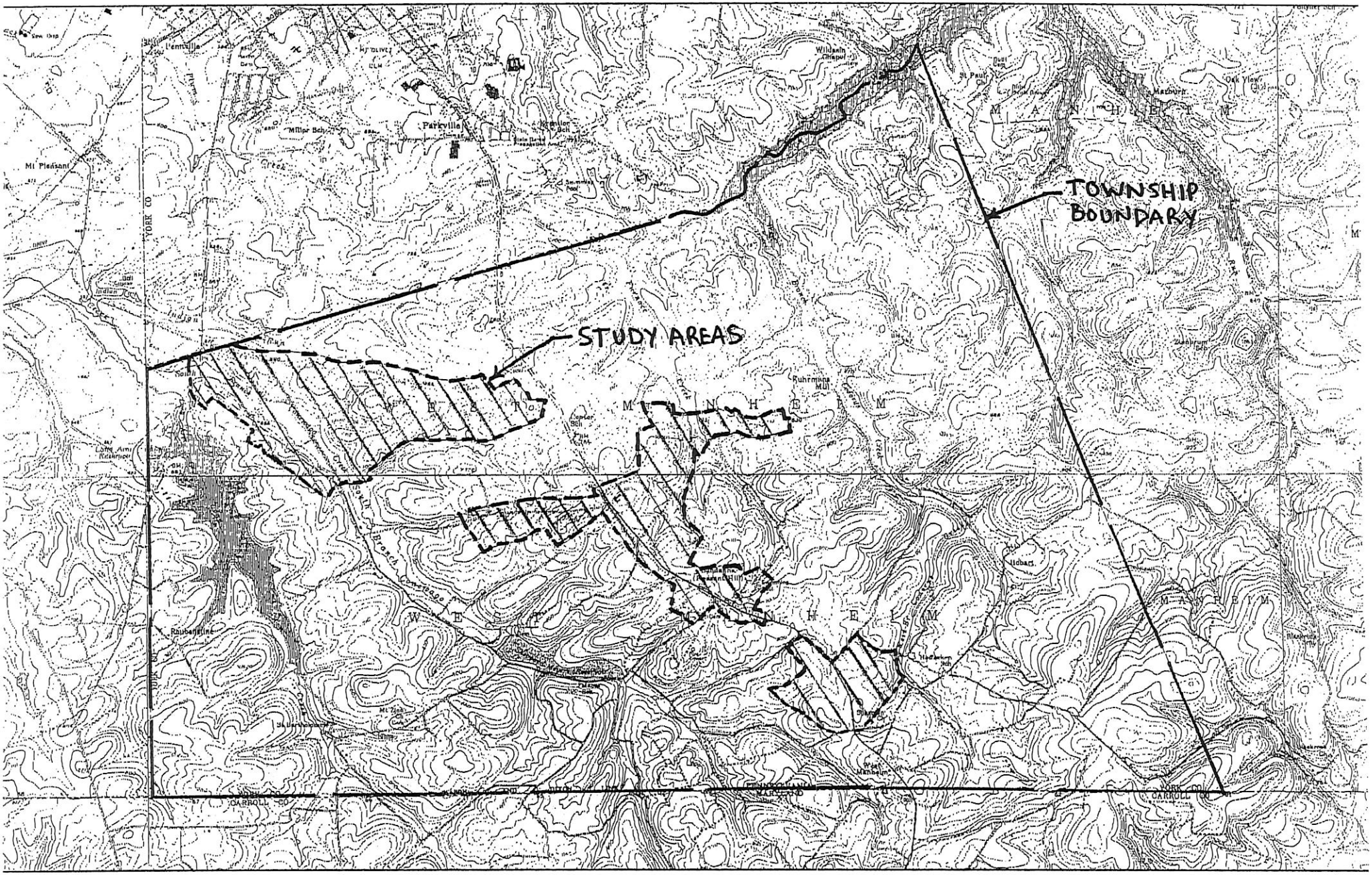
If you have a "PNDI Project Environmental Review Receipt" with potential impacts, please send a receipt copy, this completed form, and a USGS Quad Map to the agency/agencies noted on the receipt. If you are unable to generate a PNDI Receipt because you do not have Internet access, complete this form, attach a USGS Quad Map, and send them to your local DEP or County Conservation District. For review of a "Large Project," please send form and map to all the agencies listed below. See page 2 for more information.

Dept. of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market St., PO Box 8552
Harrisburg, PA 17105
fax: 717-772-0271

PA Fish and Boat Commission
Natural Diversity Section
450 Robinson Lane
Bellefonte, PA 16823
fax 814-359-5175

PA Game Commission
Bureau of Land Management
2001 Elmerton Avenue
Harrisburg, PA 17110-9797
fax: 717-787-6957

US Fish and Wildlife Service
Endangered Species Biologist
315 South Allen St., Suite 322
State College, PA 16801
no faxes please




Name: HANOVER
Date: 6/8/2009
Scale: 1 inch equals 4000 feet .

Location: 039° 45' 11.4" N 076° 56' 27.5" W
Caption: West Manheim Township Act 537 Plan Update

Copyright (C) 199 tech, Inc.

pennsylvania
DEPARTMENT OF CONSERVATION
AND NATURAL RESOURCES
BUREAU OF FORESTRY

**PNDI Number: 20247**

July 8, 2009

**Adam P. Smith**
**C.S. Davidson, Inc.**
FAX: 717-846-5811 (hard copy WILL NOT follow)

Re: West Manheim Township Act 537 Plan Update
West Manheim Twp.; York County

Dear Mr. Smith,

Thank you for submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number 20247 for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources of concern under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

**NO IMPACT ANTICIPATED:**

PNDI records indicate species or resources of concern are located in the vicinity of the project. However, based on the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, DCNR has determined that no impact is likely. No further coordination with our agency is needed for this project.

**If any construction is planned, please attempt to avoid or minimize vegetation disturbance in wooded tracts within project study areas.**

This response represents the most up-to-date summary of the PNDI data files and is valid for one (1) year from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on-site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). If the proposed work has not changed and no additional information concerning listed species is found, the project will be cleared for PNDI requirements under this agency for an additional year.

This finding applies to impacts to DCNR only. To complete your review of state and federally-listed threatened and endangered species and species of special concern, please be sure the U.S. Fish and Wildlife Service, PA Game Commission, and the Pennsylvania Fish and Boat Commission have been contacted regarding this project as directed by the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Sincerely,

Mr. Kelly L. Sitch, Environmental Review Specialist FOR Chris Firestone, Wild Plant Program Mgr.
Ph: 717-425-5370 ~ Fax: 717-772-0271 ~ c-ksitch@state.pa.us

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

*"TO MANAGE ALL WILD BIRDS, MAMMALS AND THEIR HABITATS FOR CURRENT AND FUTURE GENERATIONS."*

July 16, 2009

**PNDI Large Project**

Mr. Adam P. Smith
C.S. Davidson, Inc.
38 North Duke Street
York, PA 17401

PNDI Large Project
West Manheim Township Act 537 Plan Update
York County, PA

Dear Mr. Smith:

Thank you for submitting the Pennsylvania Natural Diversity Inventory (PNDI) Large Project Environmental Review Form for review. The Pennsylvania Game Commission (PGC) screened this project for potential impacts to species and resources of concern under PGC responsibility, which includes birds and mammals only.

**No Impact Anticipated**

PNDI records indicate that no known occurrences of species or resources of concern under PGC jurisdiction occur in the vicinity of the project. Therefore, the above-referenced project is not expected to impact any birds or mammals of concern, and no further coordination with the PGC is necessary for this project at this time.

This response represents the most up-to-date summary of the PNDI data files and is valid for one (1) year from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). If the proposed work has not changed and no additional information concerning listed species is found, the project will be cleared for PNDI requirements under this agency for n additional year.

# United States Department of the Interior

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

July 9, 2009

Adam Smith
C.S. Davidson, Inc.
38 North Duke Street
York, PA 17401

RE: USFWS Project #2009-1280

Dear Mr. Smith:

This responds to your letter of June 19, 2009, requesting information about federally listed and proposed endangered and threatened species within the area affected by the proposed West Manheim Township Act 537 Plan located in York County, Pennsylvania. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species.

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

To determine the potential effects of the proposed project on bog turtles and their habitat, begin by identifying all wetlands in, and within 300 feet of, the project area. The project area includes all areas that will be permanently or temporarily affected by any and all project features, including building, roads, staging areas, utility lines, outfall and intake structures, wells, stormwater retention or detention basins, parking lots, driveways, lawns, etc. The area of investigation should be expanded when project effects might extend more than 300 feet from the project footprint. For example, the hydrological effects of some projects (*e.g.*, large residential or commercial developments; golf courses; community water supply wells) might extend well beyond the project footprint due to the effects that impervious surfaces or groundwater pumping may have on the hydrology of nearby groundwater-dependent wetlands. Wetlands should be included on a map showing existing as well as proposed project features.

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

*To avoid potential delays in reviewing your project, please use the above-referenced USFWS project tracking number in any future correspondence regarding this project.*

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

Sincerely,

David Densmore
Supervisor

Enclosures

# Pennsylvania Fish & Boat Commission

*established 1866*

**Division of Environmental Services**
**Natural Diversity Section**
450 Robinson Lane
Bellefonte, PA 16823-9620
*(814) 359-5147* *(814) 359-5175*
July 16, 2009

RECEIVED
JUL 20 2009
BY:

**IN REPLY REFER TO:**
SIR# 32130

ADAM SMITH
C.S. DAVIDSON
38 N DUKE ST
YORK, PA 17401

**RE: Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species**
**West Manheim Township Act 537 Plan**
**WEST MANHEIM Township, YORK County, Pennsylvania**

Dear Mr. SMITH:

I have reviewed the maps for the above-referenced project. Based on records maintained in the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files, the bog turtle (*Glyptemys muhlenbergii*, state endangered, federal threatened) and red-bellied turtle (*Pseudemys rubriventris*, state threatened) are known from the vicinity of the proposed project site.

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

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

Upon completion of the Phase 1 bog turtle survey, the herpetologist is to send a report documenting the survey results to this office (Natural Diversity Section) for our review and comment. The report should include the following information: descriptions of the wetland vegetation, soils, and hydrology on the site; color photographs and maps of suitable habitat; and a list of all herpetofauna observed during the survey. If any bog turtles are observed during the survey, their location(s) should be mapped, and they should be photographed, aged, sexed, and measured. Following our review of the habitat survey, an additional biological

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

PA HISTORICAL AND
MUSEUM COMMISSION
BUREAU OF HISTORIC PRESERVATION
400 NORTH STREET, SECOND FLOOR
HARRISBURG, PA 17120-0093

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery

OCT 20 2008

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

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 (Transfer from service label) 7008 1140 0001 7332 9958

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-15

**EXHIBIT 8**

**WEST MANHEIM TOWNSHIP LOW TO MODERATE INCOME MAP**

# WEST MANHEIM TOWNSHIP

2000 Census Map
Low/Mod Income %
for CDBG Program
=’s 41.7% & above
(shaded gray)

Block Group Boundary

Streets/Roads

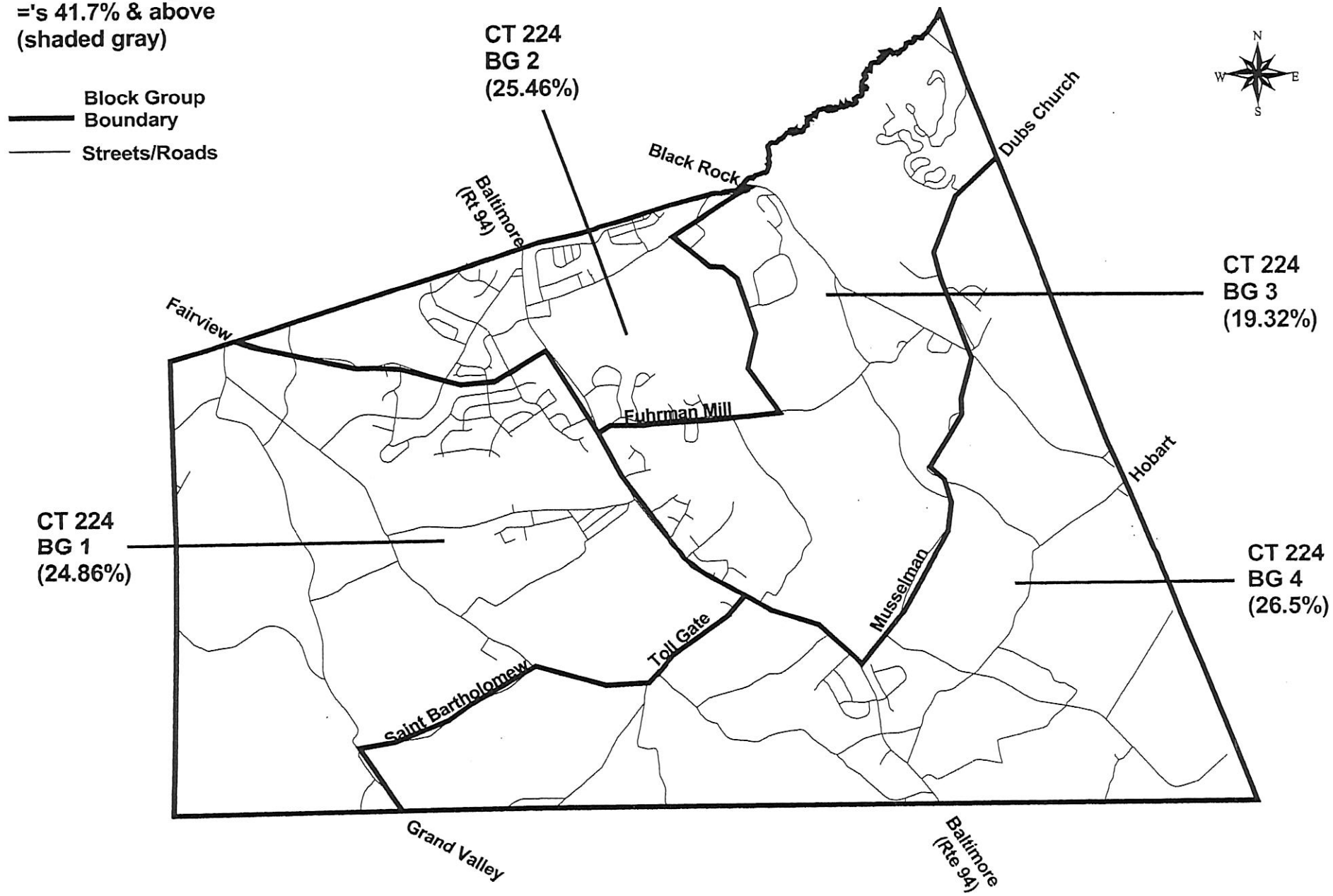


**EXHIBIT 9**

**ADVERTISEMENT**

# Proof of Publication of Legal Advertisement in The Evening Sun

AD # 2091846

Copy of Advertisement Attached Here

**PUBLIC NOTICE**

West Manheim Township, York County, Pennsylvania is in the process of preparing its Comprehensive Sewage Facilities Plan Update (Act 537) as mandated by the Department of Environmental Protection. The purpose of Act 537 is to maintain an up to date sewage facilities plan for the Municipality. It analyzes current sewage treatment facilities and proposes future facilities based on the sewage needs of the Municipality.

Four service areas were analyzed as five year or future sanitary sewer needs areas. The four service areas are as follows: Area 4 Pleasant Hill and Fuhrman Mill Road Areas, Area 5 Shorbs Hill Area, Area 6 Fairview and Sunset Drives Area, and the Woodridge Hunt Area. The three areas that are designated for the five year plan are Areas 4, 5, & 6. Areas 4 & 5 are located in the central portion of the Township and Area 6 is located in the northwestern portion of the Township. The plan proposes the construction of a sanitary sewer collection system to serve Areas 4, 5, & 6. The recommended collection system will transport sewage to the Penn Township Wastewater Treatment Plant. The user cost analysis projects an annual user cost of $2,229. The estimated service rates for service areas 4, 5, & 6 will be in accordance with the Township's sewer rate structure which is currently $194.00/Quarter. These service rate estimates are based upon a tapping fee of $3,000.00. The Act 537 Plan also proposes the adoption of an On-Lot Disposal System (OLDS) Ordinance. This ordinance will delineate four On-Lot Management Districts in the Township. The four districts are as follows: District A Woodridge Hunt Area, District B Ross and Glenville Road Area, District C Blackrock, Fuhrman Mill, Musselman, and Dubs Church Roads Area, and District D Impounding Dam, St. Bartholomew, and Lawrence Roads Area. Residents within the four districts will be required by the Township to ensure the OLDS is properly functioning. The operation and maintenance costs are expected to be $250.00 every four (4) years which includes pumping, hauling, and disposal costs, as well as notice to the Township of completion.

Copies of the proposed Plan are available for review by the public at the following address: West Manheim Township Municipal Building, 2412 Baltimore Pike, Hanover, PA 17331 8:30am until 4:30pm, Monday thru Friday.

Public comment is invited for a period of 60 days from the date of this advertisement. Any comments shall be in writing and directed to Kevin Null, Township Manager, West Manheim Township, at 2412 Baltimore Pike, Hanover, PA 17331.

West Manheim Township Board of Supervisors

THE EVENING SUN is the name of a daily newspaper published continuously for more than the last six months at its place of business, 135 Baltimore Street, in the Borough of Hanover, York County, Pennsylvania, which said daily newspaper was established on Feb. 8, 1915.

The printed copy of the advertisement hereto attached is a true copy, exactly as printed and published, of an advertisement printed in the regular issue of the said The Evening Sun published on the following dates, viz:

03/31/2010

RECEIVED
APR – 5 2010
West Manheim Twp

Commonwealth of Pennsylvania
County of York, ss.:

Before me, a Notary Public, personally came Linda Smith who being duly sworn deposes and says that she is the Layout Supervisor of The Evening Sun above mentioned in the foregoing statement, that, the facts set forth in said statement and all the allegations of said statment as to the time, place and character of publication are true, and that the affiant is not interested in the subject matter of the above mentioned advertisement.

Sworn and subscribed to before me this

31 day of March 2010

Sharon K. Wentz
Notary Public

Linda Smith

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Sharon K. Wentz, Notary Public
West Manchester Twp., York County
My Commission Expires March 1, 2013
Member, Pennsylvania Association of Notaries

Received of _____

_____ Dollars
100

The charge for the publication of above mentioned advertisement and the expense of above affidavit.

| | |
|---|---|
| Advertisement Cost | $ 172.82 |
| Affidavit Fee | $ 5.00 |
| Total Cost | $ 177.82 |

Reager & Adler, PC

ATTORNEYS AND COUNSELORS AT LAW

30 YEARS

Theodore A. Adler*
David W. Reager
Linus E. Fenicle
Thomas O. Williams
Peter R. Wilson

Susan H. Confair
John H. Pietrzak
Wayne S. Martin, P.E.
Neely E. Meale
Richard J. Joyce**

*Certified Civil Trial Specialist
**Of Counsel

Writer's Email Address:
LFenicle@ReagerAdlerPC.com

March 26, 2010

**VIA EMAIL ONLY**
Email Address: ESLegals@ync.com

York Newspaper Company
Attn: Legal Ads
1891 Loucks Road
York, PA 17408

**Re: Publication Notice-Sewage Facilities Plan Update-West Manheim Township**

To Whom It May Concern:

Please publish the enclosed Public Notice in the ***The Hanover Evening Sun*** on March 31, 2010, and send the Proof of Publication and invoice directly to West Manheim Township, 2412 Baltimore Pike, Hanover, PA 17331.

Thank you for your kind attention to this matter.

Very truly yours,

Linus E. Fenicle

LEF/sam
Enclosure
cc: Kevin Null, Township Manager (via email only)
Mike Knouse, Township Engineer (via email only)

**PUBLIC NOTICE**

West Manheim Township, York County, Pennsylvania is in the process of preparing its Official Sewage Facilities Plan Update (Act 537), as mandated by the Department of Environmental Protection. The purpose of Act 537 is to maintain an up to date sewage facilities plan for the Municipality. It analyzes current sewage treatment facilities and proposes future facilities based on the sewage needs of the Municipality.

Four service areas were analyzed as five-year or future sanitary sewer needs areas. The four service areas are as follows: Area 4 Pleasant Hill and Fuhrman Mill Road Areas, Area 5 Shorbs Hill Area, Area 6 Fairview and Sunset Drives Area, and the Woodridge Hunt Area. The three areas that are designated for the five-year plan are Areas 4, 5 & 6. Areas 4 & 5 are located in the central portion of the Township and Area 6 is located in the northwestern portion of the Township. The plan proposes the construction of a sanitary sewer collection system to serve Areas 4, 5 & 6. The recommended collection system will transport sewage to the Penn Township Wastewater Treatment Plant. The user cost analysis projects an annual user cost of $2,229. The estimated service rates for service areas 4, 5 & 6 will be in accordance with the Township's sewer rate structure which is currently $194.00/Quarter. These service rate estimates are based upon a tapping fee of $3,000.00. The Act 537 Plan also proposes the adoption of an On-Lot Disposal System (OLDS) Ordinance. This ordinance will delineate four On-Lot Management Districts in the Township. The four districts are as follows: District A Woodridge Hunt Area, District B Ross and Glenville Road Area, District C Blackrock, Fuhrman Mill, Musselman, and Dubs Church Roads Area, and District D Impounding Dam, St. Bartholomew, and Lawrence Roads Area. Residents within the four districts will be required by the Township to ensure the OLDS is properly functioning. The operation and maintenance costs are expected to be $250.00 every four (4) years, which includes pumping, hauling and disposal costs, as well as notice to the Township of completion.

Copies of the proposed Plan are available for review by the public at the following address: West Manheim Township Municipal Building, 2412 Baltimore Pike, Hanover, PA 17331 8:30am until 4:30pm, Monday through Friday.

Public comment is invited for a period of 30 days from the date of this advertisement. Any comments shall be in writing and directed to Kevin Null, Township Manager, West Manheim Township, at 2412 Baltimore Pike, Hanover, PA 17331.

West Manheim Township
Board of Supervisors

**APPENDIX B**

**TASK ACTIVITY REPORT**

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATER MANAGEMENT PROGRAM

RECEIVED
FEB 16 2011
BY:

February 14, 2011

West Manheim Township
c/o Township Secretary
2412 Baltimore Pike
Hanover, PA 17331-9779

Re: Act 537 Planning 67964
Plan of Study and Task/Activity Report
West Manheim Township, York County

Ladies and Gentlemen:

Thank you for your September 10, 2010 letter requesting an extension to submit an Act 537 Plan that encompasses the existing sewer areas 4, 5, 6, Woodridge Hunt and the Fuhrman Hills area of the Township. I apologize for the delayed response, but I mistakenly thought our phone conversation had addressed the Township's concerns. The Department is willing to extend the submission of the Plan until May 2013 even though the Township began the process to modify its Plan with a T/AR and POS submission on March 19, 2009. The Township should be aware that delaying the submission of its Plan does not relieve it of the responsibilities contained in its currently approved Act 537 Plan.

If you have any questions, please call me at 717.705.4766.

Sincerely,

David W. Gates
Sewage Planning Specialist
Water Management Program

cc: C.S. Davidson

Southcentral Regional Office | 909 Elmerton Avenue | Harrisburg, PA 17110-8200
717.705.4707 | Fax 717.705.4760
Printed on Recycled Paper
www.depweb.state.pa.us

Manheim Township

September 10, 2010

Pennsylvania Departmental of Environmental Protection
Mr. David Gates
Sewage Planning Specialist
Water Management Program
909 Elmerton Ave
Harrisburg, PA 17110-8200

Re: Act 537 Planning 67964
Plan of Study and Task/Activity Report
West Manheim Township, York County

Dear Mr. Gates:

To follow-up on our telephone conservation concerning the schedule for submitting our completed planning package to DEP for review. Your letter of August 19, 2010 indicated that our Plan must be submitted by May 2012. We are requesting an extension of three (3) years, until May 2013, not four years (May 2014) as shown in the Proposed Schedule submitted on July 7, 2010.

The additional time will enable us to collect and analyze sufficient data from our inspection process. As we collect data we will begin to develop our Plan.

Thank you for your consideration, I appreciate your willingness to work with the Township.

Sincerely,

Kevin G. Null
Township Manager

cc: C. S. Davidson, Inc.

(717) 632-0320 FAX (717) 632-2499 2412 Baltimore Pike Hanover, PA 17331
Website: www.westmanheimtwp.com

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATER MANAGEMENT PROGRAM

RECEIVED
AUG 25 2010

August 19, 2010

West Manheim Township
c/o Township Secretary
2412 Baltimore Pike
Hanover, PA 17331-9779

Re: Act 537 Planning 67964
Plan of Study and Task/Activity Report
West Manheim Township, York County

Ladies and Gentlemen:

We received a modified Plan of Study and Task/Activity Report for changes to the preparation of your Act 537 update revision, submitted by C. S. Davidson, Inc., under a cover letter dated July 7, 2010.

The Department's understanding of the Township's intent of the revised Task/Activity Report/ Plan of Study (TAR/POS) from our May 3, 2010 meeting was to implement an on-lot sewage management program, then evaluate the identified needs areas from the information developed from the SMP. The submission of the Township's Act 537 Plan was to occur within one to two years; not the four years contained in the TAR/POS. The Department expects the Township's Act 537 no later than May 2012.

The proposed changes and costs are acceptable. Your POS has been expanded and is approved by the Department for an estimated total cost of $59,711. As previously indicated, your resulting Act 537 must be consistent with Act 537, Chapter 71, Sections 71.21 and 71.31 of the Department's regulations, and with information contained in both A Guide for Preparing Act 537 Update Revisions (January 2003), and Sewage Disposal Needs Identification Guidance. In accordance with your approved TAR, your completed planning package will be submitted to the Department for review on May 2012..

These two guide documents are important. Appendix I in the first guide contains a comprehensive "Plan Content and Environmental Assessment Checklist" that details information required for a successful Act 537 Plan submission. This checklist is critical. Strictly following it will minimize the chance of submitting an incomplete plan and incurring untimely project delay. The second guide provides valuable insight about proper sewage disposal needs identification and documentation procedures. This "needs" information is not only used to determine whether a project is required, but it is also used when rating projects for priority based funding such as PENNVEST. Copies of either document can be obtained from the Department.

Southcentral Regional Office | 909 Elmerton Avenue | Harrisburg, PA 17110-8200
717.705.4707 | Fax 717.705.4760 Printed on Recycled Paper www.depweb.state.pa.us

Please remember, following adoption and Departmental approval of your completed Act 537 Plan, you may apply for the reimbursement grant. At that time, as part of your reimbursement application, you will find that you must submit cost invoices clearly identifying the task in the approved TAR to which they apply.

Please be advised that costs associated with the use of municipal staff for Act 537 planning activities must be well documented. Staff activities must be specifically for preparation of the Act 537 Official Plan and specifically may not be associated with the staff member's normal duties.

If you have any questions, please call me at 717.705.4766.

Sincerely,

David W. Gates
Sewage Planning Specialist
Water Management Program

cc: C. S. Davidson, Inc.

orth Duke Street
PA 17401
(717) 846-4805
FAX (717) 846-5811
www.csdavidson.com

C.S.Davidson, Inc.
*Excellence in Civil Engineering*
An Employee Owned Company

York · Gettysburg · Lancaster

July 7, 2010

PA Department of Environmental Protection
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110

Re: West Manheim Township, York County
Act 537 Plan Update
Engineer's Project No.: 1204.6.12.00
**Amended Task Activity Report**

Ladies and Gentlemen:

On behalf of the West Manheim Township Board of Supervisors, C.S. Davidson, Inc. is hereby submitting the enclosed amendment to the Task Activity Report (TAR) dated March 19, 2009 (Attachment 3) for your approval.

**III. Existing Sewage Facilities in the Planning Area:**
The West Manheim Township Board of Supervisors request to amend the previous task activity report by adding the following:

We propose to prepare and implement an On Lot Management Ordinance for all residents not served by public sanitary sewer. The Township will implement an aggressive schedule for mandatory pumping and inspection by the Township Sewage Enforcement Officer (SEO). The SEO shall require corrective action for any deficiencies noted during the inspection. The data obtained during the pump outs and inspections will be incorporated into the needs assessment in addition to the data previously outlined.

**Schedule:**
The West Manheim Township Board of Supervisors request to amend the previous schedule submitted in accordance with the schedule provided in Attachment 1.

**Cost:**
In accordance with the Pennsylvania Department of Environmental Protection Letter, dated April 7, 2009, an estimated total cost of $50,945 was approved. We are hereby submitting the additional cost associated with the requested revision for your consideration; see attachment 2.

On behalf of our client, we respectfully request approval of this amendment to the TAR. If you have any questions regarding this matter, please contact the writer at our York office.

Sincerely,

C. S. DAVIDSON, INC.

Michael R. Knouse, P.E.

MRK/gkm
Enclosure

Copy: West Manheim Township
File

K:\120461200\documents\correspondence\Task Activity Report (TAR)\TAR Ammendment Ltr_(6_29_10).doc

**Attachment 1**

July 7, 2010

West Manheim Township, York County
Act 537 Plan Update
Engineer's Project No.: 1204.6.12.00
**Revised Task Activity Report (TAR)**

***PROPOSED SCHEDULE***

| Description | Date |
|---|---|
| Review Draft Schedule | June 15, 2010 |
| Review Draft Revised TAR | July 1, 2010 |
| Approve Submittal of Revised TAR | July 20, 2010 |
| Submission of Revised TAR to Pennsylvania Department Of Environmental Protection (PA DEP) | July 23, 2010 |
| PA DEP Review and Approval of TAR (60 days) | July 23 – September 21, 2010 |
| Prepare draft On Lot Management Ordinance and Holding Tank Ordinance | July 20 – August 17, 2010 |
| Authorize Advertisement of Ordinance (Pending PA DEP Approval of revised TAR) | September 2, 2010 |
| Adoption of advertised Ordinances | October 7, 2010 |
| Completion of notification and implementation of On Lot Management Ordinance (including inspections, Certification, and/or remediation) | January 2011 – January 2013 |
| Complete Act 537 Plan Revision (2009 revision) – Incorporate results from inspections | January 2013 – May 2013 |
| Review revised Act 537 Plan with West Manheim Township Planning Commission | May 16, 2013 |
| West Manheim Township Planning Commission Public Meeting | July 18, 2013 |
| West Manheim Township Board of Supervisors Authorize Submission to York County Planning Commission | August 1, 2013 |
| York County Planning Commission Review (60 Days) | August 2 – October 1, 2013 |
| West Manheim Township Board of Supervisors hold public comment period (30 days) | October 21 – November 20, 2013 |

| | |
|---|---|
| Review/address public comments | November 21 – December 4, 2013 |
| West Manheim Township Board of Supervisors Public Hearing | December 17, 2013 |
| Adoption of Revised Act 537 Plan and submission to PA DEP | January 21, 2014 |
| PA DEP review and approval (90 days) | April 21, 2014 |

K:\120461200\documents\correspondence\Task Activity Report (TAR)\Revised TAR Schedule_(7_20_10).doc

West Manheim Township
Act 537 Plan Update
Engineer's Project No.: 1204.6.12.00
Ammendment to TAR

## ADDITIONAL COST PER AMMENDED TASK/ACTIVITY REPORT

| Task Activity Number from DEP Checklist | Principal | | Project Manager | | Planner | | Engineering Tech. | | CADD Technician | | Administrative Asst. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hr/Rate Hours | $131.50 Cost | Hr/Rate Hours | $97.00 Cost | Hr/Rate Hours | $94.00 Cost | Hr/Rate Hours | $68.00 Cost | Hr/Rate Hours | $58.50 Cost | Hr/Rate Hours | $50.55 Cost | Totals |
| **ADMINISTRATIVE COMPLETENESS** | | | | | | | | | | | | | |
| 1 | | $0 | | $0 | | $0 | | $0 | | $0 | 1 | $51 | $51 |
| 2 | | $0 | 1 | $97 | | $0 | 2 | $136 | | $0 | 1 | $51 | $284 |
| 3 | | $0 | 1 | $97 | | $0 | | $0 | | $0 | 1 | $51 | $148 |
| 4 | | $0 | 1 | $97 | | $0 | | $0 | | $0 | 1 | $51 | $148 |
| 5 | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| 6 | | $0 | 1 | $97 | | $0 | 4 | $272 | | $0 | 2 | $101 | $470 |
| 7 | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| 8 | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| Subtotal: | 0 | $0 | 4 | $388 | 0 | $0 | 6 | $408 | 0 | $0 | 5 | $303 | $1,099 |
| **SECTION I - PREVIOUS WASTEWATER PLANNING** | | | | | | | | | | | | | |
| A | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| Subtotal: | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| **SECTION II - PHYSICAL AND DEMOGRAPHIC ANALYSIS** | | | | | | | | | | | | | |
| A | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| B | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| C | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| D | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| E | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| F | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| G | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| Subtotal: | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | $0 |
| **SECTION III - EXISTING SEWAGE FACILITIES IN PLANNING AREA** | | | | | | | | | | | | | |
| A | | $0 | 1 | $97 | | $0 | 4 | $272 | 10 | $585 | | $0 | $934 |
| B | 1 | $132 | 4 | $388 | | $0 | 12 | $816 | 10 | $585 | | $0 | $1,901 |
| C | | $0 | 1 | $97 | | $0 | 1 | $68 | 2 | $113 | | $0 | $278 |
| Subtotal: | 1 | $132 | 6 | $582 | 0 | $0 | 17 | $1,156 | 22 | $1,243 | 0 | $0 | $3,113 |
| **SECTION IV - FUTURE GROWTH AND LAND DEVELOPMENT** | | | | | | | | | | | | | |
| A | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| B | | $0 | 1 | $97 | | $0 | 2 | $136 | 2 | $113 | 2 | $101 | $447 |
| Subtotal: | 0 | $0 | 1 | $97 | 0 | $0 | 2 | $136 | 2 | $113 | 2 | $101 | $447 |
| **SECTION V - ALTERNATIVES TO PROVIDE NEW OR IMPROVED WASTEWATER DISPOSAL FACILITIES** | | | | | | | | | | | | | |
| A | | $0 | 1 | $97 | | $0 | 2 | $136 | | $0 | 1 | $51 | $284 |
| B | 1 | $132 | 2 | $194 | | $0 | 4 | $272 | | $0 | 2 | $101 | $699 |
| C | | $0 | 1 | $97 | | $0 | 1 | $68 | | $0 | | $0 | $165 |
| D | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| E | | $0 | 1 | $97 | | $0 | 1 | $68 | | $0 | 1 | $51 | $216 |
| F | | $0 | 1 | $97 | | $0 | | $0 | | $0 | 1 | $51 | $148 |
| G | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| H | | $0 | 1 | $97 | | $0 | | $0 | | $0 | 1 | $51 | $148 |
| Subtotal: | 1 | $132 | 7 | $679 | 0 | $0 | 8 | $544 | 0 | $0 | 5 | $303 | $1,658 |
| **SECTION VI - EVALUATION OF ALTERNATIVES** | | | | | | | | | | | | | |
| A | 1 | $132 | 2 | $194 | | $0 | 2 | $136 | | $0 | 2 | $101 | $563 |
| B | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| C | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| D | 1 | $132 | 2 | $194 | | $0 | 3 | $204 | | $0 | | $0 | $530 |
| E | | $0 | 1 | $97 | | $0 | | $0 | | $0 | | $0 | $97 |
| F | | $0 | 1 | $97 | | $0 | | $0 | | $0 | 1 | $51 | $148 |
| G | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| Subtotal: | 2 | $263 | 6 | $582 | 0 | $0 | 5 | $340 | 0 | $0 | 3 | $152 | $1,337 |
| **SECTION VII - INSTITUTIONAL EVALUATION** | | | | | | | | | | | | | |
| A | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| B | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| C | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| D | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| Subtotal: | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | $0 |
| **SECTION VIII - IMPLEMENTATION SCHEDULE AND JUSTIFICATION FOR SELECTED ALTERNATIVES** | | | | | | | | | | | | | |
| A | 1 | $132 | 1 | $97 | | $0 | 2 | $136 | | $0 | 1 | $51 | $415 |
| B | | $0 | 1 | $97 | | $0 | 2 | $136 | | $0 | 1 | $51 | $284 |
| C | 1 | $132 | 1 | $97 | | $0 | 2 | $136 | | $0 | 1 | $51 | $415 |
| Subtotal: | 2 | $263 | 3 | $291 | 0 | $0 | 6 | $408 | 0 | $0 | 3 | $152 | $1,114 |
| **SECTION IX - ENVIRONMENTAL REPORT** | | | | | | | | | | | | | |
| A | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| Subtotal: | | $0 | | $0 | | $0 | | $0 | | $0 | | $0 | $0 |
| **TOTALS:** | 6 | $789 | 27 | $2,619 | 0 | $0 | 44 | $2,392 | 24 | $1,356 | 19 | $1,010 | $8,766 |

| REIMBURSABLE EXPENSES | |
|---|---|
| Well Testing (28 wells) | $0 |
| Color 11x17's | $0 |
| Postage | $0 |
| Plots 24x36 | $0 |
| | $0 |

| | |
|---|---|
| TOTAL OF AMMENDMENT: | $8,766 |
| PREVIOUS COST APPROVED: | $50,945 |
| GRAND TOTAL: | $59,711 |

k:\12045120\0spreadsheets\Ammendment to Task-Activity Report (7_20_10).xls

Attachment 3

Pennsylvania Department of Environmental Protection

909 Elmerton Avenue
Harrisburg, PA 17110-8200

April 7, 2009

Southcentral Regional Office

717-705-4707
FAX - 717-705-4760

RECEIVED
APR 10 2009
BY:

West Manheim Township
c/o Township Secretary
31 Fairview Drive
Hanover, PA 17331

Re: Act 537 Planning (67964)
Plan of Study and Task/Activity Report
West Manheim Township, York County

Ladies and Gentlemen:

We received a Plan of Study and Task/Activity Report for preparation of an Act 537 Update Revision, submitted by C.S. Davidson, Inc., under a cover letter dated March 23, 2009.

The proposed study area encompasses sewer areas 4, 5, 6, Woodridge Hunt, and Fuhrman Hills areas of the Township.

We have approved your Plan of Study for an estimated total cost of $50,945. The resulting Act 537 Update Revision must be consistent with Act 537, Chapter 71, Sections 71.21 and 71.31 of DEP regulations, and with information contained in both A Guide for Preparing Act 537 Update Revisions (January 2003), and Sewage Disposal Needs Identification Guidance. In accordance with your approved Task/Activity Report, your completed planning package will be submitted to the Department for review in January 2010.

These two guide documents are important. Appendix I in the first guide contains a comprehensive "Plan Content and Environmental Assessment Checklist" that details information required for a successful Act 537 Plan submission. This checklist is critical. Strictly following it will minimize the chance of submitting an incomplete plan and incurring untimely project delay. The second guide provides valuable insight about proper sewage disposal needs identification and documentation procedures. This "needs" information is not only used to determine whether a project is required, but it is also used when rating projects for priority based funding such as PENNVEST. Copies of either document can be obtained from the Department.

Following Act 537 plan approval, the Department administers grants for up to 50 percent of planning costs to municipalities with approved Task/Activity Reports. Costs for completion of any planning activities outside the scope of the originally proposed plan, or costs in excess of those previously approved, are not automatically eligible for grant participation. These additional activities must be within the scope of Act 537. Costs must be submitted as revised Task/Activity Reports and receive Departmental approval.

Act 247 information, including subdivision and land development, zoning, and comprehensive plans, will be utilized.

## II. Physical and Demographic Analysis

We proposed to utilize the York County GIS Base information as base maps for this plan. Some GIS maps will be exported to AutoCAD format for simple plan representative exhibits. We proposed to prepare at least the following 11 maps for the Act 537 Plan Update.

1. Planning Areas 4, 5, and 6, Woodridge Hunt and Fuhrman Mill Road (including existing wastewater and water treatment plants, collection and conveyance systems, water supply and distribution systems, etc.)
2. Existing Land Use and Physical Characteristics
3. Zoning
4. Flood plain (2000 Plan)
5. Wetlands (2000 Plan)
6. Geological Features (2000 Plan)
7. Topography (2000 Plan)
8. Soils (including Prime Agricultural)
9. Biological well testing (including 2000 data, indication of "good/bad")
10. Chemical well testing (including 2000 data, indication of "good/bad")
11. Selected Plan (including proposed collection, conveyance and treatment facilities)

## III. Existing Sewage Facilities in the Planning Area

We propose to complete a Tier II survey by identifying and mapping existing municipal and non-municipal sewage systems in and around the planning sub-areas 4, 5 and 6, Woodridge Hunt and Fuhrman Mill Road. In addition, we will utilize the publication titled Sewage Disposal Needs Identification to establish the need for alternate sewage disposal systems. According to Township officials, the majority of these sub-areas are served by an existing public water supply system, although nearly 200 residences are served by on-lot wells. Based upon required sampling rates for Teir II approximately 28 wells will need to be surveyed to acquire a "representative sample". The "representative sample" requirements are summarized in the table below:

| Sewer Area No. | Number of Residences | Residences served by On-Lot Water | Required Sample (%) | Required Number of Samples | Previously Sampled | Proposed Number of Samples |
|---|---|---|---|---|---|---|
| 4 | 275 | 10 | 50% | 5 | 4 | 1 |
| 5 | 94 | SERVED ENTIRELY BY PUBLIC WATER | | | | |
| 6 | 217 | 79 | 35% | 28 | 31 | 0 |
| Woodridge Hunt | 67 | 67 | 35% | 24 | 0 | 24 |
| Fuhrman Mill Road | 43 | 26 | 50% | 13 | 10 | 3 |
| TOTAL | 696 | 182 | | 70 | 45 | 28 |

We proposed to conduct a door-to-door survey to document the condition of existing on-lot systems. According to Township officials, there are 696 residences, with on-lot disposal systems, that are located in sub-areas 4, 5, 6, Fuhrman Mill Road Area, and Woodridge Hunt. A "representative sample" is based upon the total number of residences within a study area. Based upon "representative sample" requirements, the required sampling is summarized in the table below:

| Sewer Area No. | Number of Residences | Required Sample (%) | Required Number of Samples | Previously Sampled | Proposed Number of Samples |
|---|---|---|---|---|---|
| 4 | 275 | 25 | 69 | 63 | 6 |
| 5 | 94 | 35 | 33 | 22 | 11 |
| 6 | 217 | 25 | 55 | 44 | 11 |
| Woodridge Hunt | 67 | 35 | 24 | 0 | 24 |
| Fuhrman Mill Road | 43 | 50 | 22 | 0 | 22 |
| TOTAL | 696 | | 203 | 129 | 74 |

## IV. Future Growth and Land Development

C.S. Davidson, Inc. serves as the West Manheim Township Engineer and as such is very familiar with the land use planning that has been done in the past. We will compile and map all existing planning from our office, the township, and the York County Planning Commission to establish future growth areas.

## V. Alternative Identification

We will establish areas in need of public or community service, and subsequently identify the use of either existing wastewater treatment facilities or proposed new wastewater treatment facilities. Community wastewater disposal systems will be considered as alternatives where available sites exist. The following is a list of such treatment alternatives:

- Upgrades to Penn Township Wastewater Treatment Plant
- Development of a publicly operated West Manheim Township Wastewater Treatment Plant
- Development of a privately operated wastewater treatment plant in the Joshua Hills Development

In areas where the need for public sanitary sewer cannot be established based upon pollution, site constraints, or soils limitation, we would consider the use of community or individual on-lot systems. West Manheim Township currently utilizes an On-Lot Disposal System (OLDS) Management Ordinace (Ordinance No. 01-2005) which mandates a maintenance schedule for all on-lot systems. However this ordinance is not strictly enforced. As part of this plan update we propose enacting a program to document and enforce OLDS Management Ordinance schedule. Additionally, an educational alternative will be required to insure adequate future use of any on-lot systems.

VI. **Evaluation of Alternatives**

An economic evaluation will be provided for the identified alternatives, in addition to evaluating for conformance with all applicable federal and state regulations. We would propose to analyze the funding methods for the alternatives utilizing local, state and federal financing opportunities.

VII. **Institutional Evaluation**

We will study the management and operational features of the various institutional options based on applicable state regulations, and identify the necessary administrative and legal activities.

VIII. **Implementation Schedule and Justification for Selected Technical & Institutional Alternatives**

We would provide the necessary justification for the recommended technical and institutional alternative and provide an implementation schedule.

IX. **Environmental Report**

An Environmental Report will be completed, if required by the recommended funding source. We anticipate proceeding in accordance with the following project schedule based on budgeting for the 2009 Fiscal Year;

| | |
|---|---|
| Board authorizes TAR preparation | August 7, 2008 |
| Meeting with PA DEP | February 18, 2009 |
| Board authorizes TAR submission | March 5, 2009 |
| TAR submission to DEP | March 23, 2009 |
| DEP Approval (60 days estimated) | May 22, 2009 |
| Board authorizes Act 537 Plan | June 7, 2009 |
| Plan preparation (200 days estimated) | June 7 – December 25, 2009 |
| Adoption, submission to DEP | January 4, 2009 |
| DEP approval (120 days estimated) | May 2010 |

On behalf of our client, we request approval of this TAR and we look forward to beginning planning activities. If there are any questions, please contact the writer at the York office.

Very Truly Yours,

C.S. DAVIDSON, INC.

Terry A. Myers, P.E.

MRK/APS/gkm
Enclosure

Copy: West Manheim Township
File
K:\120461200\documents\correspondence\TAR Letter DEP(3_19_09).doc

West Manheim Township
Act 537 Plan Update
Engineer's Project No.: 1204.6.12.00
TAR

## TASK/ACTIVITY REPORT

| Task Activity Number from DEP Checklist | Principal | | Project Manager | | Planner | | Engineering Tech. | | CADD Technician | | Administrative Asst. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hr/Rate | $131.50 | Hr/Rate | $97.00 | Hr/Rate | $84.00 | Hr/Rate | $68.00 | Hr/Rate | $58.50 | Hr/Rate | $50.50 | |
| | Hours | Cost | Hours | Cost | Hours | Cost | Hours | Cost | Hours | Cost | Hours | Cost | Totals |
| **ADMINISTRATIVE COMPLETENESS** | | | | | | | | | | | | | |
| 1 | | $0 | 1 | $97 | | $0 | | $0 | | $0 | 4 | $202 | $299 |
| 2 | 2 | $263 | 2 | $194 | | $0 | 4 | $272 | | $0 | 2 | $101 | $830 |
| 3 | | $0 | 1 | $97 | | $0 | | $0 | | $0 | 1 | $51 | $148 |
| 4 | | $0 | 1 | $97 | | $0 | | $0 | | $0 | 1 | $51 | $148 |
| 5 | | $0 | 1 | $97 | | $0 | | $0 | | $0 | 1 | $51 | $148 |
| 6 | | $0 | 3 | $291 | | $0 | 3 | $204 | | $0 | 2 | $101 | $596 |
| 7 | | $0 | 2 | $145 | | $0 | | $0 | | $0 | 1 | $51 | $196 |
| 8 | | $0 | 1 | $97 | | $0 | | $0 | | $0 | 1 | $51 | $148 |
| Subtotal: | 2 | $263 | 11 | $1,119 | 0 | $0 | 7 | $476 | 0 | $0 | 9 | $557 | $2,511 |
| **SECTION I - PREVIOUS WASTEWATER PLANNING** | | | | | | | | | | | | | |
| A | 1 | $132 | 4 | $388 | 0 | $0 | 10 | $680 | | $0 | 3 | $152 | $1,351 |
| Subtotal: | 1 | $132 | 4 | $388 | 0 | $0 | 10 | $680 | 0 | $0 | 3 | $152 | $1,351 |
| **SECTION II - PHYSICAL AND DEMOGRAPHIC ANALYSIS** | | | | | | | | | | | | | |
| A | 1 | $132 | 2 | $194 | 3 | $252 | 2 | $136 | 3 | $170 | 2 | $101 | $1,014 |
| B | | $0 | 1 | $97 | 3 | $252 | 2 | $136 | 3 | $170 | 2 | $101 | $755 |
| C | | $0 | 1 | $97 | | $0 | 5 | $340 | 3 | $170 | 2 | $101 | $708 |
| D | | $0 | 1 | $97 | 2 | $168 | 4 | $272 | 4 | $226 | 2 | $101 | $884 |
| E | | $0 | 1 | $97 | 2 | $168 | 4 | $272 | 3 | $170 | 2 | $101 | $828 |
| F | | $0 | 1 | $97 | 2 | $168 | 4 | $272 | 3 | $170 | 2 | $101 | $828 |
| G | | $0 | 1 | $97 | 2 | $168 | 3 | $204 | 3 | $170 | 2 | $101 | $760 |
| Subtotal: | 1 | $132 | 8 | $776 | 14 | $1,316 | 24 | $1,632 | 22 | $1,243 | 14 | $707 | $5,806 |
| **SECTION III - EXISTING SEWAGE FACILITIES IN PLANNING AREA** | | | | | | | | | | | | | |
| A | 1 | $132 | 7 | $679 | 7 | $588 | 12 | $816 | 8 | $339 | 4 | $202 | $2,956 |
| B | 2 | $263 | 20 | $1,940 | 25 | $2,350 | 75 | $5,100 | 10 | $565 | 8 | $303 | $10,521 |
| C | 1 | $132 | 4 | $388 | 2 | $188 | 8 | $544 | | $0 | 3 | $152 | $1,403 |
| Subtotal: | 4 | $526 | 31 | $3,007 | 34 | $3,196 | 95 | $6,460 | 18 | $904 | 13 | $657 | $14,750 |
| **SECTION IV - FUTURE GROWTH AND LAND DEVELOPMENT** | | | | | | | | | | | | | |
| A | 1 | $132 | 3 | $291 | 8 | $752 | | $0 | | $0 | 1 | $51 | $1,225 |
| B | 1 | $132 | 4 | $388 | 8 | $752 | 8 | $544 | 10 | $565 | 3 | $152 | $2,532 |
| Subtotal: | 2 | $263 | 7 | $679 | 16 | $1,504 | 8 | $544 | 10 | $565 | 4 | $202 | $3,757 |
| **SECTION V - ALTERNATIVES TO PROVIDE NEW OR IMPROVED WASTEWATER DISPOSAL FACILITIES** | | | | | | | | | | | | | |
| A | 1 | $132 | 8 | $776 | | $0 | 14 | $952 | 4 | $226 | 2 | $101 | $2,187 |
| B | | $0 | 3 | $291 | | $0 | 8 | $408 | | $0 | 1 | $51 | $750 |
| C | 1 | $132 | 2 | $194 | | $0 | 4 | $272 | | $0 | 1 | $51 | $648 |
| D | | $0 | 2 | $194 | | $0 | 4 | $272 | | $0 | 1 | $51 | $517 |
| E | 1 | $132 | 2 | $194 | | $0 | 4 | $272 | | $0 | 1 | $51 | $648 |
| F | | $0 | 2 | $194 | | $0 | 3 | $204 | | $0 | 1 | $51 | $449 |
| G | 1 | $132 | 2 | $194 | 4 | $376 | 2 | $136 | | $0 | 1 | $51 | $888 |
| H | | $0 | 1 | $97 | 2 | $188 | 2 | $136 | | $0 | 1 | $51 | $472 |
| Subtotal: | 4 | $528 | 22 | $2,134 | 6 | $564 | 39 | $2,652 | 4 | $226 | 8 | $455 | $6,557 |
| **SECTION VI - EVALUATION OF ALTERNATIVES** | | | | | | | | | | | | | |
| A | 2 | $263 | 6 | $582 | 4 | $376 | - 16 | $1,088 | | $0 | 6 | $303 | $2,612 |
| B | | $0 | 1 | $97 | | $0 | 3 | $204 | | $0 | 1 | $51 | $352 |
| C | | $0 | 1 | $97 | | $0 | 3 | $204 | | $0 | 1 | $51 | $352 |
| D | 1 | $132 | 4 | $388 | | $0 | 12 | $816 | | $0 | | $0 | $1,336 |
| E | 1 | $132 | 4 | $388 | | $0 | 2 | $136 | | $0 | 2 | $101 | $757 |
| F | 1 | $132 | 2 | $194 | | $0 | 4 | $272 | | $0 | 1 | $51 | $648 |
| G | | $0 | 2 | $194 | | $0 | 2 | $136 | | $0 | 1 | $51 | $381 |
| Subtotal: | 5 | $658 | 20 | $1,940 | 4 | $376 | 42 | $2,856 | 0 | $0 | 12 | $606 | $6,436 |
| **SECTION VII - INSTITUTIONAL EVALUATION** | | | | | | | | | | | | | |
| A | 1 | $132 | 3 | $291 | | $0 | 4 | $272 | | $0 | 1 | $51 | $745 |
| B | | $0 | 2 | $194 | | $0 | 4 | $272 | | $0 | 1 | $51 | $517 |
| C | | $0 | 2 | $194 | | $0 | 4 | $272 | | $0 | 1 | $51 | $517 |
| D | | $0 | 1 | $97 | | $0 | 4 | $272 | | $0 | 1 | $51 | $420 |
| Subtotal: | 1 | $132 | 8 | $776 | 0 | $0 | 16 | $1,088 | 0 | $0 | 4 | $202 | $2,198 |
| **SECTION VIII - IMPLEMENTATION SCHEDULE AND JUSTIFICATION FOR SELECTED ALTERNATIVES** | | | | | | | | | | | | | |
| A | 1 | $132 | 4 | $388 | | $0 | 10 | $680 | | $0 | 1 | $51 | $1,250 |
| B | 1 | $132 | 3 | $291 | | $0 | 4 | $272 | | $0 | 1 | $51 | $745 |
| C | 1 | $132 | 4 | $388 | | $0 | 12 | $816 | | $0 | 1 | $51 | $1,388 |
| Subtotal: | 3 | $395 | 11 | $1,067 | 0 | $0 | 26 | $1,768 | 0 | $0 | 3 | $152 | $3,381 |
| **SECTION IX - ENVIRONMENTAL REPORT** | | | | | | | | | | | | | |
| A | 3 | $395 | 21 | $2,037 | 3 | $252 | 51 | $3,468 | 5 | $283 | 24 | $1,212 | $7,878 |
| Subtotal: | 3 | $395 | 21 | $2,037 | 3 | $252 | 51 | $3,468 | 5 | $283 | 24 | $1,212 | $7,878 |
| TOTALS: | 23 | $3,025 | 122 | $11,583 | 74 | $8,939 | 257 | $18,156 | 52 | $2,938 | 71 | $3,718 | $48,745 |

| REIMBURSABLE EXPENSES | |
|---|---|
| Well Testing (28 wells) | $2,000 |
| Color 11x17's | $1,500 |
| Postage | $500 |
| Plots 24x36 | $200 |
| | $4,200 |

GRAND TOTAL $53,945

k:\1204\6.12\00\spreadsheets\[Task-Activity Report (3_19_09).xls

# APPENDIX C

## PUBLIC COMMENT AND RESPONSES

# West Manheim Township

*2412 Baltimore Pike • Hanover, PA 17331*

*Phone 717-632-0320 • Fax 717-632-2499 www.westmanheimtwp.com*


February 21, 2013

Frank & Dana Sobus
54 Smeach Drive
Hanover, PA 17331

Dear Mr. & Mrs. Sobus,

In early 2009 West Manheim Township began the process to update our Act 537 Plan as required by the Pennsylvania Department of Environmental Protection. The Pennsylvania Sewage Facilities Act, or Act 537, was enacted in 1966 and requires proper planning of all types of sewage facilities, permitting of individual and community OLDS (On-Lot Disposal Systems) as well as uniform standards for designing OLDS. The West Manheim Township plan was last updated in 2000.

As part of the review process, the West Manheim Township Board of Supervisors held a public meeting and solicited public comments. Based upon the public comments the Board of Supervisor requested, and where granted, a filing extension from the Pennsylvania Department of Environmental Protection in order to obtain additional information.

In October, 2010 the Township adopted an On-Lot inspection and certification ordinance. Since 2010 the Township has inspected, and certified over 900 on-lot systems.

Based upon the results of our inspections, the Board of Supervisors will submit an updated Act 537 Plan. The updated plan calls for the continued monitoring, inspection and certification of on-lot disposal systems with provisions for public sewer, if we begin to identify problems with on-lot systems.

At this time we do not anticipate moving forward with extending the public sewer system to areas that have been identified as Area 4, 5 and 6 anytime within the near future.

The updated plan will be submitted to the Department of Environmental Protection for review and final approval.

Sincerely,

West Manheim Township
Board of Supervisors