

**ACT 537 SEWAGE FACILITIES PLAN  
SPECIAL STUDY  
FOR  
DARA SERVICE AREA**

**JULY 2023**

**PREPARED FOR:**

**WESTTOWN WHITELAND TOWNSHIP**  
101 Commerce Drive, Exton, PA 19341



**PREPARED BY:**

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## **SECTION 1.0 – PLAN SUMMARY**

The Downingtown Area Regional Authority (DARA) provides wastewater treatment for the Borough of Downingtown and Caln, East Caln, Uwchland, and West Whiteland Townships. The Authority proposes expanding its treatment plant by 1.0 million gallons per day (MGD) and has requested that the contributing Municipalities update their Act 537 Plan to determine future capacity requirements in DARA's Plant. The capacity expansion of DARA's Plant is part of a comprehensive renovation of the Plant.

This Act 537 Sewage Facilities Plan Study has been prepared for West Whiteland Township to identify future treatment capacity needs in the DARA drainage area. This report has been prepared in accordance with 25 PA Code, Chapter 71, "Administration of Sewage Facilities Planning Program."

Examination of the projected wastewater flow indicates the need for additional wastewater treatment capacity for the DARA drainage area and the need for the Township to purchase additional treatment capacity from DARA.

To properly meet existing wastewater needs and future growth in West Whiteland Township, this Act 537 Plan recommends the implementation of the following:

- Purchase an additional 0.10 MGD per day to a total capacity of 2.023 MGD for the DARA service area of West Whiteland Township.

The estimated cost for the 1.0 MGD expansion of DARA's Plant is \$14 million. The cost for an additional 0.10 MGD of capacity for West Whiteland Township is \$1.4 million. Funding for the purchase of additional capacity from DARA is from a combination of grants, existing capital accounts, tapping fees and rates. The costs will be recaptured from the Authority's rates and tapping fees.

A schedule for implementing these steps is provided in Section 5 of this report, and copies of the Adoption Resolution and supporting documentation have been attached as appendices to the report.

## **SECTION 2.0 – PLANNING AREA**

West Whiteland Township is situated in central Chester County, Pennsylvania. The Township is bordered by East Whiteland on the east side, Uwchlan, and Charlestown Townships to the north, East Caln, and East Bradford Townships to the west, and West Goshen and East Goshen Townships to the south. The Township is accessible by U.S. Routes 30 and 202, and PA Route 100

### **2.1 Existing Sanitary Sewer Facilities**

West Whiteland Township owns and operates public sanitary sewer facilities in the Township. Wastewater generated in the Township is conveyed outside the Township to either DARA or West Goshen Township for treatment. A majority of the Township is severed, with only 343 properties out of a total of 6,600 properties (5.7%) not currently connected to the sewer system. Ultimately, the entire Township will be connected to public sewers as the sewer system is expanded with new developments and the connection of adjacent unsewered properties.

Sewer facilities and drainage areas in the Township are shown in Figure No. 1 – General Features. Watershed boundaries are shown in Figure No. 2 – Natural Features.

#### **2.1.1 Mill Valley, Chester Creek, and West Goshen Drainage Areas**

The Mill Valley, Chester Creek, and West Goshen drainage areas are located along the borders of East Goshen and West Goshen Township and generally comprise the southern one-third of West Whiteland Township. Wastewater generated in the drainage areas is conveyed to the West Goshen Wastewater Treatment Plant for treatment.

The Mill Valley drainage area flows to East Goshen Township in the Ridley Creek Watershed. East Goshen Township conveys wastewater to West Goshen Township. The Chester Creek drainage area flows into West Goshen Township in the Chester Creek Watershed. Wastewater flows through the West Goshen sewer system to the West Goshen Plant. The West Goshen drainage area flows into West Goshen Township in the Broad Run. The Grubbs Mill Pump Station conveys wastewater to West Goshen's sewer system in the Chester Creek Watershed.

### 2.1.2 DARA Drainage Area

The DARA drainage area covers the northern two-thirds of West Whiteland Township. Wastewater generated in the drainage area is conveyed to DARA via the Clover Mill Pump Station (CMPS). A small portion of the DARA drainage area in the northeast corner of the Township flows into Caln Township and through the Caln sewer system to DARA. Wastewater from Uwchlan Township is “wheeled” through the West Whiteland sewer system and conveyed to DARA via CMPS.

The Clover Mill Pump Station is the only sewage pump station within the DARA service area boundary of West Whiteland. The collection and conveyance system for the DARA drainage area consists of approximately 77 miles of gravity collection sewers and interceptors. A 42” diameter interceptor conveys all wastewater from the DARA drainage area to CMPS. The CMPS pumps wastewater into another 42” diameter interceptor in Boot Road in East Caln Township, approximately 3,250’ east of Chestnut Street. Wastewater flows by gravity to the DARA Plant.

The flow from West Whiteland Township is metered at a 12-inch Parshall flume located in a metering vault along the entrance road to DARA. This meter measures West Whiteland flow combined with flow from Uwchlan and a portion of East Caln. DARA calculates the contributions of each Township.

The DARA Plant has a permitted capacity of 7.5 MGD, and West Whiteland Township owns 1.923 MGD or 25.6% of the Plant capacity. The average daily flow from West Whiteland Township to DARA was 1.455 MGD in 2022 and 1.41 MGD in 2021.

## 2.2 Existing Wastewater Planning

Existing wastewater services for the DARA service drainage area are shown in Figure No. 3, Sewer Facilities. The DARA drainage area has expanded since the sewer system was originally constructed in the mid-1970s. Sewage facilities planning in the DARA drainage area has been updated several times through a combination of new Act 537 Plans and planning modules. Major sewage facilities plan modifications include:

- An Act 537 Plan prepared in December 1981 that resulted in a reduction in wastewater flow at the DARA plant, additional wastewater treatment capacity to allow new development, the addition of on-site subsurface wastewater disposal systems and participation in 201 Facilities Plan to upgrade and expand the DARA water treatment facility.
- An Act 537 Plan prepared in September 1988 and revised in March 1989 called for the construction of a 3.0 MGD oxidation ditch for biological treatment of wastewater and aerobic digestion of waste sludge for land application by a contract hauler. These improvements provided expanded capacity for wastewater treatment for planned and proposed development.
- The DARA Sewage Facilities Act 537 Plan Update prepared in 1995 arranged for the reallocation of excess capacity at the DARA Plant to Uwchlan Township. The plan also called for DARA to monitor development in the five municipalities to encourage comprehensive sewer system repair and rehabilitation to reduce infiltration and inflow and to consider additional treatment capacity to meet long and short-term needs.
- An Act 537 Plan Revision for the Downingtown Area Regional Authority (DARA) Service Area prepared in February 1996 and revised in May 1997 resulted in Uwchlan Township obtaining additional capacity in the DARA Wastewater Treatment Facility.
- An amendment to the 1994 Act 537 Plan prepared in August 2000 identified a deficit of 0.375 MGD of capacity available to the West Whiteland Township at the DARA and West Goshen Plants. The plan proposed a lagoon treatment and spray irrigation facility at the Exton Park Site.
- An amendment to the 1994 Act 537 Plan in May 2005 reevaluated the spray irrigation alternative selected in the 2000 Act 537 plan. This addendum identifies additional capacity at DARA to meet a portion of the wastewater deficit for the Township.
- In July 2005, an update to the current Act 537 Plan called for the reallocation of the 0.3 MGD of capacity to each of the DARA members (West Whiteland, Uwchlan, Caln, and East Caln townships) of equal amounts of 0.075 MGD each.

- An Act 537 Plan Revision for CMPS prepared in December 2010 recommended increased pumping capacity and flow equalization at the Clover Mill Pumping Station to maximize flow conveyed to DARA and to manage wet weather peak flows. The Act 537 Plan was never adopted. The CMPS currently being rehabilitated.
  
- An Act 537 Plan Update for the DARA Service Area in June 2014 determined that an expansion of the DRWPCC would provide sufficient capacity to connect existing on-lot system users to the public sewer system and to meet the growing needs of the service area until 2044.



## **SECTION 3.0 - EXISTING AND PROJECTED WASTEWATER FLOW**

Sewage facilities planning in West Whiteland Township is geared toward the expansion of the public sewer system throughout the Township. In the DARA drainage area, wastewater will be treated at the DARA Plant. The Township owns 1.923 MGD of capacity in the DARA Plant. Therefore, existing and projected wastewater flow data will be reviewed to determine if the Township requires additional capacity from DARA.

### 3.1 Existing Wastewater Flow

In 2021 and 2022, the average daily flow from West Whiteland Township to DARA was 1.41 MGD and 1.455 MGD, respectively, as reported in the Chapter 94 Reports for those years.

### 3.2 Projected Wastewater Flow

Wastewater flow projections were developed using existing Township project lists and an analysis of zoning and existing land uses. Additionally, meetings with Township staff were held to discuss areas that may potentially be redeveloped, such as the Exton Mall in the context of changing real estate economics and work change demographics associated with the Covid-19 pandemic.

Current zoning and actual land use in the Township are shown in Figure No. 4. Figure No. 5 shows projected development not included in existing Township project lists. A zoning analysis was prepared using Figures No. 4 & 5 to identify future EDUs and flow projections.

For the residential zoning analysis, lot areas for properties that are not developed or are underdeveloped were obtained from Chester County online sources and compared to minimum lot sizes requirements in the Township Zoning ordinance. For properties with areas greater than the minimum lot size and can be subdivided, the lot area is reduced by 25% to account for public improvements and environmental factors such as wetlands and riparian buffers. The net lot area is divided by the minimum lot size to determine the maximum number of lots or EDUs. If the calculated number of lots is within 85% of the next higher whole lot number, the number of lots is rounded up (5.9 lots is rounded up to 6 lots). Otherwise, the number of lots is rounded down.

The Township allocates 250 gallons per day (GPD) of wastewater per EDU to calculate projected flow.

### 3.2.1 Current Township Development Projections

Table No. 1 lists projected flows for residential and non-residential development projects currently in various stages of review or construction in the Township. The projected flow for all projects is 237,162 GPD.

### 3.2.2 Unsewered Residential Properties

The residential zoning analysis was applied to all residential properties using on-lot disposal systems. Table No. 2 lists all properties not connected to the sewer system, projected EDUs, and projected flow at 250 GPD per EDU. The projected flow for all unsewered residential properties is 110,500 GPD.

### 3.2.3 Undeveloped/Underdeveloped Residential Properties

The residential zoning analysis was applied to residential properties that are connected to the sewer system or have sewer service available but are currently vacant, which can be further developed by subdividing additional lots. Table No. 3 lists these properties, the total EDUs for the property, and the projected flow at 250 GPD per EDU. The projected flow for all undeveloped/underdeveloped residential properties is 23,000 GPD.

### 3.2.4 Non-Residential Properties

A different approach to calculating flow projections is required for non-residential properties because EDUs cannot be calculated based on dimensional requirements in the Zoning Ordinance. Seven properties in the Township are vacant, in various stages of land development (Valley Creek Corporate Center), or subject to redevelopment (Exton Mall). Flow projections for the properties were calculated using existing zoning requirements, existing building square footage, or flow estimates for redevelopment.

Analysis of wastewater flow projections based on existing flows for office uses in Act 537 planning indicates that flow per net property area is 960 GPD per acre. As with the residential zoning analysis, gross lot areas are reduced by 25%. The Valley Creek Corporate Center has a remaining non-residential property of 22.3 acres. After reducing the gross area, the net area is 16.725 acres. At 960 GPD per acre, the projected flow is 16,056 GPD.

Projected flows for non-residential properties are summarized in Table No. 4. The total project flow is 71,057 GPD.

Current Township development lists include the redevelopment of the Exton Mall. The projected additional flow for the Mall properties is included in Table No. 1.

Table No. 5 summarizes existing and projected flow and the Township's future required wastewater treatment capacity in the DARA Plant. The required treatment capacity is 1,896,293 GPD.

### 3.2.5 Additional Wastewater Capacity

A significant change in real estate economics and workplace demographics has shifted non-residential development usage and usage patterns in the past five to ten years. Traditional department store-anchored shopping malls are being converted to mixed-use residential/commercial/retail/institutional centers. Traditional five-day-per-week office commuting is changing to hybrid and fully remote working arrangements. The changes result in office space vacancies and changes from office to institutional uses such as health care and education.

Since the changes in use in office and commercially zoned areas are not fully known as the Act 537 Plan is being prepared, the Township is estimating that additional capacity at the DARA plant will be required to provide sufficient surplus capacity. As shown in Table No. 5, the required capacity at DARA is 1.896 MGD. The Township owns 1.923 MGD of capacity, leaving a surplus of 0.027 MGD (27,000 GDP). The Township is projecting additional future capacity requirements of 100,000 GPD to address expected changes in real estate economics, workplace demographics, and use changes in non-residential zoning districts. Therefore, West Whiteland's total future capacity needs at the DARA Plant are 1.996 MGD, a deficit of 0.073 MGD or 73,000 GPD.

## **SECTION 4.0 – WASTEWATER TREATMENT CAPACITY ALTERNATIVES**

Identifying and evaluating alternatives is necessary to determine the most effective way to address West Whiteland Township's wastewater treatment capacity needs in the DARA Plant. West Whiteland owns 1.923 MGD of capacity in the DARA Plant. The future flow projections for the DARA drainage area are 1.996 MGD, a deficit of 0.073 MGD (73,000 GPD) of capacity.

Alternatives for addressing wastewater treatment capacity needs include purchasing additional capacity from DARA, transferring flow from the DARA drainage area to drainage areas served by the West Goshen Treatment Plant, and no Action.

### **4.1 Purchase Additional Capacity From DARA**

Wastewater in the DARA drainage area is currently conveyed to and treated by DARA. Infrastructure, including interceptors and the Clover Mill Pump Station, has sufficient capacity to convey the projected flow to DARA. The Township requires 73,000 GPD of additional capacity. DARA is expanding the treatment plant by 1.0 MGD, so sufficient capacity is available for purchase by the Township. The Township should purchase an additional 0.10 MGD (100,000 GPD) of capacity.

The estimated cost for the 1.0 MGD expansion of the DARA plant is \$14 million. Therefore, the purchase of an additional 0.10 MGD of capacity is \$1 million.

### **4.2 Transfer Flow from the DARA Drainage Area to Drainage Areas Served By the West Goshen Plant**

West Whiteland owns 820,000 GPD of capacity at the West Goshen Wastewater Treatment Plant. The Township's 5-year flow projection in the 2022 Chapter 94 Report is approximately 600,000 GPD. Based on the projected 5-year flow to the West Goshen Plant and the need for an additional 100,000 GPD of capacity at the DARA plant, there is sufficient capacity to transfer flow from the DARA drainage area. However, many properties in the West Goshen Drainage area are not connected to public sewers or can be developed. Therefore, the Township's available surplus treatment capacity at the West Goshen Plant will be less.

Transferring flow to the West Goshen Plant requires identifying existing developed neighborhoods in the DARA drainage area where flow could easily be transferred to the West Goshen Plant. A review of the existing development and the existing sewer system shown in Figure No. 1 shows that the best areas to transfer flow are along the Route 100 Corridor adjacent to the West Goshen Drainage Area. Transferring flow requires the construction of a pump station to convey flow from the DARA drainage area to the West Goshen drainage area.

The estimated project cost for a new pump station and force main to transfer flow from the DARA drainage to the West Goshen drainage area is \$1.4 million.

#### 4.3 No Action

Under the “no action” alternative, West Whiteland Township would have sufficient treatment capacity at DARA for projected wastewater flows. However, sufficient capacity would not be available to address expected changes in real estate economics, workplace demographics, and use changes in non-residential zoning districts. Therefore, the “no action” alternative does not adequately address the Township’s projected treatment capacity needs in the DARA drainage area.

#### 4.4 Comparison of Alternatives and Selected Alternative

The least costly alternative to address the Township's projected treatment capacity needs in the DARA drainage area is purchasing additional capacity. Transferring flow from the DARA drainage area to the West Goshen drainage area is a more expensive alternative, requires new wastewater infrastructure, and may not meet the Township capacity needs if unsewered properties in the West Goshen drainage are connected to the sewer system. The “no action” alternative does not adequately meet the Township’s project treatment capacity needs in the DARA drainage area.

The selected alternative is the purchase of an additional 100,000 GPD of capacity from DARA.

## **SECTION 5.0 – IMPLEMENTATION**

The selected alternatives for addressing the future wastewater capacity needs in West Whiteland Township's DARA Drainage Area are to purchase 0.1 MGD of additional capacity from DARA.

### 5.1 Consistency Evaluation

Table No. 6 describes how the selected alternative is consistent with the following:

- Plans developed and approved under Sections 4 and 5 of the Clean Streams Law or Section 208 of the Clean Water Act
- Municipal wasteload management corrective action plans or annual reports
- Plans developed under Title II of the Clean Water Act or Titles II and VI of the Water Quality Act of 1987
- Comprehensive Plans developed under the Pennsylvania Municipalities Planning Code
- Anti-degradation requirements contained PA Code Tiled 25, Chapters 93, 95 and 102
- State Water Plans
- Pennsylvania Prime Agricultural Policy
- County Stormwater Management Plans
- Wetland Projection
- Protection of rare, endangered, or threatened plant and animal species
- Historical and archaeological resource protection
- Chester County Comprehensive Plan

## 5.2 Institutional Evaluation

The selected sewage disposal alternative is to purchase additional treatment capacity from DARA. The Board of Supervisors of West Whiteland Township, their Staff, and Consultants have the administrative and legal authority to implement sewage facilities planning in the Township. The identified sewage disposal alternative is already implemented in the Township. Therefore, the Township has the financial and staffing capabilities to implement the identified alternatives. Furthermore, since the Township is responsible for sewage facilities planning, they have the legal authority to:

- Implement planning recommendations
- System-wide operation and maintenance activities
- Set user fees and take purchasing actions
- Take enforcement actions against ordinance violators
- Negotiate agreements
- Raise capital for construction, and operation and maintenance of facilities.

No new municipal departments or authorities are needed since the identified sewage disposal alternative is currently implemented in the Township. The existing municipal staff will continue to handle the implementation of the identified alternative and future needs as they arise.

No new administrative or legal activities are required to ensure the implementation of the identified sewage disposal alternatives.

## 5.3 Implementation Schedule

- Planning Agency Review ..... August – September 2023
- Public Notification of the Act 537 Plan Update ..... August 2023
- West Whiteland Township adoption of the Act 537 Plan Update.....October 2023
- Act 537 Plan Update submitted to DEP for review .....October 2023
- DEP Approval of Act 537 Plan ..... January 2024

#### 5.4 Funding

The estimated cost of the selected alternatives is \$1.4 million, which constitutes the immediate capital needs. Costs associated with the selected alternative will be covered by existing Township sewer capital reserve funds, tapping fees, and rates. The Township will also pursue grant opportunities.



## **TABLES**

**Table No. 1**  
**West Whiteland Township**  
**Projected Flow for Significant Projects**

<b>Project Name</b>	<b>Projected Flow (GPD)</b>
<b>Residential Development</b>	
Exton Mall Apartments: Phase II (Hanover Exton Square)	44,250
Exton Knoll	53,273
Weston	16,700
Keva Phase II	12,000
Ship Run Developers, LLC	15,865
Waterloo Reserve	21,500
Sunrise Blvd Senior Housing	9,250
Whitford Country Club	18,250
690 E. Lincoln Associates, LLC	11,356
Price House (Whitford Rd/ Clover Mill)	5,010
Church Farm School	2,000
<b>Non-Residential Development</b>	
Oaklands - Valtek	4,425
Laborers Training Center	4,175
Ball & Ball	3,340
Exton Mall Redevelopment <sup>1</sup>	2,606
Public Works Facility	2,000
Coeway Lane Properties	1,925
Waterloo Blvd Property	1,670
Colona's (589 & 615 Clover Mill Road)	1,670
Entenmann's/WAWA (Ship Rd/Business 30)	1,200
Krapf Office/Lot 2 CMBP	1,002
Presto (Felix)	835
4 Tabas Lane	775
Insomnia Cookies	750
King Industrial	501
Boy Scouts of America	500
Exton Park	334
<b>Total Projected Flow</b>	<b>237,162</b>

Notes: 1) Projected flow for redevelopment less existing water usage.

**Table No. 2**  
**West Whiteland Township**  
**Existing Unsewered Residential Properties**

<b>Tax Parcel Number (UPI)</b>	<b>Zoning District</b>	<b>Minimum Lot Size (Square Feet)</b>	<b>Parcel Area (Square Feet)</b>	<b>Maximum Number of Lots</b>	<b>10 Year Service Area Projected EDUs</b>	<b>Flow (GPD)</b>
41-5-195	R-1	43,560	589,691	10	7	1750
41-8-146	R-1	43,560	439,739	7	7	1750
41-8-54	R-1	43,560	439,956	7	7	1750
41-5-141	R-3	14,000	113,761	6	6	1500
41-6-18.1	I-1	87,120	537,422	4	4	1000
41-2-82	R-1	43,560	344,269	4	4	1000
41-8-121	R-1	43,560	175,524	3	3	750
41-2-88	R-1	43,560	131,185	2	3	750
41-8-185.8	R-2	22,000	129,619	4	3	750
41-5-121	R-1	43,560	247,929	4	3	750
41-8-69	R-1	43,560	372,435	6	3	750
41-8-85.2	R-1	43,560	139,204	2	3	750
41-5G-22	R-4	5,000	22,108	3	3	750
41-5-76	O/R	87,120	591,984	5	2	500
41-5-214	R-1	43,560	302,682	5	2	500
41-6-37.4	R-1	43,560	216,823	3	2	500
41-6-42.1	R-1	43,560	165,124	2	2	500
41-2-84.3	R-1	43,560	133,584	2	2	500
41-5-198	R-1	43,560	260,050	4	2	500
41-5-213	R-1	43,560	334,597	5	2	500
41-8-131	R-1	43,560	231,470	4	2	500
41-5-273.1	R-2	22,000	92,208	3	2	500
41-5-211	R-1	43,560	111,898	2	2	500
41-5-272	R-2	22,000	61,606	2	2	500
41-5-277	R-3	14,000	41,549	2	2	500
41-8-136	R-1	43,560	278,342	4	2	500
41-8-137	R-1	43,560	302,440	5	2	500
41-6-79	R-1	43,560	183,087	3	2	500
41-5-180.5	R-3	14,000	37,335	2	2	500
41-7-2.4A	R-1	43,560	147,041	2	2	500
41-7-5	R-1	43,560	109,050	2	2	500
41-8-72	R-1	43,560	134,959	2	2	500

**Table No. 2**  
**West Whiteland Township**  
**Existing Unsewered Residential Properties**

<b>Tax Parcel Number (UPI)</b>	<b>Zoning District</b>	<b>Minimum Lot Size (Square Feet)</b>	<b>Parcel Area (Square Feet)</b>	<b>Maximum Number of Lots</b>	<b>10 Year Service Area Projected EDUs</b>	<b>Flow (GPD)</b>
41-5-180.2	R-3	14,000	30,745	1	2	500
41-5-249.1	R-1	43,560	105,721	1	2	500
41-7-4.1	R-1	43,560	101,277	1	2	500
41-8-145	R-1	43,560	96,862	1	2	500
41-8-185.2	R-2	22,000	192,015	6	2	500
41-8-195	R-2	22,000	156,404	5	2	500
41-8-178	R-1	43,560	203,513	3	2	500
41-5R-8	R-2	22,000	89,809	3	2	500
41-8-177	R-1	43,560	150,766	2	2	500
41-4-33.3A	I-2	130,680	435,195	2	2	500
41-5-102	I-2	130,680	436,243	2	2	500
41-8-117.12	R-1	43,560	111,642	2	2	500
41-8-149	R-1	43,560	138,299	2	2	500
41-8-150.1	R-1	43,560	119,009	2	2	500
41-8-190	R-2	22,000	58,816	2	2	500
41-8-191	R-2	22,000	71,070	2	2	500
41-8-99	R-1	43,560	120,924	2	2	500
41-2-46.1	R-2	22,000	180,410	6	2	500
41-4-20.3	R-1	43,560	194,419	3	2	500
41-8-68	R-1	43,560	388,994	6	2	500
41-8-95.5	R-1	43,560	194,562	3	2	500
41-5-270.1	R-3	14,000	43,933	2	2	500
41-2-84.7	R-1	43,560	252,358	4	1	250
41-5-181	R-3	14,000	30,398	1	1	250
41-2-84.5	R-1	43,560	92,673	1	1	250
41-5-209	R-1	43,560	339,401	5	1	250
41-5-180.4	R-3	14,000	52,215	2	1	250
41-5-253.1	R-1	43,560	169,038	3	1	250
41-2-84.4	R-1	43,560	111,220	2	1	250
41-5-180.3	R-3	14,000	35,133	2	1	250
41-5-197	R-1	43,560	126,501	2	1	250
41-7-2.4	R-1	43,560	141,385	2	1	250

**Table No. 2**  
**West Whiteland Township**  
**Existing Unsewered Residential Properties**

<b>Tax Parcel Number (UPI)</b>	<b>Zoning District</b>	<b>Minimum Lot Size (Square Feet)</b>	<b>Parcel Area (Square Feet)</b>	<b>Maximum Number of Lots</b>	<b>10 Year Service Area Projected EDUs</b>	<b>Flow (GPD)</b>
41-8-134.4	R-1	43,560	108,357	2	1	250
41-2-30	R-1	43,560	108,785	2	1	250
41-4-20.5	R-1	43,560	105,369	1	1	250
41-5-253	R-1	43,560	97,588	1	1	250
41-8-71	R-1	43,560	102,594	1	1	250
41-5-195.2	R-1	43,560	95,322	1	1	250
41-5-214.1	R-1	43,560	93,855	1	1	250
41-8-107.4	R-1	43,560	83,075	1	1	250
41-8-180	R-1	43,560	147,881	2	1	250
41-8D-58	R-2	22,000	89,085	3	1	250
41-5-149	R-3	14,000	46,247	2	1	250
41-8-107	R-1	43,560	144,437	2	1	250
41-8-123.19	R-1	43,560	110,147	2	1	250
41-8-123.19A	R-1	43,560	130,036	2	1	250
41-8-183.1	R-2	22,000	53,191	1	1	250
41-8-184	R-2	22,000	50,403	1	1	250
41-8-187	R-2	22,000	53,872	1	1	250
41-2-5.1	R-1	43,560	73,024	1	1	250
41-2-6	R-1	43,560	69,244	1	1	250
41-2-81.1	R-1	43,560	67,813	1	1	250
41-3-1	R-1	43,560	60,082	1	1	250
41-3-2	R-1	43,560	70,465	1	1	250
41-3-6	R-1	43,560	78,716	1	1	250
41-3-7	R-1	43,560	67,621	1	1	250
41-4-14	R-1	43,560	64,186	1	1	250
41-4-16.1A	R-1	43,560	78,161	1	1	250
41-4-2.1	R-1	43,560	71,573	1	1	250
41-4-20.1	R-1	43,560	81,298	1	1	250
41-4-20.4	R-1	43,560	72,092	1	1	250
41-4-21.1	R-1	43,560	79,387	1	1	250
41-4-21.2	R-1	43,560	84,751	1	1	250
41-4D-38	R-1	43,560	70,201	1	1	250

**Table No. 2**  
**West Whiteland Township**  
**Existing Unsewered Residential Properties**

<b>Tax Parcel Number (UPI)</b>	<b>Zoning District</b>	<b>Minimum Lot Size (Square Feet)</b>	<b>Parcel Area (Square Feet)</b>	<b>Maximum Number of Lots</b>	<b>10 Year Service Area Projected EDUs</b>	<b>Flow (GPD)</b>
41-5-101.3	I-2	130,680	175,756	1	1	250
41-5-182	R-2	22,000	41,679	1	1	250
41-5-209.4	R-1	43,560	73,811	1	1	250
41-5-209.5	R-1	43,560	58,688	1	1	250
41-5-209.9	R-1	43,560	83,139	1	1	250
41-5-210	R-1	43,560	69,918	1	1	250
41-5-211.5	R-1	43,560	80,024	1	1	250
41-5-217	R-1	43,560	75,556	1	1	250
41-5-221	R-1	43,560	61,943	1	1	250
41-5-249.2	R-1	43,560	68,356	1	1	250
41-5-25	R-2	22,000	30,732	1	1	250
41-5-250	R-1	43,560	73,761	1	1	250
41-5-250.1	R-1	43,560	64,984	1	1	250
41-5-276	R-2	22,000	37,804	1	1	250
41-5-97.8	I-1	87,120	202,715	1	1	250
41-5M-5	R-2	22,000	30,166	1	1	250
41-6-21.1	R-1	43,560	70,550	1	1	250
41-6-32.1J	R-1	43,560	62,344	1	1	250
41-6-39	R-1	43,560	64,263	1	1	250
41-6J-42	R-2	22,000	37,020	1	1	250
41-6K-97	R-1	43,560	63,018	1	1	250
41-6N-1	R-2	22,000	33,586	1	1	250
41-6N-177	R-2	22,000	33,247	1	1	250
41-6N-179	R-2	22,000	42,895	1	1	250
41-6N-189	R-2	22,000	37,515	1	1	250
41-7-11	R-1	43,560	66,438	1	1	250
41-7-4.3	R-1	43,560	64,025	1	1	250
41-7-4.4	R-1	43,560	58,316	1	1	250
41-7-7	R-1	43,560	66,939	1	1	250
41-7-8	R-1	43,560	61,816	1	1	250
41-7-9	R-1	43,560	59,163	1	1	250
41-8-107.3	R-1	43,560	64,965	1	1	250

**Table No. 2**  
**West Whiteland Township**  
**Existing Unsewered Residential Properties**

<b>Tax Parcel Number (UPI)</b>	<b>Zoning District</b>	<b>Minimum Lot Size (Square Feet)</b>	<b>Parcel Area (Square Feet)</b>	<b>Maximum Number of Lots</b>	<b>10 Year Service Area Projected EDUs</b>	<b>Flow (GPD)</b>
41-8-108.8	R-1	43,560	60,369	1	1	250
41-8-108.9	R-1	43,560	77,518	1	1	250
41-8-110.5	R-1	43,560	62,344	1	1	250
41-8-117.8	R-1	43,560	66,404	1	1	250
41-8-130	R-1	43,560	65,977	1	1	250
41-8-133.1	R-1	43,560	60,154	1	1	250
41-8-134.2	R-1	43,560	87,312	1	1	250
41-8-134.3	R-1	43,560	69,243	1	1	250
41-8-135	R-1	43,560	74,924	1	1	250
41-8-135.1	R-1	43,560	63,862	1	1	250
41-8-139	R-1	43,560	75,689	1	1	250
41-8-140.1	R-1	43,560	82,126	1	1	250
41-8-147.1	R-1	43,560	76,726	1	1	250
41-8-148.1	R-1	43,560	64,425	1	1	250
41-8-160	R-1	43,560	69,373	1	1	250
41-8-166	R-1	43,560	87,485	1	1	250
41-8-185.3	R-2	22,000	43,536	1	1	250
41-8-185.4	R-2	22,000	40,535	1	1	250
41-8-185.5	R-2	22,000	42,168	1	1	250
41-8-185.6	R-2	22,000	40,482	1	1	250
41-8-187.2	R-2	22,000	41,098	1	1	250
41-8-189	R-2	22,000	47,152	1	1	250
41-8-190.1	R-2	22,000	39,259	1	1	250
41-8-192	R-2	22,000	38,880	1	1	250
41-8-194	R-2	22,000	43,575	1	1	250
41-8-56	R-1	43,560	61,818	1	1	250
41-8-59	R-1	43,560	73,937	1	1	250
41-8-60	R-1	43,560	61,235	1	1	250
41-8-61.1	R-1	43,560	80,559	1	1	250
41-8-61.2	R-1	43,560	58,577	1	1	250
41-8-73.2	R-1	43,560	62,823	1	1	250
41-8E-83	R-1	43,560	70,504	1	1	250

**Table No. 2**  
**West Whiteland Township**  
**Existing Unsewered Residential Properties**

<b>Tax Parcel Number (UPI)</b>	<b>Zoning District</b>	<b>Minimum Lot Size (Square Feet)</b>	<b>Parcel Area (Square Feet)</b>	<b>Maximum Number of Lots</b>	<b>10 Year Service Area Projected EDUs</b>	<b>Flow (GPD)</b>
41-8F-21.1	R-1	43,560	76,413	1	1	250
41-1-1.1H	R-1	43,560	31,427	1	1	250
41-1-1.1J	R-1	43,560	26,191	1	1	250
41-2-28	R-1	43,560	57,865	1	1	250
41-2-28.1	R-1	43,560	44,378	1	1	250
41-2-29	R-1	43,560	51,680	1	1	250
41-2-29.2	R-1	43,560	41,995	1	1	250
41-2-29.3	R-1	43,560	34,181	1	1	250
41-2-30.1	R-1	43,560	35,206	1	1	250
41-2-31	R-1	43,560	35,751	1	1	250
41-2-32	R-1	43,560	38,929	1	1	250
41-2-48	R-1	43,560	43,590	1	1	250
41-2-48.1	R-1	43,560	11,367	1	1	250
41-2-52	R-1	43,560	34,330	1	1	250
41-2-81	R-1	43,560	56,669	1	1	250
41-2-81.2	R-1	43,560	44,139	1	1	250
41-2-81.3	R-1	43,560	47,280	1	1	250
41-2-81.4	R-1	43,560	48,022	1	1	250
41-2-81.5	R-1	43,560	49,384	1	1	250
41-2-84.1	R-1	43,560	46,427	1	1	250
41-2-87	R-1	43,560	55,340	1	1	250
41-4-13.1	R-1	43,560	46,141	1	1	250
41-4-13.1A	R-1	43,560	40,910	1	1	250
41-4-14.1	R-1	43,560	35,309	1	1	250
41-4-15	R-1	43,560	39,075	1	1	250
41-4-15.1	R-1	43,560	57,237	1	1	250
41-4-15.2	R-1	43,560	41,971	1	1	250
41-4-20	R-1	43,560	47,694	1	1	250
41-5-100	I-2	130,680	144,938	1	1	250
41-5-101	I-2	130,680	114,828	1	1	250
41-5-111.1	R-1	43,560	38,799	1	1	250
41-5-111.2	R-1	43,560	40,482	1	1	250



**Table No. 2**  
**West Whiteland Township**  
**Existing Unsewered Residential Properties**

<b>Tax Parcel Number (UPI)</b>	<b>Zoning District</b>	<b>Minimum Lot Size (Square Feet)</b>	<b>Parcel Area (Square Feet)</b>	<b>Maximum Number of Lots</b>	<b>10 Year Service Area Projected EDUs</b>	<b>Flow (GPD)</b>
41-5-113.1	R-1	43,560	23,725	1	1	250
41-5-123	R-1	43,560	28,406	1	1	250
41-5-195.1	R-1	43,560	38,069	1	1	250
41-5-200	R-1	43,560	35,672	1	1	250
41-5-200.1	R-1	43,560	35,641	1	1	250
41-5-201	R-1	43,560	30,009	1	1	250
41-5-202	R-1	43,560	54,917	1	1	250
41-5-203	R-1	43,560	34,751	1	1	250
41-5-204	R-1	43,560	24,239	1	1	250
41-5-205	R-1	43,560	20,508	1	1	250
41-5-206	R-1	43,560	19,676	1	1	250
41-5-209.1	R-1	43,560	40,890	1	1	250
41-5-209.10	R-1	43,560	51,662	1	1	250
41-5-209.2	R-1	43,560	41,781	1	1	250
41-5-209.3	R-1	43,560	42,437	1	1	250
41-5-209.6	R-1	43,560	46,433	1	1	250
41-5-209.7	R-1	43,560	41,007	1	1	250
41-5-209.8	R-1	43,560	47,963	1	1	250
41-5-211.1	R-1	43,560	28,309	1	1	250
41-5-211.2	R-1	43,560	53,922	1	1	250
41-5-211.4	R-1	43,560	49,019	1	1	250
41-5-211.6	R-1	43,560	25,312	1	1	250
41-5-212	R-1	43,560	28,946	1	1	250
41-5-215	R-1	43,560	50,560	1	1	250
41-5-215.1	R-1	43,560	45,632	1	1	250
41-5-236.2	R-1	43,560	40,292	1	1	250
41-5-244	R-1	43,560	40,405	1	1	250
41-5-249	R-1	43,560	55,438	1	1	250
41-5-250.2	R-1	43,560	42,722	1	1	250
41-5-252.1	R-1	43,560	48,598	1	1	250
41-5-287	I-2	130,680	112,336	1	1	250
41-5-70.1	R-1	43,560	25,231	1	1	250

**Table No. 2**  
**West Whiteland Township**  
**Existing Unsewered Residential Properties**

<b>Tax Parcel Number (UPI)</b>	<b>Zoning District</b>	<b>Minimum Lot Size (Square Feet)</b>	<b>Parcel Area (Square Feet)</b>	<b>Maximum Number of Lots</b>	<b>10 Year Service Area Projected EDUs</b>	<b>Flow (GPD)</b>
41-5-72	R-1	43,560	36,259	1	1	250
41-5M-1	R-2	22,000	25,108	1	1	250
41-5M-2	R-2	22,000	21,494	1	1	250
41-5M-3	R-2	22,000	22,640	1	1	250
41-5M-4	R-2	22,000	26,817	1	1	250
41-5M-6	R-2	22,000	27,429	1	1	250
41-5R-14	R-2	22,000	23,421	1	1	250
41-5R-15	R-2	22,000	20,117	1	1	250
41-5R-16	R-2	22,000	20,032	1	1	250
41-5R-17	R-2	22,000	19,945	1	1	250
41-5R-18	R-2	22,000	19,941	1	1	250
41-5R-19	R-2	22,000	19,821	1	1	250
41-5R-20	R-2	22,000	19,563	1	1	250
41-6-20.1	R-1	43,560	31,067	1	1	250
41-6-23	R-1	43,560	13,026	1	1	250
41-6-30.1	R-1	43,560	23,379	1	1	250
41-6-32	R-1	43,560	39,607	1	1	250
41-6-32.1A	R-1	43,560	44,025	1	1	250
41-6-32.1B	R-1	43,560	50,603	1	1	250
41-6-32.1C	R-1	43,560	45,028	1	1	250
41-6-32.1D	R-1	43,560	44,827	1	1	250
41-6-32.1E	R-1	43,560	43,895	1	1	250
41-6-32.1F	R-1	43,560	42,920	1	1	250
41-6-32.1G	R-1	43,560	44,040	1	1	250
41-6-32.1H	R-1	43,560	51,141	1	1	250
41-6-32.1K	R-1	43,560	43,079	1	1	250
41-6-32.1L	R-1	43,560	46,472	1	1	250
41-6-32.1M	R-1	43,560	40,907	1	1	250
41-6-32.1N	R-1	43,560	43,012	1	1	250
41-6-32.1P	R-1	43,560	43,648	1	1	250
41-6-32.1Q	R-1	43,560	43,696	1	1	250
41-6-32.1R	R-1	43,560	44,610	1	1	250

**Table No. 2**  
**West Whiteland Township**  
**Existing Unsewered Residential Properties**

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41-6-32.1S	R-1	43,560	43,922	1	1	250
41-6-32.1T	R-1	43,560	48,153	1	1	250
41-6-40	R-1	43,560	23,083	1	1	250
41-6-40.1	R-1	43,560	43,057	1	1	250
41-6-41	R-1	43,560	47,819	1	1	250
41-6-42.1A	R-1	43,560	40,223	1	1	250
41-6-42.2	R-1	43,560	39,559	1	1	250
41-6-42.3	R-1	43,560	21,471	1	1	250
41-6-42.4	R-1	43,560	48,961	1	1	250
41-6-42.5	R-1	43,560	47,835	1	1	250
41-6J-33	R-2	22,000	20,337	1	1	250
41-6K-100	R-1	43,560	16,792	1	1	250
41-6K-139.2	R-1	43,560	38,438	1	1	250
41-6K-2.1	R-2	22,000	13,970	1	1	250
41-6K-4	R-2	22,000	6,762	1	1	250
41-6K-7	R-1	43,560	45,940	1	1	250
41-6K-74	R-2	22,000	6,077	1	1	250
41-6K-96.2	R-1	43,560	56,234	1	1	250
41-6N-163	R-2	22,000	8,514	1	1	250
41-7-10	R-1	43,560	55,411	1	1	250
41-7-2	R-1	43,560	54,621	1	1	250
41-7-2.3	R-1	43,560	47,924	1	1	250
41-7-2.5	R-1	43,560	53,739	1	1	250
41-7-2.6	R-1	43,560	50,264	1	1	250
41-7-2.8	R-1	43,560	31,706	1	1	250
41-7-4.2	R-1	43,560	49,091	1	1	250
41-8-100	R-1	43,560	22,531	1	1	250
41-8-101	R-1	43,560	42,944	1	1	250
41-8-102	R-1	43,560	36,444	1	1	250
41-8-103	R-1	43,560	17,787	1	1	250
41-8-104	R-1	43,560	18,326	1	1	250
41-8-106.1A	R-1	43,560	43,579	1	1	250

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**West Whiteland Township**  
**Existing Unsewered Residential Properties**

<b>Tax Parcel Number (UPI)</b>	<b>Zoning District</b>	<b>Minimum Lot Size (Square Feet)</b>	<b>Parcel Area (Square Feet)</b>	<b>Maximum Number of Lots</b>	<b>10 Year Service Area Projected EDUs</b>	<b>Flow (GPD)</b>
41-8-106.2	R-1	43,560	38,221	1	1	250
41-8-106.3	R-1	43,560	41,619	1	1	250
41-8-107.2	R-1	43,560	45,911	1	1	250
41-8-108.5	R-1	43,560	54,409	1	1	250
41-8-108.6	R-1	43,560	53,474	1	1	250
41-8-108.7	R-1	43,560	48,546	1	1	250
41-8-108.9A	R-1	43,560	43,602	1	1	250
41-8-110.4	R-1	43,560	55,591	1	1	250
41-8-113	R-1	43,560	6,401	1	1	250
41-8-116	R-1	43,560	30,841	1	1	250
41-8-117.1	R-1	43,560	44,583	1	1	250
41-8-117.4	R-1	43,560	45,441	1	1	250
41-8-120	R-1	43,560	51,736	1	1	250
41-8-122	R-1	43,560	49,399	1	1	250
41-8-123.16	R-1	43,560	43,034	1	1	250
41-8-130.3	R-1	43,560	45,640	1	1	250
41-8-130.4	R-1	43,560	41,880	1	1	250
41-8-132.1	R-1	43,560	38,370	1	1	250
41-8-132.17	R-1	43,560	34,847	1	1	250
41-8-133	R-1	43,560	43,711	1	1	250
41-8-134.1	R-1	43,560	44,574	1	1	250
41-8-135.2	R-1	43,560	55,892	1	1	250
41-8-138	R-1	43,560	19,037	1	1	250
41-8-140	R-1	43,560	50,635	1	1	250
41-8-140.2	R-1	43,560	33,220	1	1	250
41-8-143.3	R-1	43,560	14,081	1	1	250
41-8-145.1	R-1	43,560	51,211	1	1	250
41-8-158.5	R-1	43,560	18,143	1	1	250
41-8-158.6	R-1	43,560	35,710	1	1	250
41-8-158.7	R-1	43,560	42,552	1	1	250
41-8-158.8	R-1	43,560	21,816	1	1	250
41-8-166.1	R-1	43,560	49,285	1	1	250

**Table No. 2**  
**West Whiteland Township**  
**Existing Unsewered Residential Properties**

<b>Tax Parcel Number (UPI)</b>	<b>Zoning District</b>	<b>Minimum Lot Size (Square Feet)</b>	<b>Parcel Area (Square Feet)</b>	<b>Maximum Number of Lots</b>	<b>10 Year Service Area Projected EDUs</b>	<b>Flow (GPD)</b>
41-8-175.1	R-1	43,560	47,695	1	1	250
41-8-175.1A	R-1	43,560	45,134	1	1	250
41-8-175.1B	R-1	43,560	44,728	1	1	250
41-8-181.1B	R-1	43,560	43,805	1	1	250
41-8-19	R-1	43,560	49,563	1	1	250
41-8-20	R-1	43,560	25,873	1	1	250
41-8-21	R-1	43,560	24,630	1	1	250
41-8-27	R-1	43,560	49,951	1	1	250
41-8-29	R-1	43,560	30,993	1	1	250
41-8-53	R-1	43,560	30,313	1	1	250
41-8-54.1	R-1	43,560	47,968	1	1	250
41-8-58	R-1	43,560	54,826	1	1	250
41-8-6	R-1	43,560	24,961	1	1	250
41-8-61	R-1	43,560	52,735	1	1	250
41-8-65	R-1	43,560	37,970	1	1	250
41-8-66	R-1	43,560	32,296	1	1	250
41-8-67	R-1	43,560	24,563	1	1	250
41-8-70	R-1	43,560	36,818	1	1	250
41-8-73	R-1	43,560	39,493	1	1	250
41-8-73.1	R-1	43,560	18,513	1	1	250
41-8-74.1	R-1	43,560	28,736	1	1	250
41-8-74.2	R-1	43,560	22,464	1	1	250
41-8-9	R-1	43,560	21,793	1	1	250
41-8-95.1	R-1	43,560	41,048	1	1	250
41-8-95.2	R-1	43,560	41,905	1	1	250
41-8B-83	R-1	43,560	12,701	1	1	250
41-8D-33	R-2	22,000	22,831	1	1	250
41-8E-88	R-1	43,560	36,745	1	1	250
41-8E-89	R-1	43,560	45,178	1	1	250
41-8F-21.3	R-1	43,560	53,614	1	1	250
41-8F-21.4	R-1	43,560	29,476	1	1	250
41-8F-53	R-1	43,560	49,177	1	1	250

**Table No. 2**  
**West Whiteland Township**  
**Existing Unsewered Residential Properties**

<b>Tax Parcel Number (UPI)</b>	<b>Zoning District</b>	<b>Minimum Lot Size (Square Feet)</b>	<b>Parcel Area (Square Feet)</b>	<b>Maximum Number of Lots</b>	<b>10 Year Service Area Projected EDUs</b>	<b>Flow (GPD)</b>
41-8F-54	R-1	43,560	27,643	1	1	250
41-8F-71	R-1	43,560	31,971	1	1	250
41-8F-72	R-1	43,560	18,380	1	1	250
41-8F-76	R-1	43,560	27,532	1	1	250
41-8-95	R-1	43,560	234,726	4	1	250
41-6-27	R-1	43,560	90,400	1	1	250
<b>Total</b>					<b>442</b>	<b>110,500</b>

**Table No. 3**  
**West Whiteland Township**  
**Undeveloped/Underdeveloped Residential Properties**

<b>Tax Parcel Number (UPI)</b>	<b>Zoning District</b>	<b>Minimum Lot Size (Square Feet)</b>	<b>Parcel Area (Square Feet)</b>	<b>Maximum Number of Lots</b>	<b>10 Year Service Area Projected EDUs</b>	<b>Flow (GPD)</b>
41-2-2	R-1	43,560	143,245	2	2	500
41-2-282	R-1	43,560	181,583	3	1	250
41-2-35	R-3	14,000	66,298	3	3	750
41-2-46	R-1	43,560	104,544	1	1	250
41-2-46.3	R-2	22,000	182,078	6	1	250
41-2-83	R-1	43,560	134,174	2	2	500
41-4-2.8	R-1	43,560	120,167	2	1	250
41-4-27	R-3	14,000	264,371	14	14	3500
41-4-35.2	R-1	43,560	340,380	6	1	250
41-4-59	R-1	43,560	257,304	4	4	1000
41-4-6	R-1	43,560	94,802	1	1	250
41-4-9	R-1	43,560	116,243	2	1	250
41-4D-6	R-2	22,000	47,739	1	1	250
41-5-104.2	R-1	43,560	572,914	10	4	1000
41-5-157.1	R-3	14,000	72,556	4	2	500
41-5-199	R-1	43,560	136,625	2	2	500
41-5-207	R-1	43,560	170,838	3	1	250
41-5-246	R-1	43,560	182,275	3	1	250
41-5-7	R-3	14,000	41,566	2	1	250
41-5-91	R-1	43,560	220,792	3	1	250
41-5C-1	R-3	14,000	38,115	2	1	250
41-5G-107	R-1	43,560	6,250	0	1	250
41-5G-111	R-4	5,000	18,979	2	1	250
41-5G-19	R-4	5,000	11,473	1	1	250
41-5G-27	R-4	5,000	17,435	2	1	250
41-5G-32	R-4	5,000	12,788	2	2	500
41-5G-35	R-4	5,000	19,430	3	1	250
41-5G-36	R-4	5,000	12,385	2	1	250

**Table No. 3**  
**West Whiteland Township**  
**Undeveloped/Underdeveloped Residential Properties**

<b>Tax Parcel Number (UPI)</b>	<b>Zoning District</b>	<b>Minimum Lot Size (Square Feet)</b>	<b>Parcel Area (Square Feet)</b>	<b>Maximum Number of Lots</b>	<b>10 Year Service Area Projected EDUs</b>	<b>Flow (GPD)</b>
41-5G-37	R-4	5,000	12,408	2	1	250
41-5G-47	R-4	5,000	12,626	2	1	250
41-5G-73	R-4	5,000	16,373	2	1	250
41-5G-9.1	R-4	5,000	19,406	3	2	500
41-6-17	R-1	43,560	617,780	10	10	2500
41-6-63	R-2	22,000	82,267	2	1	250
41-6-88.1	R-1	43,560	715,550	12	11	2750
41-7-6	R-1	43,560	173,946	3	1	250
41-8-167	R-1	43,560	96,012	1	2	500
41-8-18.2	R-1	43,560	160,722	2	4	1000
41-8-182	R-2	22,000	106,549	3	1	250
41-8-57	R-1	43,560	258,648	4	1	250
41-8-57.1	R-1	43,560	112,312	2	2	500
<b>Total</b>					<b>92</b>	<b>23,000</b>



**Table No. 4**  
**West Whiteland Township**  
**Non-Residential Property Flow Projections**

<b>Property</b>	<b>Lot Area<sup>1</sup> (Acres)</b>	<b>Net Lot Area<sup>2</sup> (Acres)</b>	<b>Projected Flow (GPD)<sup>3</sup></b>
Valley Creek Corporate Center Parcel "C"	22.30	16.73	16,056
Johnson & Matthey	15.70	11.78	11,304
Whiteland Holdings	24.90	18.68	17,928
645 Clover Mill Road	17.80	13.35	12,816
BT Exton	6.09	4.57	4,385
360 E. Clover Mill Road	11.90	8.93	8,568
<b>Total Projected Flow</b>			<b>71,057</b>

Notes:

- 1) Data from CHESCOViews.
- 2) Lot area reduced by 25%.
- 3) Based on 960 GPD per acre.

**Table No. 5**  
**West Whiteland Township**  
**Summary of Projected Flow**

<b>Flow Category</b>	<b>Flow (GPD)</b>
Existing DARA Flow (2022 Chapter 94 Report)	1,454,574
Significant Projects	237,162
Properties Using On-Lot Disposal Systems	110,500
Undeveloped/Underdeveloped Properties	23,000
Non-Residential Properties	71,057
<b>Total Projected Flow</b>	<b>1,896,293</b>

**Table No. 6**  
West Whiteland Township  
**Summary of Projected Flow**

Section	Policy	Consistent		Comments
		Yes	No	
72.21(a)(5)(i)(A)	Comprehensive Water Quality Management Plans	X		The selected alternatives meets the regional goals of COWAMP/208.
72.21(a)(5)(i)(B)	Municipal Wasteload Management	X		The selected alternatives meets the future capacity needs of the Township.
72.21(a)(5)(i)(C)	Clean Water Act Title II, Water Quality Act Titles II & IV	X		The selected alternatives are already implemented and are consistent with the policy.
72.21(a)(5)(i)(D)	Municipal Comprehensive Plans	X		The selected alternatives conform to the goals of the Township Comprehensive Plan.
72.21(a)(5)(i)(D)	Chester County Comprehensive Plan	X		The selected alternatives are consistent. Future projects will be addressed on a case-by-case basis.
72.21(a)(5)(i)(E)	Anti-degradation, Chapters 93, 95 & 102	X		The selected alternatives are already implemented and are consistent with the stream discharge requirements. Erosion and Sedimentation Pollution Control Approval will be handled on a case-by-case basis for future projects.
72.21(a)(5)(i)(F)	State Water Plan	X		The selected alternatives are already implemented and are consistent with the policy.
72.21(a)(5)(i)(G)	Prime Agricultural Lands	X		The DARA drainage area is almost completely developed. Evaluation of any remaining agricultural areas will be via individual planning modules prepared for future development projects.
72.21(a)(5)(i)(H)	Stormwater Management Plans	X		The selected alternatives include measures to comply with the stormwater management requirements in West Whiteland Township's Sub-division and Land Development Ordinance. Future projects will be reviewed on a case-by-case basis to receive Final Land Development Plan approval from West Whiteland Township.

**Table No. 6**  
**West Whiteland Township**  
**Summary of Projected Flow**

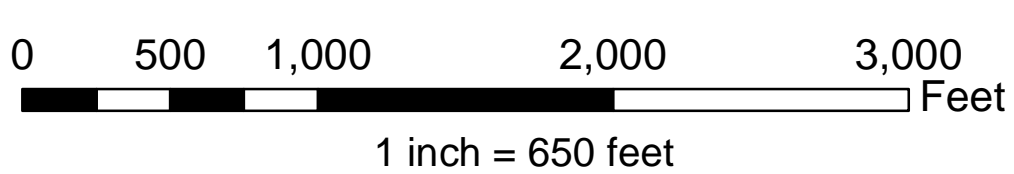
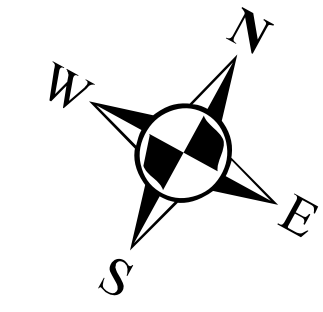
Section	Policy	Consistent		Comments
		Yes	No	
72.21(a)(5)(i)(I)	Wetland Projection	X		The selected alternatives comply with wetland protection requirements in West Whiteland Township's Sub-division and Land Development Ordinance. Future projects will be reviewed on a case-by-case basis to receive Final Land Development Plan approval from West Whiteland Township.
72.21(a)(5)(i)(J)	PNDI	X		The selected alternatives are already implemented. Future projects will be addressed on a case-by-case basis for PNDI reviews.
72.21(a)(5)(i)(K)	Historical & Museums, Cooperation by Public Officials	X		The selected alternatives are consistent. Future projects will be addressed on a case-by-case basis.

## **APPENDICES**

## **FIGURES**

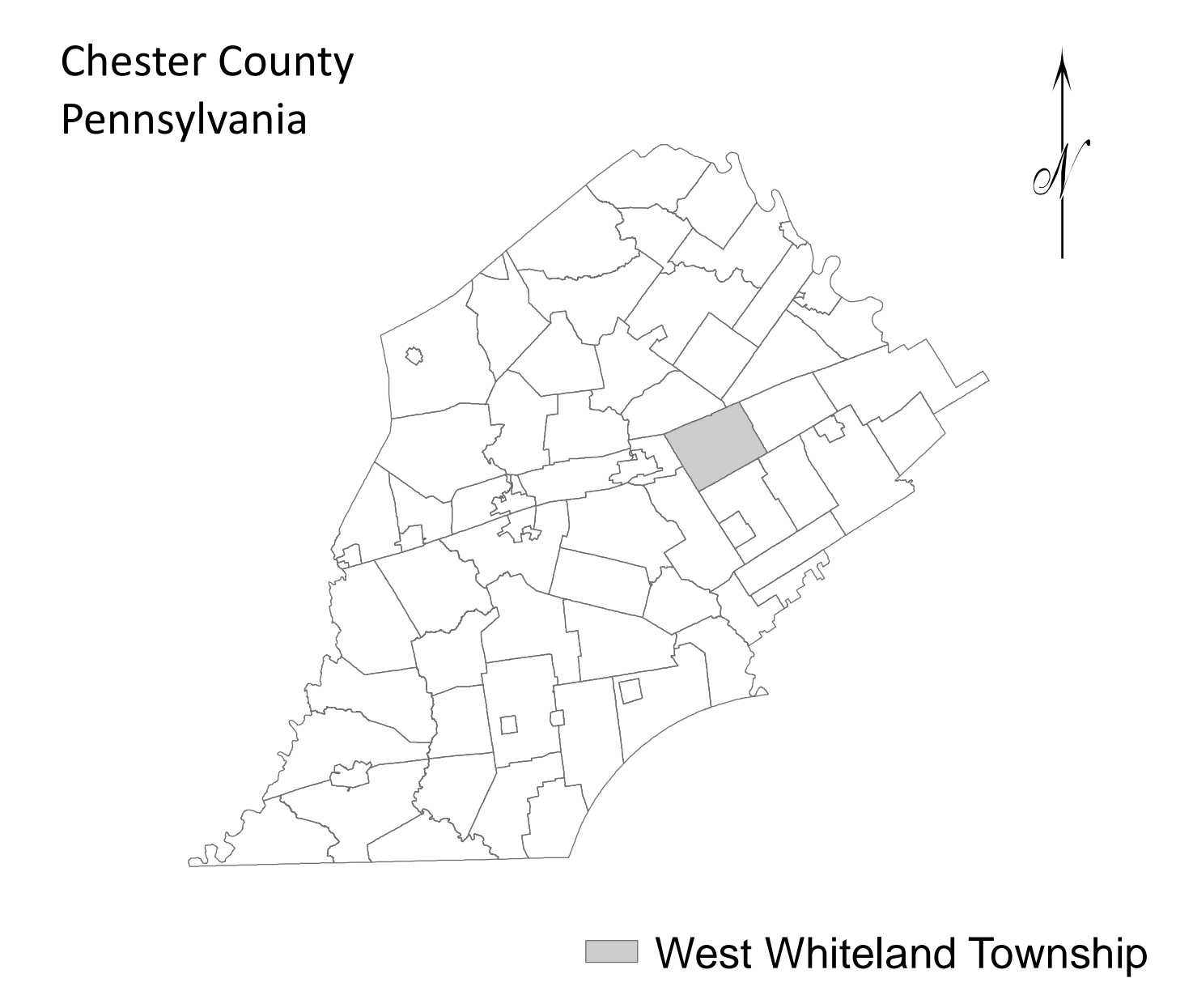
**DOWNINGTOWN AREA REGIONAL AUTHORITY  
SERVICE AREA  
SPECIAL STUDY  
GENERAL FEATURES**

**Carroll Engineering Corporation**  
 Phone: (215)-343-5700 | Website: www.carrolleengineering.com  
 Project Numbers: 208902 | May 31, 2023

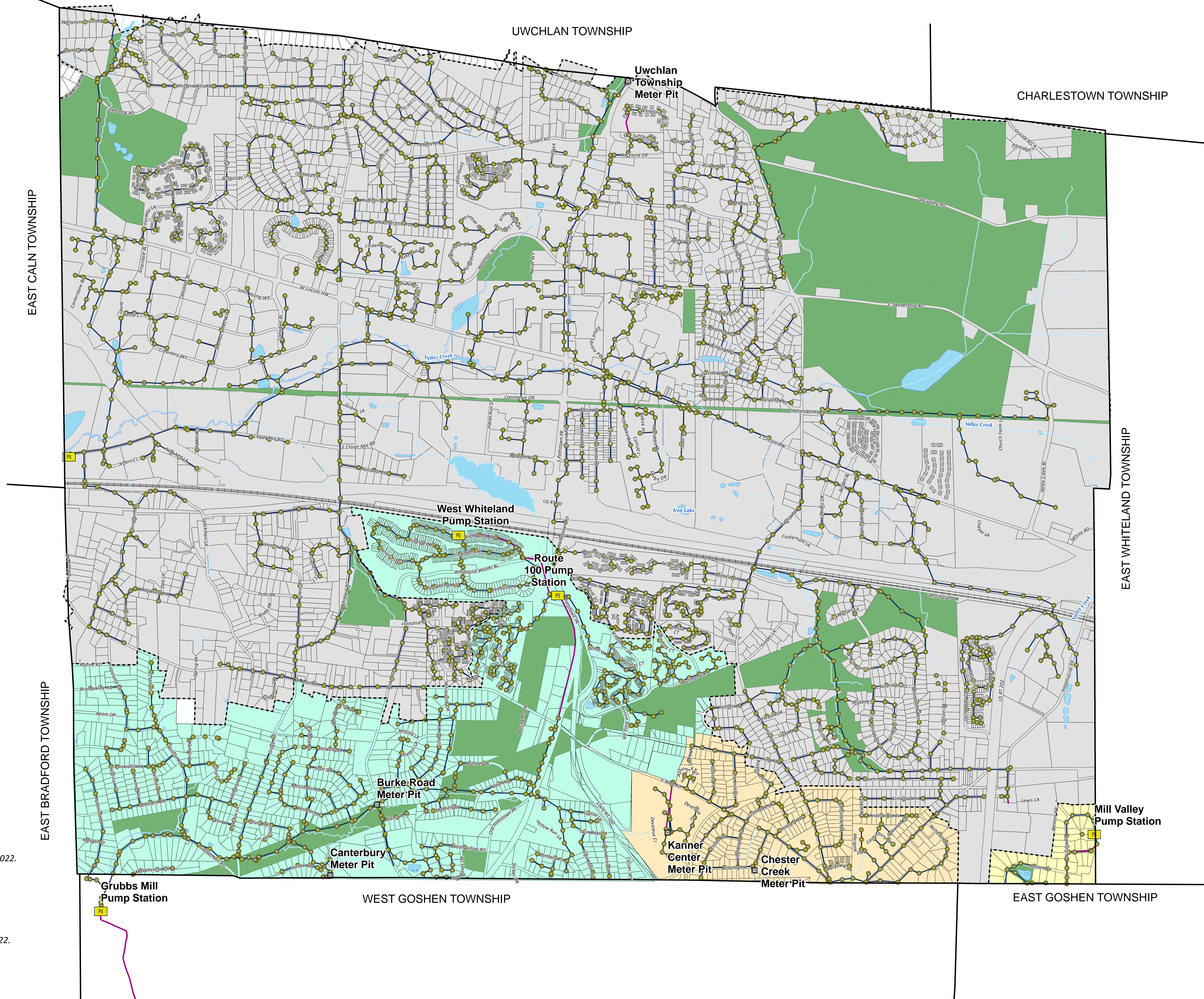


**FIGURE 1**

- Legend**
- Township Boundary
  - DARA Service Area Boundary
  - Township Pump Station
  - Meter Pit
  - Manhole
  - Sanitary Force Main
  - Sanitary Main
  - Streams
  - Lakes & Ponds
  - Railroad (SEPTA & Amtrak)
  - Parks
  - Parcels
  - DARA Drainage Area
  - Mill Valley to East Goshen Drainage Area
  - Chester Creek to West Goshen Drainage Area
  - Grubbs Mill to West Goshen Drainage Area



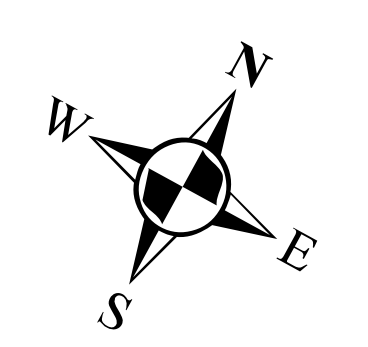
- Sources**
- Municipal Boundary Dataset: Chester County GIS, 2022.
  - DARA Service Area Boundary Dataset: West Whiteland Township, 2022.
  - Parcel Dataset: Chester County GIS, July 11, 2022
  - Pump Station Dataset: West Whiteland Township, 2022.
  - Sewer Main Datasets: West Whiteland Township, 2022.
  - Manhole Dataset: West Whiteland Township, 2022.
  - School Dataset: PASDA, 2013.
  - Place of Worship Dataset: Chester County GIS, 2022.
  - Parks Dataset: Chester County GIS & West Whiteland Township, 2022.
  - Drainage Area Dataset: West Whiteland Township, 2022.
  - Hydric Datasets: Chester County GIS, 2022.
  - Railroad Datasets: Chester County GIS, 2022.
  - Road Dataset: Chester County GIS, 2022.



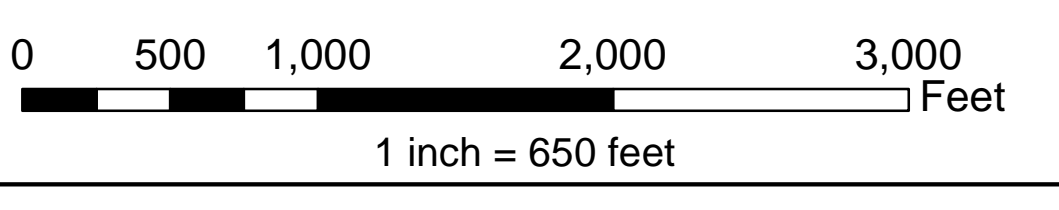
**DOWNTOWN AREA REGIONAL AUTHORITY  
SERVICE AREA  
SPECIAL STUDY  
NATURAL FEATURES**

WEST WHITELAND TOWNSHIP, PENNSYLVANIA

**Carroll Engineering Corporation**



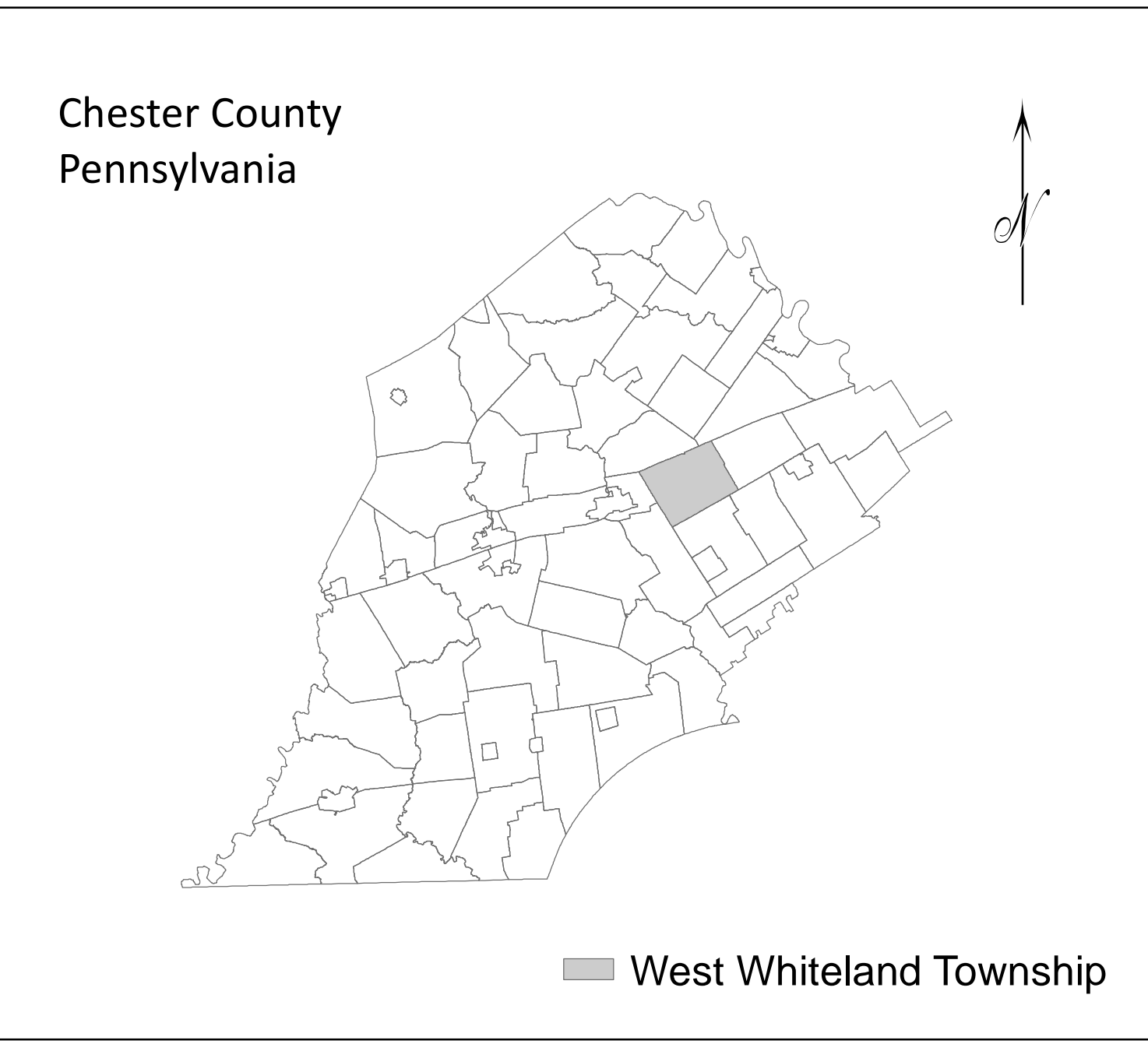
Phone: (215)-343-5700 | Website: www.carrolleengineering.com  
Project Numbers: 208902 | May 30, 2023



**FIGURE 2**

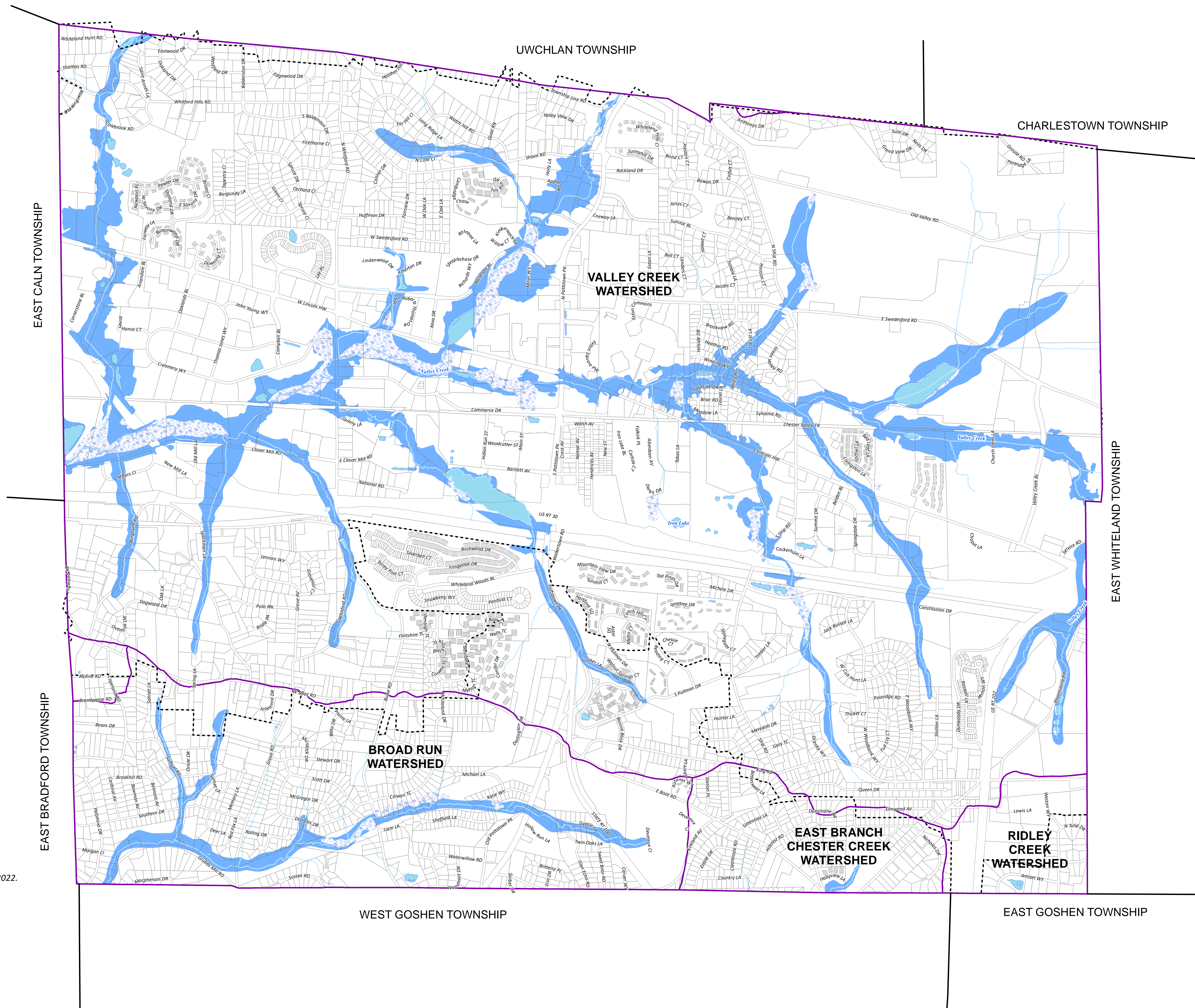
**Legend**

- Watershed Delineation
- DARA Service Area Boundary
- Parcels
- Streams
- Lakes & Ponds
- Wetlands
- Floodplains



**Sources**

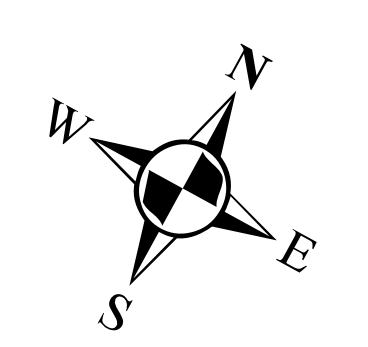
Municipal Boundary Dataset: Chester County GIS, 2022.  
DARA Service Area Boundary Dataset: West Whiteland Township, 2022.  
Parcel Dataset: Chester County GIS, July 11, 2022  
Hydric Datasets: Chester County GIS, 2022.  
Road Dataset: Chester County GIS, 2022.  
Floodplain Dataset: FEMA, 2022.



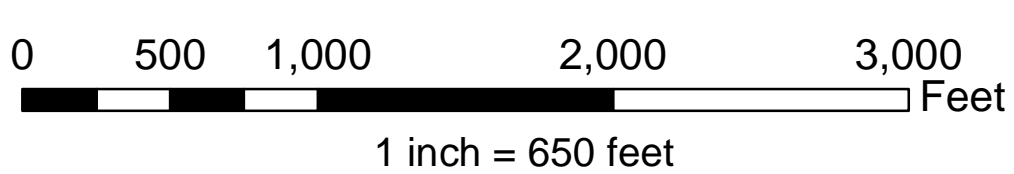


**DOWNTOWN AREA REGIONAL AUTHORITY  
SERVICE AREA  
SPECIAL STUDY  
SEWER FACILITIES**  
WEST WHITELAND TOWNSHIP, PENNSYLVANIA

**Carroll Engineering Corporation**



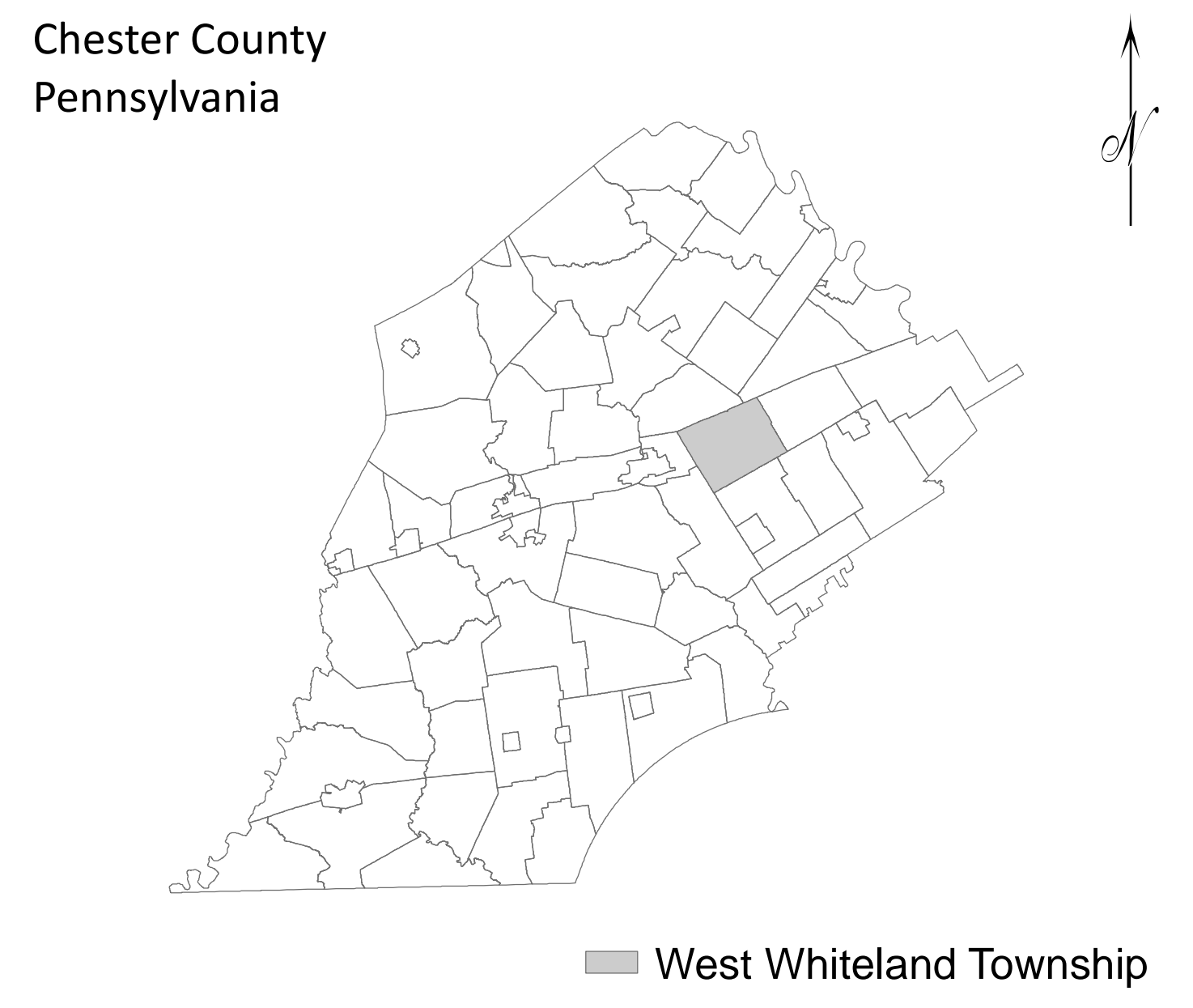
Phone: (215)-343-5700 | Website: www.carrollengineering.com  
Project Numbers: 208902 | May 31, 2023



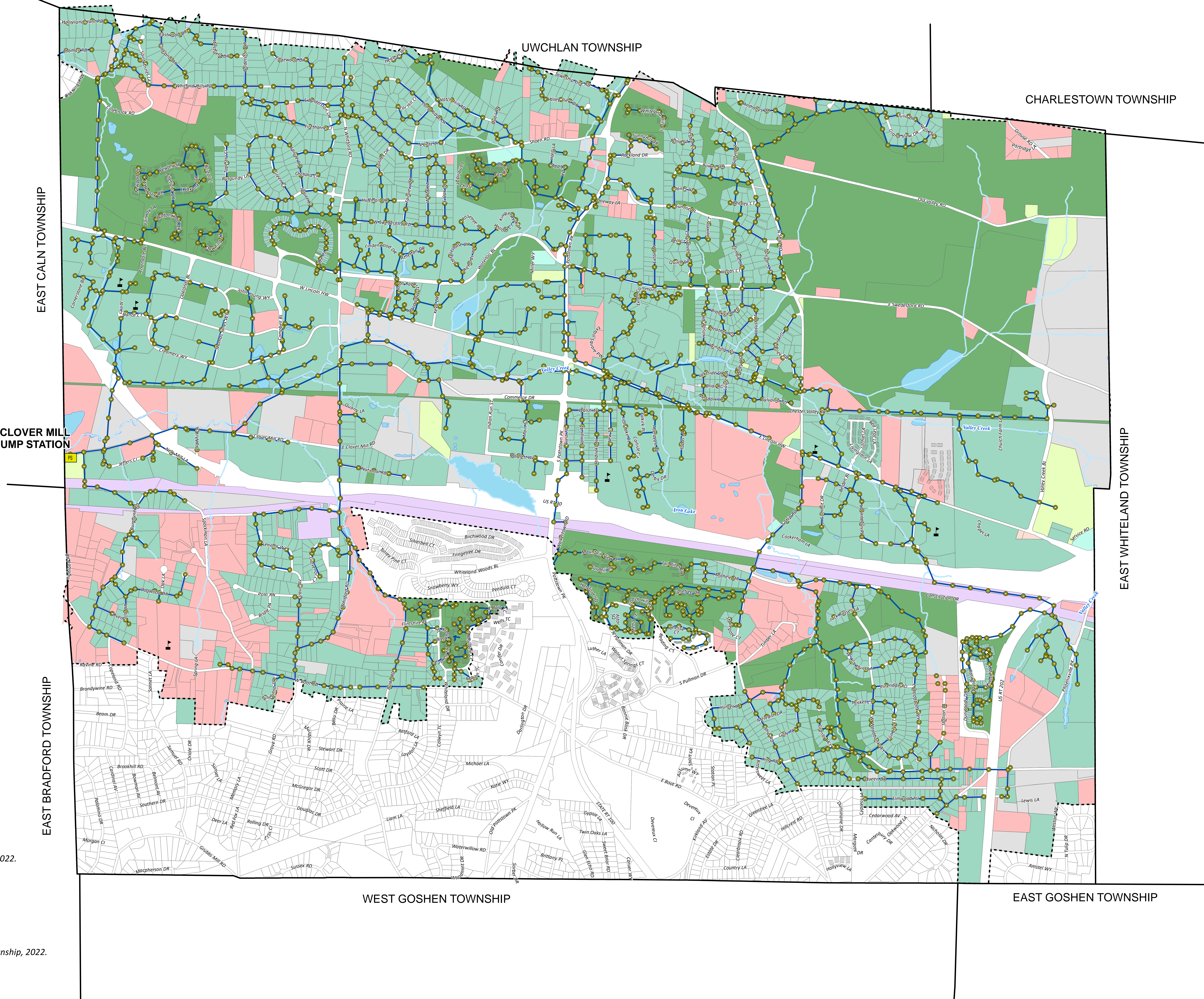
**FIGURE 3**

**Legend**

	Township Boundary		Parks, Open Space & HOA
	Township PS		Vacant
	Manhole		Restricted Land
	Sanitary Main		Land Not Developing
	DARA Service Area Boundary		Transportation
	Streams		Institutional
	School		Utilities
	Lakes & Ponds		Publicly-Owned Parcel
	Sewered Parcels		Parcels
	Sewered Parcel in Adjacent Municipality		Unsewered Parcels

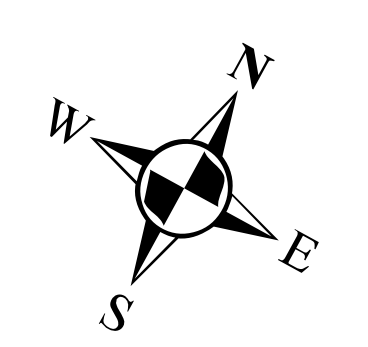


- Sources**
- Municipal Boundary Dataset: Chester County GIS, 2022.
  - DARA Service Area Boundary Dataset: West Whiteland Township, 2022.
  - Parcel Dataset: Chester County GIS, July 11, 2022
  - Sewer Main Datasets: West Whiteland Township, 2022.
  - Manhole Dataset: West Whiteland Township, 2022.
  - School Dataset: PASDA, 2013.
  - Hydric Datasets: Chester County GIS, 2022.
  - Road Dataset: Chester County GIS, 2022.
  - Vacant Parcel Dataset: Carroll Engineering, 2022.
  - Sewered Areas Dataset: Carroll Engineering & West Whiteland Township, 2022.
  - Parks & Open Space Dataset: Chester County GIS, 2022.
  - Restricted Land Dataset: Carroll Engineering, 2022.

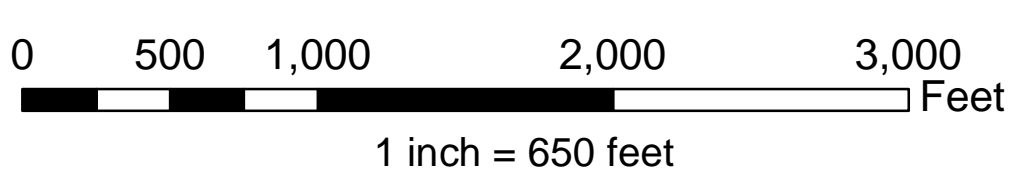


**DOWNTOWN AREA REGIONAL AUTHORITY  
SERVICE AREA  
SPECIAL STUDY  
ZONING & LAND USE**  
WEST WHITELAND TOWNSHIP, PENNSYLVANIA

**Carroll Engineering Corporation**



Phone: (215)-343-5700 | Website: www.carrollengineering.com  
Project Numbers: 208902 | May 31, 2023

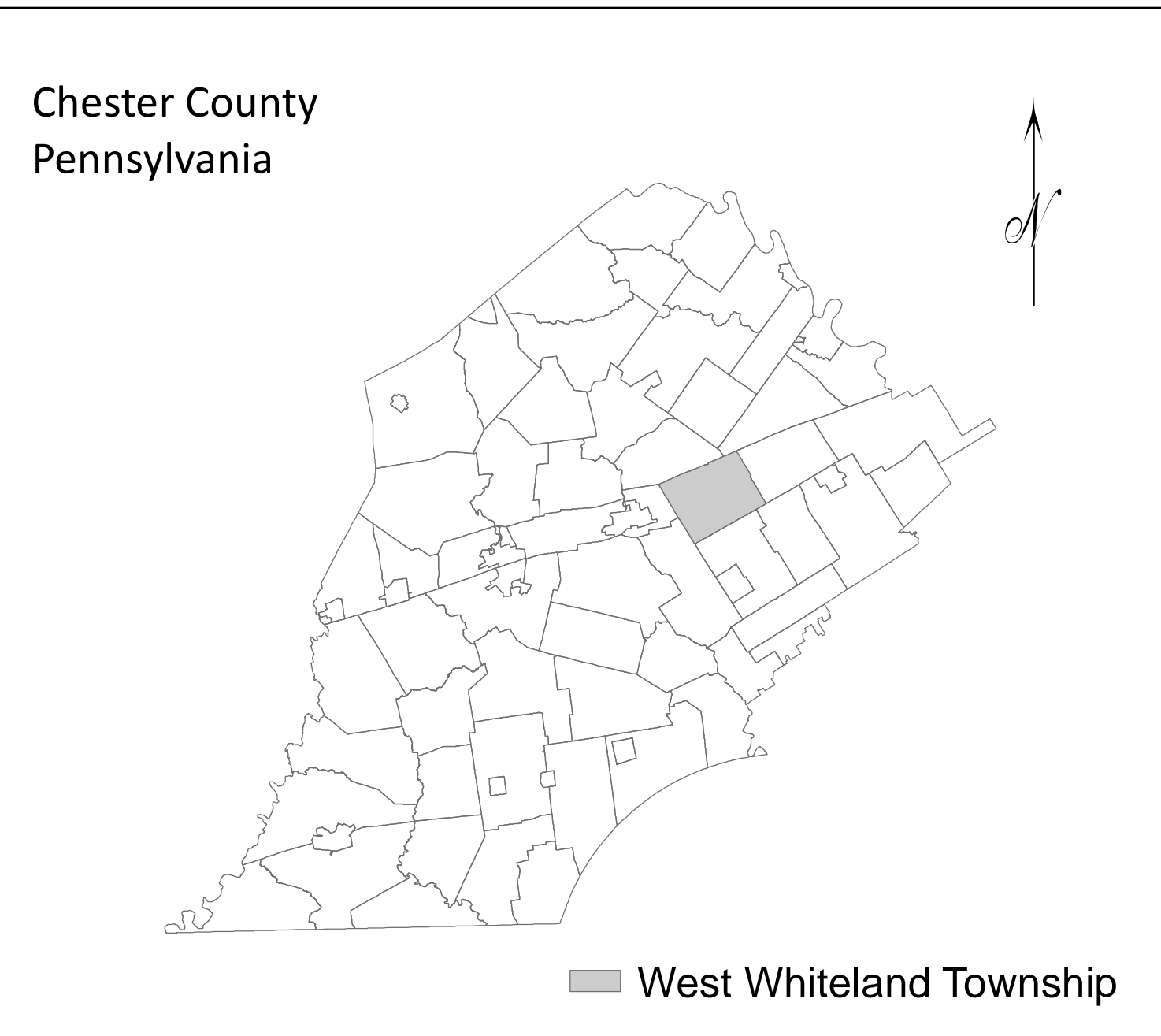


**FIGURE 4**

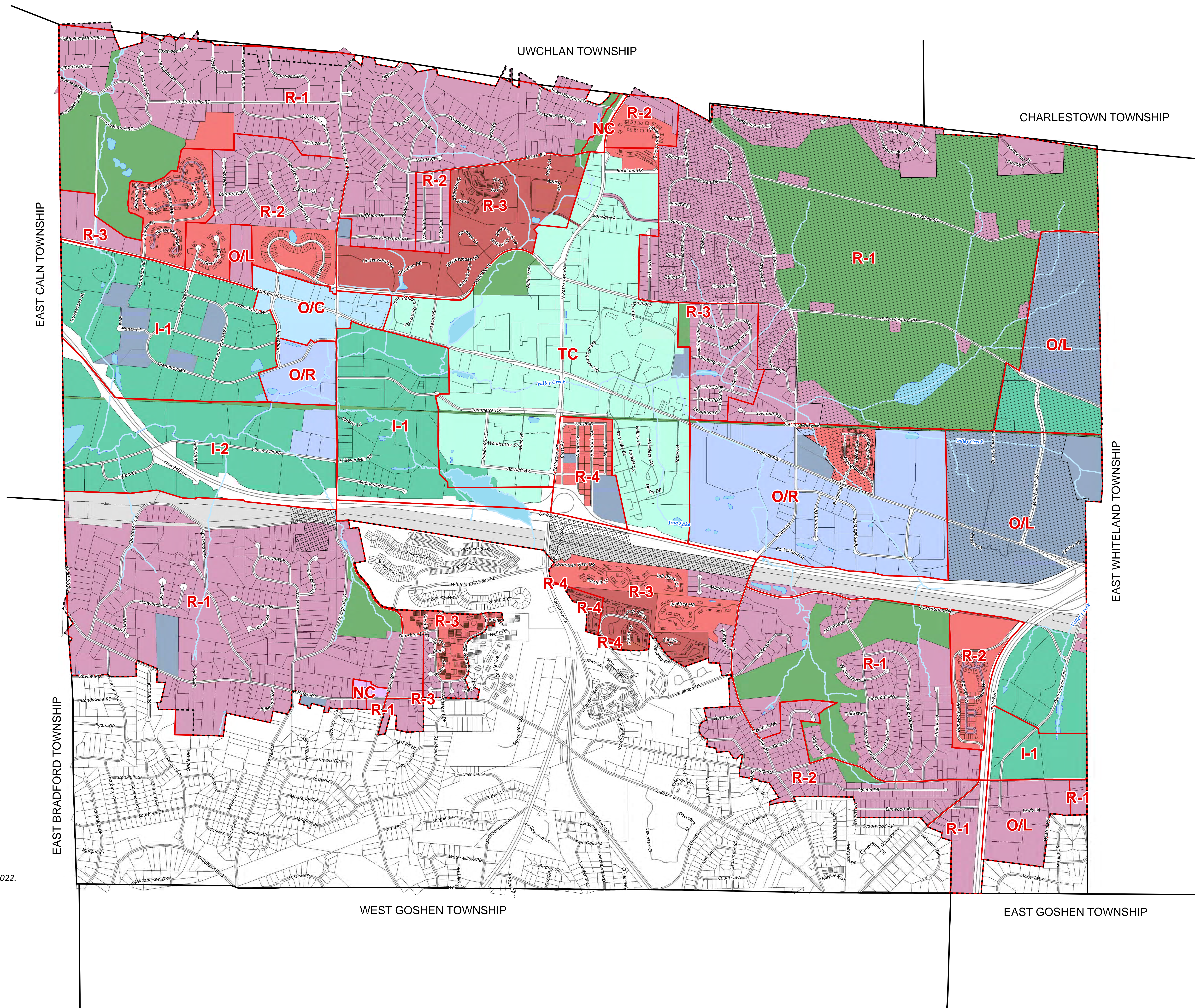
Legend	
	DARA Service Area Boundary
	Zoning Boundaries
	Rail Transit Overlay District
	Unified Development Area
	Township Boundary
	Streams
	Lakes & Ponds
	Roads
	High Density Residential
	Medium Density Residential
	Low Density Residential
	Office Residential
	Office Commercial Retail
	Neighborhood Commercial
	Town Center Mixed Use
	Industrial & Business Park
	Institutional
	Transportation
	Open Space & Recreation

Zoning Codes	
I-1	Limited Industrial District
I-2	General Industrial District
IN	Institutional District
NC	Neighborhood Commercial District
O/L	Office/Laboratory District
O/R	Office/Residential District
O/C	Office/Commercial District
R-1	Low Density Residential District
R-2	Moderate Density Residential District
R-3	Moderate to Higher Density Residential District
R-4	Manufactured Home Park Residential District
TC	Town Center Mixed Use



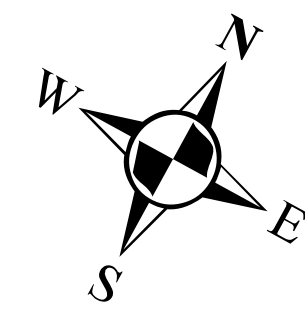
**Sources**  
Municipal Boundary Dataset: Chester County GIS, 2022.  
DARA Service Area Boundary Dataset: West Whiteland Township, 2022.  
Parcel Dataset: Chester County GIS, July 11, 2022  
Hydric Datasets: Chester County GIS, 2022.  
Zoning Dataset: West Whiteland Township, 2022.  
Future Land Use Dataset: West Whiteland Township, 2022.  
Road Dataset: Chester County GIS, 2022.



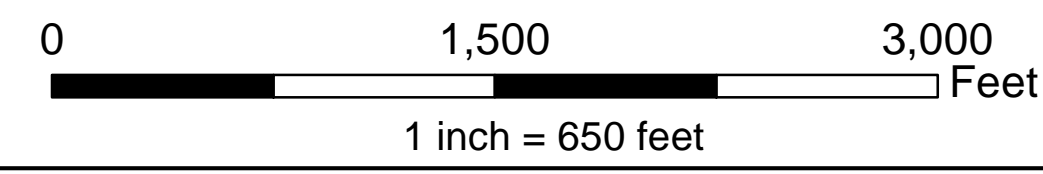
DOWNINGTOWN AREA REGIONAL AUTHORITY  
SERVICE AREA  
SPECIAL STUDY  
**PROJECTED DEVELOPMENT**  
WEST WHITELAND TOWNSHIP, PENNSYLVANIA

Carroll Engineering Corporation

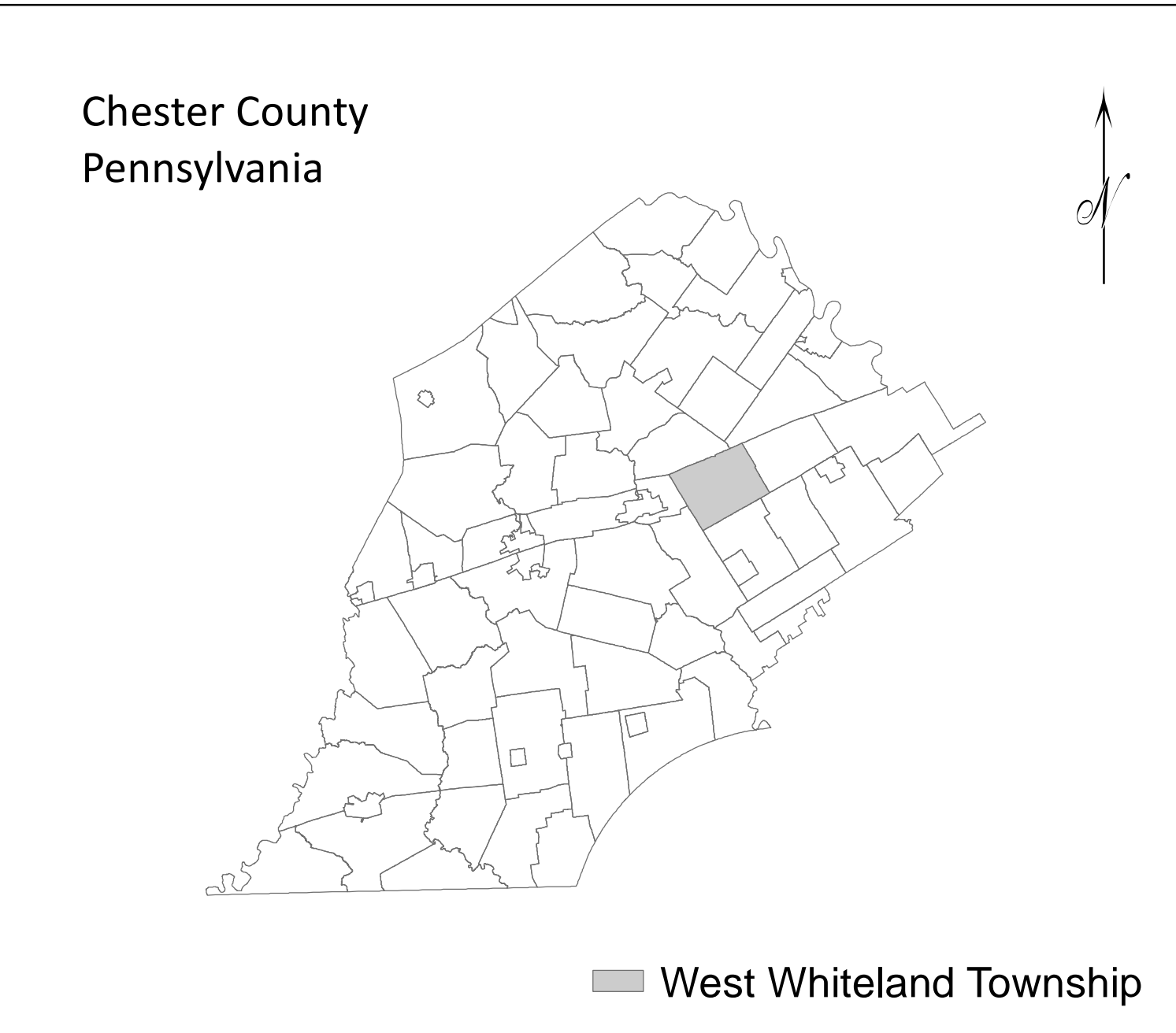
Phone: (215) 343-5700 | Website: www.carrolleengineering.com  
Project Numbers: 208902 | July 25, 2023



**FIGURE 5**



- Legend**
- School
  - Unserved Parcels
  - Parcels
  - Restricted Land
  - HOA
  - Institutional
  - Publicly-Owned Parcel
  - Transportation
  - Utilities
  - Parks & Open Space
  - Township Boundary
  - DARA Service Area Boundary
  - Streams
  - Lakes & Ponds
  - Zoning Boundaries
  - Building Footprint
  - Non-Residential Parcels to be developed
  - Residential Parcels to be developed
  - Parks



- Sources**
- Municipal Boundary Dataset: Chester County GIS, 2022.
  - DARA Service Area Boundary Dataset: West Whiteland Township, 2022.
  - Parcel Dataset: Chester County GIS, July 11, 2022
  - Hydric Datasets: Chester County GIS, 2022.
  - Zoning Dataset: West Whiteland Township, 2022.
  - Building Footprint Dataset: West Whiteland Township, 2022.
  - Road Dataset: Chester County GIS, 2022.
  - Projected Development Dataset: CEC, 2002.

