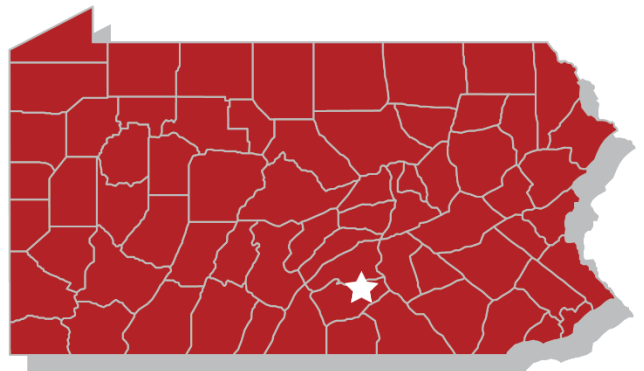

ENVIRONMENTAL IMPACT ASSESSMENT

MAY 2026

PENNSYLVANIA DIGITAL 1 (PAX-1) CARLISLE DEVELOPMENT PARTNERS, LLC

PROJECT NO. 1258-01



Section 718.D.10 –Utility Needs

Exhibit 1 – MTMA Water Supply Capacity Request
Exhibit 2 – MTMA Wastewater Supply Capacity Request
Exhibit 3 – Water Balance Diagram
Exhibit 4 – Project Water Overview
Exhibit 5 – PPL Service Availability Letter
Exhibit 6 – Electric Rate White Paper



Utility Needs Assessment

The proposed Pennsylvania Digital 1 development will require a full range of modern utility services to support the intended use and ensure reliable operations for the large-scale data center campus. This includes potable water supply, sanitary sewage disposal, refuse disposal, storm drainage and stormwater management, electrical transmission and distribution, and advanced communications infrastructure.

The project obtained approved allocation of 400,000 gpd water and 273,000 gpd sewer from Middlesex Township Municipal Authority to serve the project on January 15, 2026 during Middlesex Township Authority meeting. These allocations would both be provided through public water and sewer mains with necessary upgrades as final design requires. On-site in-bound and out-bound cooling water will be attenuated for peak usage and flow rates through on-site water storage tanks. The final engineering and volumes of these systems will occur once end user requirements and technologies are better defined. Exhibits 1, 2, 3 & 4 have been added to this section to provide clarity on the current water and sewer approach and preliminary design being worked on by the engineering teams.

Water Supply

Public water is intended to be provided to the project by the Middlesex Township Municipal Authority. The existing public water system is sourced from high-capacity community wells, which may require expansion to accommodate the project's long-term demands. To address both the project's operational needs and the broader community's water needs, the project team is engaged with Middlesex Township Municipal Authority to assist in strengthening the authority's infrastructure and water supply. The initial campus development will be designed based on the available amount of water allocated by the Middlesex Township Municipal Authority to this project. Proposing water supply tanks on each campus will allow the datacenter to better utilize its existing water allocation by storing capacity in advance and buffering against weather-driven spikes in cooling demand. Based on this available supply, the cooling technologies, water storage systems and pipeline infrastructure will be engineering accordingly to ensure compatibility with the overall community water supply.

Planning and design of these systems is on-going and specific design parameters and plans related to each phase of the project will be presented as part of permitting and review of each campus. Phase 1A does not include any buildings or the need for water service at this time. Campus 1,2 & 3 water planning will be provided as part of Final Land Development review and approval for each respective phase.

Sanitary Sewer

Sanitary sewage is anticipated to be directed to the public sewer system and treated at the regional wastewater treatment facility. Coordination with the Middlesex Authority will ensure that any required pump station, force main, or line extensions are designed to meet both current and future load demands without impacting existing service customers.



Planning and design of these systems is on-going and specific design parameters and plans related to each phase of the project will be presented as part of permitting and review of each campus. Phase 1A does not include any buildings or the needs for sewer service at this time. Campus 1,2 & 3 water planning will be provided as part of Final Land Development review and approval for each respective phase.

Refuse Disposal

Solid waste generated during both construction and operations will be managed through contracted waste disposal services. Recyclable materials will be separated where feasible to reduce landfill usage. Specialized disposal protocols will be implemented for any electronic or industrial waste to meet applicable environmental and regulatory standards.

Storm Drainage and Stormwater Management

Stormwater will be managed in accordance with Pennsylvania Department of Environmental Protection (PADEP) regulations and the township's stormwater management ordinance. The project design incorporates detention and retention basins, vegetated swales, and other best management practices (BMPs) to control runoff quantity, improve water quality, and protect downstream hydrological systems. Stormwater infrastructure will be installed in phases to align with site development, ensuring compliance with required discharge rates and water quality criteria at all times.

Electrical Transmission

Electrical service will be provided by high-voltage transmission infrastructure connecting the campus to the regional power grid. Dedicated substations will be graded in early phases but constructed as needed to match facility buildout. Redundant feeds and distribution networks will ensure uninterrupted operations. Coordination with the electric utility provider will ensure all system upgrades meet the operational demands of a hyperscale data center campus. PPL will also be enhancing the local electrical distribution network with a new 3-phase power line along Country Club Road. This line will relocate the existing power pole line further away from the edge of the road to improve safety of motorists. A letter from PPL confirming service and outlining upgrade requirements is included in this section as Exhibit 5. Additionally, to address concerns regarding electrical rates and large load users, a study by Energy and Environmental Economics is provided as Exhibit 6.

Communications

The development will incorporate diverse, high-capacity fiber optic connections with multiple service providers to ensure redundancy and ultra-low latency. These providers will build new networks to the site over multiple pathways which will provide network reliability and access to other businesses and homes locally. Conduits for



future telecommunications capacity will be installed where applicable during initial utility work to avoid future disruption.

November 17, 2025

To: Middlesex Township

From: Carlisle Development Partner

MTMA Supply / Project Bolt Capacity Request

Introduction

Hazen and Sawyer (Hazen) a nationally recognized engineering firm specializing in municipal water and wastewater systems has been contracted by the development team to work closely with the municipal authority to evaluate alternatives for water supply and wastewater discharge for the Project Bolt Data Center Development site (the Project) in Middlesex Township, PA and, ultimately, define a comprehensive water-wastewater strategy to serve the project in harmony with the local municipal authority and community needs. The project's water supply will be used primarily for HVAC cooling of hyperscale data center operations, with the highest demand occurring during warmer months of the year when cooling requirements are greatest.

While the Middlesex Township Municipal Authority (MTMA) has an existing water system that is anticipated to serve the project, early evaluations suggest that the project's total needs may be greater than what the existing system can currently provide. To address this, the project will be designed to operate responsibly within the allocation made available by MTMA, supported by on-site storage, engineering, and equipment designed to reduce and balance overall demand. In addition, the Project Bolt team is partnering with MTMA and the township funding evaluations and potential system improvements. This includes exploring opportunities such as storage and supply expansion that will benefit both the project and the broader community into the future.

This memorandum shares the information currently available with the intent of promoting transparency and opening communication. Certain aspects of the project remain in development and may be refined as project planning progresses. The information presented here will be updated accordingly as more details are confirmed. This memo focuses solely on water supply to support an initial water reservation request from MTMA.

Water Capacity Request

The Project Bolt team respectfully requests MTMA reserve 0.4MGD for this project no later than June 2027. This requested demand aligns with anticipated available supply, and accounts for current and projected community needs. The first operational buildings of the project are not expected until June 2027, which aligns with the anticipated start-up date of Well 2.

The Project Bolt team is committed to a long-term partnership with MTMA, ultimately enhancing system resilience and capacity

Background

Project Bolt is located on Country Club Road in Middlesex Township, PA, along the Conodoguinet Creek. The property includes an existing 12-inch MTMA water main and direct access to the local public water supply, providing a foundation for coordinated planning with the municipal system. Key stakeholders relevant to water supply and resource management include:

- **Middlesex Township Municipal Authority (MTMA)** – Operator of the municipal water system serving the project site
- **South Middleton Township** – Neighboring municipality that supplies water to MTMA
- **Susquehanna River Basin Commission (SRBC)** – Interstate agency responsible for regional water resource management
- **Pennsylvania Department of Environmental Protection (PA DEP)** – State environmental agency responsible for water resource regulation not otherwise delegated to local or regional entities

Note: The project will require management of both domestic and cooling wastewater discharge. Because the purpose of this letter is to summarize water supply considerations, information regarding wastewater management has not been included in this letter.

Existing Municipal Water System

Supply

MTMA currently sources all water in their distribution system via a single water well (Well 1) and cross connection from the neighboring community of South Middleton. Well 1 has a permitted capacity of 1,000 gallons per minute (GPM) or 1.44 million gallons per day (MGD), but is frequently limited to 700 GPM, or 1 MGD, due to turbidity concerns. A second well (Well 2) currently in development by MTMA would provide additional flow that, when combined with Well 1, would meet the permitted capacity (1.44 MGD) without inducing turbidity issues. Well 2 has been drilled, designed, and tested fully independent of the Project. A final permit application submission is expected shortly to the SRBC for final approval in spring 2026.

Review of water samples and MTMA test results demonstrates that groundwater quality generally meets drinking water standards and does not require treatment other than disinfection via chlorination. Water is distributed throughout the system area with booster pumps and a 1.44-million-gallon (MG) storage tank. MTMA's connection with the neighboring utility of South Middleton can supply MTMA with an additional 1.5 MGD, which, when combined with the 1.44MGD capacity of Well 1 provides a total permitted supply capacity of 2.94 MGD. Supply of North Middleton via the MTMA system requires that of the 2.94 MGD capable, 1.0 MGD is set aside for North Middleton, reducing the available MTMA

supply from 2.94 MGD to 1.94 MGD. On average, MTMA's current Middlesex customers use a peak amount of 0.941 MGD resulting in 0.999 MGD of available supply.

MTMA also has an agreement and connection with PA American to supply additional water to the system in the event of an emergency. See Tables 1 and 2 for an outline of existing, proposed, and future of the MTMA system and current system planning options.

Table 1: Existing/Planned MTMA Water Supply

	MTMA	South Middleton	Total
Permitted Water Supply (Well 1) (MGD)	1.44	1.50	2.50
Actual Well 1 Supply (Limited by Turbidity) (MGD)	1.00		2.50
Permitted Water Supply w/ Well 2 (MGD)	1.44		2.94
Total Available Water Supply		2.94 MGD	

Table 2: MTMA Water Allocation Demands

	Allocation Demands	Total
Total Available Water Supply (MGD)	2.94	
Peak Middlesex Demand (MGD)	0.941	2.00
North Middleton Township Allocation (MGD)	1.0	1.00
Future Municipality Development Demand (MGD)	0.100	0.900
Well 1 Supply Uncertainty (MGD)	0.500	0.400
Total Available Water Supply		0.400 MGD

Storage

MTMA operates a 1.44-million-gallon (MG) storage tank located on the northwest corner of the Interstate 81 and Harrisburg Pike interchange adjacent to Country Club Road and approximately 0.6 miles from the Project. This existing water storage tank is a glass lined bolted steel tank that can be expanded vertically providing an additional 350,000 gallons, resulting in a total expanded capacity of 1.79 MG. Additionally, MTMA has space adjacent to their existing water storage tank and pump station for another equally sized storage tank of 1.79 MG. It is anticipated that MTMA could expand and build out the existing water storage system on MTMA property obtaining a maximum total storage capacity of 3.58 MG.

Table 3: Summary of Existing and Future Water Storage Capacity

	MTMA
Tank 1 (Existing)	1.44 MG
Tank 1 Expansion (Future)	0.35 MG
Tank 2 (Future)	1.79 MG
Total Storage Potential	3.58 MG

Project Water Management Approach

The Project Bolt water system will be engineered to meet operations utilizing the requested MTMA water supply allocation of 0.4 MGD by optimizing water cooling technologies to reduce demand and incorporating on-site modular water storage to accommodate flow rates in excess of the allocated amount. This approach allows Project Bolt to balance demand across daily and seasonal cycles and minimize withdrawals from the municipal system.

This approach ensures that Project Bolt is designed for responsible operation within MTMA's allocations, while also maintaining flexibility as the Township's water system expands, serving both community and economic development needs.

November 17, 2025

To: Middlesex Township

From: Carlisle Development Partner

MTMA Supply / Project Bolt Capacity Request

Introduction

Hazen and Sawyer (Hazen) a nationally recognized engineering firm specializing in municipal water and wastewater systems has been contracted by the development team to work closely with the municipal authority to evaluate alternatives for water supply and wastewater discharge for the Project Bolt Data Center Development site (the Project) in Middlesex Township, PA and, ultimately, define a comprehensive water-wastewater strategy to serve the project in harmony with the local municipal authority and community needs. The project's water supply will be used primarily for HVAC cooling of hyperscale data center operations, with the highest demand occurring during warmer months of the year when cooling requirements are greatest.

Capacity

The existing wastewater system in the area is served by the Carlisle Regional Wastewater Treatment Plant (WWTP) owned by Carlisle Borough which collects wastewater from 5 surrounding municipalities including Middlesex Township. The WWTP is rated for an average daily flow of 7 million gallons per day (MGD) and experiences a daily average flow of 3.5 MGD with the ability to hydraulically accept but not fully treat 9.45 MGD. The facility uses a traditional WWTP layout: mechanical screening, grit removal, a 2-stage activated sludge system with 2 stage clarifiers, a tertiary cloth media filtration system, and chlorination disinfection. The facility has effluent nutrient limits in line with most of the country, but since they discharge to a Chesapeake Bay tributary Total Nitrogen (TN) and Total Phosphorus (TP) limits are more stringent than other locations (TN: 6.0 mg/L and TP: 0.8 mg/L).

Table 1: Carlisle WWTP Capacity

	Average Daily Flow	Max Monthly Flow	Peak Hydraulic Capacity
Carlisle WWTP Capacity (MGD)	3.5	7.0	9.45

In addition to serving Carlisle Borough, the Carlisle Regional WWTP provides treatment to MTMA and Silver Springs Township with an allocation of 1.596 MGD of sewerage capacity for MTMA and 0.4 MGD for Silver Springs township. Of these allocations, at peak demand, MTMA utilizes approximately 0.423 MGD of their 1.596 MGD allocation and Silver Springs Township is allotted their full 0.4 MGD allocation.. Given the amount of the respective allocations that is utilized, the available remaining

sewerage capacity to 0.773 MGD. Future development by both MTMA and Silver Springs Township reduces this capacity to an available 0.273 MGD for the Project Site. These numbers are summarized in Table 2 below.

Table 2: Existing/Planned MTMA Sewer Capacity

	Flow
MTMA Permitted Sewer Capacity	1.596 MGD
Silver Springs Township Capacity Allotment	0.400 MGD
Peak Middlesex Demand	0.423 MGD
Available Middlesex Capacity	0.773 MGD
Future Municipality Development	0.266 MGD
Future Silver Springs Township Development	0.234 MGD
Data Center Supply Allocation	0.273 MGD

Wastewater Characteristics

The Project plans on using large quantities of domestic water to support evaporative cooling . As water is cycled through the system and evaporated, a cycle of concentration occurs, resulting in accumulation of dissolved solids that are not evaporated. These dissolved solids concentrate in the cooling water, resulting in increased concentrations in the wastewater generated by the cooling water system. Table 2 demonstrates this relationship by comparing the concentrations of various water quality parameters in the source water to the respective concentrations after 2 and 3 cycles of concentration,

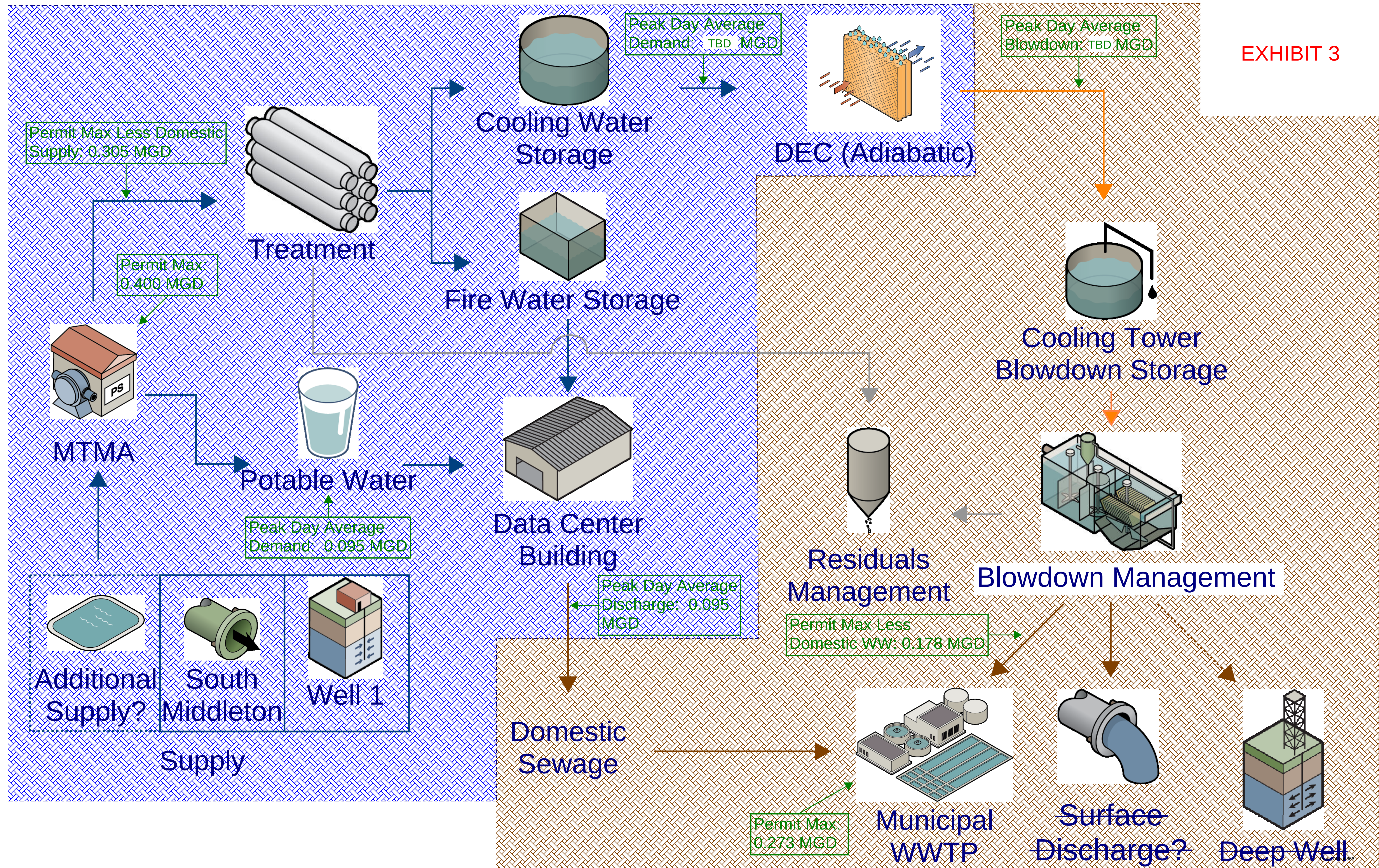
Table 2: Wastewater Constituents

Water Quality Parameter	Source Water	2 Cycles of Conc.	3 Cycles of Conc.
pH	7.76	-	-
Conductivity (mhos/cm)	581	1162	1743
Alkalinity as CaCO ₃ (ppm)	239.8	479.6	719.4
Hardness as CaCO ₃ (ppm)	278	556	834
Chloride as Cl (ppm)	15	30	45
Sulfate (ppm)	21.3	42.6	63.9
Chloride + Sulfate (ppm)	36.3	72.6	108.9

Any discharges from the cooling system will follow the proscribed Industrial Pretreatment policies as required by the WWTP. As is typical of cooling tower effluent, discharged wastewater is absent of

biological loading and dilution of the concentrations of biological material entering the plant should be considered, Cooling tower effluent also has variable flow rates that increase during warmer periods when cooling demand is highest and decrease as ambient temperatures drop, In order to mitigate the impacts of dilution and variability of effluent flow rate, the Project team will incorporate equalization (EQ) systems which will meter the discharge of wastewater effluent at an acceptable rate to the WWTP.

This memorandum shares the information currently available, promotes transparency, and opens communication. Certain aspects of the project remain in development and may be refined as planning progresses. The information presented here will be updated accordingly as more details are confirmed.



Hazen *Technical Memorandum*

- **Fire water** – Water is required for firefighting on an emergency basis. This is not a routine demand and only requires periodic testing and or purging of the firewater system.
- **Potable water** – Water is required for drinking water, toilets, sinks, and other minor domestic uses.

Two of the three uses create wastewater that will discharge to a publicly owned wastewater treatment plant:

- **Cooling water blowdown** – As water evaporates in the adiabatic cooling system, the water vapor enters the atmosphere but the salts that are in the potable water become more concentrated as water is recirculated through the adiabatic system. When the salts concentrate to a point where they might cause scale formation on the pads in the adiabatic system or corrosion in the system, they are “blown down” and discharged as wastewater. They are still at low salt concentration relative to seawater but will tend to be 3 to 5 times the concentration of the incoming potable water. This cycling up of the salt concentration is called “cycles of concentration”.
- **Sanitary wastewater** – Wastewater from sanitary uses from toilets and sinks is discharged as sanitary wastewater. The characteristics of this wastewater are similar to that of residential wastewater.

Figure 1 presents a graphical summary of the water balance for the Project Bolt Site. A more detailed version of this diagram is attached at the end of this technical memorandum.

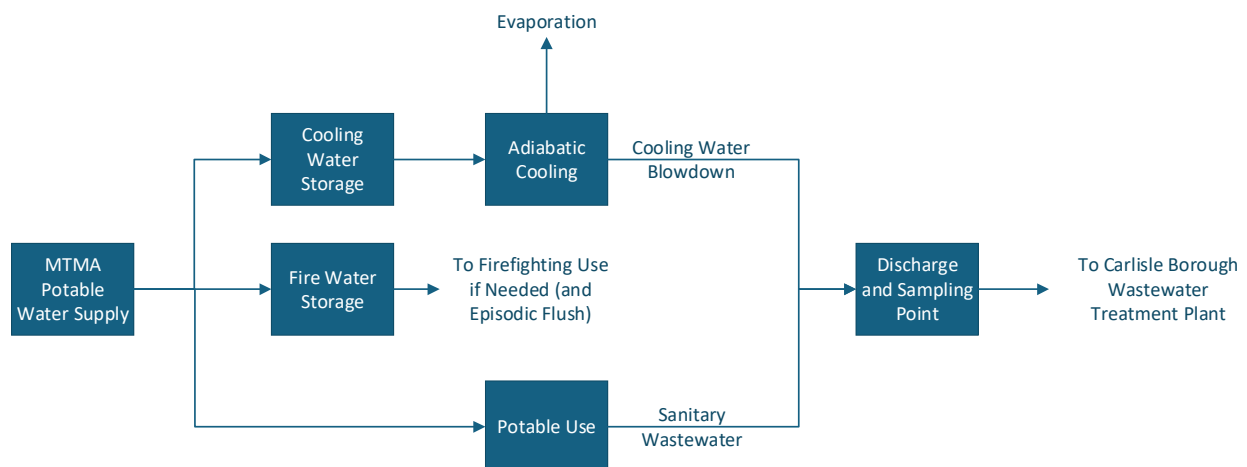


Figure 1 – Conceptual Water Balance

Water Supply

Water Sources – Available Supply and Storage

Hazen evaluated multiple water sources, documented in Water Supply Technical Memorandum, and it was determined that the best approach to meet the demands for the first phase of the project was to source water from the Middlesex Township Municipal Authority (MTMA). In discussions with MTMA, they are able to supply up to 400,000 gpd (0.4 MGD) of potable quality water from their existing system.

Water Demand Forecast

Powerhouse provided demand data for the data center, with factors provided for each of the demand types which are discussed below.

Potable Water

Potable water demand will vary as a function of the number of employees working at the site based on the number of buildings to be constructed. The following table summarizes the potable demand. As the potable demand increases, it decreases the amount that MTMA can supply to meet cooling water demand.

Table 1: Phased Project Potable Water Demand

Phase	Number of Buildings	Potable Demand, MGD	MTMA Supply Available for Cooling, MGD
Per building	1	0.0053	-
Phase 1	6	0.032	0.37
Phase 2	12	0.064	0.34
Phase 3	18	0.095	0.30

Cooling Water

Powerhouse indicated that the end user will use an adiabatic cooling system, augmenting chillers that are normally used to cool the data center. When ambient temperatures exceed 85°F, the adiabatic systems cool the air coming into the buildings, meaning that the adiabatic system is only used on days that exceed 85°F and for the hottest hours of those days.

Limited design basis data are available for the cooling water demand for this site. Powerhouse provided the maximum day demand for the first phase, which will be 0.85 MGD for 6 buildings that will consume up to 300MW of power. Powerhouse said to assume this demand will scale up linearly as additional data center buildings are added.

The average demand for this site has not been provided by the end user but is an important value to understand because the average demand over the cooling season will be significantly lower than the maximum daily demand due to the seasonable variability in water demand inherent in data center cooling. Recent data gained by Hazen from work on other similar sites employing adiabatic cooling showed that

the average demand during the cooling season was approximately 40% of the maximum day demand. Hazen used these factors as the design basis for evaluating water demands, and subsequently to evaluate storage requirements.

Table 2: Cooling Water Demands

Phase	Anticipated Power Demand	Adiabatic Cooling Water Demand, MGD	
		Max Day	Average Day
Phase 1	300MW	0.85	0.34
Phase 2	600MW	1.7	0.68
Phase 3	900MW	2.55	1.02

Because the available water supply is less than the cooling water demand for Phase 1, the site needs to draw on the MTMA supply over time to fill storage tanks that will meet the data center demand during the cooling season. Hazen developed a conceptual model assessing the amount of required storage based on the following assumptions:

- Cooling water demand was estimated based on 2023 climatic data for the area, which was one of the hottest years on record for this region by average temperature. Hazen evaluated demand from May 1, 2023, through October 31st, which typically brackets the cooling season for this geography.
- Cooling water demand was modeled assuming
 - The adiabatic system operates on days that had a recorded high temperature exceeding 85 degrees
 - The estimated average flow was used for days when the higher temperature was between 85 and 95F
 - The maximum daily flow was used for days when the high temperature exceeded 95F
- Tanks need to store an additional 2 days of maximum cooling water demand beyond the seasonal demands to provide improve reliability of the water supply if the MTMA supply is interrupted at the end of the cooling season when the storages tanks would be at their lowest due to being used to supply the cooling system through the warmer months. In the next phase of work, this should be evaluated using the hyperscaler’s reliability requirements to assess the required storage needed to meet their uptime performance.

Hazen used this approach to “right size” storage volumes and avoid determining volumes based on the maximum demand for every day that required cooling water as this would result in unnecessarily large storage tank requirements.



October 30th, 2025

Igal Feibush,
CEO, PA Data Center Partners

Re: Confirmation of Service Availability 246-250 and 256 Country Club Road, Carlisle, PA 17015

Dear Mr. Feibush and colleagues on PA Data Center Partner Team,

I am writing to confirm that PPL Electric Utilities Corporation ("PPL Electric" or the "Company") has the ability to provide electric service to the property located at 246-250 and 256 Country Club Road, Carlisle, PA 17015 (Approx. 40°15'11.97"N, 77° 6'41.57"W); the "Development Property") for approximately 1.35 gigawatts of peak demand load. The Company's service will be rendered in strict accordance with applicable laws, regulations, and rules, including but not limited to, PPL Electric's Public Utility Commission ("PUC") approved tariff and its obligation to provide non-discriminatory service to all customers pursuant to 66 Pa. C.S. § 1502.

Please be advised that to accommodate the new service, certain system upgrades will be required. These upgrades are essential to ensure reliable and safe service to the Development Property. Assuming the customer completes all agreement requirements by January 2026, PPL Electric estimates that the required system upgrades can be completed by June 2027 to provide initial energization.

The project costs associated with these upgrades will be allocated in accordance with the Company's tariff. We are committed to keeping costs as low as possible for all customers, even while supporting large-scale industrial growth. Connecting large load customers like data centers to our transmission system helps lower the transmission component of energy bills for all customers, as large load customers pay a significantly larger share of transmission charges on the network based on their energy usage

PPL Electric looks forward to working with you to successfully complete this project. Should you have any questions or need further information, please do not hesitate to contact me at JBLookup@pplweb.com or +1 610-774-6574.

Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink that reads "Joseph B. Lookup". The signature is written in a cursive, flowing style.

Joseph B. Lookup
Vice President of Transmission & Distribution Planning & Asset Management
PPL Electric Utilities Corporation