

September 3, 2025

To: Middlesex Township Municipal Authority
Carlisle Borough/ Carlisle Regional Wastewater Treatment Plant

From: Carlisle Development Partners

Re: Project Bolt Data Center Development

MTMA & CRWTP Wastewater Overview

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 authorities to evaluate alternatives for water supply and discharge for the Project Bolt Data Center Development site (the Project) in Middlesex Township, PA and, ultimately, define a comprehensive water 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 cooling of data center operations, with the demand occurring during warmer months of the year when cooling requirements are greatest.

Background

The existing wastewater system in the area is served by the Carlisle Regional Wastewater Treatment Plant (CRWTP) owned by Carlisle Borough which collects wastewater from 5 surrounding municipalities including Middlesex Township. CR WTP is rated for an average daily flow of 7 million gallons per day (MGD), but sees a daily average of 3.5 MGD with the ability to hydraulically accept but not fully treat 9.45 MGD based on preliminary research. The facility uses a traditional CRWTP 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/Land TP: 0.8 mg/L).

Table 1: Wastewater Flows

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

Prior Permitting and Capacity Transfer

The Project site encompasses properties previously planned for the PennTerra and Cumberland Knoll residential developments. As part of those prior land use approvals, water and sewer capacities were reserved with MTMA to support the anticipated residential growth. With the acquisition of these properties, the Project team requests that these previously reserved capacities and EDU's be transferred and reallocated to this development.

Project Approach

The Project plan is to use evaporative cooling technology. As the water is utilized and evaporated, concentrations change in the remaining cooling water. This provides a series of concentrations where the original domestic water constituents increase in quantity. Below is a table with some constituents for water quality based on the MTMA drinking water with projected results after 2 and 3 cycles of concentration which represent theoretical limits on the cooling towers before bleeding it off to the discharge.

Table 2: Wastewater Constituents

Water Quality Parameter	Source Water	2 Cycles of Cone.	3 Cycles of Cone.
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

Water discharged from the Project's cooling systems will be managed in accordance with all applicable treatment and regulatory standards. The Project team will design and operate its systems to ensure that discharges are safe, compliant, and protective of both the community and the environment, in full alignment with the Industrial Pretreatment policies required by CRWTP.

The projected discharge is not nutrient laden but volumetrically will pick up in the summer. This diluted discharge may pose an issue for treatment in the same manner as a CRWTP would encounter during large wet weather events in a combined sewer system (CSS). The Project team intends to incorporate equalization systems which will meter the discharge at an acceptable rate to CRWTP.

In addition, the Project Bolt team affirms its commitment to a long-term partnership with MTMA and CRWTP to enhance system resiliency and efficiency. This includes supporting upgrades and investing in infrastructure improvements to strengthen the overall system where needed.

This memorandum presents the information gathered through preliminary research and which is currently available to promote transparency and open communication. As planning advances and coordination with MTMA and CRWTP continue, certain aspects of the project may be refined, and this information will be communicated, updated and mutually agreed upon accordingly.

Respectfully,
Igal Feibush

Carlisle Development Partners, LLC
1660 International Drive
McLean, Virginia 22102

September 3, 2025

To: Middlesex Township Municipal Authority

From: Carlisle Development Partners

Re: Project Bolt Data Center Development

MTMA Water Supply/ 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 cooling of data center operations, with the demand occurring during warmer months of the year when cooling requirements are greatest.**

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, main improvements, pump upgrades and supply expansion that will benefit both the project and the broader community into the future.

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. This memo focuses solely on water supply to support an initial water reservation request from MTMA.

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

Prior Permitting and Capacity Transfer

The Project site encompasses properties previously planned for the PennTerra and Cumberland Knoll residential developments. As part of those prior land use approvals, water and sewer capacities were reserved with MTMA to support the anticipated residential growth. With the acquisition of these properties, the Project team requests that these previously reserved capacities and EDU's be transferred and real located to this development.

Supply

MTMA currently provides all water in their distribution system via a single water well and cross connection from the neighboring community of South Middleton. MTMA 's well (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 with Well 1 meeting the permitted capacity (1.44 MGD) without inducing turbidity issues. Well 2 has been in development for over a year by MTMA to bring redundancy to the community water supply. Well 2 has been drilled, designed, and tested fully independent of the Project. A final permit application submission by MTMA 's engineer 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 reaching a total permitted supply capacity of 2.94 MGD. On average, MTMA's current customers use around 1.27 MGD with a peak use of 1.59 MGD resulting in a supply surplus of 1.35 MGD. Although 1.35 MGD is technically available, a turbidity limitation on Well 1 creates a reduced available supply amount.

It is understood that MTMA intends to bring Well 2 into production as a redundant source which will allow them to fully withdraw 1.44 MGD or more in the future. On average, around 60% of the current water in MTMA's system is provided by South Middleton via a joint municipal agreement. MTMA also has an agreement and connection with PA American to supply additional water to the system in the event of an emergency. See Table I 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 Available Water
Permitted Water Supply (Well 1)	1.44 MGD	1.50 MGD	2.94 MGD
Actual Well 1 Supply (Limited by Turbidity)	~1.00 MGD		2.50 MGD
Permitted Water Supply w/ Well 2	~1.44 MGD		2.94 MGD
Water Supply Potential (1&2 w/o Turbidity)	TBD	N/A	TBD
Average Municipal Water Demand	1.27 MGD	N/A	1.27 MGD
Peak Municipal Water Demand	1.59 MGD	N/A	1.59 MGD
Current Available Supply		N/A	0.91 MGD
Available Supply w/ Well 2 (01 2027)		N/A	1.35 MGD
Future Potential Available Supply		N/A	TBD

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. The 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 2: Summary of Water Storage Options by Location

	MTMA
Existing Tank 1	1.44 MG
Tank 1 Expansion	0.35 MG
Brand New Tank 2	1.79 MG
Total Storage Potential	3.58 MG

Project Water Management Approach

The Project Bolt water system will be engineered to meet operations within the allocated capacity. The data center campus will incorporate on-site modular water storage and advanced cooling technologies. This balances demand across daily and seasonal cycles and keeps withdrawals from the municipal system low.

Importantly, phased construction of the on-site storage enables responsible project scaling with the available MTMA allocation.

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.

Water Capacity Request

The Project Bolt team respectfully requests MTMA reserve the amount of water supply for this project aligned with the anticipated development schedule and in alignment with other current community needs.

The first operational buildings of the project are not expected until June 2027, which is Well 2's anticipated startup. A building completion and ramp up schedule is provided as a separate exhibit.

It is recognized that MTMA may initially be able to provide only a portion of the supply currently available from its existing system, with future conditional allocations possible upon the approval and operation of Well 2. To align with this phasing, we respectfully request that MTMA allocate a proportional share of the 0.91 MGD of existing surplus capacity to Project Bolt, based on the project need, other planned projects and near-term community growth within the Township. The project then will be designed to operate responsibly within the allocation provided, incorporating on-site storage and efficiency measures to balance demand. As additional capacity becomes available with Well 2, the project's allocation can be revisited and adjusted in coordination with MTMA.

In addition, the Project Bolt team affirms its commitment to a long-term partnership with MTMA to enhance system resilience and capacity. This includes supporting upgrades to existing storage tanks, contributing toward the development of additional storage infrastructure, assisting in the investigation of a future community supply, and investing in improvements to pumps and piping infrastructure to strengthen the connection between supply and storage.

Any additional capacity created through MTMA's development of Well 2 is anticipated to be directed first to support community needs within Middlesex Township. Project Bolt is committed to operating within the allocation made available by MTMA and to supporting the Authority in ensuring that future Township growth continues to have priority access to water.

Respectfully,

Igal Feibush

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