

## Response to Questions Submitted to the St. Marys City Commission

### Regarding: Beltline Energy — Proposed Data Center Adjacent to the Jeffrey Energy Center

**Date:** May 20, 2026

**Prepared by:** Beltline Energy

#### What This Project Is NOT Proposing

Before addressing the specific questions submitted to the St. Marys City Commission, Beltline Energy believes it is important to state clearly what this project does not involve. The following commitments reflect the project's design intent and the regulatory framework under which it will operate:

**No municipal drinking-water use for cooling.** The project is not designed to draw cooling water from the City of St. Marys' municipal water system or any other community public water supply for cooling.

- **No new groundwater well field.** The project is not designed to rely on new groundwater wells for cooling water supply. Groundwater appropriation is not part of the current project design.
- **No bypass of Kansas water law.** Any water use by the facility requires an independent permit from the Kansas Division of Water Resources (DWR) under the Kansas Water Appropriation Act (Kansas Statutes Annotated (K.S.A.) §§82a-701 et seq.). There is no pathway to water use that circumvents the state's prior appropriation system.
- **No exemption from DWR oversight.** The project will be subject to the same DWR permitting, review, and enforcement authority that applies to every water appropriation in Kansas; including impairment analysis, public interest review, and drought-condition curtailment.
- **No untreated industrial discharge.** All cooling system discharge will be managed through federally regulated pathways: either an NPDES permit for direct surface-water discharge (40 Code of Federal Regulations (C.F.R.) Part 122) or compliance with the National Pretreatment Program for indirect discharge to a municipal wastewater treatment facility (40 C.F.R. Part 403).
- **No uncontrolled wastewater release.** The facility will incorporate dedicated intake and return infrastructure with on-site monitoring, treatment controls, and managed blowdown consistent with federal discharge requirements.
- **No exemption from KDHE or EPA permitting.** All applicable environmental permits — including air quality, stormwater, and wastewater — will be obtained through the Kansas Department of Health and Environment (KDHE) and/or EPA prior to operation.

- **No elimination of public permitting processes.** Every major permit required for this project — water appropriation, discharge, air quality, construction stormwater — involves public notice, comment periods, and agency review. Beltline Energy supports full public participation in each of these processes.

**Question 1 — Historical Well Water Data for Pottawatomie County**

*"Historical well water data for Pott County 1970–present — are levels declining?"*

**Response:**

Historical groundwater level data for Pottawatomie County is maintained by two primary agencies: the United States Geological Survey (USGS), which operates monitoring locations throughout Kansas accessible through the USGS Water Data for the Nation portal ([waterdata.usgs.gov](http://waterdata.usgs.gov)), and the Kansas Geological Survey (KGS), which monitors nearly 1,400 wells statewide — many with measurement histories extending to the 1960s and earlier. The KGS "Surveillance" network measures well levels annually, primarily during January, and currently provides data from 210 well sites to the National Groundwater Monitoring Network Portal [1].

Pottawatomie County is located in northeastern Kansas, outside the High Plains (Ogallala) Aquifer region where the most significant groundwater declines in the state have been documented. The county's water resources are primarily associated with alluvial aquifers along the Kansas River and its tributaries, and the glacial drift aquifer system. Unlike western Kansas — where irrigation-driven withdrawals have caused measurable declines in the Ogallala aquifer — northeastern Kansas generally has more stable groundwater conditions, supported by higher precipitation (approximately 35 inches annually) and proximity to the Kansas River system.

Localized groundwater conditions can vary, and site-specific data should inform any development decision. The proposed data center will be designed to rely on whatever resources are available to use under local, state and federal regulations. The project could be entirely air-cooled or could utilize surface water through the existing Jeffrey Energy Center (JEC) reservoir infrastructure — more than 600 acres of surface water fed by the Kansas River through existing Energy infrastructure — not on new wells or municipal groundwater sources. Any water appropriation would require a separate permit from the Kansas Division of Water Resources (DWR), which independently evaluates the impact on existing water rights and the public interest before any permit can be issued [2].

**Key Citations:**

[1a] U.S. Geological Survey, Water Data for the Nation, [waterdata.usgs.gov](http://waterdata.usgs.gov);

[1b] Kansas Geological Survey, National Groundwater Monitoring Network Portal

[2] K.S.A. §§82a-701 et seq. (Kansas Water Appropriation Act)

**Question 2 — Data Center Overlay and K.S.A. 12-757**

*"Does the Data Center Overlay (Section 9.5.1) constitute a zoning amendment under K.S.A. 12-757? Does it eliminate protest petition rights?"*

*"Part A: Has the county obtained a written legal opinion from county counsel?"*

*"Part B: What is the legal basis for the overlay not being a zoning amendment?"*

**Response:**

K.S.A. 12-757 governs the procedure for zoning amendments, including the protest petition mechanism. Under that statute, when a governing body proposes to "supplement, change or generally revise the boundaries or regulations contained in zoning regulations," certain procedural requirements apply, including public notice, hearing, and the right of affected property owners to file a protest petition. If a valid protest petition is filed (signed by owners of 20% or more of the property within 1,000 feet of the property proposed to be rezoned), the zoning amendment can only be approved by a three-fourths (3/4) supermajority vote of the governing body [3].

The question of whether the Data Center Overlay constitutes a "zoning amendment" within the meaning of K.S.A. 12-757 is a legal determination that rests with the County Attorney's office and, ultimately, with the Board of County Commissioners acting on legal counsel's advice. Kansas law assigns this determination to the County's legal counsel, and Beltline Energy, as the applicant, defers to that determination.

The text of Section 9.5.1 of the proposed draft regulations describes the Data Center Overlay as "an exclusive use overlay meant to provide an option for large-scale data centers that does not result in the rezoning of a property to an incompatible use such as heavy manufacturing." The overlay is designed to be applied on top of existing zoning classifications (A1 — Agricultural, M2 — General Manufacturing, M3 — Heavy Manufacturing) rather than replacing them with a different base zoning district [4].

Regardless of the legal classification of the overlay mechanism, Beltline Energy expects full compliance with all notice, hearing, and petition provisions required by Kansas law. The strength of any zoning approval is directly proportional to the legitimacy of the process that produced it.

Beltline Energy would encourage the Planning Commission, if it has not already done so, to obtain a written legal opinion from county counsel specifically addressing the applicability of K.S.A. 12-757 to the Data Center Overlay. This protects the County, protects affected property owners, and protects the applicant.

**Key Citations:**



154 Krog Street  
Suite 105  
Atlanta, GA 30307

[3] K.S.A. §12-757 (Kansas zoning amendment procedure; protest petitions)

[4] Pottawatomie County Draft Regulations, Data Center Overlay, §9.5.1, April 30, 2026

### Question 3 — Cooling System Specifics

*"What are the specifics of the closed-loop cooling system — annual makeup water volume, purge frequency/volume, chemical composition, discharge destination?"*

#### Response:

The question asks for engineering-level detail that is developed during the design and permitting phase, not at the zoning hearing stage. The applicable regulatory framework structures this sequentially: the zoning hearing sets parameters (water source conditions, maximum allocations, discharge pathway requirements), and the design phase demonstrates how those parameters will be met through specific engineering solutions .

**A Note on Terminology.** The term "closed-loop" as used in public discussion refers to a recirculating cooling system in which water is continuously reused within the cooling process, with limited makeup water and managed blowdown replacing water lost through evaporation. The precise technical designation is a "recirculating closed-loop evaporative cooling system" or a "closed-loop recirculating cooling system with evaporative heat rejection." This is distinct from fully air-cooled systems (which use no evaporative water but carry a 10–65% energy penalty), direct liquid cooling at the chip level, and once-through cooling systems. The data center industry deploys multiple cooling architectures, and the specific technology will be selected based on the final facility design, power density requirements, and site-specific conditions [5].

**Makeup Water.** In any system that includes evaporative cooling elements, makeup water is required to replace water lost to evaporation. The volume depends on the cooling technology selected, the cycles of concentration (CoC) at which the system operates, and the facility's total thermal load. Industry best practice targets CoC of 6–10 for indirect evaporative or cooling tower systems, and 3–5 for direct evaporative cooling. Higher CoC means less water is consumed per unit of cooling delivered [5]; [14].

**Purge (Blowdown) Frequency and Volume.** Cooling towers accumulate dissolved minerals as water evaporates, concentrating Total Dissolved Solids (TDS). Blowdown — the controlled discharge of concentrated water and replacement with fresh makeup water — is the standard management technique. Blowdown volume is a function of the CoC target: at 8 cycles of concentration, approximately 12.5% of total water intake is discharged as blowdown, with 87.5% lost to evaporation [8].

**Chemical Composition.** Cooling water treatment programs typically include corrosion inhibitors, scale inhibitors, and biocides to maintain system efficiency and prevent biological fouling. The specific chemistry is determined during engineering design and must comply with applicable discharge permits. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Technical

Committee 9.9 documents the water quality specifications required for recirculating and open-loop cooling systems [6a].

**Discharge Destination and Return-Water Infrastructure.** Federal water-quality regulation follows a two-pathway framework: facilities that discharge directly to surface waters require an NPDES permit under 40 C.F.R. Part 122, and facilities that discharge to a municipal Wastewater Treatment Facility (WWTF) must comply with the National Pretreatment Program under 40 C.F.R. Part 403. The facility is designed to incorporate dedicated intake and return infrastructure — including controlled water pathways, on-site treatment and monitoring systems, and managed blowdown discharge — to ensure that all water leaving the facility meets applicable regulatory standards. The specific discharge pathway will be identified during the design-phase permitting process and documented in the project application materials. Future engineering submittals will include detailed flow diagrams illustrating the complete water cycle from intake through treatment, use, and return [7a]; [7b].

Beltline Energy commits to providing full cooling system specifications — including projected annual water intake, evaporation volumes, blowdown volumes, chemical treatment protocols, and discharge pathway — as part of the design-phase permit package.

#### **Key Citations:**

[5] WEF, Water-AI Nexus, Principles for Sustainable Water Use by Data Centers (2025)

[14] Shehabi et al., 2024 U.S. Data Center Energy Usage Report (LBNL, 2024)

[8] WEF, Water and Wastewater Utilities and Data Centers: FAQs, v16 (April 2026)

[6a] ASHRAE TC 9.9, Water-Cooled Servers: Common Designs, Components, and Processes (2019)

[6b] ASHRAE TC 9.9, Emergence and Expansion of Liquid Cooling in Mainstream Data Centers (2021)

[7a] 40 C.F.R. Part 122 (NPDES)

[7b] 40 C.F.R. Part 403 (Pretreatment)

#### **Question 4 — Local Water Quality Impact on Cooling Systems**

*"Local water quality (elevated nitrates, extreme hardness) impact on cooling system scaling — has BLE done a water quality study? Should it be required?"*

#### **Response:**

The question raises a legitimate engineering concern. Local water quality characteristics — including hardness, TDS, nitrate levels, and other mineral content — directly affect cooling system performance, scaling potential, and chemical treatment requirements.

ASHRAE Technical Committee 9.9 has published detailed water quality specifications for both facility water systems (FWS) and technology cooling systems (TCS), establishing the parameters within which recirculating closed-loop and open-loop cooling systems must operate to maintain efficiency and system longevity [6a]. High hardness (calcium and magnesium concentrations) accelerates scaling in heat exchange surfaces, reducing efficiency and increasing maintenance costs. Elevated nitrate levels can promote biological growth in cooling water systems.

#### **Beltline Energy confirms the following:**

A comprehensive water quality study will be conducted as part of the engineering design process. Standard engineering practice requires this for any industrial facility deploying cooling systems. The study will characterize the source water for all parameters relevant to cooling system design, including but not limited to hardness, alkalinity, TDS, conductivity, pH, silica, iron, manganese, sulfate, chloride, and nitrate.

The results of the water quality study will directly inform the cooling system engineering design — including treatment requirements, CoC targets, blowdown frequency, and chemical treatment protocols.

Beltline Energy would support a condition in the zoning approval or developer's agreement requiring submission of a water quality study as part of the design-phase permit package. This is consistent with the proposed draft regulations' requirement under Section 9.5.3(h) that data centers "submit a plan or narrative demonstrating how they will mitigate the depletion of water locally" [4].

#### **Key Citations:**

[6a] ASHRAE TC 9.9, Water-Cooled Servers (2019)

[6b] ASHRAE TC 9.9, Emergence and Expansion of Liquid Cooling (2021)

[4] Pottawatomie County Draft Regulations, §9.5.3(h)

[8] WEF FAQs v16 (2026) — TDS accumulation and treatment process impacts

## Question 5 — Discharge Filtration Requirements

*"Why is there no requirement for documented discharge filtration protocol or independent verification?"*

### Response:

The premise of this question — that no discharge filtration or verification requirement exists — is understandable from the perspective of reviewing the proposed county overlay regulations in isolation, but it does not reflect the full regulatory framework that governs industrial discharges.

Federal law establishes a comprehensive, two-pathway regulatory framework for all industrial wastewater discharges:

**Direct Discharge to Surface Waters.** Any facility that discharges cooling tower blowdown, stormwater, or other process wastewater directly to a surface water body must obtain a National Pollutant Discharge Elimination System (NPDES) permit under 40 C.F.R. Part 122, implementing Section 402 of the Clean Water Act. NPDES permits establish specific effluent limitations, monitoring requirements, and reporting obligations. Applications must be filed 180 days before the anticipated start of discharge. In Kansas, NPDES permits are administered by the Kansas Department of Health and Environment (KDHE) under delegated authority from EPA [7a].

**Indirect Discharge to Municipal WWTF.** Any facility that sends wastewater to a municipal wastewater treatment facility must comply with the National Pretreatment Program under 40 C.F.R. Part 403. The applicable regulatory framework evaluates facilities discharging 25,000 gallons per day or more under the Significant Industrial User (SIU) designation, imposes temperature limits (40 degrees C at the point of discharge to the POTW), and grants the municipal WWTF direct enforcement authority over industrial dischargers connected to its system [7b].

In either pathway, the regulatory framework requires documented treatment protocols and independent monitoring. NPDES permits include self-monitoring requirements with specified analytical methods, reporting frequencies, and penalties for non-compliance. Discharge Monitoring Reports (DMRs) are submitted to the permitting authority and are public records. Pretreatment agreements include industrial user permit conditions, self-monitoring requirements, and the right of the WWTF to conduct independent sampling and inspections.

The project is designed to incorporate dedicated intake and return infrastructure with on-site treatment capabilities, continuous monitoring systems, and managed discharge pathways. No water will leave the facility without passing through controlled treatment and monitoring processes. The specific return-water infrastructure will be detailed in engineering submittals during the permitting phase, including flow diagrams showing the complete water cycle.

Beltline Energy would support the inclusion of specific language in the county overlay requiring the applicant to (a) identify the discharge pathway during the design phase, (b) obtain all required federal and state discharge permits prior to operation, and (c) provide copies of all discharge permits and monitoring reports to the county Planning and Zoning office.

**Key Citations:**

[7a] 40 C.F.R. Part 122 (NPDES);

[7b] 40 C.F.R. Part 403 (Pretreatment); Clean Water Act Section 402

[8] WEF FAQs v16 (2026) — blowdown management, TDS, construction-phase discharge risks

## Question 6 — Drought and Water Scarcity Legal Priority

*"What is the legal priority among St. Marys, JEC, and the data center during drought/water scarcity?"*

### Response:

Kansas operates under the prior appropriation doctrine, established by the Kansas Water Appropriation Act of 1945 (K.S.A. 82a-701 et seq.) and administered by the Division of Water Resources (DWR) within the Kansas Department of Agriculture. The core principle is straightforward: "first in time, first in right" the date of priority of every water right, not the purpose of use, determines the right to divert and use water when supply is insufficient to satisfy all rights [2].

Under this framework:

**Existing water rights have priority over any new appropriation.** The City of St. Marys holds water rights with established priority dates. Jeffrey Energy Center holds water rights with established priority dates for its Kansas River withdrawals. Any new water appropriation for the data center would receive a priority date as of the filing of its application with the Chief Engineer — making it junior to all existing rights [2].

**During shortage, junior rights are curtailed first.** Kansas law assigns the administration of water rights during shortage conditions to the Chief Engineer of the DWR, who has the authority and the obligation to curtail rights in order of priority. Junior rights are curtailed before senior rights. Any new data center water right would be curtailed before existing St. Marys or JEC rights in a shortage scenario [9].

**Domestic use is exempt from the appropriation system.** K.S.A. 82a-701 exempts domestic water use (defined as household use by a single family) from the requirement to obtain a water appropriation permit. Municipal water systems, however, hold appropriation rights and are subject to the priority system, though they often hold senior priority dates.

**DWR administration is the exclusive mechanism.** Water rights administration during shortage is a state function exercised through established legal procedures — not a local function and not a function of any private party.

Beltline Energy acknowledges that any new water appropriation for the project would be junior to existing rights held by St. Marys, JEC, and all other senior appropriators. The project is designed with this understanding — including engineering provisions for drought resiliency and potential curtailment scenarios. This is a feature of the Kansas system, not a defect — it protects existing users.

### Key Citations:



154 Krog Street  
Suite 105  
Atlanta, GA 30307

[2] K.S.A. §§82a-701 et seq. (Kansas Water Appropriation Act)

[9] K.S.A. 82a-707 (priority of appropriation rights); Kansas DWR Water Law Basics

**Question 7 — DWR Written Statement on St. Marys Water Rights**

*"Has the Planning Commission obtained a DWR written statement that the overlay can't diminish St. Marys water rights?"*

**Response:**

This question reflects an understandable concern, but it rests on a premise that conflates two distinct governmental functions: county zoning and state water rights administration.

**Zoning does not create, modify, or extinguish water rights.** The Data Center Overlay is a land-use regulation. It determines what types of development may occur on a parcel of land and under what conditions. Kansas law assigns the administration of water rights exclusively to the Division of Water Resources (DWR) within the Kansas Department of Agriculture under the Kansas Water Appropriation Act (K.S.A. 82a-701 et seq.). The overlay cannot authorize the appropriation, diversion, or use of water [2].

**Any water use by the data center requires an independent DWR permit.** Before the data center could divert or use any water (other than for domestic purposes), an application must be filed with the Chief Engineer of DWR. The Chief Engineer will not approve the application if it would "impair use under an existing water right" or "prejudicially and unreasonably affect the public interest" [10].

**St. Marys' water rights are protected by the prior appropriation system.** As explained in Question 6, St. Marys' existing water rights carry earlier priority dates and cannot be impaired by any junior appropriation. This protection is embedded in state law and enforced by DWR — it does not depend on a county zoning overlay.

Beltline Energy recognizes the community's desire for additional assurance. The project team would not object to the Planning Commission or Board of County Commissioners requesting a written statement from DWR confirming that (a) the Data Center Overlay does not constitute a water appropriation or modification of existing water rights, and (b) any water use by the data center requires a separate DWR permit subject to the prior appropriation system. Such a statement would confirm what the law already requires, and could provide meaningful reassurance to the community.

**Key Citations:**

[2] K.S.A. §§82a-701 et seq. (Kansas Water Appropriation Act)

[10] K.S.A. §82a-711 (Kansas Chief Engineer water appropriation permit applications)



154 Krog Street  
Suite 105  
Atlanta, GA 30307



**Question 8 — Ryan Sanders' May 6 Statement on Water Source**

*"Ryan Sanders stated at the May 6 Wamego meeting: 'We don't want to drill a well. We don't want your community water. We don't want your ground water.' JEC draws ~4.6 billion gallons/year from the Kansas River."*

**Response:**

Beltline Energy confirms that Ryan Sanders' statement at the May 6, 2026 Wamego community meeting accurately represents the company's water supply approach for the proposed data center:

**"We don't want to drill a well."** The proposed data center is not designed to rely on new groundwater wells for cooling water supply. Groundwater is not the intended water source for the facility's cooling operations.

**"We don't want your community water."** The proposed data center is not designed to draw cooling water from the City of St. Marys' municipal water system or any other community public water supply for cooling. St. Marys currently operates three wells with an aggregate capacity of 1,200 gallons per minute and an average monthly water usage of approximately 7.3 million gallons [11]. The project has no intention of competing with or drawing from this municipal supply.

**"We don't want your ground water."** Groundwater appropriation is not part of the current project design for cooling operations.

A partnership with the Jeffrey Energy Center to utilize existing infrastructure — including more than 600 acres of reservoir surface water fed by the Kansas River — represents the type of non-potable, surface water source that modern data center water strategies prioritize. The Water Environment Federation's AI Nexus framework for sustainable water use identifies minimizing freshwater reliance and utilizing existing infrastructure as core principles of responsible data center siting [5].

The facility will be designed to incorporate dedicated intake and return infrastructure — ensuring that water is received, used, treated, and returned through controlled, monitored pathways. No municipal drinking water for cooling and no truck hauling of water are contemplated in the project design.

The specific water source arrangement — whether through a direct supply agreement with Evergy/JEC, or another non-potable source — will be determined during the permitting process and will require a separate water appropriation permit from the Kansas Division of Water Resources. Every scenario requires DWR approval and is subject to the prior appropriation system.

**Key Citations:**

[11] City of St. Marys, Utility Information (smks.info)

[12] Kansas River (kansasriver.org), Jeffrey Energy Center withdrawal data — Jeffrey Energy Center withdrawal data

[5] WEF/AI Nexus, Principles for Sustainable Water Use by Data Centers (2025)

## Question 9 — Specific Water Source and DWR Permit Requirements

*"What is BLE's specific water source? If connected to JEC infrastructure, has DWR confirmed that an independent permit is required?"*

### Response:

Beltline Energy is evaluating multiple water supply options for the proposed facility, all of which center on non-potable, non-groundwater sources. The final water source determination is a permitting-phase decision that depends on engineering analysis, water rights availability, and DWR review. The options under evaluation include:

**Option 1: Supply agreement with Evergy/JEC.** The data center would enter into a contractual water supply agreement with the operator of the Jeffrey Energy Center, receiving water from the existing JEC reservoir infrastructure. The question of whether an independent DWR permit is required — or whether the supply can be provided under JEC's existing water rights — is a legal and regulatory determination that must be made by DWR.

**Option 2: Alternative non-potable source.** Other non-potable water sources (reclaimed wastewater, industrial water, etc.) may be evaluated as supplemental or alternative supply.

**Option 3: Air-cooled system.** If non-potable water resources are not available, the project will utilize an air-cooled system (no wells or groundwater). Only water for the project would be for domestic use (sinks, toilets, fire protection, landscaping)

Under any scenario, the facility is designed with dedicated intake and return infrastructure — controlled water pathways from source through treatment, use, monitoring, and managed return. Minimizing dependency on municipal wastewater treatment facilities is a core design principle, and on-site treatment capabilities will be incorporated to ensure compliance with all discharge requirements. Future engineering submittals will include detailed flow diagrams illustrating the complete water management system.

Kansas law is unambiguous: it is illegal for any person to use water for other than domestic purposes without holding a valid water right from the Division of Water Resources [2]. This applies regardless of the physical infrastructure through which the water is delivered. Beltline Energy has not yet filed a water appropriation application with DWR, as the water source determination is a permitting-phase decision that follows zoning approval. When the water source is finalized, all required applications will be filed with DWR in full compliance with the Chief Engineer's review process.

### Key Citations:



154 Krog Street  
Suite 105  
Atlanta, GA 30307

[2] K.S.A. §§82a-701 et seq. (Kansas Water Appropriation Act); Kansas DWR Water Law Basics

[10] K.S.A. §82a-711 (Kansas Chief Engineer water appropriation permit applications)

**Question 10 — Unauthorized Expansion of JEC Water Rights**

*"If water is routed through JEC permits — does this constitute unauthorized expansion under K.S.A. 82a-701 et seq.?"*

**Response:**

The Kansas Water Appropriation Act (K.S.A. 82a-701 et seq.) establishes a comprehensive framework governing the appropriation, use, and modification of water rights. Under this framework:

**Water rights specify authorized parameters.** Each water appropriation right in Kansas specifies an authorized quantity of water, a point of diversion, a place of use, and a type of beneficial use. Using water in a manner inconsistent with these authorized parameters would constitute a violation of the water right [2].

**Changes to existing water rights require DWR approval.** K.S.A. 82a-708a provides the mechanism for requesting changes to an existing water right, including changes in point of diversion, place of use, or use made of the water. A change application must be filed with the Chief Engineer, and the change will not be approved if it would impair existing rights or prejudicially affect the public interest [13].

**The applicable regulatory framework evaluates this question at the state level.** Whether supplying water from JEC's existing appropriation to a data center would constitute an unauthorized expansion is a legal determination for the Chief Engineer of DWR. This issue is addressed through the state's water rights administration process — it is not a determination for the county Planning Commission or the applicant.

Beltline Energy commits to the following: the project will not operate under any water arrangement — whether a new appropriation, a change application to an existing right, or a water supply contract — that has not been reviewed and approved by the Kansas Division of Water Resources. If the DWR determines that the proposed water supply arrangement requires a new appropriation, a change application, or any other form of authorization, Beltline Energy will comply with that determination.

Beltline Energy encourages the Planning Commission to direct this question to DWR for a definitive answer, and would cooperate fully with any such inquiry.

**Key Citations:**

[2] K.S.A. §§82a-701 et seq. (Kansas Water Appropriation Act)

[13] K.S.A. §82a-708a (change applications for existing water rights)



154 Krog Street  
Suite 105  
Atlanta, GA 30307



**Question 11 — St. Marys Wastewater Treatment Capacity**

*"Does the St. Marys wastewater treatment facility have capacity for industrial pretreatment?"*

**Response:**

Municipal wastewater treatment capacity is a standard element of the site plan review and permitting process for any industrial or large commercial development. The question of whether the City of St. Marys' wastewater treatment facility (WWTF) has adequate capacity to accept and treat data center discharge is one that must be answered through direct engineering coordination between the developer and the municipal utility.

Several points are relevant:

**The discharge pathway is not yet determined.** As discussed in Question 5, federal water-quality regulation follows a two-pathway framework. If the data center discharges to the municipal WWTF (indirect discharge), pretreatment compliance under 40 C.F.R. Part 403 is required. If the data center discharges directly to surface waters, an NPDES permit is required instead. The discharge pathway will be determined during the design phase [7a]; [7b].

**If the indirect (municipal) pathway is selected,** a pretreatment agreement with the City of St. Marys would be required. This agreement would address discharge volume, temperature (40 degrees C maximum under 40 C.F.R. Section 403.5(b)(5)), TDS levels, and other parameters. The city's WWTF would need to confirm that it has adequate treatment capacity to accept the projected discharge without adversely affecting its biological treatment processes or its own NPDES permit compliance [8].

**Construction-phase discharges warrant special attention.** The Water Environment Federation's 2026 FAQs for utilities document that construction-phase discharges from cooling system commissioning (including system flushing, passivation, and chemical cleaning) may pose greater risk to municipal biological treatment processes than routine operational blowdown. These would be specifically addressed in any pretreatment agreement [8].

**The project is designed to minimize WWTF dependency.** The facility will incorporate dedicated intake and return infrastructure with on-site treatment capabilities, reducing reliance on municipal wastewater systems. If the St. Marys WWTF lacks adequate capacity, the engineering design will either incorporate enhanced on-site pretreatment, pursue the direct discharge (NPDES) pathway, or include investment in municipal infrastructure upgrades as part of the development agreement. No truck hauling of wastewater is contemplated.

Beltline Energy commits to engaging directly with the City of St. Marys to assess WWTF capacity as part of the design-phase permitting process, and to structuring the wastewater discharge approach in a manner that the city's utility confirms is compatible with its system.

**Key Citations:**

[7b] 40 C.F.R. Part 403 (Pretreatment); 40 C.F.R. Section 403.5(b)(5) (temperature limit)

[8] WEF FAQs v16 (2026) — industrial pretreatment, TDS, construction-phase discharge

## Question 12 — Kansas River and Aquifer Sustainability

*"Can the Kansas River and local aquifer sustain increased withdrawal given documented decline?"*

### Response:

This question goes to the heart of water resource sustainability, and it deserves a thorough response grounded in the specific regulatory and hydrological context of Kansas.

**Surface Water and Groundwater Are Distinct Systems with Different Management Frameworks.** The Kansas River is a surface water system fed by a 60,000-square-mile watershed across northern and central Kansas. Surface water systems are replenished by precipitation, snowmelt, and baseflow from connected aquifers. The relevant technical question is whether additional appropriation is compatible with existing rights and minimum streamflow requirements — an analysis that the Kansas Division of Water Resources (DWR) conducts for every new water appropriation application. Groundwater in Pottawatomie County is primarily associated with alluvial and glacial drift aquifer systems, which are distinct from the High Plains (Ogallala) Aquifer in western Kansas where the most significant documented declines have occurred [2].

**Kansas Law Provides a Basin-Level Review Framework.** The Kansas Water Appropriation Act requires the Chief Engineer to evaluate every application for a new water right against two criteria: (1) the proposed appropriation must not "impair use under an existing water right," and (2) it must not "prejudicially and unreasonably affect the public interest." This evaluation occurs within the context of the Kansas River basin's total appropriated and available water supply. If the Chief Engineer determines that the Kansas River cannot sustain an additional withdrawal without impairing existing rights — including the rights of St. Marys, JEC, and all other appropriators — the application will be denied [10].

**DWR Oversight Extends Beyond Initial Permitting.** The Kansas Water Office maintains the state's water plan and monitors reservoir levels, streamflow conditions, and drought status across all river basins. The Kansas State Water Plan identifies water supply challenges and conservation strategies at the basin level. The prior appropriation system ensures that during drought conditions, the Chief Engineer administers curtailment in priority order — junior rights are curtailed before senior rights, providing structural protection for existing users [9].

**Pottawatomie County Groundwater Is Independently Monitored.** As discussed in Question 1, groundwater levels in the county are monitored by USGS and the Kansas Geological Survey. The proposed project does not rely on groundwater, but monitoring data is publicly available for community review [1a]; [1b].

**The Project Is Designed to Maximize Water Efficiency and Minimize Demand.** The facility's water strategy is guided by the engineering principles set forth in Appendix A, including maximizing water efficiency, avoiding groundwater dependence, utilizing existing infrastructure, and designing for drought

resiliency. The industry's national average Water Usage Effectiveness (WUE) is 0.36 liters per kilowatt-hour of IT energy, and best-in-class operators have achieved WUE of 0.15 L/kWh. Beltline Energy is designing to achieve WUE performance in the top tier nationally, and air-cooled and hybrid cooling alternatives that reduce or eliminate evaporative water use will be evaluated as part of the engineering design [5].

Beltline Energy does not make unilateral determinations about the sustainability of the Kansas River system. That determination belongs to the state agencies charged with managing Kansas water resources: the Division of Water Resources, the Kansas Water Office, and the Kansas Department of Health and Environment. What Beltline Energy commits to is that the project will not seek or use water without DWR authorization, will design for the highest achievable water efficiency, and will comply with all curtailment orders during drought conditions.

**Key Citations:**

- [2] K.S.A. §§82a-701 et seq. (Kansas Water Appropriation Act)
- [5] WEF, Water-AI Nexus, Principles for Sustainable Water Use by Data Centers (2025)
- [14] Shehabi et al., 2024 U.S. Data Center Energy Usage Report (LBNL, 2024)
- [10] K.S.A. §82a-711 (Kansas Chief Engineer water appropriation permit applications)
- [1a] U.S. Geological Survey, Water Data for the Nation ([waterdata.usgs.gov](https://waterdata.usgs.gov))
- [1b] Kansas Geological Survey, National Groundwater Monitoring Network Portal  
Kansas Water Office
- [9] K.S.A. §82a-707 (priority of water appropriation rights)

## **Appendix A — Engineering Principles Guiding Water Strategy**

The following engineering principles guide Beltline Energy's water strategy for the proposed data center facility. These principles reflect industry best practices, federal regulatory requirements, and the project's commitment to responsible water stewardship in Pottawatomie County.

### **A.1 — Maximize Water Efficiency**

The facility will be designed to achieve Water Usage Effectiveness (WUE) in the top tier nationally. The international standard for measuring data center water consumption, ISO/IEC 30134-9:2022, defines WUE as liters of water consumed per kilowatt-hour of IT-equipment energy. The U.S. national average WUE is 0.36 L/kWh (2023), and best-in-class operators have demonstrated WUE values as low as 0.15 L/kWh. The engineering design will incorporate high cycles of concentration (CoC) in cooling tower operations — targeting CoC of 6–10 for indirect evaporative or cooling tower systems — to minimize the volume of makeup water required per unit of cooling delivered.

### **A.2 — Minimize Potable Water Demand**

The project is designed to avoid reliance on potable (drinking-quality) water for cooling operations. Consistent with the Water Environment Federation's AI Nexus framework, the facility will prioritize non-potable water sources — including surface water from existing infrastructure, reclaimed water, and other non-drinking-water sources — for all cooling and industrial process needs. Municipal drinking water systems will not serve as the facility's cooling water source.

### **A.3 — Avoid Groundwater Dependence**

The project's water strategy does not rely on new groundwater wells. The facility is designed to utilize surface water through existing infrastructure rather than creating new demands on local aquifer systems. This principle protects existing groundwater users and avoids contributing to any localized drawdown in the alluvial or glacial drift aquifer systems underlying Pottawatomie County.

### **A.4 — Utilize Existing Infrastructure**

Where feasible and legally authorized, the project will leverage existing water infrastructure — including the Jeffrey Energy Center's reservoir system, intake structures, and conveyance systems — rather than constructing entirely new water supply infrastructure. This approach minimizes environmental disturbance, reduces construction impacts, and takes advantage of infrastructure that has operated for decades within the Kansas River basin.

### **A.5 — Use Managed Return-Water Systems**

All water used by the facility will be managed through dedicated intake and return infrastructure. This includes controlled water pathways from source through use, on-site treatment and monitoring systems, and managed discharge through federally regulated pathways (NPDES or pretreatment). No untreated or unmonitored discharge will occur. The return-water system will be designed to meet or exceed all applicable federal and state water quality standards.

#### **A.6 — Design for Drought Resiliency**

The facility's water supply strategy will account for the possibility of curtailment under Kansas's prior appropriation system. As a junior water right holder, the data center may be subject to curtailment during drought conditions. The engineering design will incorporate drought-resiliency measures — including water storage capacity, air-cooled backup or hybrid cooling capability, and operational flexibility to reduce water consumption during shortage periods — to ensure that curtailment does not result in uncontrolled facility shutdown.

#### **A.7 — Maintain Regulatory Compliance**

The facility will comply with all applicable federal, state, and local water regulations, including: the Kansas Water Appropriation Act (K.S.A. 82a-701 et seq.) for water rights; the Clean Water Act and implementing regulations (40 C.F.R. Parts 122 and 403) for discharge permitting; KDHE regulations for water quality and environmental protection; and all county-level conditions established through the zoning and development agreement process.

#### **A.8 — Reduce Total Environmental Impact**

The project's water strategy is designed to minimize total environmental impact — not merely water consumption in isolation. This includes evaluating the energy-water tradeoff (air-cooled systems eliminate water use but increase energy consumption by 10–65%), selecting cooling technologies appropriate to the local climate and water availability, and designing wastewater management systems that protect downstream water quality. The goal is a facility that operates within the carrying capacity of the local water system as determined by the state agencies responsible for that assessment.

### Works Cited

- [1a] U.S. Geological Survey, Water Data for the Nation. [waterdata.usgs.gov](https://waterdata.usgs.gov).
- [1b] Kansas Geological Survey, National Groundwater Monitoring Network Portal.
- [2] K.S.A. §§82a-701 et seq. (Kansas Water Appropriation Act).
- [3] K.S.A. §12-757 (Kansas zoning amendment procedure; protest petitions).
- [4] Pottawatomie County Draft Regulations, Data Center Overlay, April 30, 2026.
- [5] Water Environment Federation, Water-AI Nexus Center of Excellence, Principles for Sustainable Water Use by Data Centers: Building More Effective Public-Private Collaboration. 2025.
- [6a] ASHRAE Technical Committee 9.9, Water-Cooled Servers: Common Designs, Components, and Processes. 2019.
- [6b] ASHRAE Technical Committee 9.9, Emergence and Expansion of Liquid Cooling in Mainstream Data Centers. 2021.
- [7a] 40 C.F.R. Part 122 (National Pollutant Discharge Elimination System (NPDES) permit program).
- [7b] 40 C.F.R. Part 403 (General Pretreatment Regulations for Existing and New Sources of Pollution).
- [8] Water Environment Federation. Water and Wastewater Utilities and Data Centers: Frequently Asked Questions (FAQs). Version 16, April 2026.
- [9] K.S.A. §82a-707 (priority of water appropriation rights).
- [10] K.S.A. §82a-711 (Kansas Chief Engineer water appropriation permit applications; impairment standard).
- [11] City of St. Marys, Utility Information. [smks.info](https://smks.info).
- [12] Kansas River ([kansasriver.org](https://kansasriver.org)), Jeffrey Energy Center — Electrical Energy Production.
- [13] K.S.A. §82a-708a (change applications for existing water rights).
- [14] Shehabi, A., et al. 2024 United States Data Center Energy Usage Report. Lawrence Berkeley National Laboratory, LBNL-2001637. December 2024.
- [15] ISO/IEC 30134-9:2022. Information Technology — Data Centres Key Performance Indicators — Part 9: Water Usage Effectiveness (WUE).



154 Krog Street  
Suite 105  
Atlanta, GA 30307

[16] U.S. Environmental Protection Agency. Guidelines for Water Reuse. EPA/600/R-12/618. September 2012.