CANNON FALLS TECHNOLOGY PARK

- Joint Work Session
- October 9, 2025

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Kristin Dean – Senior Director, Entitlements
Phillip Sandino – SVP Utility Development
Ethan Marks – Site Planning Engineer

Jacob Steen - Shareholder

Trish Sieh– Vice President
Mike Brandt– Development Services Engineer

Blair McNeil – Campus Director

Work Session Agenda

1. Applications and Process
2. Website Updates
3. Economic Benefits
4. Jobs
    1. Construction
    2. Data Centers
3. Zoning & PUD
4. Regulatory Oversight
5. Water & Wastewater
    1. Overview
    2. City Water and Wastewater Study
    3. Water Usage and Overall Impact
6. Development Agreement

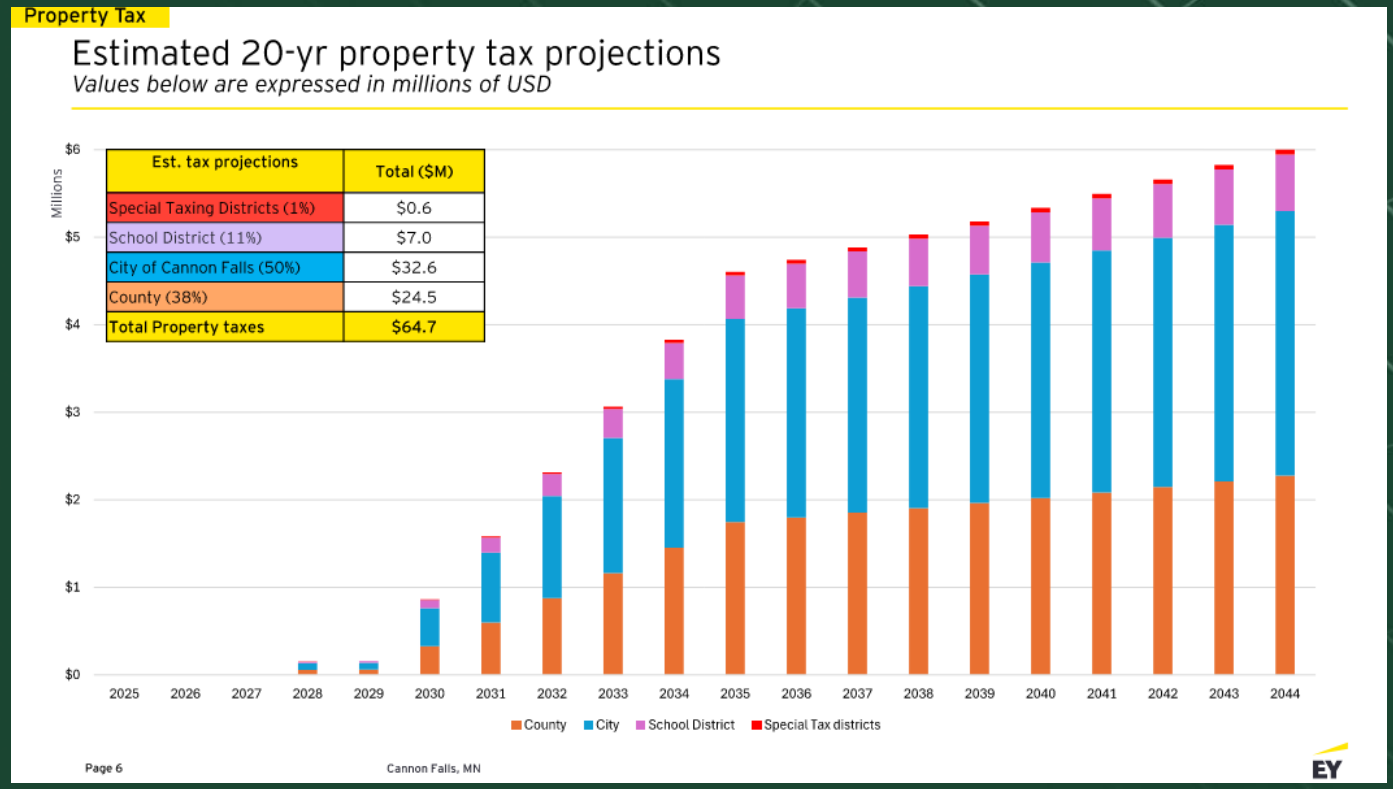
Community Outreach

Website URL: https://www.cannonfallstechnologypark.com/

Economic Benefits

Property Tax Generation

- Over **$30 BILLION will be invested** into this site over 20 years
- Estimated $30M in tax revenue to the City over 20 years
- Tax revenue generated from real estate property taxes and business personal property taxes
- Increase tax revenues allow for increased funding for parks, facilities, roads, infrastructure and fire/police/EMS services
- Over **1,000 construction jobs** and **250 permanent jobs**
- Attraction of new businesses
  - Each direct data center job supports 6+ jobs elsewhere in the economy
- State Sales Tax: ~$170M
- County Tax: ~$30M (property & sales tax)
- Metro Area Housing Tax:~$6M
- Metro Area Transportation: ~$18M



DATA CENTER JOBS

Employment, Entrepreneurship and Local Business Growth

From Project Commencement to Sustaining Operations

Data Center projects require significant local human capital

- Developers engage with local legal, engineering and technical resources
- At early project commencement, local hotels, restaurants, caterers and services will see significant increase in business
- As construction begins local services – excavation, hauling, equipment rentals, home rentals – will be required to grow to service the project
- At full construction there will be local business demand made by the thousands of trade, technical and business personnel who will be onsite – either traveling or relocating to the area.
- During commissioning, end users will install and put into service the technical equipment that will provide the mission of the data center
- During sustaining operations there will be hundreds of new full time and contractor employees needed to operate, maintain and upgrade

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Data Center Full Time Employment

Real Estate Teams manage the building operations (plumbing, roof, doors, custodial, groundskeeping, etc.

- Come from other local real estate management, building trades, trade schools and military

Critical Facility Teams manage the uptime requirement of all electrical and mechanical systems

- Come from trades, military (Navy nuclear and conventional Ops, Army Prime Power)

Network Operations Teams manage all the network production of servers and inbound and outbound telecom mission

- Come from universities, trade schools and military

Security Teams secure the physical facility

- Come from police and security contractors

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Data Center Construction Jobs

Minnesota specific job postings and salaries

Role	Approx Salary / Wage	Notes / Source	Training / Requirements
Data Center Technician	~$26.25/hr average in MN (≈ $54,600/yr) (Indeed) In Minneapolis-St. Paul area: ~$53,000 to ~$80,000/yr (~$24–$35/hr) per Glassdoor (Glassdoor)	Entry to mid level IT / facilities role	Some technical schooling or certification, hands-on experience with servers, HVAC, power, basic networking
Electrical Contractor / Electrician	~ $34.76/hr average for “Electrical Contractor” in MN (ziprecruiter) (ZipRecruiter) Journeyman electrician in Minneapolis ~ $35.10/hr (SkillCat) (SkillCat) Union rate: Journeyman $59.00/hr + benefits (fringe package ~$94.89/hr total) in Minneapolis JATC area (Minneapolis Electrical JATC) In Minneapolis, “electrician” wages rate ~ $41.71/hr on Indeed (Indeed)	Varies substantially depending on union, specialization, project type	Requires apprenticeship, journeyman license / certification, electrical code knowledge, possibly high voltage training
Field Engineer / Construction / Project Manager (Data Center)	Many job listings for data center construction roles in Minneapolis show ranges like $68,000 – $150,000+ (ZipRecruiter) Senior / Construction Manager / Project Manager roles in mission-critical / data center space often $116K–$158K/yr in MN area (per job ads) (ZipRecruiter)	These are more senior / oversight roles	Degree in engineering, construction management, or similar; experience in industrial / mission critical construction; project management skills
Commissioning / Controls / Electrical Engineering (Data Center)	Data Center Engineer in Minneapolis ~ $111,280/yr (Indeed estimate) (Indeed)	More specialized	Engineering degree (electrical, controls, etc.), controls / instrumentation experience, understanding of power systems, commissioning practices
Low-Voltage / Cabling / Installer Roles	Job postings in MN show “Project Manager – Low Voltage” $100K–$140K in Minneapolis area (Glassdoor) “Data Center Cable Technician” roles in MN have posted salaries $49,000–$66,000 (Glassdoor) (Glassdoor)	For cabling, fiber, structured cabling, etc.	Certification in fiber optics, cable standards training, splice experience, reading plans, safety training
Maintenance / Facilities / EHS Specialist	Job postings in MN: Data Center Maintenance Technician $28.84–$34.61/hr in Saint Paul area (Glassdoor)	These roles manage ongoing operations post-construction	HVAC / electrical experience, licensing, safety training, experience in mission critical operations

ENTITLEMENTS APPLICATIONS

Application Processes

1. **AUAR** – Complete

2. **Annexation** – Approved

3. **Code Amendment** to add “Data Centers”, “Data Center Substations” and associated uses and standards to the I-2 Zoning District in the Municipal Code – Approved

4. **Rezoning** from Urban Reserve to General Industrial Zoning District (I-2) – Recommended for approval by PC (9/8/2025)

5. **Conditional Use Permit** for Data Centers, Data Center Substations and to allow for an increase in building height – Recommended for approval by PC (9/8/2025)

6. **Conditional Planned Unit Development (“PUD”)**
    1. Concept Stage –Continued by PC to 10/13 meeting
    2. Development Stage –Continued by PC to 10/13 meeting
    3. Final Plan Stage – Application submitted on 9/29. Will be reviewed by PC at 10/13 meeting

7. **Variances t**o certain provisions of the Final Plan Stage PUD –Continued by PC to 10/13 meeting

8. **Preliminary Plat** to create two lots, one outlot and facilitate preliminary design of off-site water and wastewater infrastructure – Continued by PC to 10/13 meeting

9. **Development Agreement** – Requirement of the PUD. To be reviewed by Planning Commission on 10/13 & City Council on 10/21

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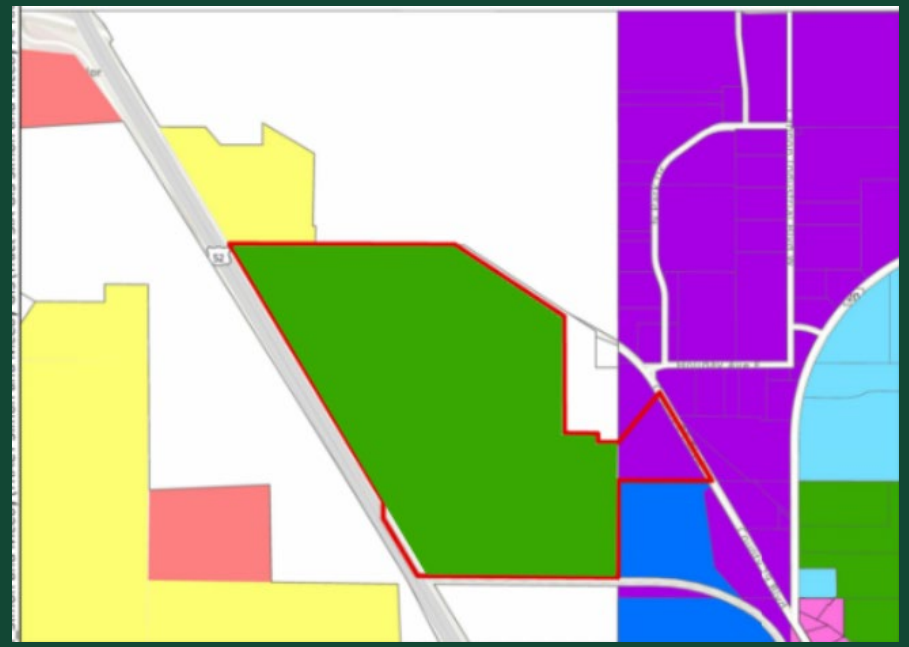
Zoning & PUD

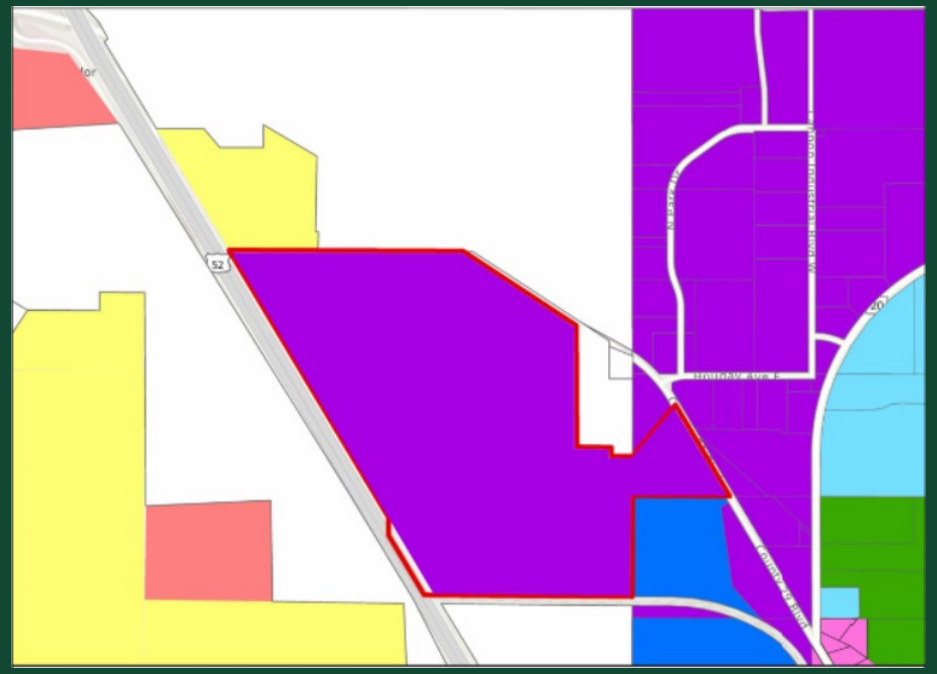
Land was automatically “Urban Reserve” (UR) via the Annexation Process – typical initial zoning when land is annexed into the City.

Reminder: A portion of the land was already zoned “General Industrial”



Rezoning from Urban Reserve to General Industrial

Only development standards in City Ordinance apply..



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Zoning & PUD

Planned Unit Development – Benefits the City with additional regulatory standards

Development Standards	I-2	PUD			
Setbacks	**Feet**	**Adj. to Non-Residential**	**Adj. to Residential**	**Increase in Feet**	**X Times Increase**
Front	40	150	250	110-210	**3.75-6.25X**
Rear	30-40’	150	250	120-210	**5 - 6.25X**
Side	20-30’	150	250	130-220	**7.5X-8X**
Landscape Buffer	20	50	200	200-280	**10X**
Trees in Northern Buffer	230		287	57 trees	**+25%**
Height	50		65	+15	**1.3X**

Future Site Plan*

*The plan shown is conceptual and for exemplary purposes only. Building locations, building size, and other site improvements will be specified and approved through a future site plan application

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Development Fees to be paid by the Project

Fee	Description	Date Due	Amount
Water Capital Improvement Charge	Water charge to support the construction of a new water tower	Prior to the issuance of a building permit for the first building (est. Q4 2028)	$5,000,000
Sewer Capital Improvement Charge	Sewer charge to help cover the operational costs of the WWTP.	First payment due prior to issuance of the first building permit for first building	$1.2M -1.6M (total) (TBD)
Park Dedication Fee	Charge to provide funding to parks and recreational facilities	Final Plat recordation (est. Q2 2026)	$494,000
Building Permit(s)	Based on real property valuation	Due prior to issuance of the first building permit	Estimated at ~$1M
Water and Sewer Usage Charges, Stormwater Charges	Standard utility usage fees per City Code	Monthly	Estimated at ~$1M Annual at full-buildout. $13M (total through 2045)

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Regulatory Oversight

Agency Oversight and Permitting

Due Diligence
Identify site & design constraints

- Phase I Environmental Site Assessment
- Phase II Site Assessment, as needed
- Aquatic resources & buffers
- Endangered species
- Cultural resources
- Environmental Justice
- Geology / Geotechnical

Site Design
Identify permit needs

Local
- Compliance with Zoning Conditions

State
- Stormwater
- Wetlands Impacts
- DOT ROW permits

Federal
- Aquatic resources & buffers avoidance and mitigation
- Endangered species avoidance and mitigation
- Cultural resource avoidance and mitigation

Pre-Construction
Obtain Permits

Local
- Site Plan Approval
- Building Permit
- Grading Permit
- Construction Management Plan
- Fire Department Review

State/DEQ
- Construction Stormwater permit
- 401 water quality certification
- Buffers
- Aquatic resources
- Dust (Air Quality)

Federal/Army Corps
- Clean Water Act Section 404
- Endangered Special Act Section 7
- National Historic Preservation Act Section 106

Construction
Monitor compliance

Local
- Building Permits
- Building Inspections

State
- Stormwater Pollution Prevention Plan (SWPPP)
- Spill Prevention & Control Plan
- Water Quality monitoring
- Dust & Air Quality monitoring

Federal
- Wetlands/Streams impacts crossings
- Water quality monitoring
- ESA Species Monitoring

Post-Construction
Operate in compliance

Local
- Building permits
- Fire Department

State
- Operational SWPPP for Development Long-Term Monitoring
- Operational Air Quality (generators) Long-Term Monitoring
- Mitigation Monitoring, as applicable (stream/wetlands)

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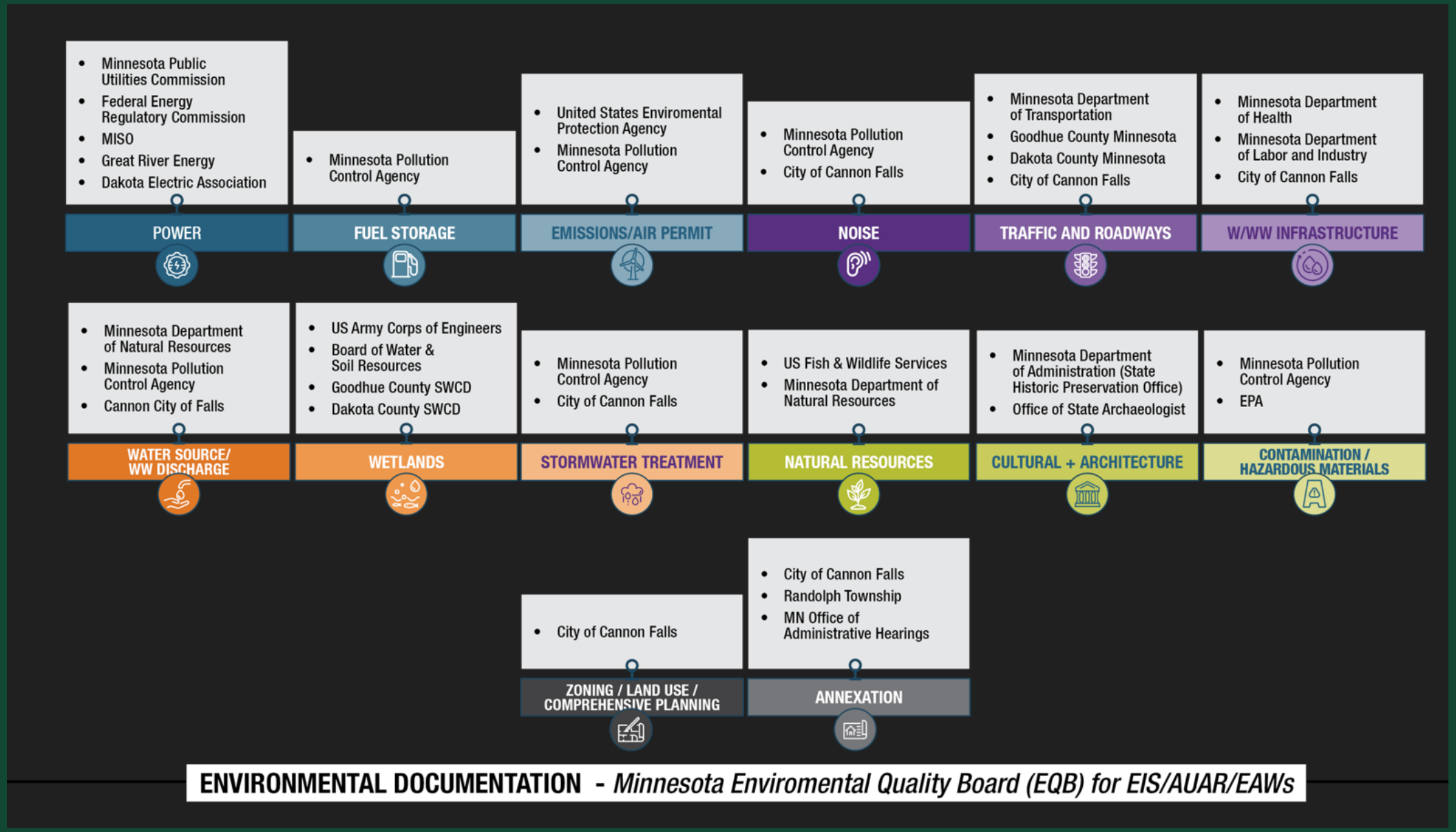
Approving Agencies



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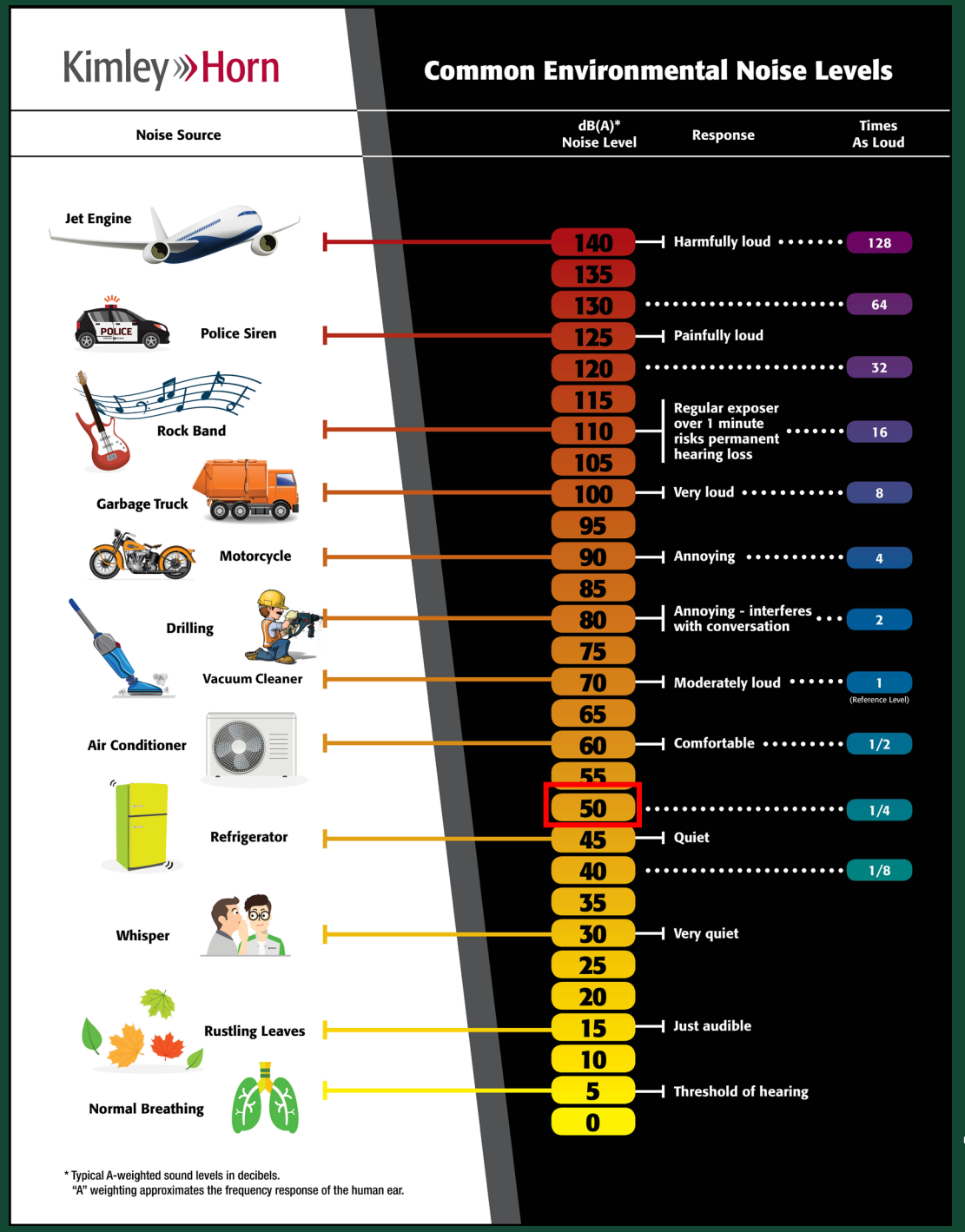
Sound

- Sound is regulated by the Minnesota Pollution Control Agency (MPCA)
- Residential (NAC 1): 60 -65 dBA daytime / 50-55 dBA nighttime
- Road traffic is the dominant source of sound at this location, made up of constant Highway 52 noise from the west and Rochester Blvd noise to the east.
- PUD standards requires noise study prior to the issuance of a building permit detriment to aquifers.



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Onsite Generators

- Required for back-up power
- Visually screened
- Sound attenuated to comply with local code
- Testing
  - Industry standard: 30 mins/month @ 30% load
  - Testing times compliant with Authority Having Jurisdiction
- Heavily regulated
  - Strict emissions standards per Clean Air Act to comply with EPA and MPCA
  - All diesel generators require an EPA certified engine
  - Permit limits on run time per jurisdiction
  - EPA limits:
    - Non-methane hydrocarbons
    - Volatile Organic Compounds
    - Nitrogen Oxides
    - Particulate Matter
    - Carbon Monoxide

Water & Wastewater

Water Overview

- Data Centers optimize water vs. power usage for the highest overall efficiency and sustainability.
- For this site:
  - Water requested = 1% of the water used ~6-miles around the Site
  - 2 MGY net water use increase onsite requested = 1 small 40 room hotel
  - ~$9M-10M of private funding for water and sewer upgrades that will have Citywide benefits
  - 142 MGY of approved appropriations available for use between the City and on-site well
    - On-site well is only allowed for emergency use only
- DNR appropriations permits in place signify water use will not adversely affect neighboring wells or be a detriment to aquifers.

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Cannon Falls Water & Wastewater Evaluation

Facts based on City of Cannon Falls Water/Wastewater Capacity Evaluation (May 29, 2025)

- Background:
  - WHKS completed capacity evaluations of the City's water and wastewater systems to determine unallocated capacity that can serve the data center development
  - Evaluations considered projected growth of the City over the next 20 years and concluded that City has sufficient system capacity to serve the project
- Water System Evaluation Results:
  - Cannon Falls has **101 MGY** of available groundwater appropriations for future development and City growth
  - Cannon Falls has **2.16 MGD** of available firm peak day capacity for future development and City growth
  - A new water tower would serve as an alternative to upgrading the booster station to increase delivery flows/pressures and would provide system redundancy. It would also allow the City to decommission the aging North Reservoir storage tank
- Wastewater Treatment Plan Evaluation Results:
  - The cleaner industrial wastewater coming from the project would help balance the organic matter and total suspended solids for the incoming flows of treatment plant.
  - Treatment plant has **1.15 MGD** of available maximum wet weather capacity for future development and City growth

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Requested Water Allocations

Development Agreement provisions will provide a structured framework to protect the City's water resources

Allocation Phase	Requested Municipal Water Appropriations for Project	Percentage of Total Municipal Water Appropriations	Delivery Date
Phase 1	10 million gallons per year (MGY)	4%	No earlier than August 19, 2029
Phase 2	20 million gallons per year (MGY)	8%	No earlier than April 1, 2031
Phase 3	35 million gallons per year (MGY)	14%	No earlier than April 1, 2033
Phase 4	43 million gallons per year (MGY)	17%	No earlier than April 1, 2035

- City has a total of **250 MGY of groundwater appropriations. 101 MGY** are available for future development and City growth
- Project will also be limited to maximum peak day demands for each Allocation Phase
- Operator will need to provide documentation and evidence to City that subsequent phases of the project beyond Phase 1 will require additional capacity and annual volumes to receive the Allocation Phase
- Regardless of water use, the project will pay for the public water/sewer extensions and its share of the water tower

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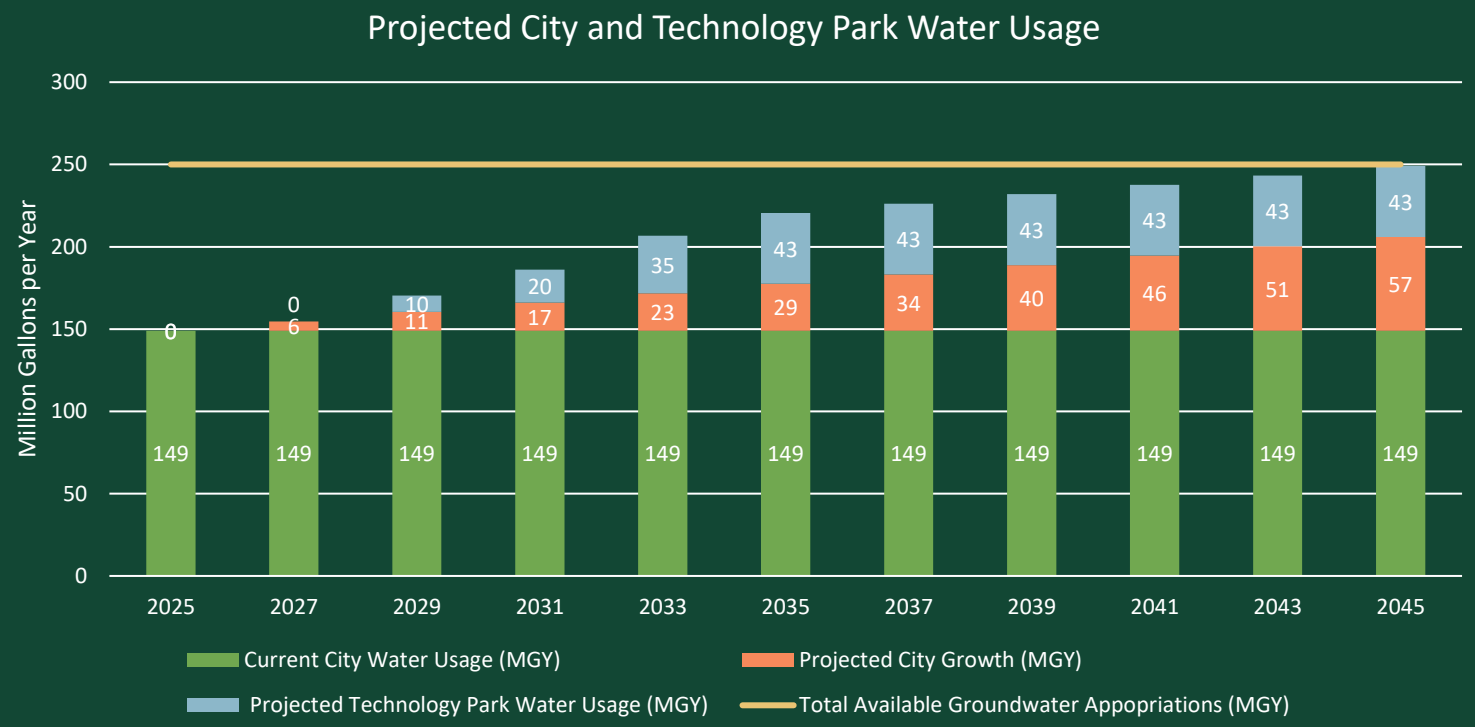
Projected Water Usage

- The proposed data center campus would be limited to 43 MGY at full buildout. City has a total groundwater appropriation of 250 MGY.
- Project would fit within City's current groundwater appropriations and growth plan through 2045
- The existing on-site well (41 MGY appropriations) can only be used for emergency use only and not for regular operations – would still need to be permitted through DNR for emergency use
- Effective increase in 2 MGY for the site from existing irrigation appropriations, is equivalent to 20-single family homes.



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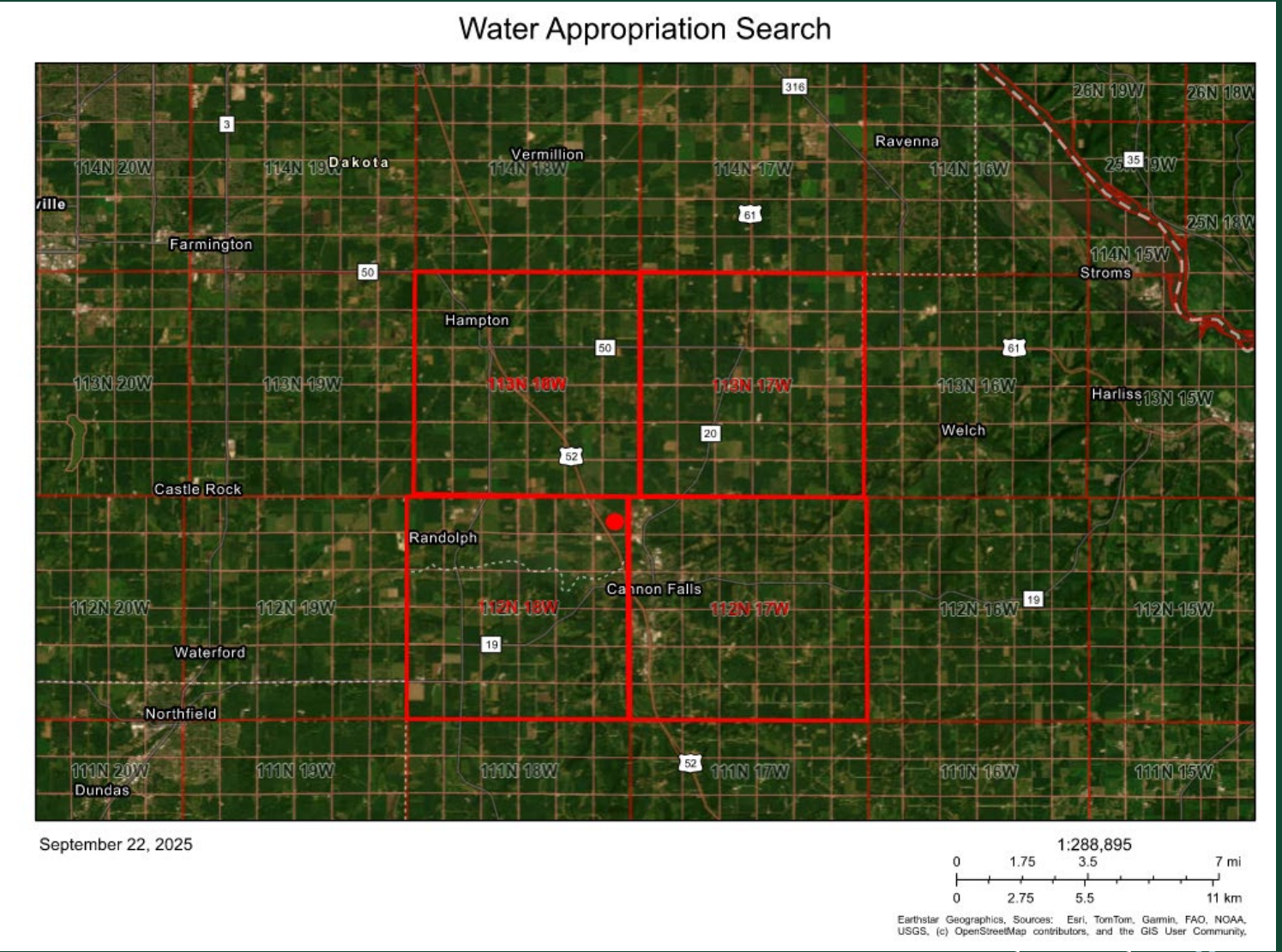
Water Usage Relative to the Region

- Within ~6-miles of the site (164 wells) ~7.2 BGY of water appropriations are permitted and in 2023 ~4.0 BGY were used.
- In comparison, the proposed data center campus's 43 MGY of water at full buildout would only account for **~0.6% of the appropriations and ~1% of the use** within ~6-miles of the site.



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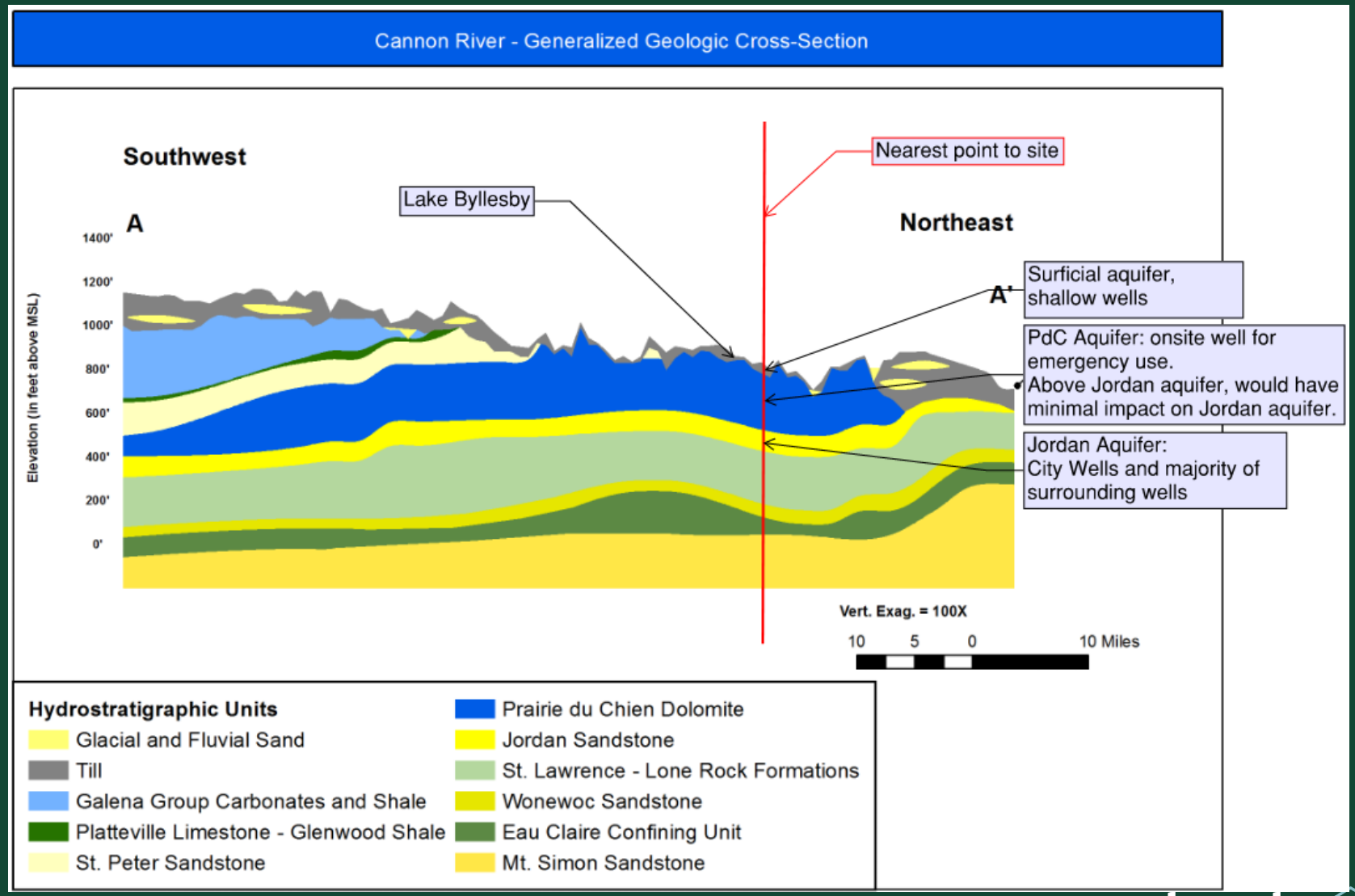
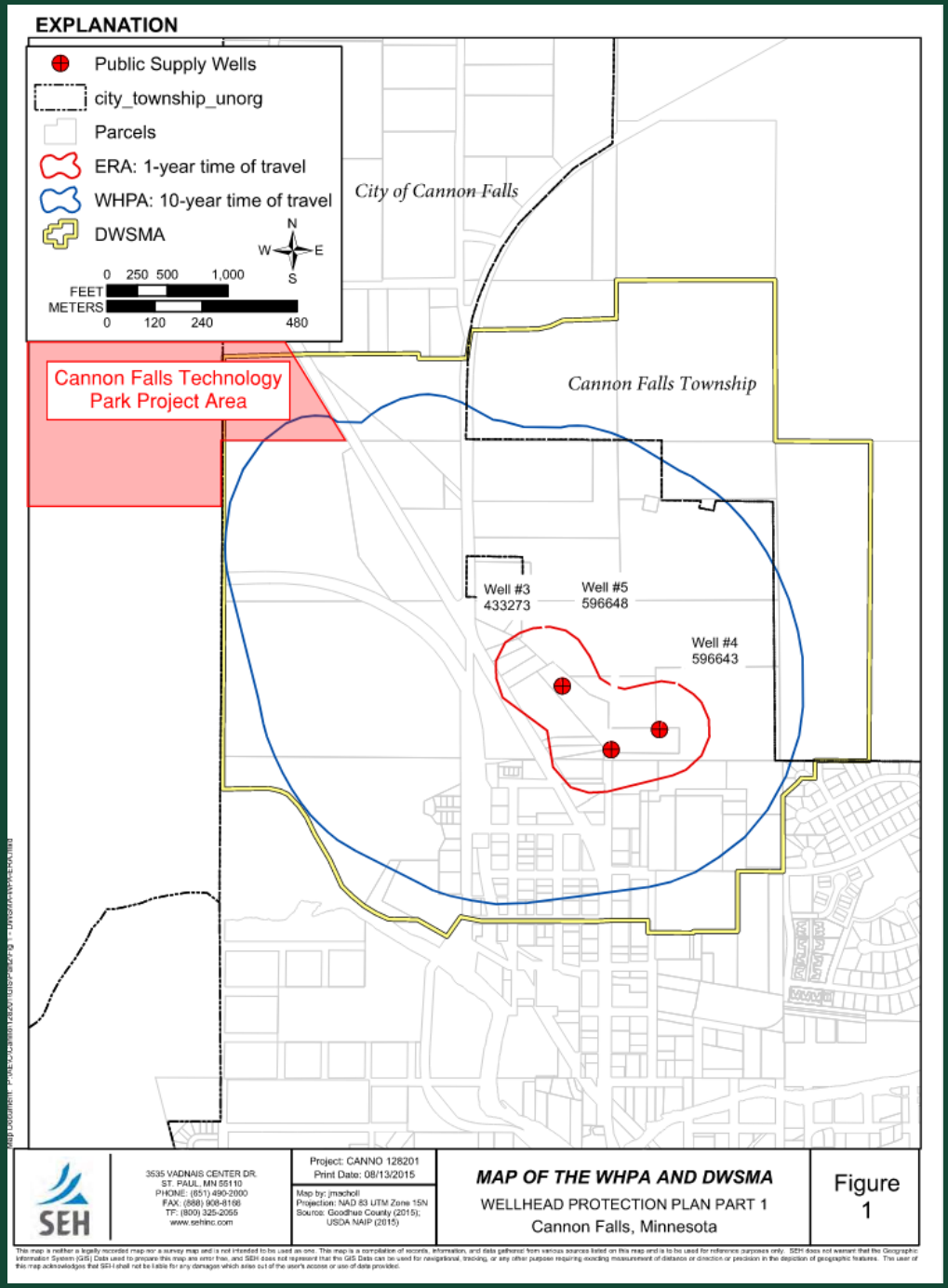
Prairie du Chien & Jordan Aquifer

- 41 MGY on-site well appropriation permitted for irrigation will be transferred into industrial-emergency use only; effectively reversing vast majority of the water take potential from the Prairie du Chien aquifer.
- Hydrogeological conditions make it unlikely that permitted water withdrawals will adversely affect Lake Byllesby levels.



Wellhead Protection Area

- The Wellhead Protection Area (WHPA) is around the wells which is estimated based on contaminates travel time within a 10-yr time limit.
- A small portion of the property is within the WHPA and the Drinking Water Supply Management Area (DWSMA). The project design will ensure that construction within this area will meet the WHPA and DWSMA requirements.



Industrial Wastewater Discharge Options

- Industrial wastewater from cooling could be managed through several methods including discharging to the City's wastewater treatment plants via the City's municipal system or attenuating onsite in Rapid Infiltrations Basins (RIBs). Other alternatives also include spray irrigation

- Municipal Treatment
  - City of Cannon Falls Wastewater Treatment Plant Evaluation confirmed that it has existing capacity to accept industrial wastewater given low potential for organic matter and TSS
  - Discharge limits will be established within the Development Agreement and operator would be required to enter into a Significant Industrial User (SIU) Agreement with City

- Rapid Infiltration Basins
  - For this project, Rapid Infiltration Basins (RIBs) are being considered for the site. RIBs would allow for used water to be infiltrated back into the ground and recharge the aquifer
  - This would need to be permitted by the site operator pending additional hydrogeological testing

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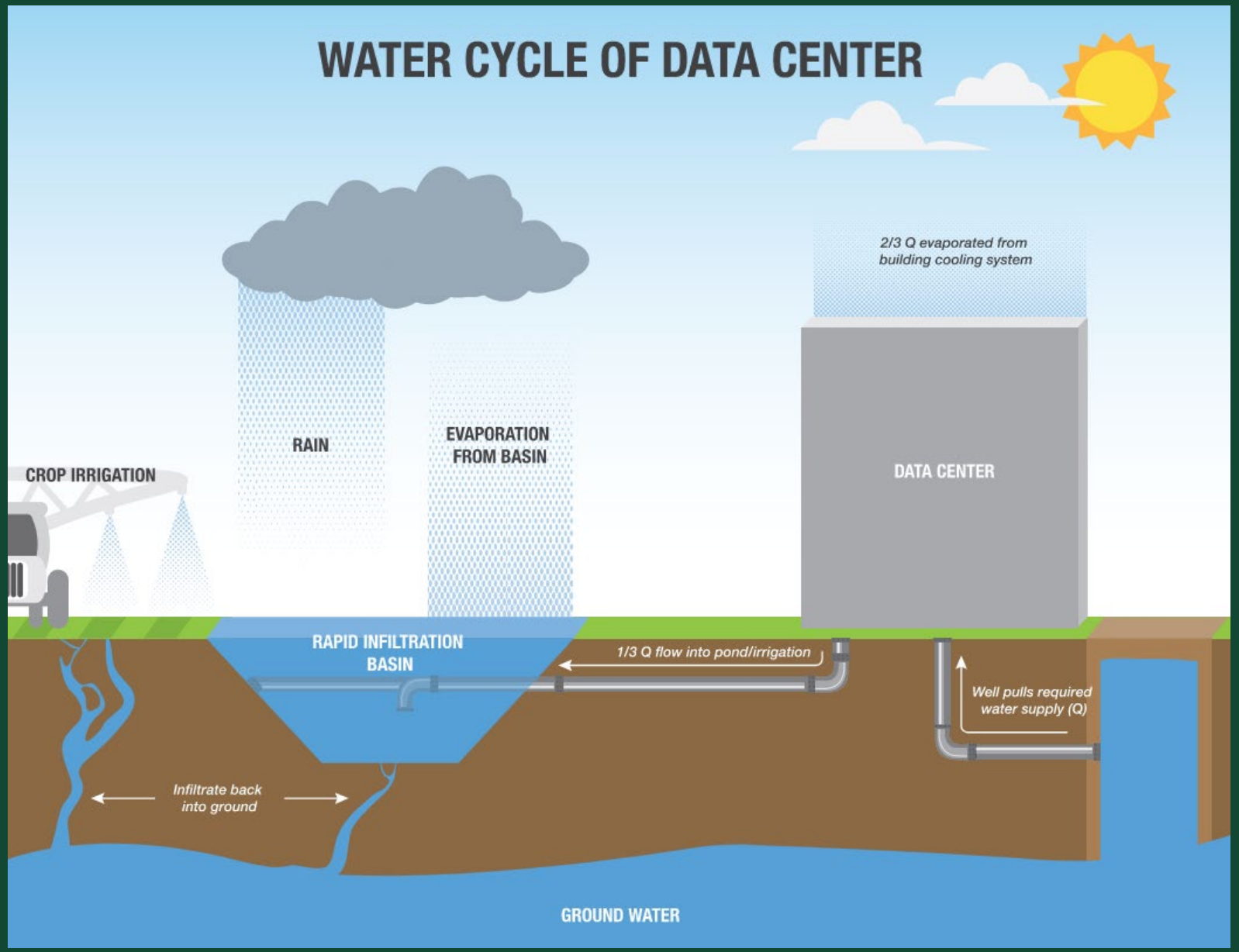
Water Cycle of a Data Center



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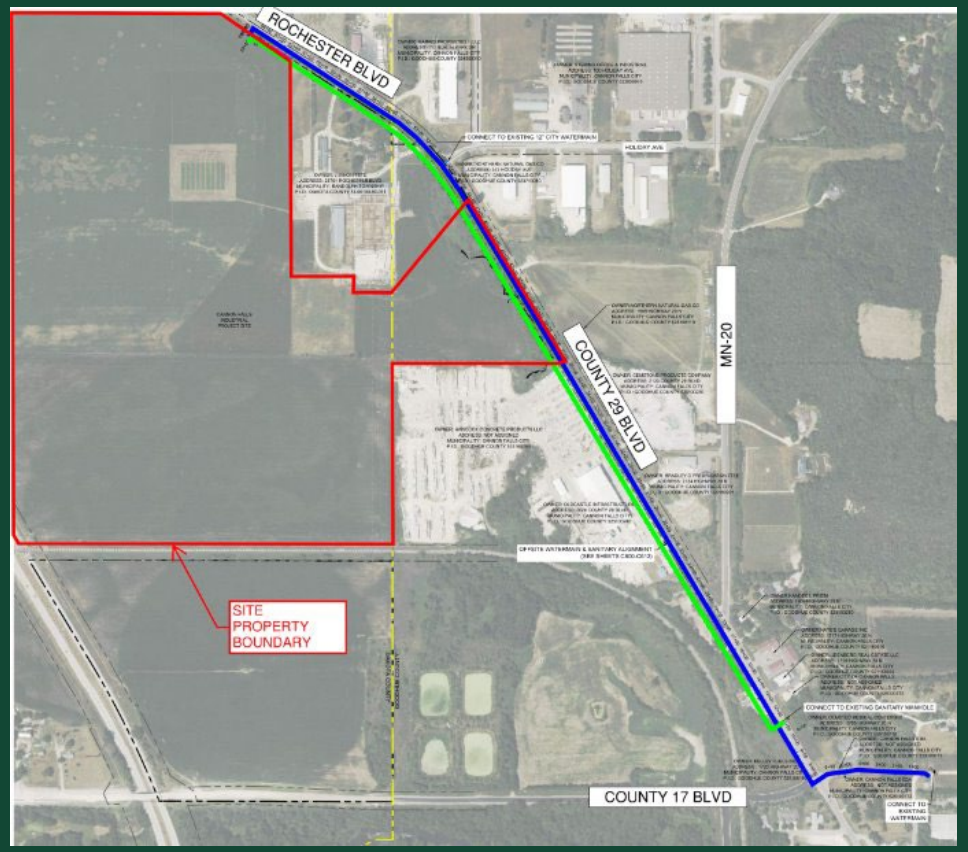
Development Agreement

Public Infrastructure to be paid by Tract

Tract has agreed to pay for public infrastructure so there is no burden on the City or it's ratepayers

- Public Water and Wastewater Line Extensions
  - **Tract will pay for 100% of the costs** for the water and wastewater line extensions to serve the property– Estimated at $4M to $5M.
  - City will complete construction no later than August 19, 2029
  - Developer will also install public looped water main internal to the property to provide additional redundancy for the City
- 1 MG Water Tower
  - **Project will pay a Water Capital Charge of $5M** prior to the first building permit to fund the tower
  - Provides additional storage, redundancy, and greater water pressure & flows to this area of the City
  - City will complete construction within (2) years of first building permit
- Turn Lanes & Traffic Improvements
  - Developer will finance and construct traffic improvements along County Road 86 and County 29 Blvd to accommodate construction traffic & operations



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Development Fees to be paid by the Project

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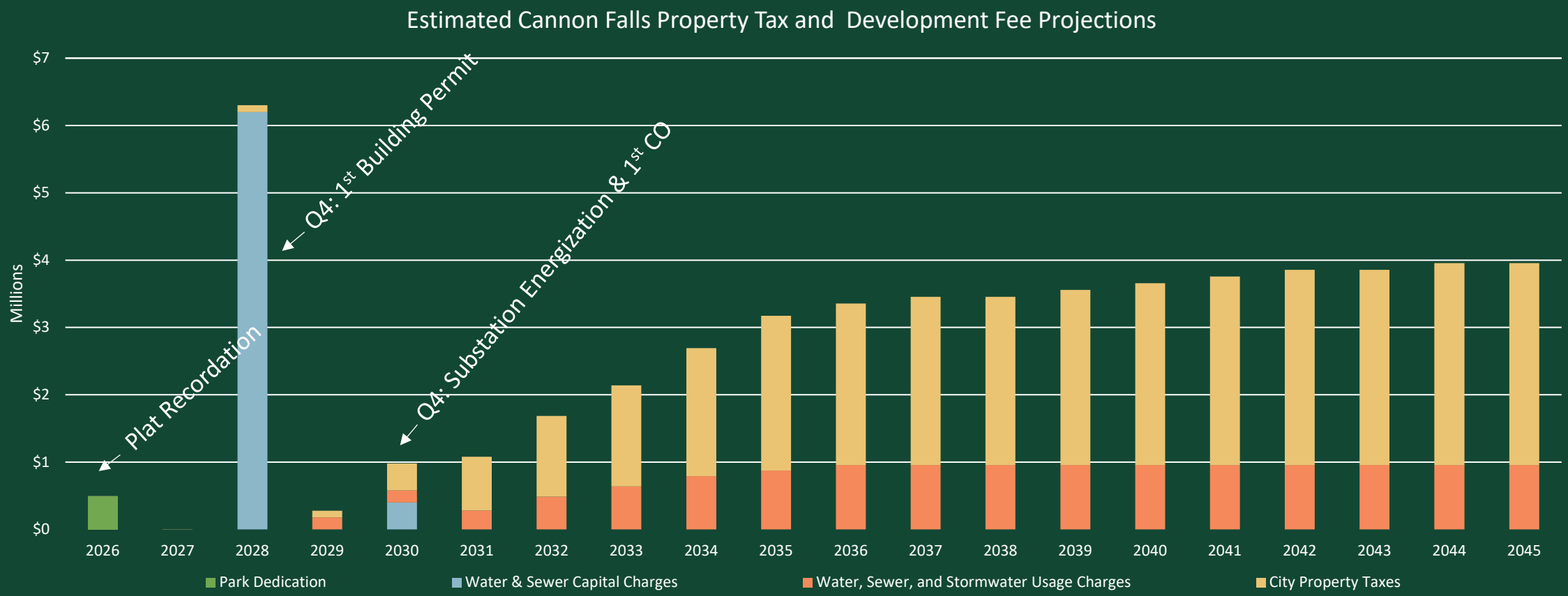
City *Economic* Benefits



City Property Tax and Development Fee Projections	Total (through 2045) ($M)
Park Dedication Fees	$ 0.5
Water & Sewer Capital Charges	$ 6.6
Water, Sewer, and Stormwater Usage Charges	$ 13.0
City Property Taxes	$ 35.6
Total	$ 55.7

*Assumes first building permit in Q4 2028. Estimated Water and Sewer Usage Charges assume the operator is consuming 80% the total water allocations per the requested delivery dates.

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Questions?

Appendix

Working with Tract

Virginia Governor, Governor Glenn Youngkin

According to the Virginia Economic Development Partnership, Virginia hosts the largest data center market in the world with over 35% of all known hyperscale data centers worldwide. "We have demonstrated that the right tax and regulatory policies combined with investments into business ready sites attract dynamic businesses that help power Virginia's economy. Our administration and the Virginia Economic Development Partnership have been engaged with Tract for some time and are excited to welcome their commitment and investment in the Commonwealth to complement our efforts to attract responsible data center development."

Texas Governor, Greg Abbot

"Texas is where the future of innovation is building, including in advanced technologies. This new data center development in San Marcos will create good-paying jobs, bolster the state's power grid, and enhance our technology infrastructure. We look forward to working with corporate partners like Tract to further expand Texas' economic might and develop our state as the epicenter of technological advancement."

Nevada Governor, Joe Lombardo

"We look forward to working with Tract on their future plans for northern Nevada and welcome them to the state. As the Nevada economy continues to diversify, technology companies will be a key component of our growth."

Virginia - Hanover County Administrator, John Budesky

Virginia's success in hosting a premiere data center hub has also provided lessons on how to align the interests of developers, host communities, neighbors and the environment. "Tract took a proactive and cooperative approach throughout the rezoning process. They showed interest in being a good neighbor by engaging with the community and adapting their plans to address residents' concerns. We value Tract's investment in Hanover County and look forward to partnering with them on this project."

Arizona - Mayor of Buckeye, Eric Orsborn

"This project represents a major milestone for Buckeye. Through our collaboration with Tract, we've positioned Buckeye to host one of the largest data center technology parks in the country, driving substantial revenue and ensuring a thriving, sustainable future. By identifying land near the airport, we replaced an outdated planned community with a decades-long plan for economic growth. Projects of this size require a well thought out, executable plan, especially when analyzing the infrastructure needs of communities, and we are pleased that this project reduces water demand, preserves natural spaces and creates hundreds of high-paying jobs."

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Working with Tract

Texas - Caldwell County Judge, Hoppy Haden

"Tract has leaned in to understand Caldwell County's needs as we welcome a wave of new residents and businesses. Transportation is a key priority for our residents, and Tract's willingness to invest alongside the County and State into an expansion of FM2720, a key new transportation project, shows they are invested in the future of Caldwell County."

Nevada – NV Energy President & CEO, Doug Cannon

"We have been working with Tract for nearly a year now and are excited to partner with them on these projects. These data center parks will be some of the biggest consumers of energy on our system. Tract's approach of long-range planning allows us to engage and collaborate early to ensure reliable, affordable and sustainable power will be delivered."

Texas - Mayor of Uhland, Lacee Duke

"We are excited to welcome Tract to the region and our community. We worked hard to ensure that Tract's development will bring jobs and investment that will benefit all Uhland residents."

Utah - Mayor of Eagle Mountain, Tom Westmoreland

"We identified data centers early on as a way to employ residents, pay for the infrastructure of our growing city, and form partnerships to strengthen this close-knit community. Beyond the fiscal impact, our new technology neighbors have been great additions to our community, and we look forward to working with partners like Tract to develop new campuses and expand our emergence as a tech hub while maintaining our small-town charm."

Utah - President and CEO of the Economic Development Corporation

"We appreciate Tract's leadership in minimizing water impact, as well as their innovative approaches to powering their campuses. Resource-conscious data center expansion can help ensure economic prosperity for the State of Utah, today and in the future."

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Anticipated Entitlements Schedule

October 13 – Planning Commission

- Concept Stage PUD
- Development Stage PUD
- Final Stage PUD
- Variances
- Preliminary Plat
- Development Agreement

October 21 – City Council

- Rezoning – 1st Reading
- Conditional Use Permit
- Concept Stage PUD
- Development Stage PUD
- Preliminary Plat

- **November 5 – City Council**
  - Rezoning – 2nd Reading
  - Final Stage PUD
  - Development Agreement

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Data Centers:
Essential Infrastructure supporting our nation's digital needs while creating jobs for local communities

DATA CENTERS: CREATING OPPORTUNITIES FOR THE LOCAL COMMUNITY

Data center jobs offer stable, local employment in a vital industry that will continue to see strong employment growth. Sites are strategically chosen based on the strength of the existing workforce and the potential to reskill or upskill community members to meet industry needs.

The industry is invests in workforce readiness through partnerships with:

- K-12: STEM PATHWAYS
- COMMUNITY COLLEGES: CERTIFICATES & DEGREES
- 4-YEAR COLLEGES: BACHELORS & ADVANCE DEGREE PROGRAMS
- SPECIALIZED TRAINING & CURRICULUM

"We have people waiting at the door for our graduates to move into their sites," said Chad Knights, the school's vice president (NOVA) of information and engineering technologies and college computing. **"Students are getting snapped up for jobs before program completion."**

DATA CENTERS: LONG-TERM CAREER OPPORTUNITIES

Construction Jobs Through Buildout:

- **Site Preparation**
- **Infrastructure and utilities**
- **Building construction**
- **Electrical systems (generators, batteries, power distribution, transformers)**
- **HVAC and mechanical systems (air conditioning, chillers)**

Data Center Operation Jobs:

- **Network Engineers & Technicians**
- **Computer Programmers & Research Scientists**
- **Computer Support Specialists**
- **Database Administrators**
- **Security & Site Operations**
- **Building Operations (HVAC, Electricians, Plumbing, etc.)**

3.64 MILLION INDIRECT JOBS SUPPORTED BY DATA CENTER ESTABLISHMENTS IN 2022

DIRECT DATA CENTER EMPLOYMENT **GREW BY 17%** FROM 2017 - 2021

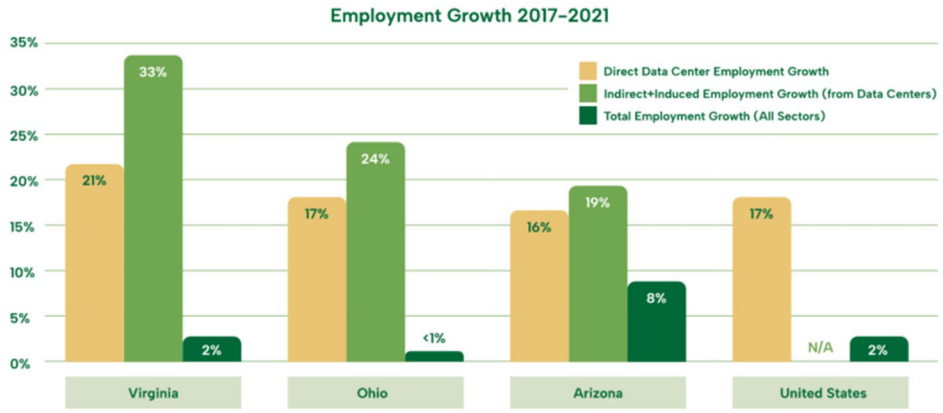
EACH DIRECT DATA CENTER JOB **SUPPORTS 6+ JOBS** ELSEWHERE IN THE ECONOMY

AVERAGE WEEKLY WAGES IN THIS SECTOR **GREW BY 36%** FROM 2020 TO 2024

Data Centers: Driving a Variety of Good Jobs

DATA CENTERS: STRONG UNIVERSAL JOB GROWTH

Regardless of where you live in the United States, Data Center jobs are growing faster than overall employment throughout the country.



Economic, Environmental, and Social Impacts of Data Centers in the United States, Prepared by PwC for The Data Center Coalition, September 2023 (https://www.centerofyourdigitalworld.org/2023-impact-study)

DATA CENTERS: CREATING ADDITIONAL ECONOMIC OPPORTUNITIES IN LOCAL COMMUNITIES

Local economies benefit from data center operations, beyond the direct and construction jobs.
This can result in an increase in additional jobs in number of sectors within the local community and beyond:

- LOCAL SUPPLIERS AND VENDORS
- RETAIL STORES
- RESTAURANTS AND SERVICE BUSINESSES
- HEALTHCARE AND SCHOOLS
- SHIPPING AND LOGISTICS
- MANUFACTURING AND WAREHOUSING

BOTTOM LINE, DATA CENTERS GENERATE GOOD JOBS WHILE SUPPORTING LOCAL BUSINESSES, ATTRACTING NEW INVESTMENTS, AND FOSTERING A COMMUNITY WHERE GENERATIONS OF FAMILIES CAN FIND JOBS THAT SUSTAIN A GROWING FACILITY.

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Economic and Community Benefits

- **Direct data center jobs have increased 50%** from 2017-2023, outpacing the national average of 10%
- Nationally, every direct data center job **supports 6+ jobs** elsewhere in the economy
- Direct labor income **grew 144% indicating high-paying jobs**
- GDP Contribution **outpaced overall US GDP growth by 41%**

	2017	2023	Increase
Jobs*	2.9M	4.7M	**+ 60%**
Labor Income	$209B	$404B	**+ 93%**
GDP Contribution	$355B	$727B	**+ 105%**
Tax Contribution	$66.2B	$162.7B	**+ 146%**

2.9 to 4.7 million annual jobs

Each direct job in the data center industry supports more than 6 jobs elsewhere in the U.S. economy. The total job contribution grew by 60 percent between 2017 and 2023.

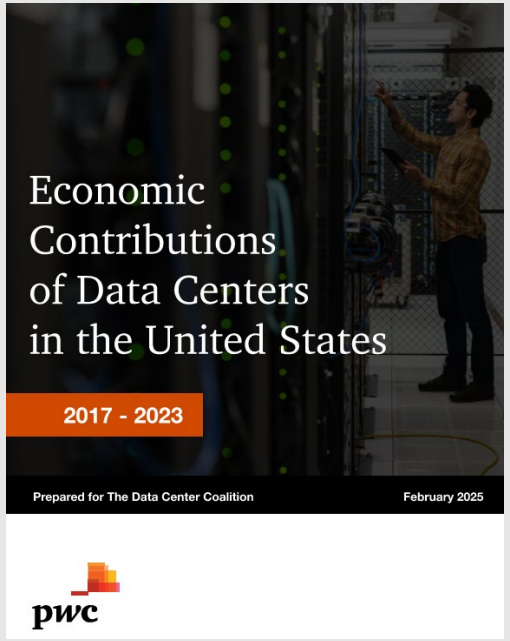
$209 to $404 billion in annual labor income

Total national labor income contribution grew by 93 percent between 2017 and 2023. Labor income earned directly from the data center industry grew by 144 percent over the same period.

$355 to $727 billion in annual GDP contribution

Total contribution to GDP grew by 105 percent between 2017 and 2023. The growth rate in GDP for the U.S. economy was only about 41 percent over the same period.

*Total contribution includes direct, indirect, and induced contributions. Direct contributions are those occurring directly within the data center industry. Indirect contributions are those occurring within other businesses as part of the supply chain to the data center industry. Induced contributions are those arising from household spending of income earned from the data center industry or its supply chain.



Data centers are essential to the digital economy, underpinning everything from social media and entertainment streaming to critical services across business, healthcare, government, and public safety.

Source: Economic Contributions of Data Centers in the United States 2017-2023; PWC
**Includes direct, indirect and induced jobs*

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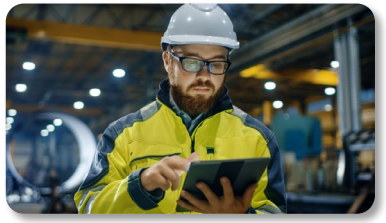
Job Creation

1. Data Center Operations (~275 permanent jobs. Average salary: ~$125,000 annually.
    - Network Engineers
    - Computer Programmers
    - Computer Support Specialists
    - Database Administrators
    - Computer Research Scientists
    - Security
    - HVAC

2. Construction Jobs: ~1,500
    - Electricians
    - Mechanical Engineers
    - Utility Contractors
    - Plumbers
    - Steel Workers
    - Grading Contractor

3. Indirect Jobs : “For every job inside a Virginia data center, there are 3.5 additional jobs that are supported in the rest of the Virginia economy, not counting construction jobs.”*

Data Center Industry Jobs		Entry Level Education	Median Annual Wage
Data Center Site Director / Manager	Optimizes all operations of a data center facility to ensure data performance, availability, and security. Designs operating procedures and policies for installing, configuring, and maintaining servers, networks, and storage systems within a data center to maximize operational efficiency.	Bachelor's Degree Preferred	$185,000
Data Center Engineer Technician	Other Titles: Critical Facility Technician, Engineering Operations, Shift Engineer: Operating & maintain the power, cooling and various other systems that keep the data center operational 24/7/365. These systems include UPS, Generators, ATS, Switch Gear, CRAHs, Chillers & other complex electrical & mechanical equipment	Associates Degree and/or HVAC & Electrical Certifications	$70,378
Facility & Grounds Maintenance	Noncritical operations and maintenance like housekeeping, monitor maintenance to interiors and building, plumbing, groundskeeping, etc.	No Degree Required	Dependent of experience but average is $25/hour
Data Center Security Officer	Monitoring & safeguarding the human assets, intellectual property, integrity, reputation & physical assets to ensure continuity of operations inside and outside of the data center. Monitoring visitors, systems, alarms & CCTV.	Trade School or exposure to security, law enforcement, correction or military	$57,000
Customer Success Manager	Other titles: Customer / Client Support, Account Manager: Advocate on behalf of customer and ensure high quality service delivery and customer satisfaction.	No Degree Required (but preferred)	$65,000
Computer Network Architects	Computer network architects design and implement data communication networks, including local area networks (LANs), wide area networks (WANs), and intranets.	Bachelor's Degree Preferred	$127,000
Information Security Analysts	Information security analysts plan and carry out security measures to protect an organization’s computer networks and systems.	Bachelor's Degree	$112,000

Salary estimates based on market data

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**The Impact of Data Centers on Virginia’s State and Local Economies 5th Biennial Report (April 2024)– Northern Virginia Technology Council*

Job Creation – Many with no degree required

Critical Facility Operations	Site Security	Logistics	Construction Jobs
1. Site Director 2. Site Manager 3. Shift Supervisor - Elevated from technician. 4. Critical Facility Technician I, II, III - 3 or 4 per shift - HVAC and Electrical 5. Facility and grounds maintenance – non-critical operations and maintenance like housekeeping, monitor maintenance to interiors and building, plumbing, groundskeeping, etc	1. Security Manager 2. Security officers	1. Shipping & Receiving 2. Warehousing	1. Electricians 2. Utility Contractors 3. Plumbers 4. Steel Workers 5. Grading Contractor

Deborah Martinez Castellanos checks out the rooftop chillers at the data center where she works to ensure they are functioning properly.

Wall Street Journal: Aug. 14, 2024

- Data Center Operations Programs at Community Colleges can offer 1-year certification and two-year degrees covering topics from fiber-optic technology to power transmission (salaries could range from $29/hr to $43/hour and up).
- Data centers currently employ ~500,000 people across the country
- Equinix trains workers with just a high-school diploma.
- "Data-center careers offer an unusual proposition: low barriers to entry and generous paychecks, often in low-cost areas, and plenty of demand and promotion potential."