
Subject: Prince William County Data Center Opportunity Zone Overlay District – Comprehensive Review
From: Jess Alexander

File: Stakeholder Interviews
Date: October 15, 2021

Utilities Stakeholders

Attendees:

Summit Infrastructure Group (Fiber Provider) - Sunny Kumar
NOVEC - Bob Bisson
PWC Service Authority - Dave Guerra

Unable to attend:

Dominion Energy

Summit Infrastructure Group

- Privately held company started in 2013/2014 HQ in Ashburn. Started with the goal of building purpose-built infrastructure – wanted to build a robust infrastructure to support the data center development we see today.
- Focused on high performance infrastructure specifically oriented toward data center needs. The performance of these networks is critical to the success of data centers. Their infrastructure is route diverse and unique in that it's built for the here and now. They are fully agnostic; they will lease their cables to any data carrier which is currently approximately 1/3 of their business.
- Main provider of fiber in the D.C. region with 600 route miles throughout VA with direct connections to the undersea cable in Virginia Beach.
- Want to help define where data centers should go.
- Cabling is in public ROWs as well as private easements. Often the issue for them is getting ahead of the data centers since data centers want access to data asap once they decide to move forward with a new data center.
- 12-18 months to build 5 miles of cables.
- Have a line down 234 through Manassas.
- Collaboration with the County has been successful.
- Summit has a hybrid model for expansion—both proactive and concurrent.

- Potential opportunity to partner with the County on bringing infrastructure to targeted areas of the County.

PWC Service Authority

- Service authority will fund the major infrastructure components but will charge the applicant hookup (availability) fees and will charge the applicant to extend lines/access to their site for their capacity request if infrastructure isn't currently available.
- Water/Sewer master plan underway and due for completion in June 2022. They could update the current draft if the County makes edits to the Comprehensive Plan.
- Water is purchased from Fairfax Water.
- Growth pays for new infrastructure—solely financed through rates with fees to hookup.

NOVEC

- Virginia has electric service territories that are assigned to specific providers. NOVEC and Dominion service their own customers but Dominion is the sole provider of transmission lines. NOVEC pulls power from these transmission lines after building and stepping the power down to either 35kv or 24kv.
- Do not build lines or substations on speculation. Will only build this infrastructure after an application is submitted and approved by NOVEC.
- Permitting process for substations can impact the timeframe in delivering the substation. Zoning permits take 6-12 months, right now they are running closer to 12 months.
- Also need to submit site plans if the site is adjacent to or near environmentally sensitive areas and when the facility is located offsite and on it's own parcel.
- Sub station construction 18-24 months depending on availability of materials.
- Also dependent on Dominion to make connections and extension which may also require additional approvals and permits which may take 18-20 months.
- Generally, delays are in the local and state permitting processes.
- Substation pads generally need 5-7 acres. If Dominion is pulling transmission to the site it may take up to 9 acres.
- Typically, if a provider puts a data center on their own site, they won't allow NOVEC to service other customers from that site.
- NOVEC is acquiring land to ensure they have enough space to build substations.
- 300mva is the maximum allowable at a single substation – this could serve 5-6 data center buildings.
- 35kv cables can be run several miles but the challenge will be acquiring easement rights to run the cables.

- Data center – 35kv service.
- Typically, 2 – 230kv cables will service a substation. Each cable is on average 75' in height. County may consider creating buffering areas between data centers and non-compatible uses.
- Work with the data centers to determine if they can use the buildings to screen the substations.
- Power companies are a regulated industry, and this is the main driver behind limiting their ability to put infrastructure in place prior to confirming demand. Any change to this would require a change in the regulation.

Historic Stakeholders

Attendees:

American Battlefield Trust - Max Hokit
Preservation Chair Bull Run Civil War Round Table - Blake Myers
Prince William County Historic Commission - John De Pue
Historic Prince William - David Cuff

Unable to attend:

American Battlefield Protection Program

General Comments

- Concerned with viewshed corridors from the historic sites.
- Concerned with very specific views that relate back to historic events on the site. The idea that when visitors come to the site and experience the battlefield, they want to protect the viewshed.
- Independent Hill – concerned with the Independent Hill small area plan that will obliterate the historical character of area and are asking that the historical events/context be taken into consideration in the new plan.
- Thankful for the involvement of non-industry stakeholders.
- Concerned with any industrial development on adjacent land to historic sites or park lands.
- Same thoughts around battlefields and parks.

Other topics raised

If mitigation could occur what would be ideal/acceptable?

- Limit the height of buildings by sinking them or restricting height to ensure view sheds are not impacted. Require more detailed viewshed studies that are detailed and precise to ensure views are preserved or mitigated.
- Focus development in other areas prior to entertaining new development in sensitive areas.
- Pageland Lane is hallowed ground and there should be no data centers in the vicinity of the battlefield.
- The group was interested in learning about any additional power requirements.
- Can data centers go partially underground?
- First develop data centers in non-sensitive areas.
- Sound impacts should be considered and no bright colors for buildings.

Stantec Request

- Any documentation of viewsheds to be preserved, likely not readily available but could be assembled by historians. It was suggested that all view to the West were important.
- Picture below provided by group.



Local/State/Federal Stakeholders

Attendees:

Town of Haymarket - Emily Lockhart
City of Manassas Park - Calvin Odell
Marine Corps Base Quantico - Darryl Griffin
Prince William Forest Park - Greg Kneipp
Manassas National Battlefield Park - Brandon Bies and George Liffert

Unable to attend:

City of Manassas

Haymarket

- The town is currently reviewing several data center project applications and have concerns about the power requirements for these data centers and what impacts bringing power to these facilities will have the exiting town corridors, historic districts etc.

Manassas Park

- Concerned about power since the entire town is serviced by a single substation. Would look for support to encourage NOVEC to bring a second substation to the town. Additional system draws from data centers should not be allowed to impact the community.

Marine Corps Base Quantico

- Quantico is neutral about the overlay district – idea is that they provide feedback with regard to the base needs and goals, including encroachment issues.
- Power resiliency and maintaining power to the base – will future data center power demand put their power at risk.
- Clearing tree cover and habitat adjacent to the installation may drive wildlife into the base premise putting undue pressure on the base and limiting their ability to continue using the base as they do currently.
- Team requested information related to base activities that may create seismic activity. Data centers are concerned with seismic activity as it may negatively impact their operations and may discourage them from locating adjacent to the base.

Manassas National Battlefield Park

- Concerned with visual impacts, including the size/location of power lines and mechanical equipment.

Prince William Forest Park

- Concerned with the water quality in the park and preserving the park.
- George Lipper – concerned in conserving the resources of the park.

General Comments

- What are the plans for water service – concerns about potential wells that may impact the water table.
- Tree planting alone is not good enough for screening.
- Question regarding existing data center overlay district located at Independent Hill?
Answer: Main concern is the land available in the IH SAP that would be included in the Prince William Forest Park. This area covers the headwaters of the creek and would be an ideal addition to the park.

County Internal Stakeholders

Attendees:

Economic Development – Cristina Winn and Tom Flynn
Public Works – Watershed Management – Clay Morris
Planning – Bryce Barrett
Development Services Land Development – Joyce Fadeley
Development Services Building Development – Eric Mays

Unable to attend:

Parks Recreation and Tourism
Planning – Archeologist

General Comments

- Data industry complaining the County was too flexible in their review and approval process which created ambiguity and delays in approvals, they wanted the County to be more rigorous so they could be more predictable. County responded by publishing a new policy for data centers.
- Have seen a high influx of applicants in the County which has created some challenges due to the variation in the services they offer.
- The demand and timeline the data centers require is a challenge for the County to implement their process.
- Data centers have had a significant impact on the environment, habitats and ecology in PWC over the past decade. There needs to be a stronger push back to ensure data centers are offsetting the impact of their development.
- The development of a data center typically requires clearing an entire site.
- Visual impact of data centers is a significant issue that impacts many different groups and needs more thoughtful mitigation/attention.
- Data centers are consuming a significant amount of land and are taking up all the M-1 and M-2 land parcels in the County and the preservation of other M-1 and M-2 uses needs to be taken into consideration to ensure land is available for competing and necessary uses. Maybe a new M zoning category is needed which does not allow data centers.
- Context driven design guidelines may be an approach to create better data center aesthetics.
- Substations are proffered and do not have design guidance like data centers.
- Data centers should look like offices.
- Cutting time for review will impact quality of review.

Environmental Stakeholders

Attendees:

Virginian Native Plants Society - Nancy Vehrs
Sierra Club (Great Falls Group) - Ann Bennett
PWC Soil and Water Board - Jay Yankey
Prince William Conservation Alliance - Kim Hosen

Unable to attend:

Friends of the Occoquan
Prince William Trails & Streams Coalition
Greater PW Climate Action Network
Virginia Coop Extension Service

General Comments

- There is a lack of understanding and respect for the environmental and conservation value in the County. The decisions/proposals coming forward demonstrate a lack of understanding or they wouldn't be coming forward. This is happening at the decision maker levels which then filters down to staff.
- A benefit analysis of what brings a higher quality of life to the residents of PWC needs to be taken into consideration when discussing where new development occurs. There needs to be credence given to these elements of PWC that give value to the overall community and will attract people to PWC in the future. Visual aesthetic and the environment are important elements for quality of life in PWC.
- The County should explore purchasing environmentally sensitive areas to ensure their preservation in perpetuity.
- Keep industrial and data centers where land has been used.
- Is PWC looking at aggressive energy goals for data centers? if not it should be pushing them to advance their energy sustainability goals.
- Look at Greenpeace study of energy use/goals of data centers.
- There should be an emphasis on developing on brownfield sites or greyfield sites before developing greenfield sites in an effort retain undeveloped land as it.
- The development of forest is pushing wildlife into more constrained areas which is impacting farm crops and other areas due to loss of habitat.
- A higher priority needs to be assigned to preserving land within PWC.
- Stormwater issues are growing and the impact on local watersheds is getting worse. The impact would be perceived as getting worse if more data centers are approved and built.
- The cost of farmland and working woodlands has been driven up due to a lack of land.
- Supports data centers in redevelopment sites—greyfields or brownfields.

Civic Stakeholders

Attendees:

Coalition to Protect PWC - Bob Weir and Elana Schlossberg
National Parks Conservation Association - Kyle Hart
MIDCO - Martin Jeter
Woodbridge/Potomac Community Civic Association - Linda Silverstrand
LOCCA-PELT – Jack

Unable to attend:

Greater Prince William Trails Coalition

General Comments

- Overlay district came about as part of the Amazon project. It was brought to the Commissioners and was a community effort, drafted by community members. It was brought forward to help prevent a future Amazon mistake. It took into consideration infrastructure (power, fiber, roads, sewer, water) and quality sustainable communities.
- An hour is probably not enough [for a stakeholder interview], would like additional time [the meeting adjourned after 1 hour 30 minutes]. Asking if we are looking at the big picture here and taking into consideration the usable life of the facilities. Asking because after the Iron Mountain tour it became apparent that the life span of the data centers may only be 15 years and if this is true how do we repurpose them or account for the carbon footprint of this development.
- The intent of the overlay district was to protect the existing and future development in the interest of quality of life for the residents of PWC.
- Need to look at the carbon footprint of the facilities.
- Possum point should be included in the data center overlay district.
- Need to understand what the vision is for the County – do we want to allow data centers everywhere and stake the future of the County on data centers or focus on the assets the County has and push the rural economy as the future of the County.
- What is sustainable for the long term. The community is terrified about what the County will look like in 20 years. A sustainable vision is missing.
- Expand parks. Believe we should be playing a stronger or more active role in expanding Prince William County Park and not making it easier to create development in these areas.
- Don't believe data centers belong in or next to open space or cultural uses.
- Maybe we don't need to expand the district and can we focus on the existing boundary to fulfill the future data center need and limit the total number of data centers.
- Need a more stringent green building standard to be able to hold the data center developers to a higher standard.

- Need to step back and take a sustainable approach/vision to the future development of data centers that consider all community priorities. Quality of life is a serious thing, and it needs to be a front runner driving decision making.
- Need a list of impacts from the data centers.
- Do not think we should build any more data centers than are already approved.
- Location, location, location is the first filter for data centers.
- How much acreage is left in the data center overlay district?
- Map of open space and cultural resources plus the adjacent property to outline areas that should not be developed.
- Concerns with high energy demand and the obsolescence of technology over time.
- If the County only pursues data center development and the industry dries up, it will leave a big hole in the County's revenue stream.
- Need sustainable metrics for green building design.
- There should be rules to save or protect trees and those areas of the County that are special.
- How can the rural economy be incentivized in light of all potential data center development?

National Parks Conservation Association

- Echoes what others say.
- Received emails from half a dozen members that a data center was being considered inside congressionally authorized boundaries.

Data Center Stakeholders (held over a series of interviews)

Attendees:

Iron Mountain
QTS
CloudHQ
Microsoft
Stack Infrastructure
CBRE
Hit Contracting
Black Chamber Group
Under Group
JEDUNN Construction
COPT
CyrusOne
Norman Realty

General Comments

- Loudoun is a high risk with competition, flight path, and natural gas lines.
- Fire and building are difficult from a regulatory perspective.
- Information and data will only increase over time. There has been a 500% increase in internet traffic with only a 6% increase in energy consumption at the same time.
- Reaching a critical efficiency point, with not much more room to be efficient without greater technology.
- A limiting factor in the future may be the amount of power available.
- Land price is more affordable in PWC than Loudoun but is also nearby, it was easy to obtain fiber, they also were able to get a direct Dominion connection which saves time and simplifies the approval process.
- Scalability is important, the ability to grow into a site is a benefit, by having the ability to build a campus the owners can distribute the infrastructure cost across several facilities.
- Employment – there is competition for construction and data center employees.
- Northern Virginia Community College is partnering with the Data Center Coalition to help with the employee pipeline.
- Greyfield sites – need to take into consideration the demo costs and land cost to determine if it would be cheaper than purchasing a greenfield site. There is significant risk with going into an existing building. Utilities is also a significant consideration – is there enough power/data infrastructure – it can be more expensive and cumbersome to run new utilities to existing sites.

- Sustainability – LEED/Sustainable Sites are all part of their goals. They also look at putting parks and trails into their projects as long as they don't interfere with the security requirements.
- Liability of outside users on the property is also a consideration.
- Incentives to provide infrastructure to certain areas would help drive development to certain locations or away from certain locations.
- Speed to market is critical and having land zoned for data centers by right is an advantage, also an ability to process entitlements in parallel with site plans will allow the DC to get to market more quickly.
- Developers do build multi-use trails at their perimeters for use by the public.
- Company focuses on LEED and Energy Star.
- By-right zoning helps protect the market.
- Several entities are competing for every lease.
- Predictability for regulations and tax assessments is key to making a project work.
- Tenants are highly mobile and can easily relocate to another location.
- Landscape buffers can hurt in relation to achieving allowable FAR.
- Security can be impacted by sustainability measures.
- Being a "targeted industry" has helped the process.
- The entitlement process and site plan process are typically done at different times (in one user's instance).
- Power leakage is a big issue for data centers.
- Certain developers are driving power providers to look at renewable sources.
- LEED certification does not necessarily pertain to the industry. Much of what the industry invests in is in their interest to be competitive.
- Need to look at complementary industries and support complementary industries coming together.
- Expedited approvals for zoning are holding up the progress of applications.
- Easement approvals are not moving quickly and there is a lot the County could do support developers and NOVEC/Dominion with approvals and easements.
- Focus on getting the existing overlay district built out and serviced before looking out further.
- The market is naturally driving sustainability measures taken by data centers.

- When you look at small sites and one-off sites you are creating more work for everyone with approvals, utilities etc. It's more efficient to develop Greenfields and campus type developments.
- Repurposing existing buildings is getting more and more difficult. The requirements for end users are too onerous to use existing buildings.
- The demand curve is going to continue to look exponential and while the efficiency curve is going remain flat. Efficiency is incremental and constrained by physics in the mechanical realm.
- Suggest removing the Data Center Overlay District and rely on SUP process to review data center sites. This would give the County Board the transparency into each project that they want. They want to see every data center, and this would allow this to happen through the SUP process. At the same time, do not downzone properties in the overlay.
- The Data Center Overlay District was a bad idea and had probably caused more issues than it has done good. There are so many constraints weighing in on a site that can't be taken into consideration that it should be left up to the professionals and users to determine where a data center should go.
- Tax certainty is something that PWC has not done a good job of putting in place. They are scaring away data centers because of the changes and the assessment approach. Data centers want certainty and predictability.
- PWC has a good pool of labor, particularly when it comes to diversity and inclusion.
- Contractors are seeing the labor market get slightly better but it's still a challenge and workers are traveling to the best paying work. Many contractors are moving to modular building approaches.
- Campus style development is preferred for a number of efficiency reasons.
- IoT (the Internet of Things) and AV (Autonomous Vehicles) will drive a large demand for data and data centers in the future.
- Cooling advancements have seen the greatest improvement in infrastructure efficiency.
- There will be an unlimited demand for data with a finite amount of land.
- Predictability is key for tax assessments.
- The prefabrication of buildings has decreased labor needs.
- Land value has doubled in the last four years.
- Draws to the County include: most economical, availability of land, where customers want to be, cost of utilities, security situation, ease of working with municipalities.
- The approval process has been a challenge with more back and forth. Other jurisdictions (Henrico County) have a quicker review process.

- The tax rate for data centers in PWC is not predictable. The assessment mechanism is different than all other jurisdictions—others have guaranteed rates.
- NOVEC timing is an issue.
- The proximity to the region does help entice customers—customers drive their location.
- There will always be a presence for data centers in the region due to latency issues.
- There is a preference to always develop on greenfield sites, particularly the ability to develop at scale.
- Have retrofitted sites, which requires custom builds.
- There is a land shortage and developers are beginning to look elsewhere.
- Data centers above 2 stories need to consider floor loads.
- Transmission lines (and easements) are an issue—citizens don't want them.
- LEED requirements are not seen across the board. Having LEED as a known requirement is helpful, if so.
- It is helpful to understand all standards related to development.
- Architectural standards could be cost prohibitive, but they would level the playing field.
- Landscaping is much easier to do and can be accommodated in setbacks.
- A campus development is considered 3-4 buildings—a substation on-site is preferred.
- Timing is key.
- The Overlay District adds an additional level of red tape. It was supposed to expedite building but doesn't seem to have done that.
- The Overlay is being used as a hammer for areas outside of it.
- Wants to work with County on sustainable design guidelines.
- They are retrofitting warehouses for data centers in Ashburn—as well as other adaptive reuse projects.

Real estate/Development Stakeholders (held over two meetings)

Attendees:

Walsh, Colucci, Lubeley & Walsh - John Foote and Marian
Commercial Development Committee - Mike Garcia
Vanderpool, Frostick & Nishanian, P.C – Michael Vanderpool
St. Johns Properties – Matt Holbrook
Chamber of Commerce (Government Affairs Committee) – Marty Nohe
The Wiley Companies, Inc – Carter Wiley
Digital Gateway - Page Snyder and Mary Ann Ga
House Farm – Dale House Tom House
Christopher Consultants

Unable to attend:

Buchanan Partners
Compton & Duling, LLC.
Realtor Association of Prince William

General Comments

- The Pentagon is moving to the Cloud.
- The SUP process is a hold up with political pushback.
- The Data Center Overlay District has been expanded and is out of space. It has led to a lack of inventory.
- Opportunity District is a misnomer—the Overlay did not expand opportunities.
- How much land is left in the Overlay?
- People are desperately looking for land. Most land has environmental issues, which impacts availability.
- Loudoun County allows data centers at the detriment of other land uses.
- No land is available in the County for flex industrial. Industrial land values have skyrocketed.
- Large assemblages of land are needed to alleviate issues for data centers.
- With existing environmental impacts on the land, only data center users can afford to make it work.
- New models for infill data centers are being used, but not enough infill land available to address demand.
- Users are looking at Rt234 and Rt1 for opportunities.
- Some users are buying commercial properties (that are not vacant) as a long-term play when redevelopment is viable.

- There needs to be a multilayered strategy—some by-right data centers and others by SUP that are closer to sensitive areas.
- Power lines are a hindrance
- Access to power, water, and fiber can be an issue.
- There is less land for development than people realize.
- Public perception is a problem—ruining ground water, no buffers.
- The extension of transmission lines is \$1M per mile.
- No land assemblage over 100 acres is available.
- Retail and office are dying—consider data centers in their place.
- The Rural Crescent was only supposed to last twenty years.
- Loudoun County is a good case study for data centers.
- Land is \$1M an acre, which is about \$70/FAR foot. Opening up land for data centers will bring the price down.
- Building data centers in a redevelopment situation equals a higher cost to entry.
- Data centers have led sustainability efforts, however, PWC could overregulate and decrease competitiveness.
- Open the 234 corridor for development.
- Need more flexibility to decrease time to market.
- Accommodating design guidelines is the easy stuff.
- Leases for users are tending to get longer.
- Do not include multistory buildings in sensitive areas.
- Builders can't even accomplish 0.6 FAR and there needs to be flexibility depending on the site.