Stantec

Stakeholder Interviews Summary

Subject:	Prince William County Data Center Opportunity Zone Overlay District	From:	Jess Alexander
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Themes (non-industry):

- **Overall quality of life for PWC residents is the most important consideration in the development of new data centers.**

- **Concentrate on building out the existing overlay district prior to expanding it ensuring a balance of Data Centers and other industrial uses/services.**

- **Protect and enhance the historic and cultural assets of PWC as a priority.**

- **Protect and enhance the natural environment and ecology of PWC as a priority.**

- **Ensure the development of data centers does not adversely impact the availability of infrastructure for other uses/demand.**

- **Preserve greenfield areas of the county by exploring the redevelopment of existing underutilized sites.**

- **The financial benefits of data centers are recognized and appreciated but it shouldn't overshadow the potential adverse impacts of a data center only economy.**

Themes (industry):

- **PWC county is an attractive location for the development of data centers from a cost of land and utilities perspective.**

- **PWC is not an attractive place for development of data centers from an approval perspective.**

- **Tax/assessment environment in PWC is not as stable as developers/owners would like.**

- **Concentrate on building out the existing overlay district prior to expanding it.**

- **Speed to market is critical, the local/state government can help to expedite approvals for data centers (entitlements, site plans, building permits, etc.) and utilities (public utility permits, easements).**

- **Overlay district has not made it easier for developers to move projects forward.**

- **Greenfield sites are more attractive for development then redevelopment sites.**

Benefits/Drawbacks of Developing Data Centers in the County

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.

There will always be a presence for data centers in the region due to latency issues.

The proximity to the region does help entice customers—customers drive their location.

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.

Infrastructure

Concerns with high energy demand and the obsolescence of technology over time.

NOVEC timing is an issue.

Transmission lines (and easements) are an issue—citizens don't want them.

Fiber infrastructure route is diverse and unique in that it's built for the here and now.

Direct connections to the undersea cable in Virginia Beach.

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.

Summit has a hybrid model for expansion—both proactive and concurrent.

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 edits are made to the Comprehensive Plan.

Growth pays for new infrastructure—solely financed through rates with fees to hook-up.

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.

Providers do not build lines or substations on speculation. Will only build this infrastructure after an application is submitted and approved by NOVEC.

Substation 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.

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.

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 regulating.

Building Requirements / Architectural Standards

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.

Work with the data centers to determine if they can use the buildings to screen the substations.

Data centers should look like offices.

Context driven design guidelines may be an approach to create better data center aesthetics.

Landscape buffers can hurt in relation to achieving allowable FAR.

Security can be impacted by sustainability measures.

Design with community in mind

Accommodating design guidelines is the easy stuff.

Overlay District / Land

How much acreage is left in the data center overlay district?

The Overlay District adds an additional level of red tape. It was supposed to expedite building but doesn't seem to have done that.

Suggest removing the DCOZOD 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 DCOZOD 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.

The Overlay is being used as a hammer for areas outside of it.

There is a land shortage and developers are beginning to look elsewhere.

There is a preference to always develop on greenfield sites, particularly the ability to develop at scale.

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.

The cost of farmland and working woodlands has been driven up due to a lack of land.

Misconception? 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.

Possum point should be included in the data center overlay district.

Don't believe date 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.

Keep industrial and data centers where land has been used.

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 data centers to get to market more quickly.

Design with community in mind

Several entities are competing for every lease.

The Overlay 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.

People are desperately looking for land. Most land has environmental issues, which impacts availability.

No land is available in the County for flex industrial. Industrial land values have skyrocketed.

Large assemblages are needed to alleviate issues for data centers.

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.

National Parks

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 views that enhance the experience.

Concerned with any industrial development on adjacent land to historic sites or park lands.

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.

Concerned with the water quality in the park and preserving the park.

Do not include multistory buildings in sensitive areas.

Requested 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.

Jurisdictions

Primarily Concerns:

Haymarket 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.

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.

What are the plans for water service – concerns about potential wells that may impact the water table.

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 my 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.

Concern about land available in the Independent Hill Small Area Plan 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.

Environmental

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.

Data centers have been the single most impactful use 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.

Visual impact of data centers is a significant issue that impacts many different groups and needs more thoughtful mitigation/attention.

Certain developers are driving power providers to look at renewable sources.

Cutting time for review will impact quality of review.

Need to look at the carbon footprint of the facilities.

With existing environmental impacts on the land, only data center users can afford to make it work.

Need a more stringent green building standard to be able to hold the data center developers to a higher standard.

There is a lack of understanding and respect for the environmental and conservation value in the county. The decisions/proposals coming forward demonstrate and lack of understanding or they wouldn't be coming forward. This is happening at the highest decision maker levels which then filters down to others in the decision making process.

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 land near the or within the high value areas to ensure their preservation in perpetuity.

Is PWC looking at aggressive energy goals for data centers, if not it should be pushing them to advance their energy sustainability goals.

The development of forest is pushing wildlife into more constrained areas which is impacting farm crops and other areas due to loss of habitat.

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.

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.

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.

A data center was being considered inside congressionally authorized boundaries to expand parks – this should never happen.

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?

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.

Developers do build multi-use trails at their perimeters for use by the public.

Company focuses on LEED and Energy Star.

A map of open space and cultural resources plus the adjacent property to outline areas that should not be developed is needed.

New Development Models / Technology

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. 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.

They are retrofitting warehouses for data centers in Ashburn—as well as other adaptive reuse projects.

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.

IoT and AV will drive a large demand for data and data centers in the future.

Retail and office are dying—consider data centers in their place.

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.

Cooling advancements have seen the greatest improvement in infrastructure efficiency.

There will be an unlimited demand for data with a finite amount of land.

New models for infill data centers are being used, but not enough infill land available to address demand.

Greyfield sites – need to take into consideration the demo costs and land cost to determine if it would be cheaper then 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.

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.

Building data centers in a redevelopment situation equals a higher cost to entry.

Employment – there is competition for construction and data center employees.

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.

The prefabrication of buildings has decreased labor needs.

Northern Virginia Community College is partnering with the Data Center Coalition to help with the employee pipeline.

Regulatory / Taxes

By-right zoning helps protect the market.

Fire and building are difficult from a regulatory perspective.

Predictability for regulations and tax assessments in key to making a project work.

Being a "targeted industry" has helped the process.

Tax certainty is something that PWC has not done a good job of putting in place. They are scaring away DC's because of the changes and the assessment approach. DC's want certainty and predictability.

Predictability is key for tax assessments.

The SUP process is a hold up with political pushback.

Permitting process for substations can impact the timeframe in delivering the substation. Zoning permits take 6-12 months, right not they are running closer to 12 months.