

Project Crossroads

Joint Permit Application

Individual Permit Request

Pittsylvania County, Virginia

October 6, 2026

Applicant:

*Danville-Pittsylvania Regional Industrial Facility Authority
P.O. Box 3300
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Prepared by:



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25. Executed Performance and Utility Agreements
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27. Draft Proposed Cultural Resources Mitigation Plan, dated September 2026
28. Riffle/Pool Analysis

1. Project Information

Anticipated Permit Authorizations

- U.S. Army Corps of Engineers (USACE): Individual Permit
- Virginia Department of Environmental Quality (DEQ): VWP Individual Permit
- Virginia Marine Resources Commission (VMRC): No Permit Required

Applicant Information

Entity: Danville-Pittsylvania Regional Industrial Facility Authority (RIFA)
Address: P.O. Box 3300
Danville, VA 24543
Contact: Matt Rowe
Phone: 434-713-8929
Email: Matthew.Rowe@pittgov.org
SCC Entity ID: N/A

Authorized Agent Information

Entity: Wetland Studies and Solutions, Inc.
Address: 5300 Wellington Branch Drive, Suite 100
Gainesville, VA 20115
Contact: Christie Blevins
Phone: 703-679-5600
Email: crossroads@wetlands.com
SCC Entity ID: 03826229

Location Details

Latitude: 36.566939
Longitude: -79.591856
Project Site Boundary: ±3,641 acres
Project Site Address: 3965 Oak Hill Rd, Danville, VA 24541
Project Limits of Disturbance: ±1,733 acres
12 Digit HUC Code: 30101030903
USGS Quadrangle: Brosville, NC VA 1990

2. Project Summary

2.1. Project Background

The Danville-Pittsylvania Regional Industrial Facility Authority (RIFA), in partnership with STACK Infrastructure¹, is proposing Project Crossroads (Project) at the Southern Virginia Megasite at Berry Hill “Berry Hill Megasite”) in Pittsylvania County, Virginia. The Project is a transformational regional economic development enterprise consisting of a multi-campus digital infrastructure complex with associated

¹ References to STACK Infrastructure may include its subsidiaries and affiliated entities, where applicable.

facilities, including substations, energy generation, and associated utilities, sited on approximately 1,733 acres at the Berry Hill Megasite.

The City of Danville and Pittsylvania County have long recognized that their mutual long-term growth, development, and planning goals depend on attracting large-scale investment in industrial facilities that will increase the local tax revenue base, provide high-paying employment opportunities, and induce other economically beneficial activities in the region. To coordinate their efforts on a regional basis, Danville and Pittsylvania formed RIFA under the Virginia Regional Industrial Facilities Act, Va. Code § 15.2-6400 et seq., (“VRIF Act”) in 2001. In 2008, RIFA identified and purchased the assemblage of parcels that is now the Berry Hill Megasite as the centerpiece for its regional economic development strategy. As detailed further in Section 6 below, Danville, Pittsylvania, and RIFA have been working diligently for nearly 20 years to recruit high-value projects to the Berry Hill Megasite.

RIFA’s statutory charge is to “enhance the economic base” for its member localities, Danville and Pittsylvania. Va. Code § 15.2-6401. To further this objective, the VRIF Act authorizes RIFA to identify sites suitable for economic development and to prepare those sites for development by, among other steps, purchasing property; grading pads; extending water, sewer, gas, power, and other utility services; constructing parking; building roads; and “making any other improvements deemed necessary by the authority to meet its objectives.” *Id.* § 15.2-6405(7).

The VRIF Act recognizes that authorities need partners to develop sites. Accordingly, it authorizes RIFA to “enter into cooperative arrangements” with private businesses to facilitate the development of its sites. Va. Code § 15.2-6405(13). RIFA, joined by Danville and Pittsylvania, exercised this authority to enter into a Local Performance Agreement (LPA) with STACK Infrastructure (through its subsidiary, SAC III Acquisition Co.) in June 2026 (Exhibit 25A). STACK specializes in hyperscale and high-density data center solutions by designing, developing, and operating sustainable global digital infrastructure. The company acquires development-ready land to deliver scalable, custom-built infrastructure optimized for digital infrastructure needs. The LPA obligates STACK to make minimum capital investments and create and maintain a minimum number of new jobs by prescribed milestones over at least a 30-year planning horizon.

STACK’s obligations in the LPA were collaboratively crafted to support the long-term planning and growth of objectives of RIFA and its member localities. STACK’s capital investments in site improvements and equipment increase real and personal property values, both of which are subject to local taxation. Thus, the capital investments required by STACK can be translated directly into projected property tax revenues to localities. The LPA incorporates those projections by prescribing minimum annual personal and property tax payments—which are guaranteed by STACK.

The basic objective of the LPA’s minimum job creation targets is to provide enduring, meaningful, and full-time employment opportunities in a region where unemployment rates have historically hovered above the statewide average. The LPA further requires that the average annual compensation—before benefits—for the newly created jobs be at least \$80,500.00 (indexed to inflation).

The advantages to Danville and Pittsylvania of new high-paying employment opportunities are substantial: Among other benefits, the new jobs increase the likelihood that talented young residents will stay in the region rather than seeking employment elsewhere, which is a longstanding challenge for the region. New positions also attract talented new residents from outside the area. In both cases, increasing the number

of residents with stable, high-paying jobs significantly incentivizes businesses to expand their operations in or relocate to Danville, Pittsylvania, and surrounding localities.

To meet the LPA's economic development objectives, RIFA has made reciprocal commitments to STACK. Most relevant to this application, RIFA and its member localities must provide a site suitable for STACK to realize the extraordinary capital investments contemplated by the LPA. The site must satisfy the site selection criteria of STACK to support development of a digital infrastructure project. Those criteria are, in turn, dictated by the exacting requirements of the highly competitive digital infrastructure market that STACK serves. As explained further in Section 3 below, this entails providing a site with an expansive buildable area and all necessary utilities as well as supporting features to enable it to be brought to market quickly. If RIFA cannot deliver, the economic benefits it seeks cannot be realized.

In sum, the LPA obligates RIFA to ensure the site is suitable and to facilitate the expeditious procurement of all necessary permits and approvals for its partner, STACK, to fulfill its commitments to RIFA. This joint permit application is necessary for RIFA to fulfill its statutory function and secure transformational economic benefits for the residents of Danville and Pittsylvania.

2.2. Project Overview

In partnership with STACK Infrastructure, RIFA is proposing a multi-campus digital infrastructure development with associated facilities including substations, energy generation, and utilities on approximately 1,733 acres. Construction activities subject to the proposed permit are scheduled to start in the third quarter of 2027.

The development will be completed in phases over an estimated 15-year period. At full buildout, the project will feature up to 21 data center buildings totaling a projected power demand of ~3 GW. Other necessary supporting site improvements will include on-site electrical substations; high-speed fiber-optic interconnectivity; water, sewer, natural gas, and power utility infrastructure, stormwater management facilities; energy generation facilities; emergency backup power generation; security facilities; vegetated buffers; and internal access roadways. Offsite activities include the construction of four permittee responsible mitigation projects.

Outlined within Section 10 and [Exhibit 14](#) are the proposed impacts associated with the digital infrastructure development. Outlined within Section 11 and [Exhibit 14](#) are the proposed impacts associated with the stream restoration and wetland creation at the four proposed Off-Site PRM locations.

3. Purpose and Need

3.1. Project Purpose

The purpose of the Project is to support the short- and long-term growth, economic development, and tax revenue objectives of RIFA and its member localities through development of a multi-campus digital infrastructure complex that will generate substantial capital investment and permanent employment opportunities, with a minimum capital investment of \$34 billion and the generation of a minimum of 1,000

permanent high- paying jobs during the first phase of the Project, and having the potential to achieve an estimated \$100 billion in capital investment and 2,500 permanent high-paying jobs throughout all phases.

3.2. Project Need

Danville and Pittsylvania are among the most economically disadvantaged communities in the Commonwealth. Out of 133 counties and independent cities in Virginia, the median household incomes for Danville and Pittsylvania rank 124th and 101st², respectively. The percentage of residents below the poverty level in Pittsylvania is 47 percent higher than the state average. The poverty rate in Danville is nearly two and half times the state average (NIH, 2026). These economic indicators are reflected in demographic data as well, as both localities saw significant multi-decade population declines prior to 2020.

Danville and Pittsylvania have resolved to improve the economic situation of their residents. Coordinated and strategic action by the two localities, including the formation of and ongoing engagement with RIFA, have produced modest but meaningful results in recent years that portend a positive shift in the region's economic growth. Reversing longstanding trends, both localities have produced significant net job creation since 2020. Improving the job market provides reasons for residents to stay in or relocate to the region. As a result, more new residents have moved to Danville and Pittsylvania in the past five years than have left the region (Weldon Cooper Center for Public Service, 2026).

The capital investment targets were identified to satisfy the localities' long-term needs for increased property tax revenues. At full buildout, RIFA expects the Project to generate up to \$48 million per year in property tax revenue.

Other, less easy-to-quantify benefits are expected to flow from the minimum required capital investment as well. Investment in construction is expected to benefit the local economy through increased employment, business patronage, and tax revenues not accounted for in the LPA.

These benefits will be shared by Pittsylvania and Danville under a revenue-sharing agreement. Notwithstanding that the Project is located wholly in Pittsylvania, both localities expect to benefit from the significant increases in economic activity induced by the Project that will attract businesses and residents to the area. Given its role as the nearest significant population center, Danville expects a significant influx of residents as a result of the Project. Danville will also benefit from increased water and sewer utility revenue generated by supplying service to the Project.

RIFA selected digital infrastructure as its target industry because of the well-documented economic and workforce benefits these facilities can bring to a region. There are a limited number of commercial and industrial sectors capable of producing the level of capital investment that RIFA and its member localities require to meet their long-term economic development goals. Of the industries that can bring comparable levels of investment, such as pharmaceutical, semiconductor, battery, or automobile manufacturers, the opportunities to land large-scale facilities are rare. Moreover, there is intense competition among communities in Virginia and other states for those facilities. The Danville-Pittsylvania area historically has

² <https://data.virginia.gov/dataset/virginia-median-household-income-in-the-past-12-months-by-census-county-acs-5-year>
(Accessed August 5, 2026)

struggled to compete with its neighbors for the limited number of large-scale economic development prospects. This statement is backed by RIFA's multi-decade experience working diligently to attract such prospects to Danville and Pittsylvania.

Based on its extensive economic development experience and analysis of market conditions, RIFA determined that digital infrastructure development represents the most viable industry sector for achieving the transformational investment sought for the site; to meet or exceed the County's \$100 billion capital investment objective. RIFA has elected to advance its economic development plans by partnering with STACK Infrastructure. STACK brings extensive experience designing and developing digital infrastructure, which neither RIFA nor its member localities could replicate on their own. The partnership with STACK also affords access to financial and other resources that are indispensable to moving the Project forward.

To achieve the economic development objectives of up to \$100 billion in capital investment, the creation of 2,500 permanent high-paying jobs, and the attraction of appropriate end users, the Project must be developed in a manner consistent with the design and infrastructure elements described in this permit application. Accordingly, the site must be capable of meeting the following general criteria within market-driven development timelines:

- Proximity to Fiber. Proximity to existing high-capacity underground fiber corridors and network providers is a critical siting consideration, as data center operations require immediate access to diverse, redundant, and reliable telecommunications infrastructure capable of supporting hyperscale connectivity demands.
- Buildable Area. A parcel or assemblage of parcels that can provide at least 1,715 acres of buildable area to accommodate the data center buildings and supporting infrastructure.
- Utilities. Sufficient access to power, natural gas, water, and sewer services, as well as distribution of the utilities throughout the site.
- Other Support Facilities. Digital infrastructure campuses require numerous support facilities, including:
 - Electrical substations;
 - Security stations, fencing, and access control;
 - Office and administrative buildings;
 - Employee parking;
 - Materials delivery areas;
 - Backup power generators; and
 - Water availability, storage, and treatment
- Stormwater Management. Stormwater management facilities must be constructed in compliance with the Virginia Erosion and Sediment Management Act.
- Transportation. Sites must be accessible from roads capable of supporting heavy equipment and traffic required for large-scale construction, as well as a thoughtful internal road network within the site.
- Construction Workspace/Laydown Areas. As needed to support initial construction of each phase of development.
- Stream and Wetland Mitigation Availability. If mitigation bank or in-lieu fee credits are not available (or not environmentally preferable), suitable onsite or offsite mitigation areas must be developed.

- Time to Market. An overarching criterion is that a digital infrastructure campus will not attract investment if construction cannot commence within a short period after the site is selected.

These criteria are described in more detail in Sections 9 and 10, below.

4. Site Description

The proposed project is located along Harville-Saunders Parkway (formerly Berry Hill Road) (Hwy 311) approximately 9.5 miles west of the Danville-Pittsylvania boundary. The site is approximately 4.5 miles southwest of the interchange of the U.S. Highway 58 and Route 863 in Pittsylvania County, Virginia. A vicinity map of the location and boundary of the proposed project site is enclosed within Exhibit 4. A parcel identification map is enclosed within Exhibit 5 depicting the GPIN of each parcel associated with the project site and the respective property owner(s). A natural color imagery map is enclosed within Exhibit 6.

The Project Crossroads site is located north of the Dan River along Harville-Saunders Parkway (Hwy 311) in Pittsylvania County, Virginia. Existing site access is available via Harville-Saunders Parkway and Oak Hill Road, which intersect within the project site.

5. Wetland Delineation Information

Over the course of nearly 20 years, stream and wetland delineations have been conducted on and adjacent to the Project Crossroads site, beginning with investigations by Dewberry in January 2007 and continuing through various updates and revisions completed between 2007 and 2024. DEQ issued SSWD No. 000068 on October 13, 2025, based on the Dewberry delineation. Among the delineation efforts completed during this period were stream and wetland delineations conducted for the Southeast Supply Enhancement Project and the Mountain Valley Southgate Project, which covered a portion of the site. Most recently, WSSI conducted field investigations within the Limits of Disturbance (LOD) to verify the prior delineation and collect USM, Functions and Values, and Wetland Attribute Forms. The USM Forms and Functions and Values/Wetland Attribute Forms are enclosed within Exhibits 8 and 9, respectively. Based on these investigations, WSSI revised the delineation mapping to reflect the current conditions and prepared an updated delineation report.

The boundaries of jurisdictional wetlands and other Waters of the United States (WOTUS) within the Project Crossroads LOD, as re-delineated by WSSI in July 2026, are documented in a report titled, "Waters of the U.S. (Including Wetlands) Delineation, Project Crossroads," dated August 21, 2026, revised August 26, 2026. This report was previously submitted to DEQ and USACE on August 26, 2026, along with requests to modify the existing SSWD (DEQ) and issue an AJD (USACE). A site visit with WSSI staff and DEQ was conducted on September 21, 2026, and DEQ issued an SSWD on September 24, 2026. The delineation report has been revised to include information regarding this site visit and to correct minor typographical errors in the mapping and Aquatic Resource tables. A revised report was submitted to the USACE and DEQ on September 29, 2026, titled, "Waters of the U.S. (Including Wetlands) Delineation, Project Crossroads," dated August 21, 2026, revised August 26, 2026 and September 24, 2026. A courtesy copy of the revised report is enclosed within Exhibit 10.

For portions of the Project Site outside the LOD, the locations, boundaries, and areas (linear feet and/or acreage) of aquatic resources shown in this application were drawn from data collected by Dewberry or TRC, Inc. and approved by DEQ in SSWDs and/or USACE in AJDs or PJDs. WSSI has assumed the accuracy and completeness of these third-party SSWDs, AJDs, and PJDs for the purpose of preparing this application but has not updated or independently verified their contents.

6. Single and Complete

The Project and this application have been developed to comply with USACE's "reasonably related" standard (33 C.F.R. § 325.1(d)(2)) and VDEQ's comparable "single and complete project" standard (9VAC25-210-10). Courts have acknowledged that the "reasonably related" standard and "single and complete" standard are "essentially the same thing." *Crutchfield v. Hanover County*, 325 F.3d 211, 221 n.2 (4th Cir. 2003). Furthermore, the definitions of "single and complete project" in USACE's Nationwide Permit regulations (33 C.F.R. § 330.2(i)) and the VWP regulations (9VAC25-210-10) are materially the same. Accordingly, for the sake of simplicity this section focuses on the "single and complete project" standard as defined in the VWP regulations.

Project Crossroads is a single and complete project. The Project has independent economic utility and is economically viable on its own. It does not rely or depend on future development of any adjacent parcels or land outside of the LOD to achieve the Project Purpose. Nor does the Project have a "parent-child" relationship with any neighboring facilities. All necessary components of the Project – including data center buildings and appurtenant buildings, access roads, and utilities – as well as the Project's three proposed phases are included in this application (refer to [Exhibit 13](#) and Section 11 for details).³

The checklist developed by DEQ that is utilized to evaluate whether a project constitutes a single and complete project is provided within [Exhibit 17](#).

7. Project History

As discussed in more detail in Sections 2 and 3, the Regional Industrial Facility Authority (RIFA) and the participating localities have worked collaboratively for nearly two decades to develop the Southern Virginia Megasite at Berry Hill into a premier industrial location. The Southern Virginia Megasite at Berry Hill encompasses approximately 3,500 acres, which is owned by RIFA. Project Crossroads is located within the Megasite and represents a portion of the overall development area.

RIFA acquired the property in 2008 and has since led extensive planning, permitting, infrastructure development, and site-readiness efforts. The property was purchased by RIFA with the vision to support job creation, promote economic stimuli, and create taxable investment within the region after the loss of

³ The Applicant and/or STACK may seek to initiate ground-disturbing activities on wholly upland portions of the Project site. Such activities will not proceed until all necessary permits and approvals have been secured. The Applicant understands that any such activities will be undertaken at its own risk and will not affect or influence decisions by USACE and DEQ relating to this permit application.

manufacturing jobs following the decline of tobacco, furniture, and textile industries. Since then, there has been over \$240 million of direct private/public investment in the Megasite, along with approximately \$200 million of indirect investment via workforce development programs.

To position the site as a premier center for economic development and to provide employment opportunities, RIFA sought and obtained site-readiness certifications with Virginia Economic Development Partnership (VDEP), and Virginia Business Ready Sites Program (VBRSP). To support those efforts, RIFA or the designated applicant obtained the permit authorizations identified in Table 1 (Previously Permitted Impacts), for the installation of a public water line and for the Berry Hill Commerce Center, which provides buildable area for industrial use. Through those coordinated investments and site development initiatives, the Megasite achieved Tier 4 ("Infrastructure Ready") designation in 2018 and Tier 5 ("Shovel Ready") certification in 2019. These certifications reflect the site's advanced level of preparedness for industrial development, including immediate access to critical infrastructure such as water, sanitary-sewer, electric power, natural gas, and fiber-optic telecommunications and a reliable transportation network. This section summarizes the history and key development milestones of the project site.

Table 1. Previously Permitted Impacts⁴

Previous Permit	Impact Type	Cowardin Classification	Permitted Impact Amount		
			Square Feet	Acres	Linear Feet
Southern Virginia Megasite – Berry Hill Water Line (WP2-21-1492)	Permanent	PFO	419	0.01	-
		PSS	16	<0.01	-
	Temporary	PEM	3	<0.01	-
		R3	438	0.01	49
		R4	3,571	0.08	424
		R6	2,662	0.06	266
	Subtotal		7,109	0.16	739
Berry Hill Commerce Center (WP4-15-1114; WP4-19-0656)	Permanent	PFO	1,839	0.04	-
		PSS	30,968	0.71	-
		R3	405	0.01	10
		R4	3,910	0.09	565
		R6	676	0.02	140
	Conversion	PFO	7,866	0.18	-
		PSS	22	<0.01	-
	Temporary	R3	2,937	0.07	101
		R4	2,067	0.05	309
		R6	676	0.02	140
	Subtotal		51,455	1.18	1,283
Total Impact			58,564	1.34	2,022

In 2021, Quest Site Solutions⁵ certified the Megasite as a “Mega Site/Super Park”, through a thorough, independent evaluation program that validates properties that meet specific certification standards

⁴ Refer to Section 11 for a discussion of compensation for these impacts.

⁵ <https://questsitesolutions.com/wp-content/uploads/2023/07/Southern-Virginia-Megasite-Certification-Report.pdf>

designed around, and specifically intended for, large-scale industrial development. A “Mega Site/Super Park” is defined within this certification program as a property that is a minimum of 1,500 total acres with at least 800 contiguous, developable acres (Mega Site) and the remainder of the property (Super Park) acreage must be at least 60 percent developable, among other stringent requirements.

Following a unanimous decision from the Pittsylvania County Planning Commission in January 2026, the Pittsylvania County Board of Supervisors unanimously voted to approve the rezoning of the Megasite for special heavy industrial use, creating a new zoning district that allows for by-right heavy-industrial developments, including digital infrastructure facilities and power generation. While the site had been zoned M-2 Heavy Industrial since 2010, this special zoning is separate from existing light- and heavy-industrial zones and is unique to the Megasite. A goal of this special zoning was to make the Megasite more accommodating for large scale industrial developers, which in turn would result in a higher probability of creating a large-scale economic development project.

Throughout the development of the Southern Virginia Megasite at Berry Hill and the pursuit of site-readiness certifications, RIFA actively marketed the property to prospective end users across a range of industrial sectors. RIFA has since partnered with STACK to outline a plan to construct a large-scale digital infrastructure campus with onsite power generation and necessary supporting infrastructure, as outlined within this JPA. This proposed project is the culmination of over 20 years of investment into the Megasite to achieve RIFA’s goals of revitalizing the region through job creation, taxable investment, and economic opportunities.

7.1. Public Engagement

The City of Danville, Pittsylvania County, and the RIFA have worked diligently for nearly 20 years to develop the Berry Hill Megasite. Throughout this process, extensive and proactive coordination has occurred with a wide range of stakeholders, including members of the public, community leaders, local and state officials, regulatory agencies, and other interested parties, consistent with the principles of transparency and early community engagement reflected in Executive Order 22 (2026).

Planning Commission and rezoning hearings for Project Crossroads were conducted to provide opportunity for public review and comment. Project information has been made readily available through various public channels, including online resources such as the Southern Virginia Megasite at Berry Hill website, which provides contact information for the Economic Development Directors of both Pittsylvania County and the City of Danville.

In addition, as part of the partnership with STACK, stakeholder engagement has remained a key component of project development. Additionally, STACK has supplemented the efforts of RIFA and the localities by engaging directly with key stakeholders.

The public outreach and engagement actions are summarized further below.

Public Participation and Engagement Processes

As a local government initiative, the Project has been developed through an open and transparent process that has afforded many opportunities for public participation and engagement directly with decision-makers. Those opportunities have included:

- RIFA Meetings. RIFA has [monthly] meetings to discuss its actions and plans. These meetings are publicly noticed and open to the public. The public notices include an agenda outlining the topics of discussion, much of which has been focused on the Project. Each meeting includes an open public comment period to allow interested members of the public an opportunity to address questions, concerns, and comments directly to RIFA. Information about RIFA meetings can be found on Danville’s website at <https://www.danville-va.gov/359/Danville-Pittsylvania-Reg-Indus-Facility>.
- Danville City Council Meetings. Important decisions about RIFA and the Project are a regular topic of discussion at City Council and Board of Supervisors’ meetings. All meetings of the Council are publicly noticed and include opportunities for members of the public to address the members of the Council or Board on any matters of interest, including the Project. Information about Danville City Council meetings is publicly posted at <https://www.danville-va.gov/281/City-Council>.
- Pittsylvania County Board of Supervisors and Pittsylvania County Planning Commission Meetings. Important decisions about RIFA and the Project are a regular topic of discussion at the respective meetings of the Pittsylvania County Board of Supervisors and Planning Commission. Important zoning, land use, and planning decisions for Pittsylvania County are reviewed by its Planning Commission, which is generally followed by approval during a subsequent meeting of the Board. All meetings of the Board and Planning Commission are publicly noticed and include opportunities for members of the public to address the members on any matters of interest, including the Project. Most recently, the Planning Commission held a joint public meeting with the Board of Supervisors on January 15, 2026, to consider the Board of Supervisors’ request to create a special Zoning District for the Southern Virginia Mega Site. After a robust public comment session and discussion, the Planning Commission and Board of Supervisors voted unanimously to approve the rezoning. Pittsylvania County Board of Supervisors meeting information can be found at <https://www.pittsylvaniacountyva.gov/170/Board-of-Supervisors>. Information about Planning Commission meetings is posted online at <https://www.pittsylvaniacountyva.gov/178/Planning-Commission>. In addition to full meetings of the Council and Board, individual members have taken the initiative to host their own public meetings. For example, Pittsylvania County Supervisor Vic Ingram hosted a publicly noticed and open “Community Q&A” meeting about the Project on April 6, 2026.

Publicly Available Project Information

The Applicant and Localities have taken care to ensure that transparent information about the Southern Virginia Megasite at Berry Hill is readily available to interested members of the public. Accordingly, information about the site is posted to various websites, including:

- Southern Virginia Megasite at Berry Hill:
 - <https://sovamegasite.org/>
- Pittsylvania County, Virginia Sites/Industrial Parks
 - <https://www.pittsylvaniacountyva.gov/446/Sites-Industrial-Parks>
- City of Danville, Southern Virginia Megasite
 - <https://www.discoverdanville.com/sites-buildings/industrial-parks/berry-hill/>

Outreach to Key Community Groups and Stakeholders

It has been a top priority of the Applicant to communicate openly with the local community and other stakeholders regarding the Southern Virginia Megasite at Berry Hill's development and goals to address questions or concerns that may be raised. Provided below is a summary outlining the list of stakeholders who have been engaged to date and a high-level summary of the stakeholder's feedback:

- Danville/Pittsylvania County Chamber of Commerce: The Applicant maintains continued dialogue during participation in other regional events such as the Southern Virginia Regional Alliance events.
- Future of The Piedmont Foundation: The Applicant maintains continued dialogue during Southern Virginia Regional Alliance events.
- Danville Regional Foundation: Engagement is ongoing regarding the potential opportunities for community benefits.
- Danville Community College: Discussions with this stakeholder focused on skills needed for staffing digital infrastructure campuses and workforce development partnership opportunities.
- Virginia Tobacco Regional Revitalization Commission: The Virginia Tobacco Regional Revitalization Commission has been engaged and previously provided funding regarding the development of the site.
- Blue Ridge Innovation Corridor: Discussions with this stakeholder are ongoing.
- Pittsylvania County IDA: The Pittsylvania County IDA has been a critical stakeholder throughout Project development and discussion with this stakeholder continues on a weekly basis.
- Institute for Advanced Learning and Research: Discussions with this stakeholder have revolved around opportunities for workforce development.
- Danville IDA: The Danville IDA has been a key stakeholder throughout Project development and discussion with this stakeholder continues on a weekly basis.
- West Piedmont Planning District Commission: Discussion and consultation have occurred with the Piedmont Planning District Commission.
- Pittsylvania County Farm Bureau: Discussion with this stakeholder has occurred.
- Danville Sheriff, Pittsylvania County Sheriff, Danville Police Chief: Discussion with these stakeholders has occurred and focused on relevant topics such as security.
- Danville and Pittsylvania County Public Schools: Discussions with this stakeholder have revolved around opportunities for workforce development.
- Dan River Basin Association: Coordination remains ongoing with this stakeholder group regarding concerns expressed by the group and opportunities to partner and meet the organization's goals.
- Danville Fire Department and Pittsylvania County Public Safety (Fire & EMS): Discussion with these stakeholders has occurred and focused on relevant topics such as emergency response.
- Places of Worship: Meetings with Harmony Church, Faith Memorial, and Mount Lebanon Baptist Church were conducted and focused on general project discussion.
- Smith Mountain Lake Chamber of Commerce: Meetings with stakeholders have occurred and focused on general project discussion.

Coordination with Descendants of Formerly Enslaved Persons

As part of the broader previously conducted Megasite planning, development, and stewardship efforts, RIFA engaged with members of the Hairston family descendant community through public meetings, formal consultation associated with cemetery relocation permits, ongoing coordination regarding reinterment planning, and acquisition and stewardship of the historic Oak Hill property. Engagement included collaboration with descendants concerning the Hairston II and Adams-Wilson cemeteries, provision of opportunities for public comment, planning for continued descendant access to burial sites, and development of long-term preservation concepts for cultural resources associated with the Hairston family and related descendant communities.

RIFA worked with descendants, regulatory agencies, and cultural resource specialists to relocate and respectfully reinter more than 100 graves associated with the Hairston, Wilson, and Adams families from the Hairston II and Adams-Wilson cemeteries. The disinterments were permitted by the VDHR in accordance with the Code of Virginia and the VDHR's regulations to obtain a Permit for the Archaeological Recovery of Human Remains. The remains were reinterred adjacent to the historic Oak Hill Plantation property, helping preserve descendant access and consolidating important cultural and historical resources in a protected location near the plantation house site. This effort was supported through public outreach, consultation with descendants, and coordination with the VDHR.

8. Pre-Filing Request

A Pre-Application Meeting was held for this project on June 23, 2026, that included contributing members from the USACE, the DEQ, and the Applicant. A copy of the 401 Water Quality Certification Pre-Filing Meeting Request is enclosed within Exhibit 26, along with the 401 Water Quality Certification Request for the project.

9. Analysis of Practicable Alternatives

The Applicant conducted an alternatives analysis for the Project including evaluating no action alternatives and both off-site and on-site measures to first avoid and then minimize impacts to surface waters to the maximum extent practicable in accordance with the Guidelines for Specification of Disposal Sites for Dredged or Fill Material, 40 CFR Part 230, and DEQ Virginia Water Protection (VWP) regulations. Under both regulations, an alternative is "practicable" if it is "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." 40 C.F.R. § 230.10(a)(2); 9VAC25-210-10. Because the project is not water dependent, the Applicant developed this analysis by applying the presumption that practicable alternatives are available to impacts to special aquatic sites, as required by 40 C.F.R. § 230.10(a)(3).

9.1. No Action (No Build) Alternative

Under a No Action (No Build) alternative scenario, the Applicant and their partnership with the City of Danville and Pittsylvania County would not proceed, and the proposed development, associated infrastructure and other related improvements would not be constructed. Under the No Action (No Build) alternative, it is reasonable to assume that current economic development trends will continue into the foreseeable future. That is, a modest level of ongoing and periodic investment in the region is expected over a protracted but uncertain timeline, but it would be an order of magnitude (or more) less than the

scale sufficient to satisfy the Project purpose and need. This reduced level of expected investment would be insufficient to offset the erosion of the region's industrial and manufacturing base over the past 20 years. Furthermore, due to the limited availability of suitable sites and the County's desire to concentrate industrial development on discrete sites to maintain the overall rural character of the County, it is likely that the proposed site or alternative sites would be developed over a longer, highly uncertain time-horizon and that such development would likely entail substantially less capital investment than sought by the localities. Because such development likely would occur as smaller, independent projects, it is foreseeable that the overall impact of such piecemeal development would exceed that of the proposed Project over time.

In sum, under this scenario, the investment and expected benefits associated with attracting a large-scale industrial user to the region would not be realized. This scenario would not fulfill the project's purpose and need for short- and long-term economic growth. Nor is it clearly less environmentally damaging. Therefore, the No Action (No Build) Alternative is not a practicable alternative.

9.2. No Action (No Permit) Alternative

Under a No Action (No Permit) alternative, the proposed Project would fully avoid all impacts to jurisdictional wetlands and other WOTUS. This alternative could be implemented in either of two ways, neither of which provides a practicable alternative.

9.2.1. Divide the Project Among Multiple Sites

The Applicant could attempt to divide the proposed development among numerous smaller sites throughout the region without stream and wetland impacts. Assuming for the sake of argument that a sufficient number of smaller buildable sites without impacts are available, this scenario presents several impracticable limitations. This scenario would not be practicable in the first instance because it would violate the local land use and planning policies of the Localities to concentrate industrial development into large, contiguous areas to minimize adverse effects to the overall rural and agricultural character of the area (see Section 9.3.3). This scenario also is not likely to attract significant capital investment because it is inconsistent with the market demands identified by RIFA and confirmed by STACK. Because the Danville-Pittsylvania region is considered a "secondary market" for data center campuses and other large-scale industrial areas, the region must focus on its advantages to remain competitive with other, more developed areas. A critical advantage is the robust critical infrastructure and the size of the contiguous, buildable area that can be developed in the region. By dispersing the development to smaller, far-flung parcels throughout the region, RIFA loses a key advantage that allowed it to attract and partner with STACK. Accordingly, this iteration of the No Action (No Permit) Alternative is not a practicable alternative on the basis of logistics and ability to fulfill the Project Purpose and Need.

9.2.2. Limit the Developable Area within the Proposed Project Site

The Applicant could restrict the developable area of the proposed Project site to areas that avoid stream and wetland impacts. As demonstrated in the onsite alternatives analysis in Section 8.4, the proposed layout of the Project avoids aquatic resource impacts to the maximum extent practicable. The footprint of the Project could not be further reduced without materially changing the Project in a manner that would not satisfy the Project Purpose and Need. Complete avoidance of aquatic resources would substantially reduce the amount of developable land available on the site, resulting in insufficient area to accommodate the proposed number of data centers, supporting utilities, access roads, stormwater management facilities, and other associated infrastructure. Consequently, this alternative would not

meet the Project purpose and need because it would not provide the operational capacity necessary to support the proposed development. In addition, the reduced development footprint would substantially diminish the economic development and job growth benefits and opportunities anticipated from the Project below the levels necessary to satisfy the project purpose and need. Therefore, the No Action (No Permit) Alternative is not a practicable alternative.

9.3. Off-Site Alternatives Analysis

The Applicant completed a detailed off-site alternatives analysis to identify the Least Environmentally Damaging Practicable Alternative (LEDPA) for Project Crossroads. The analysis employed a screening process followed by a site-specific review of potential sites considering project purpose and need, as well as environmental, engineering, infrastructure, and logistical considerations. The process used to identify, screen, and evaluate alternative sites is outlined below and discussed throughout this section. This methodical approach enabled the Applicant to eliminate all other potential sites as practicable alternatives for the proposed Project. As a result, the Project site was conclusively identified as the LEDPA.

9.3.1. Evaluation Criteria: Practicability in Terms of Cost, Technology, or Logistics

There are critical factors that must be considered to evaluate whether a potential alternative is "available" or "capable of being done" in terms of cost, technology, and logistics, while also satisfying the project purpose and need. The criteria outlined in this section represent key considerations for this evaluation and have been organized according to the principal elements of the practicable definition.

Parcel or Assemblage Size

Digital infrastructure campuses encompass substantially more than the data center buildings themselves; they must accommodate a range of supporting facilities essential to project operations. These facilities commonly include access roads, electrical substations and utility interconnections, security infrastructure, administrative and operations offices, employee parking, materials handling and delivery areas, onsite backup generation, energy generation, mechanical, electrical, and plumbing systems (MEP), and water treatment and storage systems. As a result, suitable sites must be capable of supporting these facilities while maintaining efficient and secure campus-wide operation. The scale of supporting facilities generally grows in proportion to the number and size of the data center buildings on a site.

The minimum contiguous area required to accommodate the Project is primarily a function of the number and size of data center buildings necessary to achieve the Project's economic development objectives, as described in Section 3. As discussed above, the number and size of data center buildings, in turn, dictate the range of supporting facilities that must be incorporated into the Project.

For this Project, the minimum area needed to accommodate the aggregate footprint of the data center buildings and necessary support facilities is approximately 1,733 acres. Accordingly, a parcel or assemblage cannot constitute a practicable site if it possesses less than 1,733 acres. Therefore, the Applicant's screening-level analysis used a gross area of 1,733 acres as the minimum parcel or assemblage size to warrant further review.

Developable Area and Constructability

The gross area of a site or assemblage does not necessarily represent the *developable* area of the site. The developable area is reduced by setbacks, buffers, and other development limitations required by applicable local ordinances and regulatory requirements, as well as various other potential site-specific

constraints, limitations, and considerations. For a site to be suitable, the net developable area cannot fall below 1,715 acres after all regulatory and constructability constraints are accounted for.

As noted above, a minimum of approximately 1,715 acres of land is required to accommodate the anticipated facilities and associated infrastructure. Potential alternatives were evaluated based on physical and logistical characteristics that may limit site development, including topography, significant water features, site configuration, access limitations, and existing development encumbrances. Some developable area constraints are readily identifiable from a desktop review, such as property line buffer and setback requirements required by law. However, many of the factors that determine the developable area of a site are not reducible to simple metrics because the relevant factors typically must be considered in conjunction as applied to site-specific conditions. For example, whether a portion of a site with steep slopes is suitable for construction can depend on various factors such as (1) steepness of the slope; (2) slope length and configuration; (3) slope orientation and location within the site; (4) availability of cut and fill areas to establish constructible grades; (5) soil type and stability; (6) proximity to existing resources (e.g., streams, wetlands), access roads, energy transmission facilities, or other elements of the project that could materially affect the limits of grading; and (7) project components that would be constructed in the sloped area (e.g., road, power line, data center building).

Where applicable, the following constraints were considered to determine the developable area of sites under evaluation:

- Open waters. Areas occupied by rivers, lakes, reservoirs, and other significant water features were excluded from the developable acreage calculation.
- Third-Party Easements. Utility, transportation, and conservation easements held by third parties were considered unavailable for development where they would limit the construction of buildings or other critical infrastructure.
- Buffers and Setbacks. As discussed further below, the Project cannot be constructed in violation of buffers and setbacks required by law or ordinance (See Exhibit 12C).
- Site Geometry. On a site-specific basis, portions of sites that are irregularly shaped or narrow may be deemed unsuitable for construction.
- Others. Other site-specific constraints, such as topography, or other constraints that may become apparent when evaluating the developable area and constructability of a site or portions of a site.

Potential sites that do not have at least 1,715 acres of developable land after accounting for these constraints do not provide the minimum acreage necessary to accommodate the Project. Therefore, they are not practicable site alternatives.

Natural Hazards

Digital infrastructure facilities require site conditions that support the reliable construction and operation of critical infrastructure. As a result, environmental hazards and natural features that may adversely affect development feasibility, facility resiliency, or operational continuity were avoided during the site screening process.

Flood-prone areas were considered constrained due to the risk posed to critical infrastructure and the potential for regulatory limitations on development. This includes FEMA-designated Special Flood Hazard

Areas and Virginia Department of Conservation and Recreation-mapped Dam Break Inundation Zones. Similarly, areas containing known geologic hazards, such as karst terrain or other conditions associated with subsidence and ground instability, were evaluated as potential constraints to development. Where present, such features were excluded from the developable acreage used in the alternatives analysis.

Proximity to Natural Gas Infrastructure

Access to natural gas transmission infrastructure is an important consideration in evaluating the practicability of potential sites. The Project's anticipated operational needs require access to a natural gas supply capable of supporting onsite energy generation. Smaller local distribution systems generally do not provide the volume or delivery reliability necessary to support facilities of this scale. Furthermore, the availability of natural gas represents an important market consideration, enabling the use of cleaner-burning generation technologies and enhancing the competitiveness of the Project for digital infrastructure investment.

As the distance between a potential site and existing natural gas transmission infrastructure increases, the complexity and uncertainty associated with establishing a gas supply connection increase correspondingly. Longer pipelines may require additional regulatory approvals, increased environmental review, more extensive utility coordination, and a greater number of property rights acquisitions. In the case of interstate transmission facilities, longer extensions may also increase the likelihood of separate federal authorization requirements, introducing additional schedule uncertainty that could affect the ability of a site to support the Project's development objectives.

Similarly, where a dedicated non-regulated pipeline connection would be required, increasing distance generally results in a greater number of affected landowners and easement agreements. Based on typical parcel configurations within the study area, pipeline extensions exceeding five miles from an existing transmission pipeline would require easements from more than twelve unaffiliated landowners. As discussed in more detail in Section 9.3.2, the successful acquisition of rights from more than twelve third-party property owners cannot be assumed and introduces substantial uncertainty into project implementation.

Longer pipeline corridors also increase the potential for impacts to streams, wetlands, transportation infrastructure, utilities, and other resources, which may increase permitting requirements, construction complexity, cost, and schedule risk. While pipelines extending beyond five miles may be technically feasible, the cumulative regulatory, environmental, logistical, real estate, and schedule-related challenges become progressively more significant as distance from existing transmission infrastructure increases.

Accordingly, for purposes of this analysis, sites located more than five miles from an existing natural gas transmission pipeline were excluded from further consideration due to logistical impracticability and for being incapable of satisfying the project purpose. Beyond five miles, it is reasonable to assume that a reliable gas supply is not available due to the number of landowners that would have to provide easements. Furthermore, extending a pipeline more than five miles brings an increasing list of other, compounding challenges.

Water and Sewer Service Availability

A reliable and sufficient volume of water and sewer service capacity is essential for a site to satisfy existing market demands. At a minimum, these services are necessary to provide drinking water and sanitary sewer service for employees and visitors to a digital infrastructure campus. However, water demands and

sewer service capacity needs are predominantly dictated by the cooling water technologies employed at a facility. Cooling water technologies use varying volumes of water, with evaporative cooling at one end of the spectrum with comparatively high water demands and new technologies like immersion cooling using very little water. The selection of suitable cooling technology entails consideration of numerous factors, including cooling technologies that use less water often require more energy. In practice, various cooling technologies are often employed within a single data center campus, with the systems (including hybrid uses of combinations of technologies) tailored to best meet the needs of operations.

Additionally, onsite generation can require cooling water. Similar to data center buildings, several technologies are available to cool energy generating facilities with varying levels of water usage.

RIFA has developed a minimum water and sewer service capacity need based on its analysis of market expectations and consultation with its partner, STACK. Based on these inquiries, RIFA concluded that a site of the target size should have access to up to 7 million gallons per day (MGD) of water and 3 MGD of sewer capacity available to be viable.

To provide water and sewer service to a site, it must be located near utilities with adequate capacity to meet the projected demand.⁶ RIFA has evaluated the water and sewer systems in and adjacent to Danville and Pittsylvania County. Two utilities were found to have sufficient water and sewer capacity to satisfy the project's needs:

- Danville Utilities. The City of Danville's public utility, Danville Utilities, operates a water treatment plant with a capacity of 18 MGD. Due to the full or partial closure of large industrial facilities that were served by the Danville, including Goodyear and the Dan River Mill, the City has substantial unused capacity of approximately 12 MGD. Danville's sewer system has a similar level of unused capacity (approximately 14 MGD) for the same reasons.
- City of Eden Public Utilities. Eden is in a very similar position to Danville. The City's water system has a capacity of approximately 20 MGD. Due to the closure of Hanes manufacturing facilities and a MillerCoors brewery, Eden has an unused water treatment capacity of roughly 16 MGD. Eden currently has unused wastewater treatment capacity of at least 10 MGD.

The following water and sewer utilities also were considered in the analysis:

- Pittsylvania Department of Public Works. The County operates twelve small water systems with an aggregated capacity of roughly 0.10 MGD. The County does not operate wastewater treatment facilities.
- Town of Chatham. Chatham's water system has a capacity of 1.3 MGD and uses 0.4 MGD on average, leaving a remaining capacity of under 1.0 MGD (before accounting for the town's projected demand increases over time). Chatham's wastewater treatment facility has a capacity of approximately 0.6 MGD, of which half is presently used.
- Town of Gretna. Gretna has total water treatment capacity of approximately 0.2 MGD and an unknown, but presumably comparable, volume of wastewater treatment capacity.

⁶ Pittsylvania County Zoning Ordinance Section 35-142(A) requires that data centers be connected to a public water system and prohibits the use of commercial wells.

- Town of Hurt. Hurt purchases water from Altavista (0.1 MGD) but is in the process of constructing a new water treatment plant with a capacity of up to 1.0 MGD, much of which is expected to be consumed by the Southern Virginia Multimodal Park. Hurt's wastewater treatment capacity is unknown but presumed to be of a similar capacity.
- Town of Altavista (Campbell County). Altavista operates a 3.0 MGD water treatment plant and supplies approximately 2.1 MGD per day, leaving less than 1.0 MGD in remaining capacity. Altavista has a wastewater treatment capacity of 3.5 MGD that treats an average of 2.0 MGD per day.
- Henry County Public Service Authority (PSA) and City of Martinsville. Although data is not readily available from public sources, the Applicant estimates the Henry County Public Service Authority and Martinsville have an aggregated available water service capacity of approximately 6 to 8 MGD. Although Henry PSA and Martinsville potentially could have the capacity to serve Project, it is not considered an available alternative for two reasons. First, the Henry PSA and Martinsville's respective water treatment plants are a significant distance from the Pittsylvania County border, likely requiring a 15-mile or longer pipeline. Second, Henry County and Martinsville are jointly marketing the 1,000-acre Patriot Centre Industrial Park as having an "abundance of water." Henry County also is marketing the 720-acre Commonwealth Crossing Business Centre as having a "full" water supply. Accordingly, the Applicant has reasonably assumed that Henry PSA and/or Martinsville would not have sufficient unallocated water capacity (and corresponding wastewater capacity) to serve the Project.⁷

Accordingly, for a site to be practicable, it must be presently served by Danville Utilities and/or the City of Eden or in a location for which it would be practicable to extend water and sewer service from these utilities within the timeframe necessary to meet the project purpose. Because these systems depend on factors like long-term supply, transmission networks, and wastewater treatment capabilities, availability cannot be reduced to simple criteria.

A practicable limitation on water and sewer line extensions in this area is the existence of long ridgelines. Pumping water and sewer lines over ridgelines presents major hydraulic, engineering, and operational limitations. Because the fluid must first travel uphill to a peak elevation (the ridge) and then travel downhill on the other side, standard pumping design principles do not apply. White Oak Mountain presents a particularly significant barrier that had to be considered for evaluating whether each site could be provided with adequate water and sewer service. White Oak Mountain is a long ridgeline with a rise of approximately 300 to 600 feet for much of its length that runs on a southwestern and northeastern axis. The relevant portion of the ridgeline (and adjacent, parallel ridges) extends from the North Carolina border at a point northeast of Eden, passes between Danville and Chatham, and continues to the northeastern corner of Pittsylvania.

⁷ For clarity, Patriot Centre Industrial Park and Commonwealth Crossing Business Centre cannot serve as practicable alternatives to the Project because they are located in Henry County, which is outside the geographic scope of sites that are capable of satisfying the project purpose.

RIFA leveraged its local infrastructure knowledge to evaluate candidate sites individually, identifying locations that are capable of being served by Danville and/or Eden.⁸

Availability of Electrical Infrastructure

Access to reliable electrical infrastructure is a critical consideration in determining site practicability for digital infrastructure projects. Suitable sites should have access to high-voltage transmission infrastructure capable of supporting both near-term construction activities and long-term campus operations. Particular consideration was given to the availability of existing substations or locations capable of supporting timely substation development, the ability to obtain construction and commissioning power, system reliability, reliable and resilient power service, and the anticipated timeframe for delivery of operational electrical capacity.

Sites with existing electrical infrastructure, including onsite substations, provide advantages with respect to development schedule, operational reliability, the ability to support reliable and resilient power service, and speed to market. Conversely, sites requiring substantial transmission extensions, major offsite upgrades, or lengthy utility development timelines may not be capable of supporting the Project within the timeframe necessary to satisfy the Project purpose and need. Accordingly, sites lacking reasonable access to these electrical infrastructure attributes, or requiring electrical infrastructure development for which an established and reasonably achievable pathway to provide the required electrical service within the Project schedule could not be identified, were considered not practicable because they would be unlikely to support the Project within the timeframe necessary to satisfy the Project purpose and need.

Suitable Transportation Network

Construction and operation of a digital infrastructure campus requires access to a transportation network capable of accommodating the delivery of oversized equipment, construction materials, and heavy vehicles during construction and operation of the Project. As a result, suitable sites must have existing access, or a reasonable opportunity to obtain access, to major transportation corridors capable of supporting these activities. Four-lane divided highways are generally preferred because they provide the capacity, safety, and operational flexibility necessary to accommodate construction traffic and the transport of large equipment.

In evaluating potential alternatives, consideration was given to the presence of suitable transportation infrastructure, and to the feasibility of establishing such access within the timeframe required to satisfy the Project purpose and need. Sites requiring substantial offsite roadway construction, major roadway upgrades, extensive right-of-way acquisition, or lengthy additional permitting and environmental review processes may introduce significant cost, schedule, and implementation uncertainty. While roadway improvements can generally be engineered and constructed, the time required to design, permit, authorize, fund, and construct such improvements may materially affect the viability of a site.

Accordingly, the key consideration was whether a site had access to, or a reasonable and timely path to access, a major transportation corridor. For purposes of this screening-level analysis, a distance of approximately five miles from an existing major transportation corridor was used as a reasonable indicator of whether such access could likely be established without substantial cost, schedule, or implementation

⁸ Pittsylvania County Zoning Ordinance Section 35-142(A) requires that data centers be connected to a public water system and prohibits the use of commercial wells.

uncertainty. Sites located beyond this distance were generally considered less likely to provide practicable transportation access consistent with the Project purpose and need and were excluded from further consideration.

Compliance with Local Laws and Ordinances

Sites within Pittsylvania County must comply with all applicable laws and ordinances. Of particular relevance, the County has an ordinance applicable to data centers (Pitt. Zoning Ord. § 35-142) and allowable activities within M-2 Heavy Industry zoning district, which was the only district that allows data centers (Pitt. Zoning Ord. § 35-401 et seq.). In January 2026, the Pittsylvania County Board of Supervisors enacted a zoning ordinance creating a new district (M-SVMS) for the proposed Project site, Zoning Ord. § 35-537. The M-SVMS ordinance modifies the standards applicable to the existing M-2 Heavy Industrial zoning district and the general standards for data centers. For the purposes of this alternatives analysis, the Applicant has assumed that the most limiting restrictions and requirements applicable to the proposed Project site under any of the ordinances referenced above would be applied to each alternative site.

The following list summarizes the relevant and applicable requirements.

- **Connection to Public Water System**
 - If feasible, data centers must be connected to a public water system if a “water-based cooling system” is used. Pitt. Zoning Ord. §§ 35-142(A); 35-357(3)(c)(i).
- **Building Height**
 - Data center building heights may not exceed 150 feet. Pitt. Zoning Ord. § 35-537(3)(c)(ii).
 - Onsite power generating facilities may not exceed a height of 220 feet, plus one additional foot of permissible height for each additional foot the facility is setback from the minimum setback requirement. Pitt. Zoning Ord. § 35-537(3)(d)(i).
- **Setbacks**
 - “Guard houses and accessory structures shall not be located closer than 250 feet to the property line of any adjacent residentially zoned properties.” Pitt. Zoning Ord. § 35-537(3)(c)(v)(1).
 - “Ground mounted mechanical equipment must be setback a minimum of 100 feet from the property line of any adjacent residentially zoned properties.” Pitt. Zoning Ord. § 35-537(3)(c)(v)(2).
 - Onsite power generating facilities must be set back at least 500 feet from the property line of any adjacent residentially zoned areas. Pitt. Zoning Ord. § 35-537(3)(d)(ii).
 - Sound levels may not exceed 77 decibels at the property line of any adjacent residentially zoned property. Pitt. Zoning Ord. § 35-537(3)(c)(ix).
- **Buffers**
 - “A one hundred foot (100’) wide buffer yard is required in order to screen Data Centers from adjacent major arterials/interstates” and parcels that have a different zoning classification. Pitt. Zoning Ord. § 35-537(3)(c)(vi).
 - “Power generators, water cooling systems, storage facilities, and any other mechanical infrastructure necessary for the operation of the Data Center other than water storage tanks and Power Stations must be screened from major arterials/interstates and from abutting residentially zoned properties.” Pitt. Zoning Ord. § 35-537(3)(c)(iii).

9.3.2. Evaluation Criteria: Availability

Land Capable of Being Purchased

An analysis was conducted to identify lands “which could reasonably be obtained, utilized, expanded or managed” to fulfil the project purpose and need. 40 C.F.R. § 230.10(a)(2).⁹ As detailed herein, RIFA has assumed it would have a reasonable rate of success in purchasing parcels owned by third parties. Nevertheless, certain types of properties were considered presumptively unavailable due to their current ownership and/or current use. This presumption was applied to the following:

- Properties owned by the United States or Commonwealth of Virginia, including the agencies thereof;
- Government-owned properties currently used to provide important services to the public, such as libraries, fire stations, landfills, and schools.
- Lands under conservation easements, preservation easements, or similar protective instruments that prohibit development.
- Public parks and recreation areas.
- Houses of worship (e.g., churches, mosques, synagogues).
- Residential subdivisions.
- Multifamily housing (e.g., apartments, condominiums).
- Commercial or industrial districts under active use by multiple businesses on the same, adjacent, or nearby parcels (e.g., malls, restaurants, stores, gas stations).
- Lands with utility-scale solar facilities (including facilities under development or construction).

Number of Landowners in Assemblage

There are few landowners in Danville or Pittsylvania that own parcels (or a collection of contiguous parcels) that exceed 1,733 acres. To identify potential sites, the Applicant has assumed it would be necessary to create a site by purchasing and consolidating parcels owned by different landowners. Additionally, the Project relies on voluntary, negotiated agreements with property owners to secure site control. Accordingly, for a suitable site to be available, RIFA would need to negotiate voluntary purchase agreements with willing sellers. However, it is important to recognize that as the number of landowners in an assemblage increases, the likelihood of encountering one or more unwilling sellers increases as well. Published data specific to voluntary land acquisition rates for private development projects is not readily available. As a reasonable comparison, the Applicant reviewed Federal Highway Administration data for right-of-way acquisitions associated with transportation projects, which indicates that approximately 80 percent of acquisitions are completed through voluntary agreements rather than condemnation proceedings.

While transportation projects differ from the Project because acquiring agencies may ultimately have eminent domain authority, the Applicant has conservatively applied the approximately 80 percent voluntary acquisition rate observed in those projects, recognizing that voluntary acquisition of property for private development may be more challenging.

⁹ RIFA and the Localities own several other economic development sites in Pittsylvania and Danville. However, none of those sites are practicable alternatives for various reasons. Most significantly, none of RIFA’s properties are large enough to satisfy the project purpose and need.

Even assuming that relatively high rate of voluntary participation, every landowner within a potential assemblage must agree to sell for the site to be acquired. Each additional landowner therefore introduces another potential obstacle to successfully assemble the site. As a result, the likelihood of acquiring all properties necessary for development declines rapidly as the number of landowners increases. Under the assumptions applied in this analysis, assemblages involving 12 or more separate landowners have less than a 10 percent chance of being successfully assembled and were therefore not considered reasonably available for development.

Local Zoning

Certain land uses are fundamentally incompatible with the development of large-scale digital infrastructure campuses. Danville, Pittsylvania, and the Towns of Chatham, Gretna, and Hurt are responsible for setting long-term land use policies and restrictions within their respective jurisdictions to facilitate the orderly and harmonious development of their communities. These Localities' land use determinations are entitled to deference. *See* 33 C.F.R. § 320.4(j)(2); Va. Code §§ 15.2-2200, 15.2-2209.5 & 15.2-2232.

Areas zoned for heavy industrial uses are suitable for data center development. For example, in Pittsylvania County, data centers are allowed exclusively in areas zoned M-2 Heavy Industrial District or subject to a site-specific megasite zoning district. Data centers can be sited in such areas upon issuance of a Special Use Permit by the County.¹⁰ Therefore, any areas with heavy industrial zoning classifications are considered available for the purpose of the local zoning screening criterion.

RIFA recognizes that it is possible for the Localities to rezone parcels to allow the development of a data center campus. However, the potential for rezoning is not unlimited as a practical matter. Localities are prohibited from entering into agreements with entities to rezone parcels.¹¹ Instead, rezoning is a legislative act that must be approved by the local governing body after considering a long list of factors, including the “existing use and character of property” and whether the rezoning is consistent with the adopted comprehensive plan. Va. Code § 15.2-2284. This process is highly public and often draws a high level of community engagement. Rezoning applications that do not enjoy community support have a significant likelihood of being denied.¹² Likewise, localities must be cautious to avoid engaging in prohibited “spot zoning” that benefits private interests without concurrent public benefits.¹³

Areas of the localities designated for residential use or commercial (non-industrial) development are not compatible with data center campus development. That is, there is an increased likelihood that a data center campus would interfere with other uses in these districts, and, therefore, the likelihood that such areas could be rezoned to accommodate a large-scale data campus is low. Accordingly, areas subject to these zoning classifications were screened from consideration as available sites.

¹⁰ The localities have adopted generally consistent zoning district categories, but the names for the district may vary by locality. This summary identifies the districts by general categories for the sake of simplicity.

¹¹ *See Pimo Gro Sys. v. King George Cnty. Bd. of Supervisors*, 52 Va. Cir. 241, 244 (King George Cir. Ct. 2000).

¹² *See, e.g.,* Grace Manon, Cardinal News, *Pittsylvania rejects data center project that has dominated county conversation for 6 months* (Apr. 16, 2025), <https://cardinalnews.org/2025/04/16/pittsylvania-rejects-data-center-project-that-has-dominated-county-conversation-for-6-months/> (documenting the Pittsylvania County Board of Supervisors' denial of an application to rezone 750 acres of agricultural-zoned land to industrial for a digital infrastructure project near Chatham).

¹³ *See Riverview Farm Assoc's v. Bd. of Supervisors of Charles City Cnty.*, 528 S.E.2d 99, 105 (Va. 2000).

The majority of land within the County is zoned for agricultural use. Agricultural zoning is also the predominant zoning classification applied to large undeveloped tracts and is therefore commonly associated with properties capable of accommodating projects requiring substantial acreage. By concentrating data centers into designated, large areas instead of scattering them across the jurisdiction, local governments preserve the rural character of agricultural land while effectively managing development. This planning approach recognizes that large-scale projects often require land that is currently zoned agricultural, while directing such development into defined areas rather than allowing it to occur in a dispersed manner throughout the jurisdiction. Accordingly, RIFA assumed for purposes of this alternatives analysis that agriculturally zoned properties may have a reasonable potential to be rezoned for the Project where other site characteristics support large-scale development.

Similarly, while some light industrial properties may be generally compatible with data center development, such properties would also require appropriate zoning and land use approvals to accommodate the Project. For these reasons, RIFA evaluated both agriculturally zoned and light industrially zoned properties as part of the alternatives analysis.

9.3.3. Evaluation Criteria: Ability to Satisfy Project Purpose and Need

Local Taxing Authority

As discussed in Section 2, RIFA was created by Danville and Pittsylvania under the Virginia Regional Industrial Facilities Act for the purpose of developing industrial sites to advance the Localities' economic development, job growth, and tax revenue goals. Developing a site in a neighboring jurisdiction may result in limited general economic growth in the Localities due to, for example, workers at the facility that elect to settle in Danville or Pittsylvania or local businesses patronized by the new facility and its employees. However, the expected benefits would be substantially lower than if the facility were to be constructed in Danville or Pittsylvania. Such secondary economic benefits would fall far below the expectations for the Project. The most significant consequence, however, is that Danville and Pittsylvania would lose all property tax revenue associated with the construction and operation of the facility if it is constructed in a neighboring jurisdiction. Accordingly, an alternative site located outside the jurisdictional territory of Danville and Pittsylvania could not satisfy the purpose and need.

Ability to Meet Economic Development Targets

The ability to achieve the economic development objectives established by Pittsylvania County and the City of Danville is a fundamental component of the Project Purpose and Need. Potential sites were therefore evaluated based on their ability to support development at a scale capable of generating the level of private investment, high-quality employment opportunities, and long-term economic benefits sought by the member localities.

Based on market conditions, demonstrated industry demand, and RIFA's economic development experience, digital infrastructure development was identified as the most viable means of achieving the objectives described in Section 2. Accordingly, potential alternative sites must be capable of supporting a digital infrastructure campus of comparable scale to achieve the economic development goals underlying the Project Purpose and Need. Sites that could not reasonably accommodate development of this nature and scale are considered not practicable because they would be incapable of satisfying the Project Purpose and Need.

Consistent with Local Land Use Plans

An important objective of RIFA and the Localities is to consolidate industrial development on large, contiguous parcels in areas of the Localities designated for development. This approach is intended to maximize the preservation of working agricultural lands and the existing rural character of large parts of the County. This necessitates that the Project be situated on a single parcel or an agglomeration of adjoining parcels.

Access to Fiber

Access to high-capacity fiber optic infrastructure is a critical consideration in determining site practicability for digital infrastructure projects. Digital infrastructure campuses require reliable telecommunications connectivity capable of supporting large-scale data transmission, operational continuity, and long-term customer requirements. As a result, suitable sites should be located in proximity to existing carrier-grade fiber networks capable of providing timely service and connections to regional and national telecommunications infrastructure.

In evaluating potential alternatives, consideration was given to both the availability and diversity of existing fiber infrastructure. Connectivity to multiple fiber routes and service providers is generally preferred because it enhances network resiliency, reduces the risk of service interruptions, and supports the redundancy expectations of digital infrastructure users. Access to fiber routes that provide connectivity in multiple directions is particularly advantageous because it allows for diverse network paths and improved operational reliability.

The timing associated with obtaining telecommunications service was also considered. While fiber infrastructure can be extended to serve new locations, substantial network extensions may require additional design, permitting, easement acquisition, and construction activities that can introduce significant schedule uncertainty. Accordingly, sites lacking reasonable access to existing high-capacity fiber infrastructure, including the ability to obtain timely, reliable, and redundant telecommunications service, were considered not practicable and excluded from further consideration.

Speed to Market

Timing is a critical component of the Project's purpose and need. The Southern Virginia Megasite has been the subject of economic development planning and investment efforts for approximately two decades, with the goal of attracting a transformative development capable of generating significant economic benefits for Pittsylvania County and the City of Danville. Accordingly, a practicable alternative must be capable of supporting a development schedule that meets current market demands and allows those anticipated economic benefits to be realized as soon as practicable. Large scale data center operations currently absorb campus capacity within compressed timelines of 18 months or less, *"What once took five to seven years is now happening in eighteen months or less"*¹⁴. To meet this demand, a site must demonstrate existing or concurrent capacity across all primary infrastructure components; power transmission, water/sewer supply, fiber redundancy, and municipal zoning/entitlement. This can be realized through integrating a multiple-phase power approach, and utility delivery directly into the preliminary site selection phase, providing site readiness and allowing for the compressed schedule demands of the market. Alternatives with constraints that would substantially delay site readiness,

¹⁴ <https://www.datacenters.com/news/why-hyperscalers-are-filling-new-data-center-campus-faster-than-expected>
(Accessed September 9, 2026)

permitting, construction, or operations cannot fulfill the Project's purpose and need and are therefore not practicable. Construction activities subject to the proposed permit are scheduled to start in the third quarter of 2027.

9.3.4. Analysis

The practicability criteria described above were used to identify, screen, and evaluate potential offsite alternatives. Because certain criteria were appropriate for broad-scale geographic screening while others required more detailed site-specific evaluation, the analysis was conducted through a systematic, multi-stage process. The screening process progressively narrowed the number of potential alternatives by eliminating sites that could not reasonably satisfy one or more critical practicability criteria. The criteria used to establish the geographic scope of the analysis and evaluate potential alternatives are described in detail in the sections that follow.

Prior to evaluating other off-site alternatives, RIFA assessed other designated economic growth sites within Danville and Pittsylvania County. None of the sites currently controlled by RIFA or the Virginia Economic Development Partnership (VEDP) are of sufficient size to accommodate the proposed project; therefore, they were determined to be impracticable alternatives.

The following approach was utilized:

1. Key practicability criteria were used to establish the geographic scope of the offsite alternatives analysis.
2. A GIS-based screening analysis was conducted to identify parcels and parcel assemblages with the potential to support the scale of development required by the Project.
3. Potentially suitable sites were subjected to an individualized practicability review to determine whether they could reasonably satisfy the Project Purpose and Need and associated practicability criteria, with the environmental impacts of each alternative subsequently compared to identify the least environmentally damaging practicable alternative (LEDPA).

9.3.4.1. Geographic Scope of Alternatives Analysis

As discussed in Section 3, a critical element of the project purpose and need is that the Project must generate substantial economic development, job growth, and tax revenue for RIFA's member localities. The project purpose cannot be satisfied if the Project is built in another jurisdiction. Accordingly, the Applicant has limited the geographic scope of its evaluation of offsite alternatives to sites within the jurisdictional boundaries of Danville and Pittsylvania.

9.3.4.2. GIS Screening Analysis to Identify Potential Sites

The Project team conducted a comprehensive GIS-based screening analysis to identify parcels and parcel assemblages that warranted further evaluation as potential alternatives. The screening analysis was applied to lands located within the geographic scope of the alternatives analysis and was designed to identify potential sites that could reasonably satisfy the practicability criteria described in Section 9.3.1. Emphasis was placed on identifying properties that appeared capable of providing the acreage necessary to support the Project and that could reasonably be assembled for development.

To identify potentially suitable properties, the Project team reviewed county parcel data, zoning information, ownership records, aerial photography, and publicly available land-use information. An initial screening process was used to eliminate parcels that were clearly unsuitable for development or unlikely to be available for acquisition. Small parcels under five acres were removed from further consideration because they could not reasonably contribute to a site assemblage of sufficient size. Parcels with zoning classifications intended for residential, commercial, conservation, or other incompatible uses were also excluded. Similarly, publicly owned lands and parcels associated with governmental facilities, schools, churches, cemeteries, parks, recreation areas, wildlife management areas, municipal facilities, airports, military uses, charitable organizations, and similar public or institutional purposes were removed from consideration because acquisition and development of such properties would not be reasonably practicable.

The remaining properties were further reviewed using ownership information and publicly available data to identify parcels associated with existing solar energy facilities, planned solar developments, conservation lands, or publicly documented conservation easements. These properties were excluded because existing land-use commitments or legal restrictions could substantially limit development potential or make acquisition impracticable.

The Project team then evaluated the remaining parcels to determine whether they could form realistic development sites. Individual parcels and groups of contiguous parcels were assessed as potential assemblages based on site configuration, acreage, and ownership characteristics. The ownership characteristics of each assemblage were evaluated using the availability criteria described in Section 9.3.2. Consistent with that criterion, assemblages requiring acquisition from twelve or more separate landowners were excluded from further consideration.

Potential assemblages were subsequently evaluated to determine whether they could provide approximately 1,715 acres of developable land required by the Project. This evaluation considered the desktop-based identifiable constraints and limitations that could affect site developability, including but not limited to floodplains, significant water features, and setbacks. A 100-foot setback from adjacent property boundaries was applied in accordance with local development requirements. Assemblages that could not provide approximately 1,715 acres of developable land after accounting for these constraints were excluded from further consideration.

The resulting assemblages were carried forward for site-specific practicability review and further evaluation against the criteria described in Sections 9.3.1 – 9.3.3. Following application of the GIS screening methodology, ten potential candidate alternative sites remained and were subjected to the detailed evaluation described in Section 9.3.4.3.

9.3.4.3. Evaluation of Alternative Sites

The following section provides an individualized review of the 10 potentially suitable alternative sites remaining after the GIS screening process described in the preceding section. These sites were evaluated based on practicability and ability to satisfy the Project Purpose and Need. As described above, practicability was assessed based on a variety of factors, including, but not limited to, land availability, developable acreage, utility availability, transportation access, constructability, schedule considerations, and other site-specific constraints.

In addition to the practicability evaluation, aquatic resources associated with each alternative were assessed and compared to support identification of the least environmentally damaging practicable alternative (LEDPA). For purposes of this alternatives analysis, aquatic resources were evaluated using National Wetlands Inventory (NWI) and U.S.G.S. 3D Hydrography Program (3DHP) mapping because it provides a consistent dataset available across all candidate sites. NWI and 3DHP mapping provide a standardized, reconnaissance-level representation of aquatic resources that is appropriate for comparative alternatives analyses; however, it is not intended to replace field delineations or establish regulatory jurisdiction. Because site-specific delineation data was not available for all alternatives, application of a uniform desktop methodology provided the most objective and unbiased basis for comparing aquatic resources among sites. While field investigations may ultimately identify resource quantities that differ from those depicted by desktop mapping, such limitations are inherent to desktop datasets and are not unique to any individual alternative. Accordingly, NWI and 3DHP mapping was used solely as a common basis for comparing aquatic resources during the alternatives analysis. Detailed field delineation data was utilized for the Proposed Site to support project-specific impact assessment and permitting efforts.

The 10 alternative sites evaluated below are depicted in Exhibit 11.

Alternative Site A

Alternative Site A is located in the northwestern corner of Pittsylvania County, Virginia, and contains a larger developable area (2,037 acres) than the Project Site. However, the site presents several significant limitations relevant to its potential to serve as a practicable alternative.

It would not be practicable to obtain sufficient natural gas service, water and sewer infrastructure, electric service, and fiber connectivity in a reasonable and timely manner. While natural gas service is available approximately 2.5 miles away, it would require coordination with a minimum of nine additional landowners and associated easements for installation of the pipeline extension. Alternative Site A is not located within existing public water or sewer service areas, requiring substantial utility extensions and associated approvals before development could occur. Water service would be dependent upon the Town of Gretna which does not possess sufficient capacity to support a development of this scale. Similarly, the site is not located within an area where existing wastewater treatment facilities could accommodate the anticipated sewage demand associated with the Project. While high-voltage electric transmission infrastructure is located approximately 0.1 mile from the site, the site lacks an immediate clear path to grid power due to the absence of an existing substation. As a result, additional transmission infrastructure, substation construction, and associated easements and permitting would be required to provide the level of electric service necessary to support data center operations. Fiber infrastructure is also not immediately available and would require extension prior to development.

Additionally, Alternative Site A would require assembly of 25 parcels owned by 11 separate landowners. Although securing agreements from 11 independent landowners would not, by itself, render the site impracticable under the screening criteria established for this analysis, it introduces substantial risk regarding site availability within the Project schedule. Due to the lack of reasonable and timely access to infrastructure indispensable to digital infrastructure development, Alternative Site A cannot satisfy the Project's speed-to-market requirements.

As noted above, publicly available desktop data was utilized as a means of relative comparison to evaluate environmental impacts. The desktop analysis determined that Alternative Site A contains substantially more floodplain acreage (86 acres), NWI wetlands (38 acres), and more mapped stream resources (42,399 linear feet) than the Project Site. While a full stream and wetland delineation would be necessary to determine actual impacts, the desktop information indicates that Alternative Site A would likely result in greater impacts to aquatic resources. Additionally, unlike the Project Site, Alternative Site A is located within a publicly mapped karst area, which may create additional design and construction challenges for large-scale data center facilities.

In conclusion, Alternative Site A is logistically impracticable and does not satisfy the project purpose. This site lacks sufficient access to necessary water, sewer, gas, and power infrastructure. There is low probability that this alternative is “available” due to the number of independent landowners that all must be willing to sell their property to RIFA on reasonable terms. The site also would require rezoning to support a digital infrastructure campus. While any of these constraints may render the alternative impracticable on their own, they also must be considered cumulatively when evaluating whether the site offers a practicable alternative. Lastly, the compounding effect of overcoming these logistical and availability challenges (if possible) would prevent the site from satisfying the speed-to-market expectations necessary to fulfill the project purpose. For these reasons, Alternative Site A can be eliminated from consideration as a practicable alternative.

Alternative Site B

Alternative Site B is located in the northwestern corner of Pittsylvania County and contains a smaller developable area (1,537 acres) than the Project Site. Additionally, the site presents several significant limitations relevant to its potential to serve as a practicable alternative.

It would not be practicable to obtain sufficient water and sewer infrastructure, electric service, and fiber connectivity in a reasonable and timely manner. While natural gas service is available on-site, Alternative Site B is not located within existing public water or sewer service areas. Water service would be dependent upon the Town of Gretna, which does not possess sufficient capacity to support a development of this scale. Likewise, the site is not located within an area where available wastewater treatment infrastructure could accommodate the anticipated sewage demand associated with the Project. While a high-voltage electric transmission infrastructure is located approximately 2.3 miles from the site; the site lacks an immediate clear path to grid power due to the absence of an existing substation. As a result, additional transmission infrastructure, substation construction, and associated easements and permitting would be required to provide the level of electric service necessary to support data center operations. Fiber infrastructure is also not immediately available and would require extension prior to development.

Additionally, Alternative Site B would require assembly of 23 parcels owned by 12 separate landowners. Although securing agreements from 12 independent landowners would not, by itself, render the site impracticable under the screening criteria established for this analysis, it introduces substantial risk regarding site availability within the Project schedule. Due to the lack of reasonable and timely access to infrastructure indispensable to digital infrastructure development, Alternative Site B cannot satisfy the Project's speed-to-market requirements.

As noted above, publicly available desktop data was utilized as a means of relative comparison to evaluate environmental impacts. The desktop analysis determined that Alternative Site B contains substantially

more floodplain acreage (60 acres), NWI wetlands (5 acres), and less mapped stream resources (35,871 linear feet) than the Project Site. While a full stream and wetland delineation would be necessary to determine actual impacts, the desktop information indicates that Alternative Site B would likely result in greater impacts to aquatic resources. Additionally, the property is crossed by numerous features that limit the amount of contiguous developable acreage. Rocky Creek and Junkin Creek traverse the site and are associated with FEMA-mapped floodplains. Additional floodplain associated with the Pigg River affects portions of the property. The site is also divided by Starling Drive, Museville Road, and an existing utility corridor. Collectively, these constraints fragment the site, further reducing development flexibility and the available acreage on a site that falls below the minimum threshold for developable area *before* those constraints are considered.

In conclusion, Alternative Site B is logistically impracticable and does not satisfy the project purpose. The site lacks access to necessary water, sewer, and power infrastructure. There is low probability that this alternative is “available” due to the number of independent landowners that must be willing to sell their property to RIFA on reasonable terms. The site also would require rezoning to support a digital infrastructure campus. While any of these constraints may render the alternative impracticable on their own, they also must be considered cumulatively when evaluating whether the site offers a practicable alternative. Lastly, the compounding effect of overcoming these logistical and availability challenges (if possible) would prevent the site from satisfying the speed-to-market expectations necessary to fulfill the project purpose. For these reasons, Alternative Site B can be eliminated from consideration as a practicable alternative.

Alternative Site C

Alternative Site C is located in western Pittsylvania County, approximately 2 miles south of Alternative Site B, and contains a larger developable area (2,189 acres) than the Project Site. However, the site presents several significant limitations relevant to its potential to serve as a practicable alternative.

It would not be practicable to obtain sufficient natural gas service, water and sewer infrastructure, electric service, and fiber connectivity in a reasonable and timely manner. While natural gas service is available approximately 2.5 miles away, it would require coordination with a minimum of six additional landowners and associated easements for installation of the pipeline extension. Alternative Site C is not located within existing public water or sewer service areas, requiring substantial utility extensions and associated approvals before development could occur. Water service would be dependent upon the Town of Chatham, which does not possess sufficient capacity to support a development of this scale. Similarly, the site is not located within an area where existing wastewater treatment facilities could accommodate the anticipated sewage demand associated with the Project. While high-voltage electric transmission infrastructure is located approximately 3.9 miles from the site, the site lacks an immediate clear path to grid power due to the absence of an existing substation. As a result, additional transmission infrastructure, substation construction, and associated easements and permitting would be required to provide the level of electric service necessary to support data center operations. Fiber infrastructure is also not immediately available and would require extension.

Additionally, Alternative Site C would require assembly of 32 parcels owned by nine separate landowners. Although securing agreements from nine independent landowners would not, by itself, render the site impracticable under the screening criteria established for this analysis, it introduces substantial risk regarding site availability within the Project schedule. Due to the lack of reasonable and timely access to

infrastructure indispensable to digital infrastructure development, Alternative Site C cannot satisfy the Project's speed-to-market requirements.

The desktop analysis determined that Alternative Site C contains substantially more floodplain acreage (60 acres), NWI wetlands (13 acres), and more mapped stream resources (48,719 linear feet) than the Project Site. While a full stream and wetland delineation would be necessary to determine actual impacts, the desktop information indicates that Alternative Site C would likely result in greater impacts to aquatic resources. The configuration of the site creates material logistical challenges. Spruce Road and Museville Road divide the property, while Mill Creek, Crooked Run, and Pine Creek traverse the site. Mill Creek and Pine Creek are associated with FEMA-mapped floodplains that further reduce development flexibility and divide otherwise developable areas. In addition, there are existing residences located near the center of the assemblage associated with six additional parcels that are not currently included within the assemblage. Any development would need to account for applicable setbacks and compatibility considerations associated with these residences, further reducing the amount of contiguous developable acreage available for the Project. Inclusion of these parcels would also increase the number of landowners involved beyond the threshold established for site assembly feasibility, introducing additional acquisition complexity and uncertainty. Collectively, these constraints reduce the practical development area and diminish the site's suitability for a large-scale data center campus.

In conclusion, Alternative Site C is logistically impracticable and does not satisfy the project purpose. The site lacks access to necessary water, sewer, gas, and power infrastructure. There is relatively low probability that this alternative is "available" due to the number of independent landowners that must be willing to sell their property to RIFA on reasonable terms. The site also would require rezoning to support a digital infrastructure campus. While any of these constraints may render the alternative impracticable on their own, they also must be considered cumulatively when evaluating whether the site offers a practicable alternative. The compounding effect of overcoming these logistical and availability challenges (if possible) would prevent the site from satisfying the speed-to-market expectations necessary to fulfill the project purpose. Lastly, this alternative has significantly more aquatic resources than the Project Site, which indicates that the unavoidable impacts to these resources would exceed the Applicant's proposed project. For these reasons, Alternative Site C can be eliminated from consideration as a practicable alternative.

Alternative Site D

Alternative Site D is located in northeastern Pittsylvania County, Virginia, and contains a larger developable area (2,167 acres) than the Project Site. However, the site presents several significant limitations relevant to its potential to serve as a practicable alternative.

It would not be practicable to obtain sufficient natural gas service, water and sewer infrastructure, electric service, and fiber connectivity in a reasonable and timely manner. While natural gas service is available approximately 1.5 miles away, it would require pipeline extensions and associated easements before service could be established. Alternative Site D is not located within existing public water or sewer service areas. Water service would be dependent upon the Town of Gretna, which does not possess sufficient capacity to support a development of this scale. Similarly, the site is not located within an area where existing wastewater treatment facilities could accommodate the anticipated sewage demand associated with the Project. While high-voltage electric transmission infrastructure is located less than 1 mile from the site; the site lacks an immediate clear path to grid power due to the absence of an existing

substation. As a result, additional transmission infrastructure, substation construction, associated easements and permitting would be required to provide the level of electric service necessary to support data center operations. Fiber infrastructure is not available onsite and would require expansion prior to development.

Additionally, Alternative Site D would require the assembly of 12 parcels owned by eight separate landowners. Although securing agreements from eight independent landowners would not, by itself, render the site impracticable, it introduces substantial risk regarding site availability within the Project schedule. Due to the lack of reasonable and timely access to infrastructure indispensable to digital infrastructure development, Alternative Site D cannot satisfy the Project's speed-to-market requirements.

The desktop analysis determined that Alternative Site D contains substantially more floodplain acreage (43 acres), NWI wetlands (10 acres), and more mapped stream resources (45,129 linear feet) than the Project Site. While a full stream and wetland delineation would be necessary to determine actual impacts, the desktop information indicates that Alternative Site D would likely result in greater impacts to aquatic resources. In addition, approximately 342 acres of the developable area are located east of Allan Creek Road and are further divided by Allan Creek. While this portion of the site may contribute to the overall developable acreage, its separation from the primary development area limits its practical use and reduces the amount of contiguous acreage available for a large-scale digital infrastructure campus. Additionally, unlike the Project Site, Alternative Site D is also located within a publicly mapped karst area, which may create additional design and construction logistical challenges for large-scale data center facilities.

Alternative Site D is logistically impracticable, does not satisfy the project purpose, and is not less environmentally damaging. This site lacks access to available natural gas, public water, sewer, and power infrastructure. There is a low probability that this alternative is "available" due to the number of independent landowners that must be willing to sell their property to RIFA on reasonable terms. The site would also require rezoning to support a digital infrastructure campus. While any of these constraints may render the alternative impracticable on their own, they also must be considered cumulatively when evaluating whether the site offers a practicable alternative. The compounding effect of overcoming these logistical and availability challenges (if possible) would prevent the site from satisfying the speed-to-market expectations necessary to fulfill the project purpose. Accordingly, Alternative Site D can be eliminated from consideration as a practicable alternative.

Alternative Site E

Alternative Site E is located in northeastern Pittsylvania County, Virginia, and contains a larger developable area (1,955 acres) than the Project Site. However, the site presents several significant limitations relevant to its potential to serve as a practicable alternative.

It would not be practicable to obtain sufficient natural gas service, water and sewer infrastructure, electric service, and fiber connectivity in a reasonable and timely manner. While natural gas and fiber infrastructure are located on-site, Alternative Site E is not located within an existing public water or sewer service area capable of supporting the Project. Water service would be dependent upon the Town of Gretna, which does not possess sufficient capacity to support a development of this scale. Likewise, wastewater treatment capacity sufficient to support the Project is not reasonably available. While high-

voltage electric transmission infrastructure is located approximately 1.8 miles from the site, the site lacks an immediate clear path to grid power due to the absence of an existing substation. As a result, additional transmission infrastructure, substation construction, and associated easements and permitting would be required to provide the level of electric service necessary to support data center operations. Fiber infrastructure is also not immediately available and would require extension prior to development.

In addition, Alternative Site E consists of 15 parcels owned by 12 separate landowners, creating additional uncertainty regarding site acquisition and development timing. Although securing agreements from 12 separate landowners would not, by itself, deem the site impracticable under the screening criteria established for this analysis, it introduces substantial risk regarding site availability within the Project schedule. Due to the lack of reasonable and timely access to infrastructure indispensable to digital infrastructure development, Alternative Site E cannot satisfy the Project's speed-to-market requirements.

Based on a desktop analysis of environmental resources, Alternative Site E contains less floodplain acreage (12 acres), fewer mapped NWI wetlands (1 acre), and fewer mapped stream resources (21,920 linear feet) than the Project Site. However, unlike the Project Site, Alternative E is located within a publicly mapped karst area, which may introduce additional design, construction, and operational constraints for large-scale data center development.

In conclusion, Alternative Site E is logistically impracticable and does not satisfy the project's purpose. Although it does have favorable environmental characteristics, the site lacks sufficient access to necessary public water and sewer infrastructure capable of servicing the Project. There is relatively low probability that this alternative is "available" due to the number of independent landowners that must be willing to sell their property to RIFA on reasonable terms. The site also would require rezoning to support a digital infrastructure campus. While any of these constraints may render the alternative impracticable on their own, they also must be considered cumulatively when evaluating whether the site offers a practicable alternative. The compounding effect of overcoming these logistical and availability challenges (if possible) would prevent the site from satisfying the speed-to-market expectations necessary to fulfill the project purpose. Therefore, Alternative Site E can be eliminated from consideration as a practicable alternative.

Alternative Site F

Alternative F is located in eastern Pittsylvania County, Virginia, and contains a larger developable area (2,755 acres) than the Project Site. However, the site presents several significant limitations relevant to its potential to serve as a practicable alternative.

Natural gas and fiber service are available on-site. However, Alternative F is not located within existing public water or sewer service areas. Water service would be dependent upon the Town of Chatham, which does not possess sufficient available capacity to support a development of this scale. Likewise, wastewater treatment capacity necessary for the Project is not reasonably available. High-voltage electric transmission infrastructure is located approximately 1.3 miles from the site; however, a reliable and timely pathway to electrical service necessary to support the Project has not been identified due to the absence of an existing onsite substation. Development would require transmission extensions, substation construction, additional easements, and associated permitting. The site consists of 22 parcels owned by seven separate landowners.

Based on a desktop analysis of environmental resources, Alternative F contains substantially more floodplain acreage (232 acres), NWI wetlands (74 acres), and mapped stream resources (71,379 linear feet) than the Project Site. Although Alternative F contains more acreage than is required to accommodate the Project, the majority of these resources are associated with Whitethorn Creek, Mill Creek, and their tributaries, which are concentrated through the central portions of the property. As a result, the site's environmental constraints are not limited to isolated areas that could be readily avoided through site design, but instead influence the layout and connectivity of a substantial portion of the developable acreage. While avoidance and minimization opportunities would exist, the configuration of these resources would create significant constraints on site planning and reduce development flexibility when compared to the Project Site.

Additionally, Alternative F is located within a publicly mapped karst area, which may introduce additional design, construction, and operational constraints for large-scale data center development. The site also encompasses the Coles Hill area, which is known for the presence of uranium-bearing geologic formations. While neither condition is anticipated to present a direct constraint to typical site grading and shallow excavation activities associated with the Project, they represent additional site-specific considerations not present at the Project Site and contribute to the overall uncertainty associated with development of the property.

Alternative F is constrained by insufficient utility capacity, substantial environmental resources concentrated throughout key portions of the site, and additional site-specific development considerations. Collectively, these constraints reduce development flexibility and ability to meet speed to market demands, and prevent Alternative F from satisfying the Project purpose and need. Additionally, the site would require rezoning to support a digital infrastructure campus, which based on applicable zoning ordinances requires connection to public water system. The time and uncertainty associated with obtaining the necessary land use approvals would prevent the site from satisfying the Project's speed-to-market requirements, thereby eliminating it as a practicable alternative. Accordingly, Alternative F is not practicable.

Alternative Site G

Alternative G is located in eastern Pittsylvania County, Virginia, and contains a larger developable area (1,971 acres) than the Project Site. However, the site presents several significant limitations relevant to its potential to serve as a practicable alternative.

Natural gas service is available on-site. However, Alternative G is not located within existing public water or sewer service areas. Water service would be dependent upon the Town of Chatham, which lacks sufficient capacity to support the proposed development. Similarly, sufficient wastewater treatment capacity is not reasonably available. High-voltage electric transmission infrastructure is located approximately 0.4 mile from the site; however, a reliable and timely pathway to electrical service necessary to support the Project has not been identified due to the absence of an existing onsite substation. Additional electrical infrastructure, including transmission extensions, substation construction, and associated permitting, would therefore be required. Fiber infrastructure is not available on-site and would require extension. Development would also require assembly of 14 parcels owned by five separate landowners.

The desktop environmental analysis identified approximately 122 acres of floodplain, 32 acres of NWI wetlands, and 44,139 linear feet of mapped stream resources. These resource quantities exceed those of the Project Site and indicate additional environmental constraints. The configuration of the site further limits its suitability for development. Approximately 100 acres of the property are located north of Halifax Road and are separated from the primary development area, limiting the practical utility of that portion of the site. In addition, an unnamed tributary to Sandy Creek and its associated FEMA-mapped floodplain generally traverse the center of the property. Because the site is oriented primarily in a north-south direction, these features divide the property along its principal development axis, reducing connectivity between otherwise developable areas and limiting the amount of contiguous acreage available for a large-scale digital infrastructure campus. Collectively, these constraints fragment the site, reduce development flexibility, and substantially limit the developable acreage available to support the Project. As a result, the practical development area is less than the gross acreage would suggest and presents additional site layout constraints when compared to the Project Site.

Alternative G lacks access to sufficient water and sewer capacity, requires substantial supporting utility infrastructure improvements, and contains environmental and site configuration constraints that reduce development capabilities and limit the amount of contiguous acreage available for the Project. Collectively, these limitations prevent Alternative G from accommodating the Project at the scale required to satisfy the purpose and need. Additionally, the site would require rezoning to support a digital infrastructure campus, which based on applicable zoning ordinances requires connection to public water system. The time and uncertainty associated with obtaining the necessary land use approvals would prevent the site from satisfying the Project's speed-to-market requirements, thereby eliminating it as a practicable alternative. Accordingly, Alternative G is not practicable.

Alternative Site H

Alternative Site H is located in eastern Pittsylvania County, Virginia, and contains a larger developable area (1,973 acres) than the Project Site. However, the site presents several significant limitations relevant to its potential to serve as a practicable alternative.

Natural gas service is located approximately 3 miles from the site and would require off-site pipeline construction and associated easements. Alternative H is not located within existing public water or sewer service areas. Water service would depend upon the Town of Chatham, which does not possess sufficient capacity to support the proposed development. Likewise, wastewater treatment capacity sufficient to serve the Project is not reasonably available. High-voltage electric transmission infrastructure is located approximately 2.6 miles away and the site lacks an immediate clear path to grid power due to the absence of an existing substation. Significant electrical infrastructure improvements would therefore be required. Fiber infrastructure is not available on-site and would require extension. Development would also require assembly of 20 parcels owned by ten separate landowners, creating additional acquisition complexity and schedule uncertainty.

Desktop analysis determined that Alternative H contains approximately 284 acres of floodplain, 225 acres of NWI wetlands, and 57,361 linear feet of mapped stream resources. These values substantially exceed those present at the Project Site and represent some of the largest environmental resource quantities identified among the alternatives evaluated. The site is heavily influenced by Sweden Fork, Johns Run, Sandy Creek, and their associated tributaries, floodplains, and wetlands. Sweden Fork traverses the property from west to east through the central portion of the site, while Johns Run and Sandy Creek

further contribute to a broad network of aquatic resources that divide and constrain the developable area. The extensive floodplain and wetland systems associated with these resources are concentrated throughout key portions of the property significantly reduce development flexibility and limit opportunities to avoid and minimize impacts through site design.

Alternative H is constrained by inadequate utility infrastructure, substantial environmental resources distributed throughout the site, and the need to assemble numerous parcels from multiple landowners. Collectively, these limitations reduce the amount of practically developable acreage available for the Project, result in unacceptable anticipated schedule delays, and prevent Alternative H from satisfying the Project purpose and need. Additionally, the site would require rezoning to support a digital infrastructure campus, which based on applicable zoning ordinances requires connection to public water system. The time and uncertainty associated with obtaining the necessary land use approvals would prevent the site from satisfying the Project's speed-to-market requirements, thereby eliminating it as a practicable alternative. Accordingly, Alternative H is not practicable.

Alternative Site I

Alternative I is located in western Pittsylvania County, Virginia, and contains a smaller developable area (1,568 acres) than the Project Site. Additionally, the site presents several significant limitations relevant to its potential to serve as a practicable alternative.

Natural gas infrastructure is located approximately 3.5 miles from the site and would require off-site construction before service could be established. Alternative Site I is not located within existing public water or sewer service areas. Water service would be dependent upon the Town of Chatham, which lacks sufficient capacity to support a proposed development of this scale. Likewise, sufficient wastewater treatment capacity is not reasonably available. High-voltage electric transmission infrastructure is located approximately 0.5 mile away; however, a reliable and timely pathway to electrical service necessary to support the Project has not been identified due to the absence of an existing onsite substation, requiring significant electrical infrastructure improvements. Development would also require assembly of 13 parcels owned by 11 separate landowners, creating additional uncertainty regarding site acquisition and availability within the Project schedule.

Desktop analysis determined that Alternative Site I contains approximately 178 acres of floodplain, 184 acres of NWI wetlands, and 42,454 linear feet of mapped stream resources. Compared to the Project Site, Alternative Site I contains substantially greater quantities of floodplain and wetland resources and slightly more mapped stream resources. In addition to the overall quantity of environmental resources, the configuration of those resources further constrains development of the site. The property is oriented primarily in a north-south direction. Morris Branch and its associated FEMA-mapped floodplain traverse the central portion of the site in the same general direction before joining Strawberry Creek, which is associated with a broad floodplain corridor. As a result, these resources divide and constrain the site's primary development area, reducing the amount of contiguous acreage available for development and further limit a site that already does not meet the Project's minimum acreage requirements.

In conclusion, Alternative Site I is logistically impracticable and does not satisfy the project purpose. The need for substantial utility extensions, the lack of sufficient acreage to accommodate the Project, the absence of reliable and timely pathway to electrical service, and the fragmented configuration of the developable area limit its ability to satisfy the Project purpose as effectively as the Project Site. There is

relatively low probability that this alternative is “available” due to the number of independent landowners that must be willing to sell their property to RIFA on reasonable terms. The site also would require rezoning to support a digital infrastructure campus. While any of these constraints may render the alternative impracticable on their own, they also must be considered cumulatively when evaluating whether the site offers a practicable alternative. The compounding effect of overcoming these logistical and availability challenges (if possible) would prevent the site from satisfying the speed-to-market expectations necessary to fulfill the project purpose. For these reasons, Alternative Site I can be eliminated from consideration as a practicable alternative.

Alternative Site J

Alternative J is located in southwestern Pittsylvania County, Virginia, and contains a comparable developable area (1,777 acres) to the Project Site. However, the site presents several significant limitations relevant to its potential to serve as a practicable alternative.

Unlike many of the other alternatives evaluated, Alternative Site J could potentially obtain water and sewer service from the City of Eden, which possesses sufficient capacity to support a development of this scale. However, the site is not currently served by existing public water or sewer infrastructure and would require approximately three miles of utility extensions prior to development. While there is an existing water line approximately .5 miles north of the site, that water line is served by Henry County, which does not possess sufficient capacity to support the Project's anticipated demand. Natural gas service from one pipeline is available on-site and high-voltage electric transmission infrastructure is also located on-site; however, a reliable and timely pathway to electrical service necessary to support the Project has not been identified due to the absence of an existing onsite substation. As a result, substantial electrical infrastructure improvements would still be necessary before the site could support data center operations. Fiber infrastructure is not immediately available and would require extension. Additionally, Alternative Site J consists of 17 parcels owned by six separate landowners, creating additional uncertainty regarding site acquisition and availability within the Project schedule.

Desktop analysis determined that Alternative Site J contains approximately 78 acres of floodplain, 2 acres of NWI wetlands, and 49,112 linear feet of mapped stream resources. While Alternative Site J has less floodplain and NWI wetlands than the Project Site it has more stream resources than the Project Site the configuration of the site, relative to the location of the resources, presents a substantial development constraint. Lick Fork Creek and East Branch Creek bisect the assemblage in a manner that significantly fragments the property and reduces the amount of contiguous developable acreage available for a large-scale data center campus, further constraining the footprint of the proposed development. While the proposed Project Site is also traversed by a stream corridor, the stream configuration does not reduce usable development area to the same extent. Development of Alternative Site J would therefore require a more constrained site layout and would likely necessitate additional stream crossings and associated infrastructure.

In conclusion, Alternative Site J is logistically impracticable and does not satisfy the project purpose. Although Alternative Site J offers certain utility advantages relative to other alternatives evaluated, the need for substantial utility extensions, the absence of reliable and timely pathway to electrical service, and the fragmented configuration of the developable area limit its ability to satisfy the Project purpose as effectively as the Project Site. Additionally, the site would require rezoning to support a digital infrastructure campus. There is relatively low probability that this alternative is “available” due to the

number of independent landowners that must be willing to sell their property to RIFA on reasonable terms. While any of these constraints may render the alternative impracticable on their own, they also must be considered cumulatively when evaluating whether the site offers a practicable alternative. The compounding effect of overcoming these logistical and availability challenges (if possible) would prevent the site from satisfying the speed-to-market expectations necessary to fulfill the project purpose. For these reasons, Alternative Site J can be eliminated from consideration as practicable alternative.

Proposed Project Site

The Project Site is located in Pittsylvania County, Virginia, within the geographic area required to satisfy the Project's purpose and need. The site contains approximately 1,715 acres of developable land within an approximately 1,733-acre limit of disturbance. While the property encompasses approximately 3,641 acres in total, the Project has been designed to accommodate required setbacks, buffers, and other development constraints while maintaining sufficient acreage to support the proposed digital infrastructure campus. The proposed site is the only practicable alternative that satisfies the project's purpose and need criteria outlined herein.

The Project Site is uniquely positioned with existing natural gas, water, sanitary sewer, electric, and fiber infrastructure located on or immediately adjacent to the property. The site is controlled entirely by the Applicant, eliminating the need for property assemblage and the associated uncertainty of acquiring land from multiple owners. Two interstate natural gas transmission pipelines traverse the property and are proposed to provide fuel for onsite energy generation, supporting reliable and redundant access to natural gas service. The Project Site also benefits from direct access to a four-lane highway, providing efficient transportation connectivity to and from the property for construction activities, workforce access, and long-term operations.

The site is also served by existing public water and sanitary sewer infrastructure with substantial available capacity, including dual water supply sources from the City of Danville and the City of Eden. Trotters Creek bisects portions of the property; however, the site contains significant developable acreage on both sides of the stream corridor, allowing development to avoid permanent impacts to the associated floodplain to the greatest extent practicable.

The Project Site further benefits from an existing onsite substation with a dedicated 30-MVA transformer and redundant double-circuit 138-kV transmission lines supplied from independent sources. This existing transmission infrastructure enables immediate access to power and provides a clear path to constructing and energizing a 150 MW substation by second quarter of 2028, pending applicable authorizations. These existing electrical facilities provide immediate access to construction and commissioning power, enhance system reliability, and support the development schedule required for large-scale digital infrastructure facilities.

The Project Site is advantageously situated with respect to existing high-capacity fiber infrastructure and is located within one of the limited areas capable of supporting telecommunications requirements associated with a digital infrastructure campus of this scale. Existing fiber corridors in the vicinity of the Site provide access to the providers and network capacity necessary to support anticipated operational demands while facilitating connectivity to regional and national telecommunications networks. The Site's proximity to established telecommunications corridors provides access to fiber routes extending in multiple directions, supporting the network diversity and redundancy expected by digital infrastructure

users. This ability to establish geographically diverse network paths enhances reliability and operational resiliency by reducing dependence on a single route or service provider. The Site also benefits from access to existing fiber infrastructure that is already in place and available for connection within the Project's anticipated development schedule. This existing connectivity reduces the need for substantial offsite fiber construction and the associated permitting, easement acquisition, and schedule risks that could otherwise delay implementation of the Project. Accordingly, the Site's location relative to existing carrier-grade fiber infrastructure represents a significant advantage with respect to speed to market, service reliability, and long-term operational requirements.

To meet the speed-to-market demand and satisfy the purpose and need of this project, a site must demonstrate existing or concurrent capacity across power transmission, water/sewer supply, fiber redundancy, and municipal zoning/entitlement. This enables site readiness, as discussed in Section 7 Project History, and adhering to the compressed schedule demands of the market. Project Crossroads addresses these constraints through a comprehensive, parallel-track planning model established across two decades of regional economic development initiatives in Pittsylvania County and the City of Danville. This systemic pre-planning significantly reduces the duration between getting to initial ground disturbance and operational energization, ensuring the timely realization of anticipated economic benefits while maintaining compliance with regulatory standards. This holistic pre-planning dramatically reduces delays that render other alternatives impracticable. The result is a uniquely site-ready foundation capable of meeting current market demands and rapidly bringing transformative economic benefits to Pittsylvania County and the City of Danville.

The Project Site contains approximately 18 acres of floodplain according to publicly available data, as well as 3 acres of wetlands and approximately 39,220 linear feet of streams identified by the National Wetlands Inventory and 3DHP datasets. As stated above, these wetland and stream amounts are based on desktop available information including NWI and 3DHP for comparison purposes across the alternatives sites which have not been formally delineated. Although field-verified wetland and stream delineations have been completed and identified additional resources, publicly available datasets were used consistently across all alternatives to provide a uniform basis for comparison. While the Project Site contains a notable amount of FEMA-mapped floodplain associated primarily with Trotters Creek, the site layout remains compatible with the Project's development needs. Significant developable acreage exists on both sides of the stream corridor, allowing the proposed development to avoid permanent impacts within the FEMA floodplain while maintaining the acreage necessary to support the Project. Relative to the other sites evaluated, the Project Site contains fewer environmental constraints than most alternatives while also providing the utility infrastructure, developable acreage, ownership control, and development readiness necessary to satisfy the Project's purpose and need.

Although certain alternatives exhibited fewer individual environmental resources (when comparing NWI mapping), those alternatives could not satisfy the Project's purpose and need due to infrastructure deficiencies, site assembly challenges, site configuration constraints, or a lack of development readiness. As a result, the Project Site is the only alternative identified that provides sufficient developable acreage, ownership control, utility infrastructure, development readiness, and environmental suitability necessary to fully satisfy the Project's purpose and need. Accordingly, the Project Site represents the Least Environmentally Damaging Practicable Alternative.

9.3.5. Conclusion & LEDPA Determination

The site-specific practicability review demonstrated that the Project Site is the only identified alternative capable of satisfying all critical practicability criteria and the Project Purpose and Need. The Site contains approximately 1,715 acres of developable land, can be developed in compliance with applicable local zoning and land-use requirements, and is available for development as it is owned and controlled by RIFA. The site has direct access to essential infrastructure necessary to support a large-scale digital infrastructure campus, including natural gas transmission facilities, public water and sanitary sewer service, existing high-voltage electrical infrastructure and an onsite substation, redundant transmission service, high-capacity fiber infrastructure, and major transportation corridors capable of supporting construction and long-term operations. In addition, the Site supports the economic development objectives of Pittsylvania County and the City of Danville, is consistent with local planning efforts to concentrate large-scale industrial development within designated areas, and can be developed within the market-driven timeframe necessary to attract digital infrastructure investment. The Site is also capable of accommodating the proposed development outside of known karst areas and without permanent placement of structures within FEMA-designated floodplains.

The alternatives analysis demonstrated that each off-site alternative was rendered impracticable by one or more significant constraints, including but not limited to insufficient developable acreage, lack of available water and wastewater capacity, absence of critical utility infrastructure, extensive site assembly requirements, fragmented site configurations, environmental constraints, or an inability to satisfy the Project's development schedule. While certain alternatives exhibited favorable characteristics with respect to individual evaluation criteria, no other site was capable of simultaneously satisfying the Project's infrastructure, acreage, ownership, environmental, and development-readiness requirements.

Although some alternatives contained fewer desktop-identified aquatic resources than the Project Site, those alternatives lacked the utility infrastructure, water and wastewater capacity, ownership control, or site configuration necessary to satisfy the Project Purpose and Need. Conversely, alternatives with sufficient acreage frequently exhibited substantially greater environmental constraints, fragmented development areas, or utility deficiencies that rendered them impracticable. Accordingly, the Project Site represents the only practicable alternative identified through this analysis and, therefore, is the Least Environmentally Damaging Practicable Alternative (LEDPA).

9.4. On-Site Avoidance and Minimization

As discussed in Section 9.3, RIFA completed an off-site alternatives analysis and determined that the project property represents the only practicable alternative capable of supporting the proposed digital infrastructure campus. The site was selected based on numerous factors, including but not limited to access to natural gas, public water, sanitary sewer service, existing electrical infrastructure, transportation access, and the site's ability to meet the Applicant's speed-to-market requirements.

The purpose of this on-site alternatives analysis is to document the efforts undertaken by RIFA to avoid and minimize impacts to streams and wetlands to the extent practicable within the selected property while maintaining the operational, logistical, and economic requirements of the proposed digital infrastructure campus. Following site selection, the Applicant worked collaboratively with STACK and the project design team on site planning to identify opportunities for avoidance and minimization while maintaining the functionality and viability of the proposed development.

The final site plan reflects an iterative design process that avoided and minimized environmental features while being mindful of operational requirements, infrastructure constraints, utility availability, safety considerations, regulatory requirements, and constructability.

9.4.1. Existing Site Constraints and Development Requirements

The Project Site includes approximately 3,641 acres of land potentially available for development. Although substantial acreage exists within the property, development opportunities are constrained by both environmental resources and infrastructure requirements necessary to support a large-scale digital infrastructure campus. Accounting for all constraints, the property has approximately 1,715 developable acres.

9.4.1.1. Environmental Constraints

The overall property contains approximately 211.82 acres of wetlands, 49.30 acres of streams, 173,257 linear feet of streams, and associated floodplain areas. These aquatic resources occur throughout the property and must be considered during site planning and development.

Additional environmental considerations include:

- FEMA floodplains that should be avoided for permanent structures;
- Existing drainage patterns;
- Areas of topographic constraint;
- Steep slopes and grading limitations; and
- Other natural resource features requiring consideration during design.

9.4.1.2. Existing Infrastructure Constraints

In addition to environmental features, several existing infrastructure elements and property constraints influenced site planning, including those listed below and depicted within [Exhibit 12](#):

- Existing natural gas pipelines and associated easements;
- Existing water transmission and sewer line easements;
- Existing roadways and access limitations;
- Existing electrical infrastructure and associated easements;
- Utility corridors and easement restrictions
- Data Center/ Power Station/Landscape/ Mechanical Equipment Buffer
- Accessory Setback; and
- Power Station Setback

9.4.1.3. Operational Requirements

To achieve the project purpose and support the proposed digital infrastructure campus, the Applicant determined that the project must include, at a minimum:

- Data center buildings and associated support facilities;

- Internal access roads;
- Parking facilities;
- Stormwater management infrastructure;
- Utility corridors;
- Electrical substations and associated facilities;
- On-site energy generation infrastructure;
- Security features and access points; and
- Necessary grading to establish developable building pads.

These components represent the minimum infrastructure necessary to support a functional and economically viable digital infrastructure campus.

9.4.2. Site Plan Evolution and Impact Reduction

Following site selection, the Applicant and STACK Infrastructure applied an iterative site planning process to develop a layout that satisfied the Project Purpose and Need while accounting for environmental, operational, and infrastructure considerations. Initial site concepts were evaluated and refined through multiple phases of engineering and design. As the planning process progressed, building locations and campus configurations were reassessed, and opportunities were identified to consolidate, relocate, or eliminate certain facilities and supporting infrastructure. In addition, the location and configuration of onsite power generation facilities were refined to improve the overall site layout and reduce impacts to aquatic resources. These efforts resulted in a reduction in stream and wetland impacts while maintaining the capability of satisfying the purpose and need for the Project.

9.4.2.1. Initial Site Layout

Following site selection, the Applicant and STACK Infrastructure developed an initial site layout designed to satisfy the Project Purpose and Need. The initial layout included a larger development footprint, additional buildings, and an alternative configuration and location for onsite power generation infrastructure. Based on the initial layout, the proposed project would have impacted an additional 12.83 acres of wetlands and 27,883 linear feet of streams within a development area encompassing approximately 2,037 acres.

Although the initial layout, included in [Exhibit 12A](#), avoided substantial portions of the aquatic resources present across the property, additional opportunities for avoidance and minimization were identified through continued design refinement as identified in the proposed plan and discussed in Section 9.4.2.2.

9.4.2.2. Proposed Project Layout

The proposed Project layout included in [Exhibit 13](#), represents the culmination of an iterative planning process and reflects numerous modifications implemented to reduce impacts to aquatic resources while maintaining compliance with operational, utility, safety, and regulatory requirements.

The proposed layout incorporates extensive avoidance and minimization measures as discussed below and depicted in [Exhibit 13](#) and represents the least environmentally damaging practicable alternative configuration capable of supporting the Project purpose and need.

9.4.3. Avoidance and Minimization Measures

9.4.3.1. Building Layout Configuration

Building dimensions and locations are driven by market demand and STACK Infrastructure's expertise in developing specialized digital infrastructure facilities. The proposed project incorporates a variety of building types reflecting industry standards and anticipated end-user requirements.

Non-Standard building configurations that deviate from industry-standard layouts would require substantial engineering analysis, redesign, and operational modeling to ensure equivalent performance and efficiency. Such modifications would create significant logistical and economic constraints and are not considered practicable. The proposed buildings represent the minimum development necessary to support a viable digital infrastructure campus to meet the project's purpose and need.

Additionally, data center campuses must be configured to account for cooling requirements, backup power requirements, equipment redundancy, emergency access, and long-term operational reliability. The number, size, and configuration of the proposed data center buildings represent the minimum development necessary to achieve the project's operational objectives and required economic benefits. The proposed campus layout reflects the minimum scale and capacity necessary to support the project's purpose and need. Reductions in the proposed building footprint or reconfiguration of the campus would compromise operational capacity and project viability and are therefore not practicable. Accordingly, the proposed number of buildings and the proposed configuration consider these operational criteria while minimizing impacts to aquatic resources to the maximum extent practicable.

9.4.3.2. Building Height

To maximize utilization of developable area, the Applicant proposes multi-story buildings, where practicable. While some of the proposed data center buildings must be limited to one story due to their design specifications and requirements, the buildings are generally two stories in height and utilize rooftop areas for critical mechanical equipment. Building heights of up to approximately 75 feet are required to support the Applicant's standard two-story data center configuration and associated mechanical systems. Taller, three-story structures were evaluated but are not practicable due to the excessive structural steel, crane requirements, increased costs, extended construction schedules, and operational constraints associated with supporting heavy data hall equipment. Additionally, a three-story configuration would substantially reduce available rooftop space for required chilling infrastructure, necessitating a larger building footprint to accommodate equivalent chiller capacity.

9.4.4. Parking

Digital infrastructure campuses generally require substantially fewer parking spaces than traditional commercial developments. The proposed parking has been limited to the minimum necessary to support employees, maintenance personnel, vendors, equipment replacement activities, and operational staffing requirements, while remaining in compliance with the minimum off-street parking requirements in Pittsylvania's Zoning Ordinance.

Parking has been strategically located adjacent to buildings to minimize roadway infrastructure and reduce overall disturbance. Alternative structured and underground parking options were evaluated and determined to be impracticable because of substantial increases in construction costs, operational complexity, accessibility concerns, and maintenance requirements.

Accordingly, the proposed parking configuration represents the minimum practicable parking necessary to support project operations.

9.4.4.1. Stormwater Management

The project will comply with the applicable state and local stormwater management requirements in Virginia.

Stormwater facilities have been designed to the minimum practicable size necessary to satisfy applicable treatment and peak flow management requirements. Facility locations are largely driven by existing topography and drainage patterns, requiring placement within natural low areas to facilitate gravity-driven collection, storage, treatment, and discharge of stormwater runoff.

Alternative underground systems and distributed low-impact development approaches were evaluated during site planning. These alternatives would require additional disturbance to streams and wetlands throughout the site, increase long-term maintenance obligations, and reduce operational efficiency, rendering them not practicable. The feasibility of installing stormwater management facilities beneath proposed infrastructure was also evaluated; however, co-location with buildings, utilities, and other below-grade infrastructure would create constructability, maintenance, and operational constraints and would not result in a meaningful reduction in overall site disturbance or development footprint.

The selected stormwater approach, included in [Exhibit 15](#), takes advantage of existing drainage patterns while minimizing grading and overall resource disturbance.

9.4.4.2. Energy Generation Infrastructure

Energy Generation

The Project has been designed to include natural gas energy generation to support the electrical demands of the planned data center campus and to provide the redundancy and resiliency necessary for digital infrastructure operation, reducing dependence on the grid consistent with the focus on grid reliability in Executive Order 22 (2026). Where practicable, energy generation facilities and associated infrastructure were consolidated and sited to minimize impacts to streams, wetlands, and other sensitive environmental resources.

The proposed energy generation campuses represent the minimum area necessary to support the Project's planned on-site generation. Accordingly, sufficient acreage must be allocated for final equipment selection, technological advancements, and phased implementation without constraining the Project's core purpose and need.

Modern hyperscale data center campuses also require battery energy storage systems (BESS) and associated electrical infrastructure for power quality, voltage stabilization, and seamless power transitions. Accordingly, the energy generation campuses must accommodate the generating units as well as battery energy storage facilities, substations, switchyards, control buildings, security infrastructure, internal access roads, utility connections, and stormwater management facilities. These facilities function as an integrated system and must be located in close proximity to facilitate electrical interconnection, operational efficiency, reliability, security, and coordinated control.

The 80-acre Southwest Energy Generation Campus is intended to support digital infrastructure operations on the southwest side of Trotters Creek, while the 125-acre Northeast Energy Generation Campus is intended to support the remainder of the digital infrastructure proposed within the Project LOD. Further segmentation or subdivision of these campuses would increase infrastructure requirements, introduce operational constraints, reduce flexibility, and result in a less efficient overall site layout and ultimately result in more impact to aquatic resources.

The combined generation campus area of approximately 205 acres represents the minimum acreage necessary to accommodate the project's planned energy capacity and infrastructure.

Reducing the size of the designated generation campuses or dispersing facilities into smaller, noncontiguous areas would constrain the Project's ability to provide the planned capacity and supporting energy storage infrastructure. This would result in either additional acreage and likely more impact to WOTUS or insufficient power generation which would not satisfy the project's purpose and need, rendering these alternatives not practicable. Therefore, the proposed energy generation campus configuration represents the LEDPA.

Natural Gas Infrastructure

The Project requires installation of natural gas infrastructure including but not limited to a lateral and associated infrastructure to serve the on-site energy generation. The proposed alignment is shown on Exhibit 13 and is located adjacent to existing natural gas infrastructure on the property.

An alternatives analysis was conducted to evaluate potential stream and wetland crossing methods and identify the Least Environmentally Damaging Practicable Alternative (LEDPA). The evaluation considered dry open-cut installation, horizontal directional drilling (HDD), horizontal auger boring (HAB), and site-specific environmental and engineering constraints. Publicly available data, field conditions, previous studies, and information from recently constructed adjacent pipeline projects were reviewed to identify a practicable alignment and crossing approach that avoids and minimizes impacts to aquatic resources to the maximum extent practicable.

To minimize environmental impacts, the proposed alignment was collocated to an existing natural gas utility corridor. Co-location with existing infrastructure consolidates utility development within an established corridor and minimizes additional habitat fragmentation, edge effects, and clearing of previously undisturbed areas. Engineering and environmental evaluations completed for recently constructed pipelines in the area were also considered during development of the proposed alignment. The Project team evaluated trenchless installation methods, including HDD and HAB, for each resource crossing. Based on publicly available guidance, including the PRCI Guidelines for Selecting Trenchless Methods (PRCI 2024), HAB was determined to be impracticable for the proposed subaqueous crossings due to limitations associated with site topography, required bore pit depths, anticipated subsurface conditions, and other engineering constraints. As a result, HAB was eliminated from further consideration. HDD can effectively avoid direct impacts to streams and wetlands; however, it requires substantially larger staging and work areas, specialized equipment, longer construction durations, and additional pipe stringing and drilling workspace. For the proposed utility, implementation of HDD would likely increase overall construction disturbance and could result in additional temporary impacts to adjacent wetlands, forested areas, and other upland resources.

Dry open-cut installation is a proven and commonly utilized crossing method that results in temporary, short-term impacts during construction. Although this method results in direct impacts within the resource crossing area, disturbance is generally limited in duration and can be effectively minimized through implementation of appropriate best management practices (BMPs). Following construction, impacted stream channels, streambanks, wetland contours, and other disturbed areas will be restored to pre-construction conditions. Following restoration, stream impacts will be temporary in nature, and wetlands within the maintained utility corridor will be restored in accordance with permit requirements and approved restoration plans, minimizing long-term impacts to aquatic resource functions and values. Restoration areas will be monitored in accordance with permit conditions to verify stabilization, revegetation, and successful restoration of aquatic resource functions. Any deficiencies identified during monitoring will be addressed through corrective actions, as necessary.

Based on engineering evaluations, field conditions, publicly available information, and findings from recent analyses completed for adjacent pipeline projects, dry open-cut installation was determined to be the practicable crossing method that minimizes overall environmental disturbance for the Project. Although HDD would avoid direct impacts within the crossed resource, the larger workspace requirements associated with trenchless construction would increase disturbance to adjacent uplands, wetlands, and forested areas. HAB was determined to be impracticable due to site topography, required bore pit depths, anticipated subsurface conditions, or project-specific engineering constraints. The results of the crossing-specific evaluation are summarized in Table 2 below.

Table 2. Proposed Crossing Method and Workspace Neckdown for Utility Installation

Impact	Resource ID	Crossing Method	Workspace Width at Crossing Location (Feet)
18	JT, JH, WSSI J	Dry Open Cut	N/A*
23A	J(1), WSSI A	Dry Open Cut	100
23B (2 Crossings)	ET, WSSI C, WSSI B	Dry Open Cut	N/A*
23C	FC (1)	Dry Open Cut	85
23D	TL, TROTTERS CREEK, WSSI K(2)	Dry Open Cut	100
23E (2 Crossings)	S, WSSI K, ZG, ZG (1)	Dry Open Cut	75

*The workspace width at the crossing is not listed, as this location also supports other site activities and related impacts. Activities related to the utility crossing are not expected to exceed 100 feet at this location.

To further avoid and minimize impacts to streams and wetlands, each crossing and associated workspace configuration was evaluated on an individual basis during project design. Resource crossings will be constructed using a dry open-cut methodology that isolates the work area from flowing water, minimizes the extent of in-stream disturbance, and maintains downstream flow during construction. In addition, the utility alignment was selected to avoid jurisdictional resources to the maximum extent practicable while maintaining the engineering and operational requirements of the Project.

For a utility of this size, a typical construction workspace consists of approximately 100 feet, including a 65-foot working side and a 35-foot spoil side, with additional temporary workspace where site-specific conditions are necessary. However, the applicant evaluated the resource crossings on a site-specific basis and reduced the crossing width to the minimum necessary to safely construct the crossing, as shown in the table above. This workspace represents the minimum area necessary to accommodate equipment access, temporary crossing structures, excavated material management, and dewatering operations while

maintaining safe construction practices. By reducing workspace widths at resource crossings, the Project minimizes temporary impacts to adjacent streams, wetlands, riparian corridors, and other sensitive environmental resources.

The general sequence of construction at stream and wetland crossings is outlined below:

1. Setup & Impact Controls: Prerequisites & Initial Protections.
 - a. Install approved erosion, sediment control (E&S), and Virginia Stormwater Management BMPs in accordance with approved Erosion and Sediment Control Plans and Virginia Stormwater Management requirements.
 - b. Install temporary flow diversion measures, where necessary, to isolate stream crossings and maintain downstream flow during construction.
 - c. Dewater the work area in streams to minimize impacts on adjacent natural resources.
2. Excavation & Installation: Core Construction Work.
 - a. Excavate the trench using the minimum footprint required for safe operation.
 - b. Lay the pipe sections in the trench, install trench plugs, and immediately backfill.
 - c. Apply initial backfill stabilization measures.
3. Removal & Physical Restoration: Site Cleanup & Grade Reset.
 - a. Remove temporary crossings, flow diversions, and dewatering equipment.
 - b. Restore streambeds, streambanks, wetland contours, and other disturbed areas to pre-construction grades.
4. Final Stabilization & Revegetation: Permanent Environmental Recovery.
 - a. Complete site-wide final stabilization per approved E&S and stormwater plans.
 - b. Seed disturbed areas using site-specific riparian, wetland, or native seed mixes for permanent cover.
 - c. Restore impacted wetlands to pre-construction contours and vegetation communities. Wetland areas within the maintained corridor will be restored to PEM wetland conditions following construction.

Based on the alternatives analysis, crossing-specific engineering evaluations, field conditions, and implementation of the avoidance and minimization measures described above, dry open-cut installation was determined to be the practicable crossing method that minimizes overall environmental disturbance for the Project. Although HDD would avoid direct impacts within individual streams and wetlands, the larger workspace requirements associated with trenchless construction would increase disturbance to adjacent uplands, wetlands, and forested areas. Accordingly, dry open-cut installation represents the Least Environmentally Damaging Practicable Alternative (LEDPA) for the proposed utility crossings.

9.4.4.3. Electrical Infrastructure and Substations

The project will require multiple substations and associated electrical infrastructure to meet the power demands of the proposed campus.

Substation locations are largely dictated by existing and proposed transmission infrastructure, utility provider requirements, electrical distribution geometry, and operational considerations. Design requirements imposed by utility companies include but are not limited to access requirements, setbacks, and site-specific operational criteria.

The Project Site benefits from an existing onsite substation with a dedicated 30-MVA transformer and redundant double-circuit 138-kV transmission lines supplied from independent sources. This existing transmission infrastructure enables immediate access to power and provides a clear path to constructing and energizing a 150 MW substation by the second quarter of 2028. These existing electrical facilities provide immediate access to construction and commissioning power, enhance system reliability, and support the development schedule required for large-scale digital infrastructure facilities. To realize these benefits, however, the Project must establish utility connections between the proposed digital infrastructure facilities and the existing substation. Given the fixed location of the existing substation and its relationship to the proposed facility layout, certain impacts to aquatic resources associated with these interconnecting utility corridors are unavoidable. However, to avoid and minimize impacts, crossings of those resources will be conducted via aerial crossings, where practicable.

During site planning, multiple substation locations and electrical distribution configurations were evaluated. Substation locations were refined based on existing and proposed transmission infrastructure, utility provider requirements, electrical distribution efficiency, operational reliability, and avoidance of jurisdictional resources. Where practicable, substations and associated electrical corridors were sited adjacent to existing or planned infrastructure to minimize habitat fragmentation and reduce impacts to streams, wetlands, and other sensitive environmental resources.

The proposed substations represent the minimum electrical infrastructure necessary to support the Project. Any reduction would compromise the ability to provide reliable electrical service to the proposed campus.

Duct banks are required to distribute electrical power from the on-site substations to the proposed data center buildings and associated support infrastructure. The use of underground, concrete-encased duct banks provides a reliable and safe means of power delivery while protecting critical electrical infrastructure from weather, falling trees, vehicular impacts, and other external forces that could affect system reliability. Concrete encasement is necessary to provide physical protection, maintain conduit separation, and facilitate heat dissipation associated with the electrical loads required for facility operation.

The size and configuration of the duct bank network are directly influenced by electrical demand, substation locations, and the distribution of power throughout the site. Duct banks are largest near substations where electrical demand is concentrated and progressively decrease in size as power is distributed to individual buildings and equipment. Consequently, excavation dimensions vary based on power requirements, duct bank size, installation depth, soil conditions, and construction methods. Major electrical corridors serving substations and primary distribution routes require larger excavations than smaller distribution lines serving individual facilities.

Where installation of electrical duct banks results in crossings of streams or wetlands construction activities will generally follow the sequence outlined below to minimize impacts and facilitate restoration of disturbed areas:

1. Setup & Impact Controls: Prerequisites & Initial Protections.
 - a. Install approved E&S measures, and Virginia Stormwater Management BMPs in accordance with approved Erosion and Sediment Control Plans and Virginia Stormwater Management requirements.
 - b. Install temporary flow diversion measures, where necessary, to isolate stream crossings and maintain downstream flow during construction.
 - c. Dewater the work area, in streams, to minimize impacts on adjacent natural resources.
2. Excavation & Duct Bank Installation: Core Construction Work.
 - a. Excavate the trench using the minimum footprint required for safe operation.
 - b. Install conduit and associated concrete-encased electrical duct bank infrastructure within the trench.
 - c. Backfill the trench and apply initial stabilization measures.
3. Removal & Physical Restoration: Site Cleanup & Grade Reset.
 - a. Remove temporary crossings, flow diversions, and dewatering equipment.
 - b. Restore streambeds, streambanks, wetland contours, and other disturbed areas to pre-construction grades.
4. Final Stabilization & Revegetation: Permanent Environmental Recovery.
 - a. Complete site-wide final stabilization per approved E&S and stormwater plans.
 - b. Seed disturbed areas using site-specific riparian, wetland, or native seed mixes for permanent cover.
 - c. Restore impacted wetlands to pre-construction contours and vegetation communities. Wetland areas within maintained utility corridors will be restored to PEM wetland conditions following construction.

During site planning and design, the duct bank system was developed in consideration of the overall project layout to avoid and minimize impacts to streams, wetlands, and other environmental resources to the maximum extent practicable while maintaining the reliability, safety, and operational requirements of the facility. Where crossings of streams, wetlands, or other aquatic resources are necessary, the project will implement BMPs to avoid and minimize impacts during construction, including, but not limited to, erosion and sediment control measures, dry open-cut crossing techniques, and the use of timber mats. Following restoration, stream impacts will be temporary in nature, and wetlands within the maintained utility corridor will be restored in accordance with permit requirements and approved restoration plans, minimizing long-term impacts to aquatic resource functions and values. Opportunities to shorten alignments, consolidate utility corridors, and co-locate infrastructure were evaluated and implemented where practicable. Therefore, the proposed duct bank configuration represents the LEDPA, balancing the project's electrical reliability, operational, and safety requirements with avoidance and minimization of impacts to aquatic resources and other environmental features.

Impacts resulting from temporary power lines associated with the backup power systems will be avoided by spanning resources or shifting alignments or minimized to the maximum extent practicable through the use of matting and post-construction restoration.

9.4.4.4. Other Utilities

In addition to the natural gas and electric utility infrastructure discussed above, the Project will require onsite installation of water, sanitary sewer, and fiber infrastructure necessary to support digital

infrastructure operations. The number, size, and configuration of these utility connections represent the minimum infrastructure necessary to serve the operational, reliability, and redundancy requirements of the proposed digital infrastructure campus. Utility planning was undertaken to avoid and minimize impacts to streams, wetlands, and other environmental resources to the maximum extent practicable.

Water and sanitary sewer alignments were developed to take advantage of existing utility infrastructure available onsite, reducing the need for additional utility extensions and resource crossings. The proposed water and sanitary sewer lines are primarily located within planned development areas and other areas of anticipated disturbance associated within the digital infrastructure campus, thereby limiting impacts outside of areas already required for Project construction. Existing utility availability also allows certain resource crossings to be avoided entirely. For example, sanitary sewer infrastructure is available on both sides of Trotters Creek, eliminating the need for a stream crossing at that location.

Where installation of new water and sanitary sewer infrastructure is necessary, the lines will be constructed utilizing dry open-cut methods consistent with the applicable Virginia regulations and USACE permit requirements. Temporary disturbances associated with installation will be minimized through the implementation of erosion and sediment control measures, use of BMPs, and restoration of temporarily disturbed areas following construction.

Where installation of water and sanitary sewer lines results in streams and wetlands crossings, construction activities will generally follow the sequence outlined below to minimize impacts and facilitate restoration of disturbed areas:

1. Setup & Impact Controls: Prerequisites & Initial Protections.
 - a. Install approved E&S measures, and Virginia Stormwater Management BMPs in accordance with approved Erosion and Sediment Control Plans and Virginia Stormwater Management requirements.
 - b. Install temporary flow diversion measures, where necessary, to isolate stream crossings and maintain downstream flow during construction.
 - c. Dewater the work area in streams to minimize impacts on adjacent natural resources.
2. Excavation & Utility Installation: Core Construction Work.
 - a. Excavate the trench using the minimum footprint required for safe operation.
 - b. Install the water and/or sanitary sewer line, including associated fittings, appurtenances, manholes, and other required components, as necessary.
 - c. Install trench plugs, where necessary, to maintain hydrologic conditions and immediately backfill the trench.
 - d. Apply initial stabilization measures.
3. Removal & Physical Restoration: Site Cleanup & Grade Reset.
 - a. Remove temporary crossings, flow diversions, and dewatering equipment.
 - b. Restore streambeds, streambanks, wetland contours, and other disturbed areas to pre-construction grades.
4. Final Stabilization & Revegetation: Permanent Environmental Recovery.
 - a. Complete site-wide final stabilization per approved E&S and stormwater plans.
 - b. Seed disturbed areas using site-specific riparian, wetland, or native seed mixes for permanent cover.

- c. Restore impacted wetlands to pre-construction contours and vegetation communities. Wetland areas disturbed during construction will be restored to pre-construction conditions.

Stream and wetland impacts will be temporary in nature and will be restored in accordance with permit requirements and approved restoration plans, minimizing long-term impacts to aquatic resource functions and values. Restoration areas will be monitored in accordance with permit conditions to verify stabilization, revegetation, and successful restoration of aquatic resource functions. Any deficiencies identified during monitoring will be addressed through corrective actions, as necessary.

Fiber infrastructure was similarly routed to take advantage of existing infrastructure, previously disturbed areas, and shared utility corridors where practicable, thereby reducing the need for new utility corridors and minimizing impacts to environmental resources. While connections between individual data center buildings, support infrastructure, and existing off-site fiber networks remain necessary to support campus-wide operational requirements, the alignments were refined to limit resource crossings and reduce the overall footprint of disturbance. Where practicable, sewer and water utility corridors were consolidated to accommodate multiple utility types within a common disturbance area, reducing the number of separate crossings and minimizing overall ground disturbance.

Fiber lines will be installed within underground concrete-encased duct banks. Duct banks are required to distribute critical communications and data transmission infrastructure between the proposed data center buildings and associated support facilities. The use of underground, concrete-encased duct banks provides a reliable and secure means of data conveyance while protecting critical communications infrastructure from weather, falling trees, vehicular impacts, accidental excavation, and other external forces that could affect network reliability and operations. Concrete encasement is necessary to provide the physical protection, security, and reliability required to support continuous operation of the data center campus. Due to the need for concrete-encased duct banks, fiber infrastructure will generally be installed using dry open-cut construction methods. The size and configuration of the fiber duct bank network are directly influenced by the communications capacity, redundancy, and connectivity requirements of the proposed development. Consequently, excavation dimensions vary based on the number of conduits required, duct bank configuration, installation depth, soil conditions, and construction methods. Where practicable, fiber duct banks have been co-located with other proposed utility corridors and infrastructure to further reduce impacts to environmental resources.

Where installation of fiber duct banks results in crossings of streams or wetlands construction activities will generally follow the sequence outlined below to minimize impacts:

1. Setup & Impact Controls: Prerequisites & Initial Protections.
 - a. Install approved (E&S measures, and Virginia Stormwater Management BMPs in accordance with approved Erosion and Sediment Control Plans and Virginia Stormwater Management requirements.
 - b. Install temporary flow diversion measures, where necessary, to isolate stream crossings and maintain downstream flow during construction.
 - c. Dewater the work area in streams to minimize impacts on adjacent natural resources.
2. Excavation & Duct Bank Installation: Core Construction Work.
 - a. Excavate the trench using the minimum footprint required for safe operation.

- b. Install conduit and associated concrete-encased fiber duct bank infrastructure.
 - c. Backfill the trench and apply initial stabilization measures.
- 3. Removal & Physical Restoration: Site Cleanup & Grade Reset.
 - a. Remove temporary crossings, flow diversions, and dewatering equipment.
 - b. Restore streambeds, streambanks, wetland contours, and other disturbed areas to pre-construction grades.
- 4. Final Stabilization & Revegetation: Permanent Environmental Recovery.
 - a. Complete site-wide final stabilization per approved E&S and stormwater plans.
 - b. Seed disturbed areas using site-specific riparian, wetland, or native seed mixes for permanent cover.
 - c. Restore impacted wetlands to pre-construction contours and vegetation communities. Wetland areas disturbed during construction will be restored to pre-construction conditions.

Accordingly, the proposed water, sewer, and fiber utility layout represents the LEDPA, considering the operational requirements of the Project while prioritizing avoidance and minimization of impacts to streams, wetlands, and other environmental resources to the maximum extent practicable.

9.4.4.5. Access Roads and Site Security

Internal roadways and access points have been designed to satisfy operational circulation, emergency access, maintenance access, and security requirements off of Oak Hill Road and Berry Hill Road.

The proposed campuses require multiple secured access points, emergency ingress and egress routes, and internal roadways capable of accommodating truck traffic, emergency vehicles, and ongoing facility operations. Roadway alignments were refined during site planning to reduce impacts to aquatic resources while maintaining operational functionality and compliance with applicable safety requirements.

The proposed road crossings will adhere to the appropriate erosion and sediment control measures (Pursuant to the Virginia Stormwater Management Handbook, version 1.2) to minimize impact to adjacent wetlands or WOTUS. The proposed road crossings at Impacts 15, 16, 17, and 19 will be accomplished by utilizing the following construction sequence:

- 1. Setup & Impact Controls: Prerequisites & Initial Protections.
 - a. Install the applicable E&S measures in accordance with the approved Erosion and Sediment Control Plans and Virginia Stormwater Management Handbook.
 - b. Install temporary flow diversion measures and conduct associated minor grading activities, as necessary, to isolate stream crossing work areas and maintain downstream flow during construction.
 - c. Dewater work areas, as necessary, to facilitate construction and minimize impacts on adjacent natural resources.
- 2. Grading & Crossing Construction: Core Construction Work.
 - a. Perform grading and excavation activities, as necessary, to facilitate construction of the proposed access road crossings.
 - b. Install applicable culverts and associated crossing infrastructure at stream and wetland crossing locations, utilizing grading where necessary.

- c. Place and compact aggregate base materials and other roadway structural components, as required for the proposed crossing improvements.
- 3. Roadway Completion & Restoration: Site Cleanup & Grade Reset.
 - a. Place aggregate and bituminous surfacing materials, including final roadway surfacing.
 - b. Remove temporary flow diversion measures, dewatering equipment, and other temporary construction features.
 - c. Restore streambeds, streambanks, wetland contours, and other disturbed areas to pre-construction grades or approved design grades.
- 4. Final Stabilization & Revegetation: Restoration of Disturbed Areas
 - a. Complete final stabilization in accordance with approved E&S plans, permit requirements, and applicable restoration plans.
 - b. Permanently stabilize disturbed upland areas through seeding, matting, and other applicable measures.
 - c. Restore temporarily impacted streams and wetlands to pre-construction contours and conditions, as applicable.

9.4.4.6. Construction Limits of Disturbance

Despite avoidance and minimization efforts, avoidance of all aquatic resources is not practicable. Wetlands, streams, and associated floodplain resources are distributed throughout the Project site and intersect areas necessary to support construction of the proposed campus. Throughout the design process, the Projects LOD was refined to reduce temporary and permanent impacts to streams and wetlands to the maximum extent practicable while maintaining operational and construction needs. This included adjustments to the layout of buildings, roadways, utility corridors, stormwater infrastructure as well as the incorporation of retaining walls and other grading optimization measures in select locations to reduce the footprint of cut and fill operations and to minimize overall disturbance.

The remaining impacts result from the need to accommodate the necessary project infrastructure, including building pads, roadway connections, utility corridors, substations, stormwater management facilities, and energy infrastructure, while also accounting for site topography, drainage patterns, transmission infrastructure, utility connection points, and environmental constraints. Accordingly, the proposed Project represents the least environmentally damaging practicable alternative.

9.4.5. Conclusion & LEDPA Determination

The Applicant conducted an extensive and iterative on-site alternatives analysis to identify opportunities to avoid and minimize impacts to aquatic resources to the maximum extent practicable while maintaining the operational, logistical, and economic requirements of the proposed Project. Throughout this process, site configurations were evaluated and refined through adjustments to building placement, roadway alignments, utility infrastructure, stormwater management facilities, grading limits, and supporting infrastructure. The final site layout reflects the incorporation of practicable avoidance and minimization measures identified without compromising the Project's purpose and need. Given the existing site constraints and development requirements, further reductions in aquatic resource impacts would require modifications that are not practicable from an engineering, operational, logistical, constructability, or economic standpoint. Accordingly, the Applicant concludes that the proposed layout represents the Least Environmentally Damaging Practicable Alternative (LEDPA).

10. Proposed Impact Descriptions

The Applicant has avoided and minimized impacts on the site to the maximum extent practicable, consistent with the emphasis on environmental protection in Executive Order 22 (2026). Approximately 211.82 acres of wetlands and 49.30 acres (173,257 linear feet) of stream channel are present within the 3,641-acre site¹⁵, of this 81 percent will not be impacted. WSSI believes that further avoidance and minimization is not practicable, and that the proposed project is the LEDPA. Enclosed within [Exhibit 13](#) and [Exhibit 14](#) is a copy of the proposed impact mapping and tables, respectively. Additionally, enclosed within [Exhibit 15](#) are the hydrology calculation points and the plan and profile views which contain the impact cross sections. Note that all areas under a deed restriction, conservation easement, restrictive covenant, or other land use protective instrument (i.e., protected areas) are depicted in the impact drawings.

Tables 3 and 4, referenced below identify the impacts associated with the construction of the proposed development for DEQ and the USACE, respectively. A summary of all associated impacts is outlined below.

Table 3. Proposed DEQ Impacts

Impact Type	Cowardin Classification	Proposed Impact Amount		
		Square Feet	Acres	Linear Feet
Permanent	Palustrine Forested Wetland (PFO)	890,067	20.43	-
	Palustrine Scrub-Shrub Wetland (PSS)	60,514	1.39	-
	Palustrine Emergent Wetland (PEM)	110,137	2.53	-
	Palustrine Open Water (POW)	12,104	0.28	-
	Perennial Stream (R3) Channel	75,431	1.73	8,513
	Intermittent Stream (R4) Channel	221,190	5.08	30,043
	Ephemeral Stream (R6) Channel	75,541	1.73	11,830
	<i>Subtotal</i>	1,444,984	33.17	50,386
Conversion	PFO to PSS	-	-	-
	PFO to PEM	309,542	7.11	-
	PSS to PEM	102,392	2.35	-
	<i>Subtotal</i>	411,934	9.46	-
Temporary	PFO	-	-	-
	PSS	4,177	0.10	-
	PEM	1,276	0.03	-
	POW	-	-	-
	Perennial Stream (R3) Channel	197,023	4.52	8,047
	Intermittent Stream (R4) Channel	60,482	1.39	7,203
	Ephemeral Stream (R6) Channel	16,997	0.39	2,237
	<i>Subtotal</i>	279,955	6.43	17,487
Total Impact		2,136,889	49.06	67,873

¹⁵ Please refer to Section 5.0 for a summary of the sources of information used to calculate these site-wide totals.

Table 4. Proposed USACE Impacts

Impact Type	Cowardin Classification	Proposed Impact Amount		
		Square Feet	Acres	Linear Feet
Permanent	Palustrine Forested Wetland (PFO)	547,301	12.56	-
	Palustrine Scrub-Shrub Wetland (PSS)	40,728	0.93	-
	Palustrine Emergent Wetland (PEM)	79,030	1.81	-
	Palustrine Open Water (POW)	12,104	0.28	-
	Perennial Stream (R3) Channel	75,431	1.73	8,513
	Intermittent Stream (R4) Channel	212,193	4.87	28,640
	Ephemeral Stream (R6) Channel	-	-	-
	<i>Subtotal</i>	966,787	22.19	37,153
Conversion	PFO to PSS	-	-	-
	PFO to PEM	286,328	6.57	-
	PSS to PEM	8,484	0.19	-
	<i>Subtotal</i>	294,812	6.77	-
Temporary	PFO	-	-	-
	PSS	4,177	0.10	-
	PEM	879	0.02	-
	POW	-	-	-
	Perennial Stream (R3) Channel	197,023	4.52	8,047
	Intermittent Stream (R4) Channel	59,671	1.37	7,097
	Ephemeral Stream (R6) Channel	-	-	-
	<i>Subtotal</i>	261,750	6.01	15,144
Total Impact		1,523,349	34.97	52,297

Impact #1 includes the permanent impact to 1.04 acres of PFO wetland, 0.19 acres of PSS wetland, 1.55 acres of PEM, 0.28 acres of POW wetland, and 4,417 linear feet of R4 stream channel. There will also be permanent impacts to isolated wetlands subject to DEQ jurisdiction including 0.09 acres of PFO wetland, 0.38 acres of PEM wetlands, 1,052 linear feet of R4 stream channel, and 3,091 linear feet of R6 stream channel. These impacts are associated with the construction of a pad for the proposed northeast energy generation campus, including a retaining wall and associated grading necessary to establish the required pad elevations. The size and orientation of the proposed pad cannot be reduced or reconfigured due to the acreage required to support the generation and ancillary facilities, as outlined in Section 9.4.3.5. The retaining wall is necessary to accommodate the existing topography within this portion of the site and minimize the extent of grading required for construction of the proposed facility. Implementation of the retaining wall is also intended to minimize impacts to the southeast of the pad. Flow to downstream areas will continue to be maintained as represented in the Pre/Post Hydrology calculations at *Analysis Points 4, 5, and Outfall 3-7 and 3-8* in [Exhibit 15](#). This impact has been minimized to the maximum extent practicable while accommodating the grading and infrastructure necessary for construction and operation of the proposed Northeast Energy Generation Campus and cannot be further reduced.

Wetlands and streams within the footprint of the facilities and retaining wall will be permanently impacted. For resource impacts shown in Impact #1 that are outside footprint of the retaining wall, the Applicant will restore the impacts to preconstruction conditions in the same manner as other temporary impacts. The retaining walls will be designed to allow water to permeate through the structure and approximate preconstruction hydrologic connectivity to these restored resources. While appropriate efforts will be made to restore these impacts, it is reasonable to assume that the proximity of the retaining wall's fill will result in limited but permanent and unavoidable changes to the boundaries and functions of these resources. To account for these changes, the Applicant will assume a secondary impact to the

portion of these resources between the retaining wall and LOD. Furthermore, to ensure the objective of “no net loss” is attained, the Applicant has elected to depict the assumed secondary impacts to these resources as permanent loss for the purpose determining impacts and associated compensatory mitigation requirements.

Impact #2 includes the permanent impact to 6.99 acres of PFO wetland, 0.11 acre of PEM wetland, 4,687 linear feet of R3 stream channel, and 6,787 linear feet of R4 stream channel and the temporary impact to 137 linear feet of R4 stream channel. Permanent impacts to isolated wetlands which are subject to DEQ jurisdiction are also proposed and include 3.55 acres of PFO wetland, 0.45 acres of PSS wetland, 0.01 acres of PEM, 147 linear feet of R4 stream channel, and 5,243 linear feet of R6 stream channel. This impact is required for the fill and grading needed to construct 12 substation pads, associated utility yards, and the proposed stormwater management ponds for the project. The impact area will accommodate the required sizes of the proposed building footprints and supporting infrastructure. The stormwater management pond outfalls have been placed where streams were previously located to ensure downstream hydrology will be maintained as shown on *Outfalls 3-2, 3-3, 3-4, 3-6, and 3-9A* in the pre/post hydrology calculations in Exhibit 15. The project components have been located and configured to minimize impacts to aquatic resources while maintaining the necessary operational relationships between the data center buildings, utility yards and easements to the northwest, and power generation facility to the northeast. This impact has been minimized to the maximum extent practicable.

Impact #3 includes temporary impacts to 0.01 acre of PEM wetland, 2,416 linear feet of R3 stream channel, and 321 linear feet of R4 stream channel. Impacts to isolated wetlands subject to DEQ only jurisdiction include the conversion of 0.07 acres of PFO wetland and 0.09 acres of PSS wetland, and the temporary impact to 434 linear feet of R6 stream channel. These impacts are associated with the installation of an underground electric utility line which will be bored under the streams. Upon completion of construction, all temporary impacts will be restored to their original contours, and the remaining areas within the utility easement will be maintained as PEM wetland areas, as described in Section 10.01. The alignment of the utilities in this area was constrained by the proposed stormwater ponds and existing SVMS Training Facility. Downstream hydrology will continue to be maintained as shown in the pre/post hydrology calculations at *Outfall 1-16, 1-9, Additional Analysis Point 2, and Additional Analysis Point 3* in Exhibit 15. This impact has been reduced to the minimum requirement for the construction of the utility line.

Impact #4 includes the permanent impact to 0.10 acres of PFO wetland and 0.03 acres of PEM wetland. Permanent impacts to isolated wetlands subject to DEQ only jurisdiction are also proposed, including 0.04 acres of PFO wetland, 204 linear feet of R4 stream channel, and 36 linear feet of R4 stream channel. These impacts are necessary for the fill and grading required for the construction of a proposed data center building a stormwater management facility designed to capture and treat stormwater prior to discharging it to off-site areas. The stormwater management pond outfalls have been placed where streams were previously located to ensure downstream hydrology will be maintained as shown on *Outfalls 1-7 and 1-8* in the pre/post hydrology calculations in Exhibit 15. This impact has been minimized to the maximum extent practicable while achieving the grading and infrastructure necessary for construction and operation of the proposed data center and associated substation.

Impact #5 includes the permanent impact to 0.31 acres of PFO and 2,440 linear feet of R4 stream channel. Permanent impacts to isolated wetlands including 0.12 acres of PFO wetland, 0.17 acres of PEM wetland, and 867 linear feet of stream channel that will be subject to DEQ jurisdiction are also proposed. This

impact is necessary for the construction of three of the proposed data center buildings on the campus and the proposed stormwater management ponds that will capture and treat runoff prior to leaving the site. The ponds have been designed to reduce the footprint as much as logistically possible to avoid and minimize further wetland impacts to the site. The outfalls to the ponds have been strategically placed where streams were previously located to ensure hydrology will be maintained in downstream areas, as shown on *Outfall 1-1, 1-2, 1-3, 1-4, 1-5, and 1-6* in the pre/post hydrology calculations. This impact has been minimized to the maximum extent practicable.

Impact #6 includes the conversion of 0.20 acres of PFO wetland and 1.89 acres of PSS wetland. These impacts are to isolated wetlands, therefore we anticipate they will be subject to DEQ only jurisdiction. This impact is necessary for installation of multiple utilities, including an overhead communication line and an underground electric line. Upon completion of construction, the wetlands within the easement will re-establish as PEM and will be maintained as such. Due to refinement in utility work areas, components of the wetland impact were reduced. This impact has been minimized to the maximum extent practicable.

Impact #7 includes the permanent impact to 1.96 acres of PFO wetland, 0.74 acres of PSS wetland, 0.11 acres of PEM wetland, 792 linear feet of R3 stream channel, and 5,241 linear feet of R4 stream channel. Permanent impacts to isolated wetlands subject to DEQ only jurisdiction include 3.17 acres of PFO and 654 linear feet of R6 stream channel. This impact is necessary to construct eleven of the proposed data center buildings as well as the necessary substations providing power to the buildings and stormwater management ponds to capture and treat runoff. The impact area will accommodate the required sizes of the proposed building footprints, substation energy needs, and supporting infrastructure. The stormwater management pond outfalls have been placed where streams were previously located to ensure downstream hydrology will be maintained as shown on *Outfall 1-09, 1-12 and 1-16* in the pre/post hydrology calculations in Exhibit 15. This impact has been minimized to the maximum extent practicable.

Impact #8 includes the conversion of 0.10 acres of PFO wetland for the construction of a water line tie-in necessary to connect utilities to provide access to the campus. Upon completion of construction, the wetland will be re-established as a PEM wetland and will continue to be maintained as such. This impact has been minimized to the maximum extent practicable.

Impact #9 includes the permanent impact to 0.02 acres of PFO and 1,778 linear feet of R4 stream channel. Additionally, permanent impacts to isolated wetlands subject to DEQ only jurisdiction are proposed and include 0.22 acres of PFO wetland and 270 linear feet of R6 stream channel. These impacts are necessary for construction of one of the proposed data center buildings and the parking lot associated with the building. Additionally, a stormwater management pond is proposed within the impact areas to capture and treat runoff from the surrounding area. The outfall of the pond has been placed where a stream is currently located to ensure hydrology to the downstream system is maintained, which can be shown as *Outfall 2-06* in the pre/post hydrology calculations in Exhibit 15. This impact has been minimized to the maximum extent practicable.

Impact #10 includes the permanent impact to 0.13 acres of PFO wetland, <0.01 acres of PEM wetland, 2,140 linear feet of R3 stream channel, and 1,904 linear feet of R4 stream channel. Permanent impacts to isolated wetlands which are subject to only DEQ jurisdiction are proposed and will consist of 0.16 acres of PFO and 240 linear feet of R6 stream channel. These impacts are necessary for construction of a proposed building on the data center campus and necessary parking areas. The impact area will accommodate the

required sizes of the proposed building footprints and supporting infrastructure. Stormwater management ponds are also proposed to capture and treat runoff from the surrounding areas. Upstream flow will be captured and piped around the proposed building and discharged into downstream areas to maintain hydrology of the stream, as shown at *Additional Analysis Point 1* in the pre/post hydrology calculations in Exhibit 15. Retaining walls have been proposed for installation adjacent to some of these wetland areas to reduce the building footprint and help minimize impacts to wetlands. Therefore, this impact has been minimized to the maximum extent practicable.

Impact #11 includes the temporary impact to 42 linear feet of R3 stream channel and the conversion impact to 0.02 acres of PFO wetland. Conversion impacts to isolated wetlands subject to DEQ jurisdiction include 0.15 acres of PSS wetland. These impacts are necessary for the installation of a sanitary sewer easement that will connect throughout the campus and provide utility needs for the project. Existing wetlands within the easement will be converted to PEM and will continue to be maintained as wetlands. The utility has been strategically placed to cross the R3 stream in the most parallel and smallest footprint as possible to reduce impacts to wetlands, therefore it has been minimized to the maximum extent practicable.

Impact #12 includes the conversion of 0.09 acres of PFO wetland and the temporary impact to 207 linear feet of R3 stream. Additionally, the conversion of 0.02 acres of isolated PSS wetland is proposed and will be subject to DEQ only jurisdiction. These proposed impacts are necessary for installation of a communication utility line which will run between the proposed buildings on the campus. Upon completion of the utility installation, existing wetlands will be maintained as PEM wetlands. The stream will be returned to its original contours and condition. The utility has been strategically placed to cross the R3 stream in the most parallel and smallest footprint as possible to reduce impacts to wetlands, therefore it has been minimized to the maximum extent practicable.

Impact #13 includes the temporary impact to 937 linear feet of R3 stream channel and 24 linear feet of R4 stream channel for construction of multiple utilities including an above ground communication line as well as an underground electric line. This impact is necessary to provide utility connections throughout the campus. The electric line will be bored underneath the stream, and upon completion of the work the stream will be returned to its original contours and downstream hydrology will remain.

Impact #14 includes the conversion of 0.10 acres of PFO, 0.19 acres of PSS, and the temporary impact to 408 linear feet of R4 stream channel. Additionally, temporary impacts to isolated wetlands subject to DEQ only jurisdiction are proposed including 325 linear feet of R6 stream channel. This impact is necessary for the installation of an underground electric utility line that will provide power throughout the campus. Existing wetlands will be converted and maintained as PEM wetlands, receiving hydrology from the proposed SWM pond to the north. Upon completion of construction, the stream channel will be returned to its original contours. This impact has been minimized to the maximum extent practicable.

Impact #15 includes the permanent impact to 0.83 acres of PFO wetland, <0.01 acres of PSS wetland, 0.01 acres of PEM wetland, and 2,248 linear feet of R4 stream channel. Permanent impacts to isolated wetlands subject to DEQ only jurisdiction are also proposed, including 142 linear feet of R6 stream. This impact is necessary for proposed fill needed to construct a utility laydown area which will serve the proposed data center campus and for a stormwater management pond needed to capture and treat runoff. A retaining wall has been proposed to be installed to reduce the extent of grading needed within the pad, which reduces impacts to adjacent wetland areas. The outfall of the stormwater management pond has been

placed in line with the existing stream to ensure hydrology downstream will be maintained as shown in the pre/post hydrology calculations as *Outfall 2-3* in Exhibit 15. This impact has been minimized to the maximum extent practicable.

Impact #16 includes permanent impacts to 0.15 acres of isolated PEM wetland jurisdictional to DEQ only for fill and grading needed to construct a road that will provide access to a battery storage facility. The access road could not have been shifted any further north due to the existing topography on the site. Additionally, an access road could not be installed coming from the south due to the existing natural gas easement. Therefore, this impact has been minimized to the maximum extent practicable.

Impact #17 includes permanent impacts to 277 linear feet of R3 stream channel and the conversion of <0.01 acres of PFO. Permanent impacts to isolated wetlands subject to DEQ only jurisdiction are also proposed, including 0.27 acres of PFO wetland and 1,061 linear feet of R6 stream channel. This proposed impact is a result of fill and grading needed to construct a battery storage facility, installation of a culvert underneath an access road off of Oak Hill Road, and a stormwater management pond necessary to capture and treat runoff. The battery energy storage facility has been designed in accordance with the land requirements for 8-hour batteries and cannot be reduced any further in size. Impacts associated with the access road cannot be avoided due to the existing natural gas easement directly south of the proposed battery storage facilities, however, a culvert will be placed within the stream allowing the flow of water to continue to be maintained. The outfall of the stormwater management pond has been placed in line with the existing stream to ensure hydrology downstream will be maintained as shown in the pre/post hydrology calculations as *Outfall 2-9* in Exhibit 15. This impact has been minimized to the maximum extent practicable.

Impact #18 includes permanent impact to 0.75 acres of PFO, <0.01 acre of PEM, 177 linear feet of R3 stream channel, and 1,056 linear feet of R4 stream channel. Temporary impacts to isolated wetlands are also proposed including 111 linear feet of R6 stream channel. This impact is needed for the fill and grading to construct the Southwest Energy Generation Campus which will provide power from the natural gas easement to the campus. A substation will also be constructed to convert the power generated. The size and orientation of the proposed pad cannot be reduced or reconfigured due to the acreage required to support the generation and ancillary facilities, as outlined in Section 9.4.3.5. Slope grading has been pulled in as much as possible to avoid adjacent stream impacts.

Impact #19 includes permanent impact to 440 linear feet of R3 stream channel and 415 linear feet of R4 stream channel. Additionally, 0.25 acres of PFO is proposed to be converted and temporary impacts to <0.01 acre of PEM wetland, 1,480 linear feet of R3 stream channel, and 1,486 linear feet of R4 stream channel are proposed. Temporary impacts to isolated wetlands jurisdictional to DEQ only are also proposed, including 19 linear feet of R6 stream channel. This impact is needed for installation of an underground electric utility line that will provide power throughout the campus. Additionally, impacts are proposed for construction of an access road off of Oak Hill Road leading to the proposed Southwest Energy Generation Campus. Shifting this road any further north or south would result in additional permanent impacts to wetlands, so this configuration reduces the amount of wetland impacts to the maximum extent practicable. Flow will continue to be maintained through installation of a culvert. Upon completion of the work, all streams will be returned to their original contour and wetlands will be maintained as PEM.

Impact #20 includes the permanent impact to 0.42 acres of PFO wetland and 2,306 linear feet of R4 stream channel. Impacts to isolated wetlands jurisdictional to DEQ only are also proposed, including 0.24 acres

of PFO and 226 linear feet of R6 stream channel. This impact is for the fill and grading needed for installation of a proposed substation that will assist in generating power to the site. The substation has been designed to the most minimal size possible and cannot be further reduced without meeting the demand needed from the campus.

Impact #21 includes the permanent impact to 48 linear feet of R4 stream channel, conversion impacts to 5.91 acres of PFO, and the temporary impact to 0.10 acres of PSS, <0.01 acre of PEM, 2,721 linear feet of R3 stream channel, and 2,962 linear feet of R4 stream channel. Additionally, impacts to isolated wetlands jurisdictional to DEQ only include the conversion of <0.01 acre of PFO and the temporary impact to 1,187 linear feet of R6. This impact is proposed for the installation of an underground electric utility line that will carry power throughout the campus. Upon completion of the work, streams will be restored to their original conditions and wetlands will be converted and maintained as PEM. This impact has been reduced to the maximum extent practicable.

Impact #22 includes the temporary impact to 0.01 acres of PEM and 1,503 linear feet of R4 stream channel. Impacts to isolated wetlands jurisdictional to DEQ only are also proposed, including the conversion of 0.25 acres of PFO and temporary impacts to 106 linear feet of R4 and 73 linear feet of R6. A portion of this impact is for installation of the natural gas utility line that will tie into the adjacent Southwest Energy Generation Campus. The remainder of the impact is proposed for the installation of an underground electric utility line that will transport power throughout the campus. Upon completion of the work, streams will be restored to their original conditions and wetlands will be converted and maintained as PEM. This impact has been reduced to the maximum extent practicable.

Impact #23 proposes stream and wetland crossings associated with the natural gas utility tap between the southwest and northeast energy generation campuses from the western to the northeastern portions of the site. This impact is critical in providing power to the proposed data center campus. The utility easement has been designed to avoid wetlands where practicable and utilize uplands as much as possible for staging and equipment access areas. Upon completion of the work, the streams will be returned to their original contours, and all wetlands will be converted and maintained as PEM wetland. Additional information for these crossings is outlined in Section 10.1. Each individual proposed crossing impact amount is listed below:

Impact #23A includes the temporary impact to 107 linear feet of R3 stream channel. Additionally, the conversion of 0.01 acres of PFO are jurisdictional to DEQ only.

Impact #23B includes the temporary impact to 132 linear feet of R4 stream channel and the conversion impact to 0.03 acres of PFO.

Impact #23C includes the conversion of 0.02 acres of PFO wetland.

Impact #23D includes the temporary impact to 108 linear feet of R3 stream channel. Impacts to isolated wetlands jurisdictional to DEQ only consist of the temporary impact to 63 linear feet of R6 stream channel.

Impact #23E includes the temporary impact to 124 linear feet of R4 stream channel. Isolated wetland impacts jurisdictional to DEQ only associated with this impact area consist of the

conversion of 0.05 acres of PFO and the temporary impact to 0.01 acre of PEM and 25 linear feet of R6 stream.

Impact #24 includes the temporary impact to 29 linear feet of R3 stream channel. Impacts to isolated wetlands jurisdictional to DEQ only are also proposed and consist of the conversion of <0.01 acres of PFO wetland. This proposed impact is for a sanitary sewer tie-in needed to connect new and existing utilities to service the proposed campus. Upon completion of the work, the stream channel will be restored to its existing conditions, and the PFO wetland will be converted and maintained as PEM wetland.

10.1. Restoration of Temporary Impacts

Construction in temporary wetland and stream impact areas will be performed with environmental best management practices including but not limited to conducting work on timber mats or in the dry, respectively. Upon completion of construction activities, construction equipment and materials will be removed and the area will be restored to the preconstruction conditions and contours.

11. Compensatory Mitigation Proposal

As previously discussed, impacts to jurisdictional wetlands and streams have been minimized to the maximum extent practicable. As a result of the unavoidable permanent and conversion impacts, compensatory mitigation for impacts to wetlands and streams is proposed as detailed in this section.

The following Clean Water Act Section 404/401 permits have been issued within the footprint of the proposed project over the last two decades for infrastructure development: WP4-15-1114/WP4-19-0656 and WP2-21-1492. Those prior projects generally support development of the site, but WP2-21-1492 fell below the applicable general permit thresholds to necessitate compensatory mitigation. Accordingly, previously permitted permanent wetland impacts associated with WP2-21-1492 are included within the compensatory mitigation calculations within Tables 13 and 14. Bills of sale for WP4-15-1114/WP4-19-0656 are enclosed within [Exhibit 18A](#).

According to the Virginia Water Protection (VWP) Permit Program Regulations (9VAC25-210-116) effective August 2, 2016 and Section 33 of the Code of Federal Regulations, Chapter II, Part 332 – Compensatory Mitigation for Losses of Aquatic Resources¹⁶, when compensatory mitigation is required, it is preferred in the following order: 1) Mitigation bank credits, 2) In-lieu fee program credits, 3) Permittee-responsible mitigation under a watershed approach, 4) Permittee-responsible mitigation through on-site and in-kind mitigation, 5) Permittee-responsible mitigation through off-site and/or out-of-kind mitigation.

The Applicant looked to purchase commercially available mitigation credits from mitigation banks and In-Lieu Fee Funds approved by the Interagency Review Team per applicable hierarchy of mitigation options set forth in the 2008 Mitigation Rule and 9VAC25-210-116. Based on our October 2026 review of the Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS), enclosed within [Exhibit 18B](#), there are a minimal amount of stream and wetland bank credits as shown in Table 5 below. Additionally, while

¹⁶ As published in the Federal Register on April 10, 2008 (73 F.R. 19594), effective June 9, 2008.

there are some in-lieu fee credits available, there are not enough to fully satisfy the mitigation need as outlined in Section 11.1 and 11.2.

Table 5. Current Credit Availability

Available Options	Wetland Credits	Stream Credits
Frog Bottom Mitigation Bank	N/A	3,346
Banister Bend Mitigation Bank	0.04	N/A
Copper Hill Mitigation Bank	0.12	1,363
Beaverdam Creek Mitigation Bank	N/A	2,100
TNC ILF	10.00	9,388
DEQ ILF	20.00	20,000
TOTAL	30.16	36,197

Given the above-mentioned credit availability research and lack of available stream and wetland credits within the service area needed for the Project, it was necessary for the Applicant to propose a Permittee Responsible Mitigation (PRM) plan via the watershed approach to satisfy the mitigation requirements and to allow the permitting process to proceed.

The proposed PRM activities will include four mitigation sites as shown on the PRM Vicinity map within Exhibit 18C. The overall crediting, including all mitigation sites included as part of this mitigation plan, exceeds what is required to meet the Project mitigation need. Surplus credits are not proposed for use by other projects, and the additional ecological improvements are considered one of the benefits of the PRM compared to the purchase of credits from a commercial bank.

The nature, location, and timing of the proposed mitigation sites will ensure compensation for the lost functions and services with minimal temporal loss. Given these factors, along with anticipated demand for commercially available mitigation bank and ILF wetland credits in the watershed, the proposed PRM represents the ecologically preferable option for compensation for the wetland and stream impacts for this Project.

Conceptual Mitigation Work Plans for each of the mitigation sites are contained within Exhibit 19. A brief description of each of the mitigation sites is provided below. The Adjacent Property Owner (APO) and Riparian Property Owner (RPO) maps for each PRM site are contained within Exhibit 18D and Exhibit 18E, respectively.

11.1. PRM Site Information

The following sections describe the proposed PRM sites and the below tables include information related to their proposed impacts (Tables 6 and 7) and credit generation (Table 8).

11.1.1. South Meadows Wetland Mitigation Site

The South Meadows Mitigation Site consist of approximately 74.16 acres of an actively managed loblolly pine plantation located within the Banister River watershed (HUC

03010105). The Banister River watershed is adjacent to the Upper Dan watershed where impacts are occurring; therefore, the site meets location requirements for providing compensatory mitigation. As outlined in the March 27, 2025 Pine Plantation Memo between the USACE and DEQ, pine plantations provide limited ecosystem functions through their practice of planting a single tree species and suppressing competing species. Restoration work at the site will involve the removing existing planted loblolly pine trees, clearing woody debris left over from logging operations, double chipping and incorporating remaining woody debris into the soil, then replanting the site with hydrophytic woody plantings and herbaceous seeds to achieve final diversity and density standards. The site will be surrounded by an upland buffer to protect the restored wetland from any adjacent land uses. The upland buffer will also be planted with a diverse array of trees, shrubs, grasses, and forbes, selected to improve soil stability and maximize wildlife habitat. The proposed mitigation efforts will prevent routine land disturbance and understory suppression associated with timber stand management and harvesting. Additionally, the resulting diverse ecological system will allow for the growth of a more robust understory to better trap and store nutrients and sediment runoff into the downstream watershed. The South Meadows Mitigation Site is expected to generate approximately 54.38 wetland credits for the overall project's compensatory mitigation requirements.

11.1.2. Sandy River Mitigation Site

The Sandy River Mitigation Site includes approximately 40.99 acres of historically agricultural land located within the Upper Dan watershed (HUC 03010103), which is the same watershed where impacts are occurring. The land is heavily influenced by cattle and lacks diverse and intact riparian buffers. Stream reaches show visible signs of degradation as a result of anthropogenic changes to the surrounding area and unrestricted cattle access to the streams. The stream reaches are severely incised with significantly eroded banks, resulting in release of sediments and nutrients into the watershed. In addition to unstable bed and banks, the stream channels contain uniform streambeds lacking necessary variations in depth, velocities, and habitats required to support a robust ecosystem. Restoration is proposed for two unnamed tributaries to the Sandy River. Stream restoration will diversify stream habitat using Natural Channel Design to create a riffle pool series and promote frequent floodplain access. Cattle will be excluded from the restored and preserved channels, and buffer planting will include a diverse mix of native trees, shrubs, grasses, and forbs, which have been selected to improve soil stability and maximize wildlife habitat value. Restoration activities will enhance water quality by filtering nutrients derived from adjacent and upstream land uses. The Sandy River Mitigation Site will improve onsite and downstream water quality by decreasing bank erosion, decreasing in-stream sedimentation, decreasing nutrient loading, and improving in-stream and riparian vegetation and wildlife habitat. Wetlands located within the floodplains of streams are expected to attenuate and hold flood waters, allowing nutrients to drop out. The Sandy River Mitigation Site will generate approximately 13,431 stream credits for the overall project's compensatory mitigation requirements.

11.1.3. Dan River Mitigation Site

The Dan River Mitigation Site is historically agricultural land located within the Lower Dan watershed (HUC 03010104), which is adjacent to the impacted watershed, the Upper Dan Watershed (HUC 03010103); therefore, meets the requirements for mitigation. The land is

heavily influenced by cattle and lacks diverse and intact riparian buffers. Stream reaches show visible signs of degradation as a result of anthropogenic changes to the surrounding area, including logging, and unrestricted cattle access to the streams. The stream reaches are severely incised with significantly eroded banks, resulting in release of sediments and nutrients into the watershed. In addition to unstable bed and banks, the stream channels contain uniform streambeds lacking necessary variations in depth, velocities, and habitats required to support a robust ecosystem. Restoration and preservation activities are proposed for several tributaries of the Dan River including Mineral Springs Branch, Sandy Creek, and other unnamed tributaries. Stream restoration will diversify stream habitat using Natural Channel Design to create a riffle pool series and promote frequent floodplain access. Cattle will be excluded from the restored and preserved channels, and buffer planting will include a diverse mix of native trees, shrubs, grasses, and forbs, which have been selected to improve soil stability and maximize wildlife habitat value. Restoration activities will enhance water quality by filtering nutrients derived from adjacent land uses. The Dan River Mitigation Site will improve onsite and downstream water quality by decreasing bank erosion, decreasing in-stream sedimentation, decreasing nutrient loading, and improving in-stream and riparian vegetation and wildlife habitat. Wetlands located within the floodplains of streams are expected to attenuate and hold flood waters, allowing nutrients to drop out. The Dan River Mitigation Site will generate roughly 39,773 stream credits for the overall project's compensatory mitigation requirements.

11.1.4. Gretna Mitigation Site

The Gretna Mitigation Site includes two tracts located along tributaries to the Sandy Creek and Whitehorn Creek. The restoration tract is within Banister River watershed (HUC 03010105) and consists of approximately 195.7 acres. The preservation tract is approximately 1,969.8 acres and is also within the Banister River watershed. The Banister River watershed is adjacent to the Upper Dan watershed where impacts are occurring; therefore, the site meets location requirements for providing compensatory mitigation. Both tracts consist of a mixture of managed pine and native hardwood forest areas and have historically included agricultural practices. The restoration parcel includes two stream restoration reaches and five stream preservation reaches. The stream restoration reaches are severely incised with significantly eroded banks, resulting in release of sediments and nutrients into the watershed. In addition to unstable bed and banks, the stream channels contain uniform streambeds lacking necessary variations in depth, velocities, and habitats required to support a robust ecosystem. Stream restoration will diversify stream habitat using Natural Channel Design to create a riffle pool series and promote frequent floodplain access. Streams will be buffered with at least 100-foot buffers and buffer planting will include a diverse mix of native trees, shrubs, grasses, and forbs, which have been selected to improve soil stability and maximize wildlife habitat value. Restoration activities will enhance water quality by filtering nutrients derived from adjacent land uses. The Gretna Mitigation Site will improve onsite and downstream water quality by decreasing bank erosion, decreasing in-stream sedimentation, decreasing nutrient loading, and improving in-stream and riparian vegetation and wildlife habitat. Wetlands located within the floodplains of streams are expected to attenuate and hold flood waters, allowing nutrients to drop out. The restoration tract will restore 4,585 linear feet of stream channel. Additionally, the restoration tract includes 69 acres of riparian area preservation. The preservation tract includes the preservation of approximately 24,446 linear feet of stream channel and 107 acres of riparian area preservation. Preservation of existing habitat will

further support habitat diversity by protecting the areas in perpetuity. The Gretna Mitigation Site will generate roughly 10,194 stream credits for the overall project's compensatory mitigation requirements.

Table 6. Proposed Off-Site Wetland PRM Impacts (USACE and DEQ)

PRM Site	Temporary (Acres)	Permanent (Acres)	Wetland Creation (Acres) ¹⁷
Sandy River Stream Mitigation Site	0	0.13	0.17
Dan River Stream Mitigation Site	4.84	0.34	0.40
Gretna Stream Mitigation Site	3.55	0.22	0.37
South Meadows Wetland Mitigation Site	2.5	0	49.77
TOTAL	10.89	0.69	50.71

Table 7. Proposed Off-Site Stream PRM Impacts (USACE and DEQ)

PRM Site	Temporary (LF)	Temporary (Acres)	Permanent (LF)	Permanent (Acres)	Proposed Restoration Stream Lengths (LF)
Sandy River Stream Mitigation Site	371	0.05	8,491	1.79	9,403
Dan River Stream Mitigation Site	831	0.13	22,026	4.59	23,164
Gretna Stream Mitigation Site	1,484	0.14	4,686	0.58	4,379 ¹⁸
South Meadows Wetland Mitigation Site	-	-	-	-	-
TOTAL	2,686	0.32	35,203	6.96	36,946

Table 8. PRM Credit Table

PRM Site	Wetland Credits	Stream Credits
South Meadows	54.38	N/A
Sandy River	N/A	13,431
Dan River	N/A	39,773
Gretna	N/A	10,194
TOTAL	54.38	63,398

¹⁷ Wetland creation areas within stream mitigation sites will not be generating credits for the proposed project but are for the purpose of offsetting permanent wetland impacts.

¹⁸ While the ultimate restored stream length is 307 linear feet less than the existing stream length, the new proposed stream alignment will create a more sustainable flow path than the existing unstable and meandering channel.

11.2. Wetland Compensation

As compensation for unavoidable permanent impacts to vegetated wetlands that will result from the proposed project, the following mitigation ratios and requirements have been proposed in accordance with DEQ and Norfolk District USACE policy:

Table 9. Proposed DEQ Wetland Credit Compensation

Cowardin Classification	Impact (Acres)	Mitigation Ratio	Mitigation Required (Credits)
PFO	20.43	2:1	40.86
PFO (Conversion)	7.11	1:1	7.11
PSS	1.39	1.5:1	2.09
PSS (Conversion)	2.35	0.5:1	1.18
PEM	2.53	1:1	2.53
POW	0.28	0.5:1	0.14
TOTAL	34.09	--	53.91

Table 10. Proposed USACE Wetland Credit Compensation

Cowardin Classification	Impact (Acres)	Mitigation Ratio	Mitigation Required (Credits)
PFO	12.56	2:1	25.12
PFO (Conversion)	6.57	1:1	6.57
PSS	0.93	1.5:1	1.40
PSS (Conversion)	0.19	0.5:1	0.10
PEM	1.81	1:1	1.81
POW	0.28	0.5:1	0.14
TOTAL	22.34	--	35.14

As shown in Tables 9 & 10 above, Project Crossroads wetland impacts require 53.91 DEQ wetland mitigation credits and 35.14 USACE wetland mitigation credits. In addition, to compensate for the previously approved waterline impacts of 0.01 acre of PFO and <0.01 acre of PSS, the Applicant is proposing 0.03 wetland credit for both DEQ and USACE. As a result, the total compensatory mitigation requirement is 53.94 DEQ wetland mitigation credits and 35.17 USACE wetland mitigation credits. The Conceptual Mitigation Work Plan for the South Meadows wetland PRM site is enclosed within Exhibit 19A.

11.3. Stream Compensation

A summary of the unavoidable stream impacts within the Project Crossroads site is provided below:

Table 11. Proposed DEQ Stream Credit Compensation

Cowardin Classification	Impact (Linear Feet)	Required CCs
R3	8,513	10,512
R4	30,043	36,176
R6	11,830	9,803
TOTAL	50,386	56,491

Table 12. Proposed USACE Stream Credit Compensation

Cowardin Classification	Impact (Linear Feet)	Required CCs
R3	8,513	10,512
R4	28,640	34,398
TOTAL	37,153	44,910

The first step in determining the required compensation for these unavoidable stream impacts was to perform stream assessments in accordance with the USACE and DEQ's Unified Stream Methodology (USM). These assessments were completed and are provided in [Exhibit 18](#). The assessment results were used to calculate the required compensation within Form 2 of the USM for the unavoidable stream impacts and are provided in [Exhibit 18F](#).

As shown above in Tables 11 & 12, the Applicant proposes to compensate for the permanent loss of 8,513 linear feet of perennial stream channel, 30,043 linear feet of intermittent stream channel, and 11,830 linear feet of ephemeral stream channel through the creation of 56,491 Compensation Credits (CCs) associated with Project Crossroads through the development of three Permittee-responsible mitigation banks. The Conceptual Mitigation Work Plans for the stream PRM sites are enclosed within [Exhibit 19B-D](#).

11.4. PRM Phasing

The proposed phasing of the compensation sites to each Phase of Project Crossroads is outlined in Table 13 and 14, below.

Table 13. Proposed DEQ PRM Phasing Table

Phase	Proposed Impact Credit Need	PRM Site	Proposed Compensation
Phase I	19.32 Wetland Credits; 21,000 Stream Credits	South Meadows Wetland Site; Sandy River Stream Site; Dan River Stream Site – Phase I	54.38 Wetland Credits*; 13,431 Stream Credits; 10,018 Stream Credits
Phase II	32.80 Wetland Credits; 27,952 Stream Credits	Dan River Stream Site – Phase II	29,755 Stream Credits
Phase III	1.82 Wetland Credits; 7,539 Stream Credits	Gretna Stream Site	10,194 Stream Credits
Total	53.94 Wetland Credits; 56,491 Stream Credits	N/A	54.38 Wetland Credits; 63,398 Stream Credits
Surplus	N/A	N/A	0.44 Wetland Credits; 6,907 Stream Credits

*Note that all wetland credits required are proposed to be generated during Phase I of the project.

Table 14. Proposed USACE PRM Phasing Table

Phase	Proposed Impact Credit Need	PRM Site	Proposed Compensation
Phase I	10.12 Wetland Credits; 19,298 Stream Credits	South Meadows Wetland Site; Sandy River Stream Site; Dan River Stream Site – Phase I	54.38 Wetland Credits*; 13,431 Stream Credits; 10,018 Stream Credits
Phase II	24.16 Wetland Credits; 19,127 Stream Credits	Dan River Stream Site – Phase II	29,755 Stream Credits
Phase III	0.89 Wetland Credits; 6,485 Stream Credits	Gretna Stream Site	10,194 Stream Credits
Total	35.17 Wetland Credits; 44,910 Stream Credits	N/A	54.38 Wetland Credits; 63,398 Stream Credits
Surplus	N/A	N/A	19.21 Wetland Credits; 18,488 Stream Credits

*Note that all wetland credits required are proposed to be generated during Phase I of the project.

Conceptual Mitigation Work Plans for each PRM site have been included within [Exhibit 19](#). Final Mitigation Work Plans will be prepared and submitted to the USACE and DEQ for approval prior to construction of a particular phase. Note that the sequence of phasing will be determined prior to construction.

12. Endangered and Threatened Species

As discussed in Sections 2 and 3, RIFA and the participating localities have been actively engaged in evaluating and advancing development opportunities at this site for nearly 20 years. Throughout this period, RIFA and the localities have engaged in coordination with the U.S. Fish and Wildlife Service (USFWS), the Virginia Department of Wildlife Resources (DWR), and the Virginia Department of Conservation and Recreation (DCR) regarding threatened and endangered species.

For Project Crossroads, WSSI updated searches from DWR's Fish and Wildlife Information Service (FWIS) database ([Exhibit 20A](#)), USFWS's Information for Planning and Consultation (IPaC) system [Exhibit 20B](#) (Locator # 2026-0113311), and DCR's Biotics Data System ([Exhibit 20C](#)). Table 15 below includes the species identified in those searches and provides the status of environmental surveys and anticipated project effects on those species. Additional information on species is provided below.

Table 15. ESA Table

Species / Resource	Regulatory Status ¹	Habitat/Species Presence	Proposed Effect Determination	Proposed Avoidance/Mitigation Measures
Tricolored Bat (<i>Perimyotis subflavus</i>)	FP, SE	Survey dated December 2, 2024 documented probable presence	NLAA	USFWS concurrence of probable presence emailed June 3, 2025. Applicant will adhere to May 15 – July 31 TOYR on tree clearing.
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	FE, SE	Survey dated December 2, 2024 documented probable absence	No effect	USFWS concurrence of probable absence emailed June 3, 2025. No additional measures proposed
Atlantic Pigtoe (<i>Fusconaia masoni</i>)	FT, ST	Survey performed September 18 – October 9, 2025 documented absence	No effect	The Eastern Elliptio (<i>Elliptio complanata</i>) was the only mussel species located during the survey efforts, with low abundance within 2 of the 9 reaches within McGuff Creek. These 2 reaches are not within the proposed LOD. No freshwater mussels or relict shells were found in Trotters Creek or the 4 unnamed tributaries to the Dan River that were surveyed. Strict erosion and sediment control measures will be adhered to.
Green Floater (<i>Lasmigona subviridis</i>)	FP, ST	Survey performed September 18 – October 9, 2025 documented absence	No effect	Strict erosion and sediment control measures will be adhered to.
James Spiny mussel (<i>Parvaspina collina</i>)	FE, SE	Survey performed September 18 – October 9, 2025 documented absence	No effect	Strict erosion and sediment control measures will be adhered to.

Roanoke Logperch (<i>Percina rex</i>)	SE	Survey dated September 29, 2023 documented absence	No effect	Strict erosion and sediment control measures will be adhered to.
Critical Habitat - Atlantic Pigtoe	Final	Critical habitat present within the Dan River	No effect	No project activities will occur south of the Norfolk Southern Railroad/along the Dan River. Riparian buffer along critical habitat will remain undisturbed.
Critical Habitat - Green Floater	Proposed	Critical habitat present within the Dan River	No effect	No project activities will occur within the Dan River. Riparian buffer along critical habitat will remain undisturbed.
Little-leaf sensitive-brier (<i>Mimosa microphylla</i>)	NL	Horseshoe Road R.O.W and Trotters Creek R.O.W.	N/A	Conservation sites have been assigned a rank of B-5 (general significance).

¹ FE – Federally Endangered; FT – Federally Threatened; FP – Federally Proposed; SE – State Endangered; ST – State Threatened; NL – Not Listed

An acoustic bat survey was conducted by Dewberry in December 2024. The target species for this survey included the tricolored bat (*Perimyotis subflavus*) and northern long-eared bat (*Myotis septentrionalis*). This survey concluded probable absence for the northern long-eared bat, while probable presence was determined for the tri-colored bat. A copy of this survey is enclosed within [Exhibit 20D](#). This survey was approved by USFWS on June 3, 2025 and is valid for five years ([Exhibit 20E](#)).

Using project details and the results of the 2024 survey, WSSI completed the Northern Long-Eared Bat and Tricolored Bat Rangewide Determination Key (DKey), which resulted in a “may affect” determination. The project proponent will voluntarily adhere to the pup season (May 15 to July 31) time of year restriction on tree clearing. Approximately 735 acres of tree clearing is proposed with this project. A Technical Assistance Letter generated by the USFWS based on the results of the DKey is enclosed within [Exhibit 20F](#).

An Aquatic Species Survey Report was prepared by Dewberry on September 29, 2023. This report documented the absence of James spinymussel (*Parvaspina collina*), Atlantic pigtoe (*Fusconaia masoni*), green floater (*Lasmigona subviridis*), and Roanoke logperch (*Percina rex*). This survey has since expired.

An updated Freshwater Mussel Survey was performed by Three Oaks Engineering in December 2025 for perennial streams, including Trotters Creek, McGuff Creek, and unnamed tributaries (UTs) within the Dan River Subbasin of the greater Roanoke River Basin. The survey concluded that there is suitable habitat on site, but no federally listed freshwater mussels were found and impacts to target protected freshwater mussels are unlikely to occur in the stream reaches evaluated for the Project. This survey is valid for two years from the date of the survey fieldwork. A copy of this survey is enclosed within [Exhibit 20G](#). To avoid and minimize impacts to these resources, the Applicant will implement BMP’s including but not limited to implementation of erosion and sediment controls.

A review of the Critical Habitat Map Tool from USFWS’s Virginia Field Office indicates that critical habitat for the Atlantic Pigtoe and proposed critical habitat for the Green Floater is present along the southern boundary of the project site within the Dan River ([Exhibit 20H](#)). The Dan River has also been designated

by the VDWR as a “Threatened and Endangered Species Water” for these listed mussel species. However, no impacts to the Dan River are proposed as part of the Project.

Enclosed within Exhibit 20I and Exhibit 20J are the project review certification letter and species conclusion table.

The results of DCR’s Biotics Data System search indicated that the Horseshoe Road R.O.W and Trotters Creek R.O.W. Conservation sites are within the project site. The natural heritage resource associated with these sites is the little-leaf sensitive-brier (*Mimosa microphylla*), a state rare plant species which inhabits dry, sandy soil in open areas and tolerates disturbed habitats.¹⁹ DCR recommends avoiding both the Horseshoe Road R.O.W. and Trotters Creek R.O.W. for development and other ground disturbing activities, including but not limited to equipment staging. The project was designed to avoid these areas where practicable, as reflected in the limits of disturbance. The Trotters Creek R.O.W. is proposed to be disturbed for a utility crossing within the project site. The Applicant will continue to coordinate as appropriate for this upland species (Exhibit 20K).

Therefore, the Project as proposed is not expected to have an adverse effect on State or Federally listed species.

13. Cultural Resources and Historic Properties

As discussed in Sections 2 and 3, RIFA and the localities have been actively evaluating and advancing development opportunities at this site for nearly two decades. Throughout this process, RIFA and the localities have coordinated closely with the Virginia Department of Historic Resources (VDHR) to identify and address cultural resource considerations. As of the date of this application, the entire permit area has been subjected to a Phase I cultural resources investigation, and Phase II evaluations have been conducted at numerous locations, as summarized in Table 18.

Provided in Exhibit 21 is a Fall 2018 aerial photograph with the Virginia Department of Historic Resources (VDHR) Architectural Resources and Archeological Sites Map overlain. This map indicates that 45 archeological sites (Table 16) and 15 architectural resources (Table 17) that have not been previously determined ineligible for listing in the National Register of Historic Places (NRHP) are located within the Project Crossroads site.

The overall project site is approximately 3,641 acres, and the total area within the limits of disturbance is approximately 1,733 acres. The maximum depth of excavation is approximately 140 feet. Multiple structures older than 50 years of age are located within the project site.

¹⁹ DCR’s Natural Heritage Program publishes informational lists of rare species and natural communities for “environmental assessment and land management purposes.” Va. Code § 10.1-212. However, species listed as “rare” do not have a legally protected status.

Table 16. Archeological Sites

Site Numbers	Description	Temporal Affiliation	NRHP Status
44PY0317	Lithic scatter and farmstead	Indeterminate; 19th–20th c.	Not Evaluated
44PY0318	Farmstead	Indeterminate	Not Evaluated
44PY0319	Farmstead	Indeterminate	Not Evaluated
44PY0324 (Perkins Mill)	Gristmill	18th–19th c.	Potentially Eligible
44PY0325	Miller's house	18th–19th c.	Potentially Eligible
44PY0326	Farmstead	19th–20th c.	Not Evaluated
44PY0327	Farmstead	19th–20th c.	Not Evaluated
44PY330	Farmstead	19th–20th c.	Eligible
44PY0331	Single dwelling	19th–20th c.	Potentially Eligible
44PY0332	Single dwelling	19th–20th c.	Potentially Eligible
44PY0333	Farmstead	19th–20th c.	Destroyed
44PY0334 (Ridge House)	Single dwelling	19th–20th c.	Potentially Eligible
44PY0335 (Chadwell Cantor Tenant House)	Lithic scatter and farmstead	20th c.	Eligible
44PY0350	Lithic scatter	Late Woodland	Not Evaluated
44PY0351	Lithic scatter	Indeterminate	Not Evaluated
44PY0352	Lithic scatter	Indeterminate	Not Evaluated
44PY0367	Lithic scatter	Indeterminate	Not Evaluated
44PY0372	Artifact scatter	19th–20th c.	Not Evaluated
44PY0373	Lithic and artifact scatter	19th–20th c.	Potentially Eligible
44PY0374	Single dwelling	19th–20th c.	Potentially Eligible
44PY0375	Farmstead	19th–20th c.	Potentially Eligible
44PY0376	Lithic scatter and farmstead	20th c.	Potentially Eligible
44PY0378	Lithic Scatter, Tobacco Barn	Indeterminate/20th c.	Not Evaluated
44PY0379	Artifact scatter	19th–20th c.	Not Evaluated
44PY0380	Lithic Scatter, Outbuilding	Indeterminate/20th c.	Not Evaluated
44PY0382	Farmstead	19th–20th c.	Destroyed
44PY0386	Farmstead	19th–20th c.	Eligible

44PY0387	Artifact scatter	19th–20th c.	Potentially Eligible
44PY0388	Lithic scatter	Indeterminate	Potentially Eligible
44PY0391	Lithic and artifact scatter	Indeterminate; 19th–20th c.	Potentially Eligible
44PY0392	Lithic and artifact scatter	Indeterminate; 19th–20th c.	Potentially Eligible
44PY0393	Agricultural outbuildings	19th–20th c.	Not Evaluated
44PY0394	Single dwelling	19th–20th c.	Potentially Eligible
44PY0398	Single dwelling	19th–20th c.	Potentially Eligible
44PY0399	Ford	19th–20th c.	Not Evaluated
44PY0400	Lithic scatter	Indeterminate	Not Evaluated
44PY0401	Lithic scatter	Indeterminate	Not Evaluated
44PY0440	Lithic scatter/Farmstead	Indeterminate; 18th–20th c.	Not Evaluated
44PY0440-0005	Multiple dwelling	19th–20th c.	Not Evaluated
44PY0454	Agricultural outbuilding	Indeterminate	Not Evaluated
44PY0497	Tenant Farm	20th c.	Not Evaluated
44PY0615	Ferry	18th–19th c.	Not Evaluated
44PY0627	Archeological District	18th–20th c.	Not Evaluated
44PY0676	Segment of Old Berry Hill Rd	19th–20th c.	Not Evaluated
44PY0725	Trotters Creek Mill	18th–19th c.	Not Evaluated

Table 17. Architectural Resources

VDHR Number	Description	Notes	NRHP Status
071-0026	Oak Hill/Oak Hill Archaeological Site. Associated with Site 44PY0440	Circa 1823 dwelling with numerous contributing secondary resources	NRHP Listed VLR Listed
071-5300	Hairston Cemetery Number 1	Post-1751 African American cemetery	Not Evaluated
071-5302	Chadwell Cantor Tenant House, 19 th -c. house moved to current site c. 1950	Circa 1870 dwelling	Not Evaluated
071-5303	Hairston Cemetery 2; post-1865 African American cemetery	Property moved	Not Evaluated
071-5304	Adams/Wilson Cemetery; post-1870 African American cemetery	Property moved	Not Evaluated
071-5306	Oak Hill Caretaker's House	Post-1950 dwelling	Not Evaluated

071-5316	House and 2 sheds associated with 44PY0381	Circa 1850 house, demolished	No Longer Extant
071-5317	Tobacco barns	Demolished	Not Evaluated
071-5318	Tobacco barns associated with 44PY0384	Circa 1880	Not Evaluated
071-5319	Structures associated with 44PY0385	Circa 1900 dwelling with several associated secondary resources	Considered Eligible for Environmental Review purposes only
071-5322	Structures associated with 44PY0389	Ruined	Considered Eligible for Environmental Review purposes only
071-5330	Early 20 th -c. house	Outside project site	Not Evaluated
071-5336	Chumley House, frame, 2-story, c. 1890, and shed, associated with 44PY0382.	Circa 1870 dwelling	Not Evaluated
071-5473	Grouping of structures associated with three separate farms: 44PY0333, 44PY0330, and 44PY0331	All structures are badly ruined except the c. 1960 tobacco barn at 44PY0330.	Not Evaluated
071-5529	Ruins, Berry Hill Road, Northeast	Circa 1900 archaeological site	Not Evaluated

Table 18 Previous Cultural Resource Studies

Date	Description	Archaeological Sites	Reference
2010 – 2011	Survey of entire Berry Hill Mega-Park property	44PY0026, 44PY317-44PY0335, 44PY0350-44PY0401	BAL 2011
2014	NRHP evaluations of 10 archeological sites and 11 architectural resources	44PY0358, 44PY0359, 44PY0360, 44PY0371, 44PY0377, 44PY0381, 44PY0383, 44PY0384, 44PY0385, 44PY0389	Tippet et al. 2015
2016	NRHP evaluations of four archeological sites and four architectural resources	44PY0373, 44PY0374, 44PY0375, 44PY0376	Fiedel and Merit 2017
2017	NRHP evaluations of four archeological sites	44PY0330, 44PY0331, 44PY0332, 44PY0335	Jones et al. 2017
2018	Archeological survey of MVP Southgate Pipeline	44PY0329, 44PY0375, 44PY0358, 44PY0359, 44PY0454, 44PY0455	Blood et al. 2019
2019	Phase II archaeological testing of MVP Southgate Pipeline	44PY0375, 44PY0455	Mills et al. 2019

2019	NRHP survey and evaluations of archeological sites and evaluations of architectural resources in Lots 1, 2, 3, 4, 5, 8, and 9	44PY0026, 44PY0329, 44PY0331, 44PY0332, 44PY333, 44PY0334, 44PY0373, 44PY0374, 44PY0375, 44PY0376, 33PY0380, 44PY0382, 44PY0386, 44PY0394, 44PY0395, 44PY0396, 44PY0397, 44PY0398, 44PY0454, 44PY0455	Fiedel et al. 2020
2021	Cultural resources survey of genetic transmission corridor	44PY0369, 44PY0378, 44PY0393, 44PY0558	Cagney et al. 2021
2023	Archeological Survey for Berry Hill Road Connector Extension	44PY0675, 44PY0676, 44PY0677, 44PY0678, 44PY0679	Meyers et al. 2023
2023	Phase II archeological investigation of seven archaeological sites	44PY0331, 44PY0332, 44PY0333, 44PY0374, 44PY0375, 44PY0394, 44PY0398	Jones et al. 2024
2025	Phase I resurvey and Phase II testing of 18 sites south of Berry Hill Road	44PY0317, 44PY0318, 44PY0319, 44PY0320, 44PY0321, 44PY0322, 44PY0350, 44PY0351, 44PY0352, 44PY0367, 44PY0368, 44PY0369, 44PY0372, 44PY0387, 44PY0388, 44PY0391, 44PY0392, 44PY0393	Bedell et al. 2025

* Copies of these reports can be made available upon request.

Many of the above resources that have not been evaluated in terms of eligibility for listing as individual resources have been determined by the DHR to be contributing elements of the unevaluated Berry Hill Archeological District (44PY0676) or are otherwise likely to be determined contributing to the district.

An additional Phase I Archeological Survey was completed in September 2026 by WSP within a ~68-acre portion of the APE, and results will be provided under separate cover.

Due to the scale and complexity of the undertaking and the high number of historic properties that may be adversely affected, it is anticipated that adverse effects will be mitigated under a Memorandum of Agreement (MOA). The applicant has proposed a holistic cultural resources mitigation plan that includes preservation of the most significant resources, stabilization, restoration, and interpretation of an extant building that served as quarters for enslaved laborers, additional archeological and historical investigations, and documentation in the form of an overall archaeological and historical synthesis for the property. The draft proposed Cultural Resources Mitigation Plan dated October 2026 is enclosed within [Exhibit 27](#).

14. Floodplain Information

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map was reviewed to determine if any filling within the 1 percent annual chance floodplain will occur. Project activities proposed within the FEMA 1 percent annual chance floodplain are depicted in [Exhibit 22](#). The Project, as

currently designed, will not result in the permanent alteration of Federal Emergency Management Agency-delineated 100-year floodplains. Temporary activities in the floodplains will be conducted in accordance with Pittsylvania's floodplain ordinance. Should future changes to the layout or design result in changes to regulated floodplains, such changes will be subject to review and approval by Pittsylvania County in compliance with its ordinance to ensure no adverse effect.

15. Public Interest Considerations

Pursuant to 33 C.F.R. § 320.4(a), the USACE must conduct a public-interest review that considers the "probable impacts . . . of the proposed activity and its intended use on the public interest." This review must balance the "benefits which reasonably may be expected to accrue from the proposal against its reasonably foreseeable detriments." This section provides a summary of information relevant to each of the 21 public-interest review factors listed in § 320.4(a) and, where appropriate, the additional policies described in § 320.4(b) through (r). Based on our analysis and weighing of public interest factors, the Project is not contrary to the public interest.

15.1. Conservation (§ 320.4(a))

The Applicant recognizes the importance of preserving environmental assets while balancing the purpose and need for the proposed project. Consistent with land use and planning best practices, an important objective of RIFA and the Localities is to consolidate industrial development on large, contiguous parcels in areas designated for development. This approach is intended to maximize the preservation of agricultural lands and the rural character of Pittsylvania. The proposed project follows the Pittsylvania County Comprehensive plans as the site is located within an existing industrial park, which was recently amended to include, among other activities, data centers and substations.

The overall Project site encompasses approximately 3,641 acres; however, to avoid and minimize environmental impacts, the Project has gone through several design iterations and reduced the limit of disturbance (LOD) to approximately 1,733 acres. This reduced disturbance footprint reflects the Project's commitment to avoidance and minimization by concentrating development activities within a smaller portion of the site.

Within the LOD, the Project will result in permanent land cover changes, including, but not limited to, vegetation and tree clearing, the addition of impervious surfaces, and the construction of buildings and associated infrastructure. Managing these land cover impacts responsibly has been central to the Project's long-term design strategy.

Lastly, to offset impacts to resources within the site, the Project proposes four PRM sites in the watershed. Among those sites, approximately 455.60 acres will be placed under permanent conservation easements, subject to final mitigation plan approval. In addition to the compensatory mitigation proposed to satisfy regulatory requirements, STACK, in coordination with RIFA, will voluntarily place approximately 300 acres of property along the Dan River under permanent conservation easement, providing long-term protection of ecological resources and further advancing watershed-scale conservation objectives.

On balance, the project will have neutral (mitigated) effects on conservation.

15.2. Economics (§ 320.4(a))

The primary purpose of the Project is to support the economic development goals of RIFA and the Localities, as detailed further in Section 3. The construction and operation of the proposed project will create a range of inclusive job opportunities to increase employment for residents with different skill sets, consistent with the target of quality job creation contained within Executive Order 22 (2026). The project's estimated investment is approximately \$100 billion, including the land sale, and 2,500 full-time jobs with average salaries exceeding \$80,000 over a period of 20 years. Additionally, the multi-year phased buildout of the project will generate thousands of temporary construction and trade jobs throughout the development timeline. Construction will require utilization of the region's trade and contractor base, along with resources from outside of the region. In addition, the project is expected to generate \$16.5 million in taxes per year on the first developed 1,000 acres, and an additional \$16,250 per acre for every developed acre after that²⁰. The proposed project represents the largest private single-investment commitment and second largest non-office/headquarters-related job creation project in VEDP records since 1990.

The project will have significant beneficial effects on the local and regional economy.

15.3. Aesthetics (§ 320.4(a))

The proposed data center facilities will create a significant visual change to the existing landscape within and adjacent to the Project site. However, these impacts will be concentrated within a single, contiguous area that has been specifically designated and zoned for industrial use. By consolidating project infrastructure within one location, the Project minimizes the extent of visual and other aesthetic effects across the broader landscape throughout the Localities, consistent with Executive Order 22 (2026). Furthermore, care has been taken to design the site layout to minimize the visual impacts from surrounding areas. The Project will implement a minimum 100-foot-wide vegetated buffer along the site perimeter to provide visual screening for adjacent landowners and surrounding properties, further reducing potential visual effects and maintaining compatibility with neighboring land uses.

The project will have marginal detrimental (mitigated) effects on aesthetics.

15.4. General Environmental Concerns (§ 320.4(a))

In addition to the effects discussed elsewhere in this section, the Project will result in permanent land cover changes, including, but not limited to, vegetation and tree clearing, the addition of impervious surfaces, and the construction of buildings and associated infrastructure. The Project also includes new sources of air emissions. However, Project activities will be conducted in compliance with applicable federal, state, and local regulatory requirements and permit conditions. Impacts to other resources will be minimized through the respective permitting processes.

²⁰ <https://cardinalnews.org/2026/05/19/a-data-center-project-in-pittsylvania-was-approved-monday-with-higher-investment-and-jobs-than-previously-announced/>

The project is located within the M-SVMS (Southern Virginia Mega Site) zoning district. Pittsylvania County maintains a countywide Noise Control Ordinance (Chapter 41)²¹ that establishes maximum sound pressure levels based on receiving land use classifications. Review of the M-SVMS district regulations²² specifies a restriction of 77dB within the project zoning, regardless of adjacent land use. The project will comply with applicable federal, state, and local noise requirements, including those accelerated by Executive Order 22 (2026).

15.5. Wetlands (§ 320.4(a) & (b))

Wetland impacts are regulated by Sections 404 and 401 of the Clean Water Act (CWA) and the Virginia Water Resources and Wetlands Protection Program, both of which require avoidance and minimization of wetland impacts to the maximum extent practicable. Approximately 49.06 acres and 67,873 linear feet of unavoidable excavation and/or filling of wetlands and stream channels will occur.

There are approximately 211.82 acres of wetlands and other WOTUS and 173,257 linear feet of stream channel on the site. The project design has avoided 81 percent of the total wetlands and stream channels within the site. Where permanent impacts to streams and wetlands are proposed, compensatory mitigation has been proposed in accordance with Federal and State Regulations. Of particular importance, state law requires that compensatory mitigation “be sufficient to achieve no net loss of existing wetland acreage and functions.” Va. Code § 62.1-44.15:21(B). To ensure compliance with this standard, the Project team has determined the functions and values of the wetlands that are proposed to be impacted (Exhibit 9). The Project includes the development and construction of 4 PRM projects in the watershed. To verify compliance with Virginia’s statutory “no net loss” standard (which is also found in the Corps’ policies), these projects have been designed to ensure full replacement of all lost wetland functions and acreage.

Therefore, the Project will have neutral (mitigated) effect on wetlands.

15.6. Historic Resources (§ 320.4(a) & (e))

The entire permit area has been previously subjected to Phase I cultural resources investigation; 85 archeological sites and 29 architectural resources were recorded within the Berry Hill property, including four cemeteries. VDHR has also created a Berry Hill Archaeological District, Site 44PY0627, that encompasses many of these resources; the district has not been evaluated for listing in the National Register of Historic Places (NRHP) by VDHR staff. Coordination with VDHR staff is ongoing.

The Applicant is also preparing a plan for mitigation of adverse effects to cultural resources which includes the preservation and interpretation of the slave quarter structure at Oak Hill, the protection of archaeological site 44PW0392, anticipated to be a cluster of slave cabins and contains a small cemetery, the curation and cataloging of artifacts, and an archaeological synthesis that will comprise of additional archaeological investigations and a summary volume.

²¹ <https://www.pittsylvaniacountyva.gov/DocumentCenter/View/1265/Chapter-41---Noise-Control-PDF>

²² <https://www.pittsylvaniacountyva.gov/DocumentCenter/View/1842/01-15-2026--Public-Hearing-Notice---PCC-Ch35-Zoning-Ordinance-Text-Amendments-and-Zoning-Map-Amendments---with-attachments>

As part of the planning and development of the Southern Virginia Megasite, RIFA coordinated with descendant families to relocate burials from the Adams-Wilson and Hairston II cemeteries, which were located within key development areas. The disinterments were permitted by the VDHR in accordance with the Code of Virginia and the VDHR's regulations to obtain a Permit for the Archaeological Recovery of Human Remains. The remains were reinterred within the property adjacent to an existing cemetery near the Oak Hill Plantation House, in an area that will be protected from project impacts and physically separated from the remainder of the development. An additional unmarked cemetery will be preserved in place and will not be affected by the project. At the families' request, dead and fallen tree debris will be removed from that cemetery.

The project will have a neutral (mitigated) effect on historic properties. It is anticipated that the project will ultimately have a positive effect in terms of public interest with regards to culture resources. Currently, the cultural resources on the property and the data associated with the resources are generally inaccessible to the public. The proposed mitigation plan will result in preservation and/or rehabilitation of key resources and preparation of documentary materials about the history and archeology at the site that will increase public access and understanding.

15.7. Fish and Wildlife Values (§ 320.4(a) & (c))

The overall Project site encompasses approximately 3,500 acres; however, to avoid and minimize environmental impacts, the Project has undergone several design iterations and has reduced its limit of disturbance (LOD) to approximately 1,733 acres. By concentrating development activities within a smaller portion of the site and consolidating infrastructure within a single contiguous area, the Project minimizes the extent of land disturbance and habitat fragmentation across the broader landscape. This approach helps reduce potential impacts to fish and wildlife resources by preserving larger areas of undisturbed habitat and limiting the geographic extent of project-related effects.

As part of Project design, activities will result in unavoidable temporary and permanent stream and wetland impacts, as well as the clearing of forested areas. The Project team has coordinated with the Virginia Department of Wildlife Resources (DWR), the Virginia Department of Conservation and Recreation (DCR), and the U.S. Fish and Wildlife Service (USFWS) to identify sensitive resources and incorporate appropriate conservation measures, including surveys and time-of-year restrictions, into Project planning and design.

Construction activities may cause short-term, temporary disturbances to fish and wildlife resources within and adjacent to affected stream channels. However, they are anticipated to be limited in extent and duration. To offset unavoidable permanent impacts to aquatic resources, compensatory mitigation is proposed in accordance with applicable regulatory requirements. The areas identified for compensatory mitigation will be subject to permanent conservation easements, which will allow them to serve as protected habitat for fish and wildlife.

Tree clearing activities may also temporarily affect wildlife habitat and species utilizing within the Project site. To minimize these effects, the Project is proposing seasonal tree-felling restrictions, as identified in coordination with the USFWS and DWR.

Through implementation of these avoidance, minimization, and mitigation measures, impacts to fish and wildlife, are expected to be reduced to the extent practicable while allowing for the development of the Project. On balance, the Project will have a neutral (mitigated) effect on fish and wildlife values.

15.8. Flood Hazards, Values, & Management (§ 320.4(a) & (l))

The project has undertaken all necessary analysis per the Pittsylvania County Flood Plain Management ordinance (Pittsylvania County Code Ch. 23) and Virginia Erosion and Stormwater Management Water Quantity Technical Criteria (9VAC25-875-600) to ensure it will not have a negative impact on local flooding. The Project, as currently designed, will not result in the permanent alteration of Federal Emergency Management Agency-delineated 100-year floodplains. Temporary activities in the floodplains will be conducted in accordance with Pittsylvania's floodplain ordinance. Should future changes to the layout or design result in changes to regulated floodplains, such changes will be subject to review and approval by Pittsylvania in compliance with its ordinance to ensure no adverse effect.

The project will have no effect on flooding, flood hazards, or other floodplain values.

15.9. Land Use (§ 320.4(a))

The Project is a joint undertaking of RIFA, Danville, and Pittsylvania. Accordingly, it has been designed by the Localities to be consistent with Pittsylvania's Comprehensive Plan, zoning decisions, and overall long-term land-use strategy. Pittsylvania County approved a new zoning district for the Southern Virginia Mega Site at Berry Hill: the Southern Virginia Mega Site District (M-SVMS). The M-SVMS district includes all by right uses available in the M-2 Heavy Industry zoning district and expands the list to include data centers and power stations. Thus, land use is consistent with all local requirements.

The Project will have beneficial effects on land use.

15.10. Navigation (§ 320.4(a) & (o))

There are no traditionally navigable waters within the Project site. Therefore, the Project will have no effect on navigation.

15.11. Shoreline Erosion and Accretion (§ 320.4(a))

The project will have no effect on shore erosion and accretion as it is not located near a shoreline.

15.12. Recreation (§ 320.4(a) & (e))

The site has no current public recreational benefits because it is owned by RIFA and zoned as an industrial park. The project will have no effects on recreation.

15.13. Water Supply and Conservation (§ 320.4(a) & (m))

The Project will have a negligible effect on water supply and conservation. The Project site will be served by public, municipal water providers. Agreements have been executed with Danville Utilities and the City of Eden, North Carolina, to purchase sufficient water supplies to meet the anticipated needs of the Project. The majority of the supply will be delivered by Eden, which has a significant supply of stranded

capacity (approximately 13 MGD) due to the closure of the Miller-Coors brewery in 2016. In total, Danville Utilities will supply up to 1 million gallons per day (MGD), and Eden will supply up to 6 MGD. Both public water providers have confirmed they can serve the Project while maintaining sufficient spare capacity to meet their projected long-term public water supply needs.

The Project will not affect groundwater supplies because wells or other underground sources will not be used to provide water for the Project. Furthermore, all discharges will be directed into the sanitary sewer system and not into underground wells.

The Project will have neutral effects on water supply and conservation.

15.14. Water Quality (§ 320.4(a) & (d))

Various measures and regulatory compliance actions have been incorporated into the Project design and planning to ensure there is no adverse effect on water quality during any phase of the Project. Those measures and actions are summarized below.

Construction Stormwater. Potential short-term adverse water quality impacts from upland construction activities will be minimized by compliance with site-specific erosion and sediment control plans developed in accordance with the Virginia Stormwater Management Handbook (VSMH) and other applicable laws and regulations and approved by the Localities. Discharges also will be subject to regulation (including inspection and compliance) by DEQ under the General VPDES Permit for Discharges of Stormwater from Construction Activities (9VAC25-880-70). In addition to erosion control, the permit imposes requires the development and implementation of a Pollution Prevention Plan to avoid the potential contamination of stormwater. Because the discrete components and phases of the Project are part of a common plan of development, stormwater management for the overall Project site will be managed in a coordinated and comprehensive manner under the Virginia Erosion and Stormwater Management Regulation (9VAC25-875).

Hydrostatic Test Water Discharges. Piping associated with natural gas distribution and cooling systems generally requires hydrostatic testing to ensure safe long-term operation. To ensure the protection of water quality, discharges of hydrostatic test water will be subject to monitoring and effluent limitations in compliance with the General Permit Regulation for Discharges from Groundwater Remediation of Contaminated Sites, Dewatering Activities of Contaminated Sites, and Hydrostatic Tests (9VAC25-120-80).

Post-Construction Stormwater. The quantity and quality of post-construction stormwater runoff from the Project will strictly control in compliance with the VSMH and state and local regulations. Site-specific stormwater management plans will be submitted to the Localities for review and approval for all elements of Project construction. The preliminary site design incorporates various engineered stormwater management features, including appropriately sized basin, to avoid downstream and offsite water quality impacts. All stormwater management features will be subject to enforceable long-term maintenance agreements between the respective onsite operators and the Localities. Compliance with these requirements ensures that post-construction stormwater runoff from the Project site area will not cause downslope or downstream erosion or other adverse water quality impacts.

Industrial Stormwater. Stormwater runoff from certain components of the overall Project, including power generation, will be subject to regulation and permitting under the VPDES General Permit

Regulation for Discharges of Stormwater Associated with Industrial Activity (9VAC25-151-70). This permit includes sector-specific limitations and restrictions tailored to the respective activities to ensure that stormwater runoff does not adversely affect downstream water quality.

Cooling Water, Sanitary, and Other Sources of Wastewater. The Project anticipates use of closed loop cooling; however, some tenants may elect to utilize evaporative cooling. The cooling water will be sourced from the City of Eden and Danville utilities via existing agreements. For public sewer systems, the Project also has agreements in place with the City of Eden. All wastewater will be directed into the sanitary sewer system.

Stream and Wetland Impact Mitigation. Construction and operation of the Project will cause the loss of stream and wetland resources on the site, including the loss of the beneficial water quality functions provided by those resources. However, as detailed in Section 11, the Project has developed a suite of PRM projects using the Corps' watershed approach to compensatory mitigation. The PRM projects will, among other things, ensure there is no net loss in aquatic resource functions and values due to the Project. Moreover, the projects have been designed to provide a net functional lift. In short, the water quality benefits provided by the aquatic resources impacted by Project construction will be replaced elsewhere in the watershed, thereby avoiding the potential for adverse water quality impacts.

For the reasons outlined above, the Project will have neutral (mitigated) effects on water quality.

15.15. Energy Needs (§ 320.4(a) & (n))

The Project will require substantial and reliable energy resources to support the development and operation of a large-scale digital infrastructure campus. A primary component of the Project's energy strategy is access to natural gas transmission infrastructure capable of supporting the proposed onsite power generation. Access to interstate transmission pipelines is an important consideration, as local distribution systems generally do not provide the delivery capacity or reliability necessary to support power generation at the scale anticipated for digital infrastructure development. The Project Site is strategically positioned with direct access to multiple existing natural gas transmission pipelines. The availability of natural gas also supports the use of efficient generation technologies and provides the energy reliability necessary to support continuous operations. Additionally, the utilization of onsite power generation will reduce constraints on existing grid infrastructure, while providing reliability for operations.

In addition to natural gas infrastructure, the Project benefits from existing electrical infrastructure, including an onsite substation equipped with a dedicated 30-megavolt-ampere (MVA) transformer and redundant double-circuit 138-kilovolt (kV) transmission lines supplied from independent sources. These existing facilities provide immediate access to construction and commissioning power, enhance overall system reliability, and support the accelerated development schedules commonly associated with large-scale digital infrastructure projects.

The Project will also require backup and emergency power capabilities to maintain operational continuity during utility interruptions. The specific type, capacity, and configuration of these systems will be determined based on the requirements of future tenants and may include diesel generators, natural gas-fired generators, battery energy storage systems, or a combination of technologies.

Because the Project will seek to supply the bulk of its own energy needs, it will have a neutral (mitigated) effect on energy needs.

15.16. Safety (§ 320.4(a))

The Project will abide by all applicable safety regulations during construction of the Project. The public will be excluded from areas of active construction. Accordingly, the project will have no effects on safety.

15.17. Food and Fiber Production (§ 320.4(a))

The current land use is not food or fiber production. The project will have no effects on food and fiber production.

15.18. Mineral Needs (§ 320.4(a))

There are no known mineral deposits on the property. The project will have no effects on mineral needs.

15.19. Consideration of Property Ownership (§ 320.4(a) & (g))

The Applicant presently owns the property. Under the terms of the partnership agreement, the land is expected to be purchased by STACK in phases.

The project will have no effects on property ownership.

15.20. Needs and Welfare of the People (§ 320.4(a))

The Project will help meet the needs of the public as it relates to the increasing demand for digital infrastructure. It also will provide significant economic benefits for the community. Therefore, the Project will have a net beneficial effect on the needs and welfare of the public.

16. 404(B)(1) Guidelines Technical Evaluation Factors

The 404(b)(1) Guidelines aim to restore and maintain the chemical, physical, and biological integrity of WOTUS through the control of discharges of dredged or fill material. These guidelines are applicable to the specification of disposal sites for discharges of dredged or fill material into any WOTUS²³. Below is a summary of the information relevant to each of the associated subparts.

16.1. Subpart C – Potential Impacts on Physical and Chemical Characteristics of the Aquatic Ecosystem

16.1.1. Substrate (§ 230.20)

Three Project-related activities have the potential to affect streambed substrates.

²³ 40 CFR Part 230 Subpart A § 230.1

Culverts- Culverts will be installed per state and federal regulations and will include construction methods that minimize impacts to the substrate of the stream, including but not limited to the use of bottomless culverts or appropriately countersunk culverts.

Utility Crossings- Utility crossings will be conducted utilizing environmental best management practices including but not limited to dry construction methods, segregation of stream bed material, and use of bridges or timber mats. Utility crossings are temporary and short term in nature, and the crossings will be restored to pre-existing conditions.

Permanent Fill- The functions of onsite substrates permanently impacted by the Project will be compensated for by the creation and restoration of streams on the PRM project sites resulting in no net loss.

The Applicant will return all temporary impact areas to pre-existing conditions and will stabilize these areas with adequate and approved seed mixes and rates.

16.1.2. Suspended Particles/Turbidity (§ 230.21)

Two Project activities have the potential to affect suspended particles and turbidity.

Ground-Disturbing Construction Activities. The Applicant will follow the applicable Stormwater Management and Erosion and Sediment Control requirements during construction. Implementation of these requirements will reduce the potential for suspended particles and turbidity within receiving waters.

Utility Crossings. Utility crossings will be conducted utilizing environmental best management practices including but not limited to dry construction methods, segregation of stream bed material, and use of bridges or timber mats. Utility crossings are temporary and short term in nature and the crossings will be restored to pre-existing conditions.

Before the stream diversion is removed, the Applicant will stabilize the streambed and banks to prevent erosion at these locations. If using pump around diversions, energy dissipater devices will be used to prevent erosion at the discharge point or/and downstream. If dewatering activities are necessary, the Applicant will adhere to the appropriate erosion and sediment control measures to ensure that minimal sediment is transported to adjacent wetlands or other WOTUS.

In addition, instream work will be performed in regular or low flow conditions to minimize turbidity and sedimentation, minimize streambed and bank impacts and limit the construction duration in the impacted area.

The Applicant anticipates that the project may result in minor short-term effects to suspended sediment and turbidity, much of which is minimized through the use of BMPs avoiding significant degradation of affected waters.

16.1.3. Water (§ 230.22)

See Section 16.1.4.

16.1.4. Current Patterns and Water Circulation (§ 230.23)

Utility Crossings. Downstream flow will be maintained during construction of utility crossings. Refer to section 16.1.2 for additional information. During these crossings the current pattern and water circulation will be temporarily altered as it is diverted around the construction area. Adequate flow rates will be maintained to protect aquatic life and prevent the interruption of downstream uses.

Culverts. Culverts (bottomless or appropriately countersunk) and arch span bridges will be installed to allow natural streambeds to remain unchanged, prevent obstruction to water circulation and provide habitat support to existing flora and fauna. Permanent impacts to streams will not alter the flow rates and pattern of major streams across or adjacent to the project. The Applicant anticipates the impacts to current patterns and water circulation to be negligible.

Ground-Disturbing Construction Activities. The post-construction stormwater management will be designed to manage stormwater runoff quantities at levels consistent with pre-construction conditions, as required by applicable regulations. Therefore, significant changes in downstream flow are not anticipated as a result of the Project.

Permanent Impacts. Adverse impacts to current and water circulation are unavoidable for permanent stream impacts. The functions of streams permanently impacted by Project will be compensated by the creation and restoration of streams on the PRM project sites.

16.1.5. Normal Water Fluctuations (§ 230.24)

Utility Crossings. Refer to section 16.1.4.

Culverts. Refer to section 16.1.4.

Ground-Disturbing Construction Activities. Refer to section 16.1.4.

Permanent Impacts. Refer to section 16.1.4.

The Applicant anticipates impacts to normal water fluctuations to be negligible.

16.1.6. Salinity Gradients (§ 230.25)

No effects to salinity gradients are anticipated based on the geographical location of the project.

16.2. Subpart D – Potential Impacts on Biological Characteristics of the Aquatic Ecosystem

16.2.1. Threatened and Endangered Species (§ 230.30)

The Project will not cause an adverse effect to listed species. See Section 12 of the application.

16.2.2. Fish, Crustaceans, Mollusks, and Other Aquatic Organisms in Food Web (§ 230.31)

In accordance with agency consultation, the Applicant conducted a freshwater mussel survey concluding that suitable habitat is present, although no federally listed freshwater mussels were found. However, the

Applicant will adhere to the applicable erosion control and stormwater management requirements to minimize the potential for adverse effects to aquatic fauna.

Temporary impacts to aquatic species and aquatic habitat are expected to be limited in extent and duration and are not anticipated to result in significant effects. These impacts will occur primarily during construction activities and will be short-term in nature and species will likely return to the site, shortly after construction.

Permanent impacts to aquatic resources will occur as a result of the project and may affect aquatic species and habitat within the directly impacted areas. However, given the relatively small scale of the impacts in relation to the overall watershed and aquatic system, significant adverse effects to aquatic populations or watershed functions are not anticipated. In addition, compensatory mitigation will be implemented to offset permanent impacts.

16.2.3. Other Wildlife (§ 230.32)

The Applicant is not aware of adverse effects on other wildlife associated with aquatic ecosystems, including migratory bird breeding areas, resulting from the discharge of dredged or fill material during stream and wetland crossings.

16.3. Subpart E – Potential Impacts on Special Aquatic Sites

16.3.1. Sanctuaries and Refuges (§ 230.40)

No sanctuaries or refuges designated under state or federal laws or local ordinances are impacted by the project.

16.3.2. Wetlands (§ 230.41)

See Section 16.5.

16.3.3. Mud Flats (§ 230.42)

The project does not affect mud flats.

16.3.4. Vegetated Shallows (§ 230.43)

The project does not affect vegetated shallows.

16.3.5. Coral Reefs (§ 230.44)

The project does not affect coral reefs.

16.3.6. Riffle and Pool Complexes (§ 230.45)

See Exhibit 28.

16.4. Subpart F – Potential Effects on Human Use Characteristics

16.4.1. Municipal and Private Water Supplies (§ 230.50)

The project will not use wells or other underground sources to provide water for its facilities, so no adverse effects to private water supplies (wells) is foreseeable.

The Project will utilize existing water supplies and water treatment infrastructure developed to serve water-intensive industries that have left the region. By providing Danville and Eden with significant water revenue, the Project will defray much of the cost of stranded infrastructure investments. Accordingly, the Project will have a net beneficial effect on municipal public water supplies. Wastewater will be directed to the sanitary sewer system, which will result in additional revenue for Danville and Eden. Refer to Section 16.1.3.

16.4.2. Recreational and Commercial Fisheries (§ 230.51)

No commercial fisheries are identified within the project limits. The subject property is owned by the applicant and not available to the public, therefore there are no anticipated effects on recreational fisheries associated with the Project.

16.4.3. Water Related Recreation (§ 230.52)

The subject property is owned by the applicant and not available to the public, therefore there are no anticipated effects on water related recreation associated with the Project.

16.4.4. Aesthetics (§ 230.53)

See Section 16.3.

16.4.5. Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites and Similar Preserves (§ 230.54)

The Project is not within any National or Historical Monument, National Seashores, Wilderness Areas or research sites.

16.5. Subpart G – Evaluation and Testing

16.5.1. General Evaluation of Dredged or Fill Material

As part of the VEDP certification, a Phase I Environmental Site Assessment was conducted, and all recognized environmental concerns were resolved. The Applicant does anticipate finding soil or groundwater contamination during construction. However, if contaminated soil is identified during construction, it will be treated according to the applicable regulations. Therefore, additional testing is not anticipated as the material is not likely to contain any contaminants.

16.5.2. Chemical, Biological, and Physical Evaluation and Testing (§§ 230.60, 230.61)

As mentioned above, the Applicant conducted a Phase I Environmental Assessment, and all recognized concerns were resolved. Therefore, additional testing is not anticipated as the material is not likely to contain any contaminants.

16.5.3. Actions Concerning the Location of the Discharge (§ 230.70)

Unavoidable fill activities will occur throughout the site in order to finalize construction. Care has been taken to avoid fill impacts to sensitive aquatic resources to the extent practicable through the onsite avoidance and minimization process. Refer to Section 9.4.

16.5.4. Actions Concerning the Material to be Discharged (§ 230.71)

The Applicant conducted a Phase I Environmental Site Assessment on the property to identify any potential recognized environmental concern and resolve them as part of their VEDP certification. Since fill

material will be sourced from the property, encountering soil or groundwater contamination is not anticipated. However, if contaminated soil is identified during construction, it will be treated according to the applicable regulations.

16.5.5. Actions Controlling the Material After Discharge (§ 230.72)

All permanent fills will be stabilized and/or covered by an impervious surface (e.g., roads, buildings). There is no reasonable potential for discharged material to erode or migrate.

16.5.6. Actions Affecting the Method of Dispersion (§ 230.73)

The Project will not be dispersing any dredged material.

16.5.7. Actions related to Technology (§ 230.74)

The Project's limits of disturbance was designed based on site-specific conditions. Erosion and sediment control and stormwater management controls have been designed to consider those site-specific conditions and in accordance with the applicable regulations. Installation of those controls and other environmental best management practices including but not limited to dry construction methods, temporary bridging, and construction mats will avoid or minimize sediment transport and/or turbidity into wetlands or other WOTUS.

16.5.8. For additional information see Section 17.1.2. Actions Affecting Plant and Animal Populations (§ 230.75)

Impacts on plants and wildlife species due to discharges of fill material may occur in impacted wetlands and streams.

As discussed in Section 12, the Project is coordinating with relevant resource agencies to develop best management practice to avoid and minimize impacts to sensitive species.

16.5.9. Actions Affecting Human Use (§ 230.76)

Pittsylvania County is the authority charged by the Virginia Code with making land use and plan decisions for the site. The Project is located in an area specially zoned for the Berry Hill Megasite by the County. Accordingly, the proposed action is necessary to facilitate the intended use of the site.

16.5.10. Other Actions (§ 230.77)

The project does not have any components or activities listed in §230.77 as other considerations.

The actions outlined above (addressing §230.70-230.77) have been incorporated into the project design and construction plans to minimize adverse effects.

17. References

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