INDEPENDENT CASE STUDY

Botetourt

Botetourt County, Virginia

A Data Center Case Study

Project Raspberry, the Water Authority, and the Wave That Crossed the Blue Ridge

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CASE STUDY: BOTETOURT COUNTY

Project Raspberry, the Water Authority, and the Wave That Crossed the Blue Ridge

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ABSTRACT

On June 24, 2025, Botetourt County announced that Google had bought 312.55 acres of the county's flagship business park at Greenfield for $14,055,406.37, plus $4 million for county initiatives. The option agreement underlying that sale had been signed on October 1, 2024. Eight weeks after the option was signed, at a joint planning commission and Board of Supervisors session on November 26, 2024, the county added "data center" to the permitted uses of the one zoning district that would thereafter be allowed to host one, describing the change to the public as housekeeping with no project attached. The staff report for the accompanying rezoning said, in writing: "As this is a speculative request, no use or concept is identified at this time." The county had been hosting Google site visits since January 2024 under the code name Project Raspberry.

This case study documents the deal those seventeen months produced, and the reckoning that began when the terms became public. The performance agreement commits Google's shell entity, Helio Capital LLC, to at least $1 billion in investment and 50 jobs for each data center it builds, though the agreement contemplates "one or more" and names no number; caps the company's effective equipment tax rate at $2.40 per $100 for twenty years per building; binds the county and its development authority, on a records request reaching the company's confidential information, to notify the company, consult it on narrowing or resisting the disclosure, and cooperate in asserting the statute's exemptions; and has Google "manage all media and press relation services" concerning its involvement with the county and the authority. The funding agreement reserves up to 2 million gallons a day for the campus, on conditions that include a development agreement nobody had signed, and the two water agreements between them set 8 million as the figure the region's next water source must be studied against. That larger capacity the authority has no obligation to provide on the company's desired schedule, though it is to use "commercially reasonable efforts" to do so where that does not "materially impair or limit" its supply to its other customers. The county, which holds one of eight seats on that authority's board, is bound for the first $100 million of the new source on a four-tier ladder running to $300 million, and the recitals it signed concede that providing the eventual expansion "will limit the water supply available to the Authority's member localities" and impair their development. Those water figures stayed secret until February 2026, when the Western Virginia Water Authority released them eight days before a contempt hearing, after a one-person newsroom won what was reported as the first ruling in Virginia that a data center's water use cannot be withheld as a trade secret.

Botetourt is the series' formative-stage case, and that stage was closing in September 2026. The entitlement was complete and grading had not begun when

the evidence snapshot closed on June 12, 2026. On August 26, 2026 the county announced that Google had received a land disturbance permit for the first mass grading package, and the county administrator later said contractors would begin after Labor Day; the state wetlands and air permits both remained under review as of September 7, 2026. The county's project page, as read on October 24, 2026, records that grading began during the second week of September. The opposition organized after the use was already by-right, which makes its position structurally weaker than Hanover's and closer to Varina's in Henrico. The county is the first in the series served by Appalachian Power rather than Dominion, the first west of the Blue Ridge, and proportionally the most committed: at least $3 billion in promised investment if all three buildings rise, in a county of 34,129 people, roughly $88,000 per resident. Every other Google case in this series is reconstructed after outcomes foreclosed the questions. Here the choices were still legible as choices, and the next five years in the Roanoke Valley will be measured against what this document records.

PURPOSE, SCOPE, AND METHOD

This case study documents the arc of data center development in Botetourt County, Virginia, from the county's purchase of the Greenfield plantation property in 1995 through Google's formal project confirmation on March 26, 2026, and the developments visible as of June 12, 2026, with a post-snapshot record carried forward to September 7, 2026 and, for the items dated in the text, to October 24, 2026. It is the first case in this series west of the Blue Ridge and the first in Appalachian Power territory. At the June 12, 2026 snapshot the project was still in the entitlement-to-construction gap: before grading, before the first building permit, and before the first gallon of contracted water had flowed. The county announced on August 26, 2026 that Google had received a land disturbance permit for the first grading package; the release states no issuance date. Part Six carries what followed. The passages below that describe the gap are dated to the June 12 snapshot and left as they stood; where the record has moved since, the movement is written beside them and dated.

The primary intended readers are researchers studying the energy and social implications of data center expansion in the U.S. South, an interdisciplinary body of work spanning ethnographic and institutional analysis, environmental and distributional justice, energy geography, utility finance, and energy labor studies. [1] This document refers to these research frameworks by type of work. The evidence maps to those frameworks as follows: the institutional behavior framework gets the seventeen-month gap between Google's first site visits and the public announcement, and the single November evening on which a joint meeting compressed planning commission review and board adoption into one vote; the utility finance framework gets the series' first Appalachian Power jurisdiction and a contractual rate cap that inverts the Chesterfield structure; the energy, labor, and infrastructure framework gets the water arithmetic and the regional-authority accountability gap; the distributional justice framework gets a site that was a slave-labor plantation for two centuries, whose descendant community still lives along the adjacent corridor, and a $4 million community payment whose largest single stream buys law enforcement equipment; and the energy geography framework gets the question the whole series builds toward, whether the diffusion wave behaves differently once it leaves Dominion territory and the urban crescent. These connections are flagged inline, and Part Ten consolidates them into a reading guide. Part Eleven sets out what the record still does not contain and how the missing documents could be obtained.

The second audience is Virginia localities, particularly the rural and western jurisdictions now being contacted by data center developers, for whom Botetourt is the nearest available preview of the recruitment sequence. The third audience is

citizens and journalists in the Roanoke Valley seeking the documentary record in one place.

A note on notation. The symbol ⚑ marks a caution about the evidence itself — a bound on what a source establishes, a discrepancy left unresolved, or a limit on what a retrieval reached. It flags nothing about the argument.

A note on method. This study is built entirely from public sources: the executed performance agreement and related documents the county has posted, county and water authority meeting records, state and federal permit filings, court rulings, census data, and sustained local news coverage, principally Cardinal News, The Roanoke Rambler, the Roanoke Times, WDBJ7, WSLS, WVTF, WFXR, and the Fincastle Herald. The Rambler and Cardinal News carried the deepest reporting and broke most of what the public record now contains; this study cites them heavily and identifies the underlying primary documents wherever they exist. Direct quotations are reproduced as reported in the cited coverage. No interviews were conducted for this version. Claims that rest on secondary sources rather than primary documents are marked with an asterisk, either on the in-text citation or at the head of the relevant endnote, with the primary source identified in Part Eleven where this study has identified one. The companion report, What Virginia Is Spending, What Virginia Is Getting, covers the statewide fiscal picture; the series cites it at v5.3, and note 2 records the v4.0 this study drew on.[2]

A note on five primary documents and their bounds. Five primary documents were extracted from PDFs on September 7, 2026: the Minor New Source Review air permit application that Helio Capital LLC filed with the Department of Environmental Quality on May 13, 2026, its emissions tables, and the covering email that transmitted them; the Utility Services Funding Agreement between the Western Virginia Water Authority and Helio Capital LLC; and the Water Supply and Infrastructure Planning and Development Services Agreement between the authority and Botetourt County.[83] Further sources obtained the same day are cited at notes 16, 24, 30, 55, 58, 84, 85, 93, 96, 97, 98 and 99. Four limits travel with the five, and every negative statement in this document that rests on these files is bounded by what follows.

The five are automated text extractions from the source PDFs rather than the PDFs themselves, and none has been proofread against a rendered page. Parts of each did not survive extraction, and one gap is not an extraction failure at all: the funding agreement's four exhibits are absent from the posted PDF itself, which puts the $1,661,170 preliminary engineering itemization and the authority's Drought Contingency Plan beyond this record entirely; the county agreement's signature block returned unreadable characters in extraction, and its execution

dates were read instead from the rendered page; and the air application's extraction stops mid-sentence, with two attachments absent, a third an image, and roughly 375 lines of a fourth marked as elided rather than guessed. Every mechanical search reported below was run against those extractions on September 7, 2026, with its patterns given at the point of use, and a search that returned nothing returned nothing in one document's extracted text on one date. Endnote 83 carries the detail, and Part Eleven lists the records that would settle what these cannot, none of which is held: the September 10, 2025 board packet, State Corporation Commission entity records, the county's project correspondence, and the utility development agreement both water agreements contemplate and neither contains.

PART ONE: THE PARK THE COUNTY BUILT ON A PLANTATION

Botetourt County, population 34,129, sits at the head of the Roanoke Valley where Interstate 81 bends north toward the Shenandoah. Median household income is $81,213. The real estate tax rate is $0.70 per $100, cut from $0.79 in 2024. The county's population has been essentially flat for a decade; its growth pole is the Daleville area along U.S. 220, an affluent corridor of subdivisions and golf-course communities whose census-designated place grew almost 22 percent between 2020 and 2026.[3] The county seat at Fincastle is a historic village a few miles north. Between them, along the 220 corridor, lies the community of Amsterdam, and at Amsterdam's edge lies the county's economic centerpiece: the Botetourt Center at Greenfield, roughly 750 acres of business park that the county has spent thirty years filling, and the only land in the county zoned for a data center.[4]

Greenfield Before the Park

The land was a plantation for two centuries before it was an industrial site, and the county's handling of that history is the necessary preface to its handling of Google. Greenfield was established by Colonel William Preston, surveyor, militia officer, and burgess, whose plantation operation began, in the words of the National Register nomination, "with his purchase of 16 Africans from the ship True Blue on August 28, 1759." The plantation grew to more than 1,200 acres, among the largest in Botetourt. Preston moved his household to Smithfield, in present-day Blacksburg, in 1774, and white overseers ran Greenfield's farm, orchard, and distillery thereafter. In 1860 the Preston family enslaved 38 people at Greenfield. After emancipation, some of the freed families stayed on as tenant farmers, and the nomination records that "many of their descendants still live in the Amsterdam area of Botetourt County" — which is to say, the descendant community lives along the corridor that now borders the park.[5] The manor house burned in 1959. Two log dependencies survived: a kitchen built around 1845, with a rare cantilevered second-story living space, and a slave dwelling built around 1864, together "the only survivors of the many dependencies and agricultural buildings that once stood at Greenfield."[6]

In 1994 the county's voters approved a $19.7 million bond referendum that included money for industrial land, and in 1995 the county bought roughly 900 acres of the old Greenfield farm for $4,563,900, about $5,071 an acre. The purchase was contested; some residents wanted the farm kept a farm, and one supervisor lost his seat over it. County Administrator Jerry Burgess spent a year on studies — environmental, groundwater, traffic, historical — and the rezoning that created the park was completed in 1996 with twenty pages of protective

covenants.[7] Thirty years later the county would cite that planning history as the reason the Google project deserved applause rather than alarm. The covenants and studies were real. So was what happened in 2016.

That year the county landed Eldor Corporation, an Italian auto-components maker, with a $75 million, 350-job commitment that the Roanoke Regional Partnership called the largest new-location announcement in county history, supported by a $3.2 million Commonwealth's Opportunity Fund grant.[8] Leveling the pad for the Eldor plant required moving the two surviving log buildings. Shirley Lewis, a descendant of people enslaved at Greenfield, sued all five supervisors, the county Economic Development Authority, and the deputy county administrator to stop the relocation, arguing her ancestors lay in unmarked graves nearby. The Friends of Greenfield Preston Plantation organized rallies and hired their own archaeologists to review the county's consultant. The county paused, surveyed, reported no unmarked graves found, and moved the buildings roughly half a mile to a preservation area near the park entrance.[9]* The original "Greenfield" National Register listing was delisted in 2022 because of the relocation; the buildings were separately added to the Virginia Landmarks Register in December 2021 as "Greenfield Kitchen and Quarters." A county advisory council now stewards a planned historic park around them.[10] The episode matters here for two reasons. It establishes that the county will move what stands in the way of a recruited employer, including the physical remnants of the enslaved community whose descendants still live next door. And it establishes that the organized constituency for Greenfield's history was already mobilized, named, and burned once before Google arrived. The distributional justice framework should treat the 2016 fight as the baseline event.

The Park's Record Before Google

The park's recruitment record through 2024 was a fair sample of rural Virginia industrial policy: real wins, persistent shortfalls, and one celebrated arrival that evaporated. Eldor began production in 2018, automated through the pandemic, and by 2023 employed 256 people against the promised 350, after the state twice extended its grant milestones.[8] Ballast Point Brewing of San Diego opened an East Coast brewery and taproom at Greenfield in June 2017 to enormous local fanfare; its corporate owner closed the taproom in September 2019, cut 41 jobs, sold the brand in December 2019 while keeping the Daleville plant, and in March 2023 sold the facility to New Belgium Brewing, which brews there; about 60 workers were offered jobs in the transfer.[11] Pratt Industries arrived in 2019; Munters, a maker of cooling equipment — including for data centers — announced a 270-job expansion in March 2025.[12] The county administration center itself sits in the park. In 2014, the county rezoned much of Greenfield into a district it called

Research and Advanced Manufacturing, or RAM, a designation that would acquire decisive importance a decade later, because when a data center finally came looking, RAM was the district the county chose to receive it, and Greenfield was the county's RAM-zoned park. The county's own page for the park puts the consequence plainly: "The Center is the only location in Botetourt County zoned for data centers."[4]

The institutional point of this prehistory is proportion. Before 2025, on the county's and the regional partnership's own accounts, no private commitment in the county's history exceeded Eldor's $75 million. The deal the county closed in June 2025 committed the company to at least $1 billion for each data center it builds, more than thirteen times Eldor's figure for one building and forty times it if all three rise.

PART TWO: PROJECT RASPBERRY

Seventeen Months in Private

Google's site selection process reached Botetourt in early 2024. County Administrator Gary Larrowe later said the project had "been in the works since January 2024," when county and state officials began hosting site visits with what the county's own published timeline calls "an unknown company."[13]* The recruitment ran under the code name Project Raspberry, with nondisclosure agreements binding county officials and, eventually, the regional water authority. Larrowe described the NDA as the project's "safety rail" and said everyone "who needed to be in the know" signed it.[14]* The county's public FAQ now defends the practice as "a common part of nearly every high-profile project in both government and the private sector."[13]

The paper trail shows how much was settled before anything was public. On October 1, 2024, the county and its Economic Development Authority signed a Real Estate Option Agreement giving Google's acquisition entity the right to buy the property.[15] On October 13, 2024, the EDA acquired the adjacent 62.767-acre Harrington Tract and merged it into the parcel — the county enlarging the land it had already optioned.[16] On November 7, 2024, the rezoning application for that tract was submitted. And on November 26, 2024, the county rezoned the addition and amended its zoning ordinance to make the whole assembly usable for what the option contemplated.

The Night of November 26, 2024

November 26, 2024 was the Tuesday before Thanksgiving. The Board of Supervisors convened at 12:31 p.m., a minute after the advertised time, and went into closed session, returning to open session at 2:03 p.m. The advertised agenda cited two exemptions under the Virginia Freedom of Information Act: "acquisition or disposition of real property for economic development purposes... concerning the Amsterdam (including Greenfield) district," and discussion of "prospective businesses or industries... where no previous announcement has been made." The minutes record four. Alongside those two, the board also went into closed session under subsection A.7, for consultation with counsel on litigation, naming Booth et al. v. O-N Minerals in the county circuit court and Claunch v. Board of Supervisors of Botetourt County in the Virginia Court of Appeals, and under subsection A.6, on "a potential investment in the Valley District." Neither of those two subjects was advertised. This study makes no claim about whether that is lawful, and no procedural defect has been alleged by anyone in the record this study holds; the fact is that the public notice for the meeting at which the data center use was created described half of what the board went behind closed doors to discuss.[16]

At 6:00 p.m. the board sat jointly with the planning commission for four advertised public hearings, two of them concerning Greenfield. Item 2.C rezoned the 62.767-acre Harrington addition from agricultural to RAM. Item 2.D was a text amendment, requested by the Board of Supervisors itself, "to incorporate the uses greenways and trails, and data center and its definition, to the Research and Advanced Manufacturing (RAM) Use District."[16]

The words "data center" were on the face of the agenda, bundled with greenways and trails. What appears nowhere in the agenda, the staff reports or the minutes is the option agreement signed eight weeks earlier. The meeting recording, which Part Eleven lists as unobtained, would show whether it was mentioned and not minuted. The staff report for the rezoning stated: "As this is a speculative request, no use or concept is identified at this time." The community development director told the joint meeting the rezoning was "for speculative purposes now." The planning supervisor presented the text amendment as modernization, telling the room, on the minutes' account, that data centers would be added as a by-right use in the RAM district, and that by adding the use the county was bringing that district into the 21st century and keeping it on the cutting edge of development potential. To his credit he also said data centers used an extensive amount of electricity and water necessary for this use — and, less defensibly, that there would be no impact to the road network past construction. Staff traced the amendment's origins in terms: "In August 2018, and February 2023, the Board of Supervisors directed staff to review and suggest amendments to incorporate uses into the Research and Advanced Manufacturing (RAM) Use District." The applicant of record was the Board of Supervisors itself, initiating under section 25-581.1 of the county code.[16] Whatever the truth of that genealogy, the operative fact is sequence: the option was signed October 1; the use was legalized November 26.

Six citizens engaged the rezoning, four in person and two in writing, the written pair recorded in the minutes as "both objecting," and staff summarised the concerns as landscaping and buffering, assurances on noise, air and water, and adjustments to the RAM definition on noise. The minutes record Danny Goad telling the meeting that the joint format truncated the normal process of review, that the item was only submitted on November 7th, and that it seemed as though this was done hurriedly without the same level of scrutiny. The words are the minutes' summary rather than Goad's own; the minutes carry no verbatim quotation of any speaker that evening, and the meeting recording has not been obtained. On the data center text amendment itself, exactly one person spoke — Goad again, who on the minutes' account said there needed to be a period of time between the action of the Planning Commission and the Board of Supervisors action. He did not get it. The planning commission recommended both items 5-0,

and the Board of Supervisors approved both 5-0 the same evening, then voted 5-0 again to relocate the Greenfield open-space easement to the new perimeter.[16] The county would later state, accurately and incompletely, that the data center use "was adopted after a public hearing at which no opposition was expressed."[13]

The institutional behavior framework should read the joint meeting as the load-bearing mechanism. Hanover's record shows a county whose planning framework invited an application that elected officials then spent six months and six hours of hearings deciding. Botetourt compressed the entire entitlement — use legalization, site rezoning, easement relocation — into a single evening seven months before the public learned who the beneficiary was, with the deciding bodies stacked in one room and the applicant of record being the board itself. No procedural defect has been alleged by anyone in the record this study holds, and none is asserted here. That is the finding. The Chesterfield case documented a same-day EDA land flip executed under an NDA;[17] Botetourt's version is quieter and arguably more complete, because in Chesterfield the use was already by-right and in Botetourt the board manufactured the by-right condition while under contract.

From Option to Announcement

The closing came in two steps the following June: the EDA and Google executed the sales agreement on Friday, June 20, 2025, and title transferred on Tuesday, June 24, after the Board of Supervisors approved the performance agreement in open session.[13] The announcement the same day named the buyer: Google, acting through Helio Capital LLC, a Delaware limited liability company whose notice address is a Troutman law office in Richmond — the Botetourt entry in the same genus as Chesterfield's Peanut LLC.[15][18]* The Roanoke Regional Partnership's executive director, John Hull, emailed that county leadership had been "working tirelessly for 17-18 months at all hours of the day," and noted he had "briefed select private sector leaders to socialize the project in advance of opinion editorial pieces."[19]* Governor Youngkin supplied a quote for the county's release; the Virginia Economic Development Partnership issued no press release of its own, and no state MEI or Commonwealth's Opportunity Fund grant appears in its release archive as checked at the snapshot. On that archive as checked, and on no wider search, the publicly disclosed incentives are entirely local, plus the statewide sales-and-use tax exemption that attaches to qualifying operators automatically.[20]

Google's formal corporate confirmation that it would proceed waited another nine months, until March 26, 2026, after its grading permit applications were already in.[21] The American Prospect, surveying the affair for a national audience in June 2026, wrote that the board had "moved the Google sale forward with minimal

public notices" and "resorted to a grand plan of maximum obfuscation."[22]* A resident who regularly attends board meetings was, by the Prospect's account, the person who alerted the future opposition that the land had been rezoned at all.

PART THREE: THE AGREEMENT

The Economic Development Performance Agreement, effective June 24, 2025, among the county, the EDA, and Helio Capital LLC, is the central document of this case, and the county has posted it in full.[15] Its structure rewards close reading, because nearly every term answers a question the public was not yet allowed to ask.

What Google Promised

The agreement contemplates "one or more Data Centers on the Property" and states no number. Every performance term is written per data center. For each, the company commits to capital investment "of not less than One Billion Dollars" and "not fewer than fifty (50) new full-time jobs at a median salary of at least $86,000 per year," the salary floor derived as one and a half times the county's prevailing average wage of $57,257, which is $85,886 and which the agreement rounds to $86,000. The headline figures that circulated in 2026, at least $3 billion and at least 150 jobs, are these per-building floors multiplied by three. The multiplier is not contractual: the three-building campus comes from the wetlands filing and the air permit, not from this agreement.[15][23]*[86] The agreement's term runs twenty years per data center from the date each becomes operational.

Section 4.3 is titled "No Obligation to Develop," and it means what it says. The parties "reasonably expect" construction of the first building to commence in 2026 and the building to be occupiable in 2028, but the company "may delay, or choose not to, develop a Data Center." If the first building is not substantially complete within five years, the agreement simply terminates — and "the County will not be required to return any Community Investments made by the Company prior to the date of the termination." The structure is a one-way option: the payments already made stay with the county whether or not anything is built, and the county's financial obligations under this agreement attach only if buildings rise. Its confidentiality obligations do not: Section 9.4.1 survives termination by its own terms. Its obligations under the water agreements, examined in Part Four, are not built that way. As a hedge against the empty-park scenario this is favorable drafting for the county. As a guarantee of $3 billion it is nothing of the kind. The investment and jobs figures are floors that bind only buildings that get built.

What the County Promised

The county's consideration came in three parts. First, land at a discount: $45,000 per acre against the EDA's $50,000 list price, for an anticipated price of approximately $14.06 million; the closing figure was $14,055,406.37, which works out to $44,970 an acre across 312.55 acres and is not reconciled on the face of

either document. The county's FAQ volunteers both halves of the framing — that the price was discounted, and that "the most any company paid for land in Greenfield was $30,000 per acre."[13] Second, speed: the agreement commits the county to commence all permit reviews within five business days of submission, supported by a third-party inspection program. Third, a tax architecture examined in Part Seven: the county pledges that if its business personal property rate produces a bill on Google's equipment exceeding an effective $2.40 per $100 of depreciated value, the county pays the excess to the EDA, which grants it back to the company.[15]

Then there is Section 9.4.1. The confidentiality clause binds the county and the Economic Development Authority alike not to disclose the company's confidential information without written consent. On a public records request implicating that information, each must notify Google, consult on "the advisability of taking steps to resist or narrow such disclosure," and "cooperate with Company in asserting any applicable exemptions." The duty reaches only material designated or reasonably understood as confidential, and the section preserves compliance: the county and the authority "may disclose Confidential Information as required to comply with applicable public disclosure or open records laws." What it buys is notice, a business day, and an ally. One sentence in it deserves quotation without paraphrase: "Without limiting the foregoing, Company will manage all media and press relation services regarding Company's involvement with the County and the Authority." A breach of the section entitles the company to terminate and seek an injunction. Section 7.3 gives either party "any remedy available to it under law or in equity," injunctive relief included, so the asymmetry is narrower than it first looks and sits in one place: the county "shall only have a right to terminate this Agreement for an uncured monetary Event of Default."[15] A Virginia county government signed an instrument handing a private company the management of press relations about that company's dealings with the county and its development authority, and agreed to consult the company on narrowing or resisting a disclosure and to help it assert the exemptions the statute already provides. ⚑ That is the accurate formulation and it is deliberately narrower than the obvious one. The clause does not suspend the Freedom of Information Act, and it says so; what it does is put the company inside the county's decision about how much to release. The clause was not hypothetical. It is the contractual root of everything in Part Five.

What the Agreement Does Not Do

Read in full, the instrument's absences are as consequential as its terms.[97]

There is no clawback. Searches of the full extracted text for "clawback," "recapture," "repay," "refund" and "reimburse" return nothing. If the company invests nothing and hires nobody, no provision requires it to give back the land discount or any performance grant already paid, and no provision requires it to make good the shortfall. The community investments run the other way, from the company to the authority, and Section 4.3 provides that on termination the county keeps them.

There is no verification of the headline commitments. The agreement sets no measurement date for the $1 billion or the fifty jobs, requires no investment report, no jobs report and no certification, and gives the county no audit right over either. The only reporting duty running to the public bodies is Section 6.3.2, which requires the company to hand over its personal property tax return so the authority can tell when each building became operational and start the twenty-year clock. That is a mechanism for administering the tax grant, not for testing performance. Section 9.4.2 gives the county and the authority a narrow waiver of the company's tax confidentiality, "for the purposes of verifying the accuracy of reports, and for no other purpose," and it too reaches only tax amounts.

The remedies are asymmetric. Section 7.3 leaves both parties every remedy at law and in equity but confines the county to terminating for "an uncured monetary Event of Default," while Section 9.4.1 lets the company terminate for any breach of the confidentiality section. Section 7.6 waives consequential and punitive damages on all sides, and Section 9.11 applies the American Rule, so neither public body can recover its costs of enforcing.

The package is assignable to an affiliate without the county's consent. Section 9.2 prohibits assignment without all parties' consent and then excepts assignment "to an Affiliate," defined at Section 1.1 by majority ownership or control by any means. The $2.40 cap, the expedited permitting and the confidentiality architecture travel with it.

And Article VI is conditional. Section 2.2 makes the tax provisions "dependent on continuation of the following current general practices," being the classification of buildings as real estate and of data center equipment as locally assessed business personal property "without exemption." If the law changes substantially the parties agree to renegotiate in good faith. A state-level exemption of the kind the General Assembly debates each session would reopen the county's central bargain.

One further term belongs with the fiscal analysis rather than here. Section 6.4 declares the agreement "a limited pledge of the revenues of both the Authority and the County" and then disclaims, in capitals, that it "DOES NOT CONSTITUTE OR

EVIDENCE A 'DEBT' OF THE COUNTY WITHIN THE MEANING OF ARTICLE X SECTION 10(B) OF THE VIRGINIA CONSTITUTION OF 1971, THE PUBLIC FINANCE ACT OF 1991, OR ANY OTHER PROVISION OF LAW." That is the same legal form the county's water agreement uses for its deposit obligations, reached by a different route, and Part Ten reads the two together. Section 6.3.6 adds a cost the public materials do not mention: "The County shall pay to the Authority $10,000, which shall increase by 10% every five years during the term of this Agreement, for the purpose of administering the grant." The clause states no periodicity; that it recurs is an inference from the escalator and from Article VI's annual mechanics, not a term.

The signature pages carry one more finding, and it is of a piece with the rest. The county signed by its administrator, Gary P. Larrowe, with the county attorney approving as to form; the development authority signed by its board chair, John F. Kilby. Helio Capital LLC signed by **Carl Bivens**, described as "Authorized Signatory" — the same Carl Bivens named at Section 9.3.2 as the company's address for notices, at a Troutman law office on Haxall Point in Richmond. The signature binding the company to at least a billion dollars a building is that of the person the agreement names for notices, at a law office that is also its address of record, and the signature pages give him no Google title. The air permit application a year later would be signed by a named individual writing from a google.com address under a Helio Capital LLC title, and the water funding agreement by another Helio signatory; on the county's foundational instrument, the counterparty appears only through a signatory at a law office's address. No signature line is dated, and the agreement ends "[End of Agreement]" with no exhibits attached.[97]

Finally, Section 9.1 provides that "no individual or entity shall be considered, deemed or otherwise recognized to be a third-party beneficiary of this Agreement." The residents whose objections Part Six documents have no standing under the instrument that governs the project.

The $4 Million, Itemized

The community investment that headlines the county's materials is specified in the agreement to the dollar, and its composition is a finding in itself. The schedule: $1.1 million within sixty days for three ambulances; $600,000 by March 1, 2026 to retire financing on three existing fire trucks; five annual payments of $100,000 for parks and recreation capital projects; two payments of $150,000 for Fire/EMS heart monitors; and five annual payments of $300,000 for Axon body cameras and less-than-lethal weapons for the sheriff's office. A final open-ended term adds $1.00 per square foot of each data center actually constructed, at building-permit

issuance, for fire and EMS capacity.[15] Of the $4 million in fixed payments, $1.5 million — the largest single stream — buys sheriff's office equipment, and $3.5 million of the $4 million flows to public safety in some form, counting the $600,000 that retires debt on fire trucks the county already owns, leaving the five parks payments as the only stream outside it. The distributional justice framework should note what is absent: nothing in the schedule touches the corridor communities nearest the site, the descendant community at Amsterdam, housing, or any mitigation tied to the project's actual externalities. The $4 million is, functionally, a general-government equipment budget paid in advance by the applicant whose project the equipment will, in part, serve.

The agreement separately anticipates uses for the $14 million of sale proceeds, in permissive language — "The Authority may hold and use the proceeds," each item "anticipated to total" — which Section 5.2.1 lets the Authority reallocate: among the line items, $3.6 million for a parks and recreation events center, $3.5 million for the Buchanan library renovation, $2 million for school capital projects, $600,000 for Daleville fire station design, $500,000 for the historical museum, and a list of smaller public-safety and administrative purchases.[15] The earmarks gave every district's supervisor something to point to, a fact worth holding alongside the unanimous votes.

PART FOUR: THE FOOTPRINT, THE WATER, AND THE AIR

What Google Filed

The project's physical dimensions entered the public record through permits, not announcements. In January 2026, Google filed a joint wetlands permit application with the Virginia Department of Environmental Quality, prepared by Timmons Group, which The Roanoke Rambler obtained by records request. DEQ's own project page describes the campus as three data center buildings of approximately 300,000 square feet each, three substations, an office building of approximately 28,000 square feet, and supporting infrastructure.[84] The Rambler's account of the January 2026 filing adds the dimensions the agency page does not carry: buildings of roughly 300,000 to 307,000 square feet each, about 921,000 square feet in total, plus three substations, a 28,000-square-foot office building, access roads, utilities, and stormwater facilities. It names the Rocky Forge wind farm as a nominal power source, and its alternatives analysis, explaining why Google rejected competing sites in Franklin County and the Roanoke area, states the selection logic in one sentence: "The specific location is critical due to the necessary confluence of required utilities, particularly sufficient electrical power, adjacent fiber connections, and available water."[23]* The companion federal filing is U.S. Army Corps of Engineers public notice NAO-2025-01857, issued March 10, 2026, under the name the public was never supposed to hear: "Project Raspberry, Botetourt, Virginia." The notice, obtained in full on September 7, 2026, places the project "on a 343.6-acre property" and states no total work area or disturbed acreage of its own. It also disclaims its own figures: the notice is issued "based on information furnished by the applicant," that information "has not been verified or evaluated," and the geographic extent of aquatic resources "has not been verified by Corps personnel." On that footing, the proposed permanent impacts are 3.24 acres of non-tidal wetlands, broken out as 1.87 acres palustrine forested, 1.33 palustrine emergent and 0.04 palustrine unconsolidated bottom, and 6,715 linear feet of stream, as 1,800 feet perennial, 3,905 intermittent and 1,010 ephemeral, on unnamed tributaries to Tinker Creek and Rulman Branch. The proposed action "includes removal of approximately 120 acres of forested habitat within the Indiana bat range," with the applicant committed to "a time-of-year restriction limiting all tree clearing to October 15 through March 31"; the Corps determined the action may affect but is not likely to adversely affect the species. Public comments ran through April 9, 2026.[24] The county received the first grading permit applications in February 2026 and, as of the June 12, 2026 snapshot, expected on-site grading before the end of the year.[13] Part Six records the start of grading in September.

Four developments after the snapshot change the permit picture without changing its figures. The first is sourcing, and it improves less than it first appears. The Department of Environmental Quality now maintains a project page for Project Raspberry which publishes the impact numbers, though it publishes them as the applicant's: "Google's application for Project Raspberry indicates that unnamed tributaries to Tinker Creek and to Rulman Branch would be affected," and the figures that follow are headed "Proposed permanent impacts." They are: 3.24 acres of nontidal wetlands, broken out as 1.87 acres palustrine forested, 1.33 palustrine emergent and 0.04 palustrine unconsolidated bottom, and 6,715 linear feet of stream channel, of which 1,800 feet perennial, 3,905 intermittent and 1,010 ephemeral, on unnamed tributaries to Tinker Creek and Rulman Branch. The two totals agree with the Corps notice and the Rambler's records request, and the notice and the page both carry the six sub-figures. The page is an agency publication of the applicant's figures, which is a smaller step than an agency finding would be.[84]

The second is the mitigation route. Permittee-responsible mitigation was in the January 2026 application from the start; it did not enter after the snapshot or in March. DEQ's February 4 letter records it, and records what was missing: "Permittee Responsible Mitigation was discussed in the narrative, but no details or conceptual compensation plans for streams and wetlands were submitted."[99] What the later record adds is a partial closing of that gap, across three DEQ requests: wetland function-value evaluations and a conceptual mitigation plan on June 15, a stream and wetland mitigation plan on July 15, and an updated concept mitigation plan on August 14, 2026. Those are concept filings. The permittee-responsible mitigation plan itself is a different document, and on DEQ's own page as captured September 7, 2026 it remains under development and unsubmitted. The March 10, 2026 notice records that "the applicant estimates a requirement of approximately 5.09 wetland mitigation credits and 7,215 stream mitigation credits," that "the applicant has noted that mitigation bank credit availability within the watershed is limited," and that the applicant "has identified Permittee Responsible Mitigation (PRM) as a potential approach." What the post-snapshot record adds is the hardening of that potential approach into a stated intention. DEQ's page states that "the applicant determined that wetland credits are not available within the Upper Roanoke watershed (HUC 03010101) where the project is located, and that available stream credits are limited," and that "Google intends to pursue Permittee Responsible Mitigation (PRM) to meet Virginia's compensatory mitigation requirements. A PRM plan is under development and will be submitted to DEQ." The attribution is easy to get wrong and matters: this is the applicant's determination published by the agency, not a DEQ finding that the credits are unavailable. What it establishes is the applicant's stated choice of instrument,

permittee-responsible mitigation rather than purchased credits. Buying credits is a market transaction. Permittee-responsible mitigation must be designed, approved, built and monitored, which makes it slower, more conditional, and more exposed to permit conditions — and Part Six treats the Section 404 permit as the opposition's clearest formal intervention. That choice plausibly strengthens that reading rather than weakening it. But on DEQ's own account the plan is still under development, so this study records the stated choice and stops there.[84]

The third is that the instruments now have numbers. The joint permit application is Virginia Water Protection request number 25-1919, received by DEQ on January 21, 2026 and under review as of September 7, 2026; the Minor New Source Review air permit application is 21819-1, received May 13, 2026 and likewise under review; the Corps preliminary jurisdictional determination issued to Google on December 16, 2025 is a different instrument from the March 10, 2026 public notice, and DEQ's page numbers them NAO-2025-1857 and NAO-2025-01857 respectively, rendering the first as "NOA-2025-1857" in another of its tabs. The Corps itself writes NAO-2025-01857, with the leading zero, in the title, headline, URL and metadata of its own notice, and NAO is the Norfolk District's own code, so DEQ's "NOA" is a transposition. Whether the December determination bears the same action number as the March notice is not established: the notice never references it, and the determination letter is not held; and the Marine Resources Commission habitat file is id 20251919. Part Eleven's document targets are addressable rather than aspirational.[84]

The docket also records the only DEQ action on the merits in the whole water file. Google submitted a wetland delineation packet and a request for a State Surface Waters Determination on February 6, 2026; DEQ reviewed it, conducted a site visit, and issued Preliminary Determination SSWD-000661 on March 11, 2026. The reason it was needed is in the agency's February letter: "No verification of ephemeral streams was provided in the submitted application" and "the ephemeral streams were not shown in the map submitted as part of the PJD." Of the 6,715 linear feet of stream the project would impact, 1,010 feet are ephemeral.[99][84] That determination identifies which waters on the property are state surface waters, and DEQ's page calls the delineation "an essential part of the project's VWP Permit application." Everything else DEQ does in this file, on the page's own descriptions of the docketed filings, is a request, an acknowledgement, or a refusal to process. The underlying delineation was conducted by the applicant in June 2025, the month the land sale closed and seven months before the joint permit application reached the agency.[84]

The fourth is what the docket shows about pace. The Southwest Virginia Data Center Transparency Alliance, in a press release issued on or about September 3,

2026 condemning the county's grading permit, characterized Google as "months overdue" in completing its state permit application.[85]* DEQ's document list shows an exchange rather than silence: a DEQ letter requesting additional information for the VWP on February 4, 2026; a Google response on April 15; a DEQ email on April 28 stating that the additional information submitted cannot be processed; wetland function-value evaluations and a conceptual mitigation plan on June 15; a Timmons Group response to Corps comments on June 26; a DEQ letter on June 30 requesting further information and the VWP application fee; a Google response with a stream and wetland mitigation plan on July 15; a further DEQ information request on July 30; and a Google response with an updated concept mitigation plan on August 14, 2026. Those are the water-permit entries; the page's list runs to nineteen dated headings and twenty-six documents across both permits, from January 21 to August 14, 2026, and what is narrated here is the VWP correspondence rather than the whole of it. Three additional-information requests, one refusal to process, and an application fee still being requested five months after filing support the word "protracted." They do not support "overdue," nor the same release's statement that there has been "no update" on the Corps joint permit application, which is a claim about the Corps docket rather than DEQ's. The characterization belongs to the organization that made it, and this study records both.[84]

Land disturbance was nonetheless authorized before either state permit issued, and the permitting structure rather than agency indulgence explains it. Botetourt is a VESMP authority. DEQ's page says so and says what follows from it: the county "is responsible for the administration, plan review, inspection, and enforcement components of the VESMP within the County," and under a local VESMP the stormwater plans and construction general permit registrations "are submitted to the local VESMP authority where the land-disturbing activity occurs."[84] That the Virginia Water Protection permit therefore runs on a separate track, and that neither instrument waits on the other, is this study's inference from that structure rather than a statement on the page. The county issued that local permit on the strength of a condition rather than an outcome, and said so plainly; Part Six carries the release and what followed from it. The sequence is not an anomaly in the regime; it is the regime. The instrument that stops earthmoving and the instrument that reviews aquatic impacts sit with different governments and are not sequenced against one another, so a locality can authorize the first while the second is still being negotiated, and doing so requires no indulgence from anyone.

The first building is expected occupiable in 2028, on an 18-to-24-month construction cycle per building, phased "as resources become available." Peak

construction employment has been put at up to 1,000 workers by the county and at about 1,500 by The American Prospect.[25]*

The Water Deal

The water commitments run through the Western Virginia Water Authority, and the arrangement's structure is the case study's most consequential finding, because the body that absorbed the demand is not the body that approved the project. The WVWA is an independent regional authority created in 2004, after the 2002 drought, by merging the Roanoke City and Roanoke County utilities; Franklin County joined later, and Botetourt joined effective July 1, 2015, on an agreement signed June 29 at the Greenfield Education and Training Center, inside the park. Its board has eight members: three appointed by Roanoke City, three by Roanoke County, one by Franklin County, and one by Botetourt County.[26] The county that recruited Google, optioned it land, rezoned the park, and signed the performance agreement controls one-eighth of the body whose reservoirs will supply it.

On September 10, 2025, the authority's board voted unanimously to authorize two agreements.[27] Both are on this record in full. They are separate instruments with different counterparties, which is why the authority and DEQ have appeared to contradict each other about how many agreements exist.

The Utility Services Funding Agreement is between the Western Virginia Water Authority and Helio Capital LLC. Botetourt County is not a party to it. It was executed on October 14, 2025, thirty-four days after the board vote, and its first page carries a banner claiming trade-secret protection under Va. Code § 59.1-336 and FOIA exemption under § 2.2-3705.6(3). Under it the owner funds the studies, and, through the Utility Development Agreement the parties commit to negotiate, is to be made responsible for the costs of the new utility infrastructure required for the Day 1 solution, with that infrastructure dedicated to the authority after construction and any costs not required for Day 1 equitably prorated.[89] The Water Supply and Infrastructure Planning and Development Services Agreement is between the authority and Botetourt County, and sets the framework for developing a new regional water source. Its executed copy, obtained September 7, 2026, is signed by Michael T. McEvoy for the authority on September 17, 2025 and by Gary Larrowe as county administrator on October 8, 2025; since the agreement takes effect on the last signature, it became effective that day. **Six days before the agreement Google signed.** The county bound itself to fund the region's next water source before the company executed its own instrument, and the authority's public statements have given execution dates for the funding agreement only. Google is not a party to it and is not named anywhere in its extracted text as fetched September 7, 2026; its recitals define the company only as "the company

developing the Project (the 'Owner')."[90] So the authority's statement that "the only water supply agreement with Google is the legally binding Utility Service Agreement" and DEQ's description of two agreements are both accurate, and they describe different things.[91][84]

Two cautions follow for anyone citing them. Neither instrument is titled "Utility Service Agreement" — the authority's own public statement gets its own document's name wrong, and the title on the face of the document is "Utility Services Funding Agreement." And both contemplate a third instrument, a Utility Development Agreement, which had not been executed when they were signed and which the funding agreement makes a precondition of service. There is no single "water agreement" in this case, and the third one is not on this record.[89][90]

What the company's agreement commits is narrower than the public summaries of it. The funding agreement's recitals have the authority "reserve for Owner water supply capacity of no more than Two Million (2,000,000) gallons per day" and wastewater capacity of no more than 570,000 gallons per day. Section 2 then conditions the making-available of that capacity on four things: payment of the water and sewer availability fees, agreement on the terms of a Utility Development Agreement, performance of the parties' obligations under it, and the design, construction, commissioning and dedication to the authority of the required infrastructure. Section 2(a) fixes the water capacity allocation at "no more than 2,000,000 gallons per day, and with a minimum pressure of 20 pounds per square inch." Helio pays $1,661,170 up front to fund a preliminary engineering report, a water supply plan, a facilities study of the Carvins Cove reservoir and treatment plant, and the engineering design of a transmission main, with Section 1(a) restricting the proceeds to the first three.[89]

The eight-million-gallon figure does not mean what the public summaries of it have meant. In the agreement Google signed, on its full extracted text as fetched September 7, 2026, "Eight Million" appears exactly once, at Section 1(d), and it is a scoping parameter for a study. The water supply plan is to evaluate alternative sources sufficient "to meet the Day N Water Solution, which the Parties understand could require up to Eight Million (8,000,000) gallons per day, or six million (6,000,000) gallons per day above the Day 1 Water Solution, without impairing Utility's ability to meet the current and future water supply capacity needs for future system demand throughout Utility's service area." Section 5, which governs any actual increase above Day 1, states no numeric ceiling. The "up to 8 total mgd" phrasing appears in a recital of the county's agreement, which Google did not sign.[89][90]

In place of a numeric ceiling, Section 5 supplies this language: "Utility has no obligation, and makes no warranty or guarantee, to provide increased capacity for the Project on Owner's desired schedule; provided, however, that Utility will use commercially reasonable efforts to provide such increased capacity on Owner's desired schedule provided such efforts by Utility do not materially impair or limit Utility's ability to provide water supply capacity to its customers throughout Utility's service area." The qualifier "materially" matters. Section 1(d)'s "without impairing" does not carry it, and the authority's July 2026 public summary drops it as well.[89][91] Section 5 further provides that a Day N expansion "will be subject to additional water and sewer availability fees and an additional utility development agreement," and that if the owner does not proceed with Day N within thirty years of the effective date, the expansion is automatically considered abandoned.[89]

So 8 MGD is neither a forecast nor a contracted ceiling. It bounds what a study must examine, and any increase past two million gallons requires new instruments rather than performance under these ones. What survives is narrower and still substantial: the parties wrote 8 MGD into the scope of the study that will decide the region's next water source, and the county's own agreement recites the same number as what the owner may eventually request.

The January 2028 date is real, and it is in the county's agreement rather than Google's. Recital 3 of the county agreement has the county "request[ing] that the Authority ... make available to the Project and its Owner ... on or about January 1, 2028, a water supply capacity of 2 million gallons per day (mgd) and a wastewater service capacity of 0.57 mgd." That is a request, in a recital, hedged "on or about." The string "2028" does not appear anywhere in the agreement Google signed, on the full extracted text of that document as fetched September 7, 2026; the other 2028 dates in the pair are the county's and the authority's first annual deposit obligations, at Sections 4.B.3 and 4.B.4 of the county agreement.[89][90]

The usage figures — initial capacity of no more than 2 MGD, with 8 MGD named as the Day N study parameter — were redacted from the versions the public was first shown, and stayed secret for another five months; Part Five documents how they got out.[28]

Who pays for the new source was contested terrain in the reporting, and the instrument now settles most of it against both readings. Section 4.E of the county agreement sets the county's maximum financial obligation in four tiers: "(i) 100% of all Costs of the Water Supply Project up to $100,000,000; (ii) 75% of all Costs of the Water Supply Project over $100,000,000 and up to $175,000,000; (iii) 50% of all Costs of the Water Supply Project over $175,000,000 and up to $225,000,000;

and (iv) 25% of all Costs of the Water Supply Project over $225,000,000 and up to $300,000,000." After an intervening escalation sentence the subsection continues: "The Authority will be responsible for the remaining Costs of the Water Supply Project." Beginning five years after the effective date, the tier thresholds "increase by the greater of 4% or the Prime Rate as reported by the Wall Street Journal per annum."[90]

WSLS reported the county responsible for the first $100 million of new-source costs, with a declining share thereafter and total commitments that could reach $300 million.[29]* The first clause is exact. The rest needs adjusting: $100 million is the top of the county's 100 percent band rather than a discrete tranche, and $300 million is the top of the fourth tier rather than a ceiling on project cost. This study's own arithmetic, labeled as such: at a $300 million project the county's tiered maximum is $200 million, before escalation.

The county's framing fares less well against the document. The county's public page, retrieved September 7, 2026, puts it in terms the summaries have compressed. It says the authority will develop new sources "with the majority of this expense paid for by Google through a process known as 'Pro Rata,'" and explains: "For the early phases of data center development, Google will require all of the infrastructure, so it will pay nearly 100% of the cost. In later phases, if the County funds a larger system to support future water needs in the County that are not solely to serve Google, Google will pay for the portion it uses, with the remainder paid for by the County and Western Virginia Water Authority ratepayers." On the dates, the page attributes them to the authority rather than to the agreements: "It was anticipated that the region would need to search for a new water source by 2040 and have it in service around 2060, according to the Western Virginia Water Authority in a Data Center Q&A."[30] Neither the word "Pro Rata" as a defined mechanic, nor a calculation of the owner's share from usage, nor the string "2060," appears anywhere in the county agreement, on its full extracted text as fetched September 7, 2026. The only pro rata provision in Section 4.E allocates third-party contributions between the county and the authority in proportion to their own tiered shares at the time a contribution is made. That establishes only that the mechanic is not in that agreement. Nor is it in the performance agreement, where the word "water" occurs once, inside "stormwater," in a list of environmental permits at Section 3.2. The page cites the authority's own Data Center Q&A for the dates, and the pro rata account may describe the Utility Development Agreement that does not yet exist, or the ordinary operation of the authority's development rules, or a characterisation of the tiered ladder from the other end. The authority describes the same arrangement from the other end, and its account is the mirror image of the county's. Its project page says the county

agreement "will enable the Authority to study and develop new water supply sources … with the County funding the majority of this expense," while the Google agreement is "solely at the company's expense."[91] So the county's page has Google paying the majority of the new source and the authority's page has the county paying it, and the instrument supports the authority: Section 4.E caps the county at 100 percent of the first $100 million and leaves the company's contribution unmentioned. What remains genuinely open is where the county's "Pro Rata" account comes from, and Part Eleven carries that at item 16.[90][91]

The Southwest Virginia Data Center Transparency Alliance reads the contracts the way WSLS does, and its organizer's formulation was the live question of the case before the instruments were read: "They keep saying that they're going to be paying for, like, the new water source. But there have not been any real specifics as to how that's going to happen when the contracts state that Botetourt County is on the hook for so much of the costs of that."[31]* On Section 4.E the county is on the hook for the first band in full, and the question of how the company's contribution is calculated has no answer in either of these two agreements.

One reading is genuinely unavailable from the text. Section 4.A makes the county "responsible for the timely payment of all costs" of the water supply development services "Unless otherwise provided in this Section 4." Section 4.E is the "otherwise provided," and its tiers stop at $300 million, followed by the sentence assigning the authority the remaining costs. Whether costs above $300 million fall to the authority under that sentence or return to the county under Section 4.A's general rule is a gap in the drafting. One binding recital points one way without closing it: recital (iii) gives as an animating purpose of the agreement "for the County to make a binding commitment to pay all costs associated with the development of the new water supply sources for the System, except as otherwise provided herein." The exception is doing the work, and Section 4.E is what it points at. No reading is picked here.[90]

The fund the Rambler reported from the August 2025 draft is real and itemized.[19]* Section 4.B establishes a Water Supply Source Development Fund, authority-administered, segregated, and interest-bearing. The county's event-triggered deposits total $8 million: $1 million within ninety days of execution, $2 million at issuance of a building permit for the Day 1 project, $1 million at the authority's acceptance of the dedication of the Day 1 infrastructure, $1 million at the certificate of occupancy for Day 1, $2 million at execution of a Day N development agreement, and $1 million at acceptance of the Day N dedication. On top of those the county deposits $500,000 a year, the first before December 31, 2028, until either the Day N solution is commissioned or the owner delivers an irrevocable letter of intent not to expand; then $1 million a year until the new sources are

commissioned, dedicated and accepted. The authority contributes $250,000 a year from the same start date. All of these escalate by the greater of 4 percent or prime from the fifth year.[90]

Underneath the ladder is a characterization that belongs to the utility finance framework rather than the water one. Section 6.B(v) has the county represent that the deposits and payments required of it "are payments for prior services rendered and are not debts of the County, provided, however, that to the extent they are construed to be debts, they are moral obligations of the County only, payable from funds lawfully available therefor, and not general obligations of its full faith and credit." Section 4.I agrees that the future deposit obligations are "a reasonable and fair estimate of the costs for the services that the Authority will have rendered for the County under this Agreement prior to the time of the required deposit, at least until such time as the Authority begins design and construction of New Water Supply Sources and New Water Supply Infrastructure." Section 4.D contemplates the authority financing the project unilaterally on terms "which may include a moral obligation or general obligation pledge by the County." Recurring multi-decade payments recast as fees for services already rendered is the structure that keeps a potentially nine-figure commitment off the county's debt limit. Section 4.I holds that characterization only "at least until such time as the Authority begins design and construction" of the new sources and infrastructure, and what governs the payments after that point is not stated.[90]

The recitals concede what the ladder is for, and they are the most consequential sentences in either instrument. Section 20 incorporates the county agreement's recitals "as material representations, warranties, and terms of this Agreement that are binding on the Parties." One of them reads: "providing the Day N Solution to the Property for the Project will limit the water supply available to the Authority's member localities across the Service Area and will impair economic and other development opportunities in those localities that are dependent on water supply." Unhedged, and binding on the parties who wrote it. A further recital describes an interim shortfall: between the commissioning of the Day 1 infrastructure and that of Day N, available capacity in the 1385 and 1580 hydraulic grade line pressure zones and others connected to them, and generally in the part of the county southeast of Interstate 81 and west of U.S. Route 220A and northwest of Interstate 81 along the Route 220 corridor, "will be fully utilized and, in the absence of other water infrastructure improvements, more than nominal additional connections to the System will not be possible." The member localities whose supply and development the first recital names were not parties to the agreement that names them. Part Nine returns to what follows from that.[90]

Alongside the Section 4.B deposit machinery set out above, Section 4.I carries a remedy that runs against the county. If the county fails to make a required deposit or payment, fails to make alternative arrangements, or "challenges the validity of any part of this Agreement," the authority may discontinue services immediately and may, "to the maximum extent permitted by law, restrict available water supply capacity in the County in order to ensure that equitable water supplies are available to other customers in the Service Area." The county's obligations are separately enforceable by "specific performance, mandatory injunction, mandamus, or other equitable relief." A future board that wanted to test this agreement in court would be doing so against a stated water-supply consequence for its own residents.[90]

What is not contested is the planning consequence, though it needs stating more carefully than it usually is. A 2010 long-range plan had projected the region's supply adequate through 2060. The authority now says a new source must be identified by roughly 2040 and in service by roughly 2060.[32]* The in-service date is the same date the old plan treated as the end of adequacy. The dated obligation is the decision rather than the delivery: choosing a source, permitting it, and beginning to pay for it are dated to roughly 2040, twenty years ahead of the delivery date, which is exactly the obligation the cost ladder above prices. ⚑ **That twenty years is the gap between the new identification date and the in-service date. It is not a measured shift in the identification date itself**, because no source on this record states when the 2010 plan expected a source to be identified. The comparison the arithmetic supports is between 2040 and 2060; anyone wanting the stronger claim, that the decision itself was pulled forward by two decades, needs the 2010 plan. ⚑ And the delivery date may itself have moved since. The authority's own project page links reporting stating that the valley's 2060 exhaustion date "has been pushed to about 2100."[91] This study has not retrieved the analysis behind that and does not adopt it; anyone relying on the 2040-and-2060 framing should check it first.

On drought, the authority's posture is that Google "will be subject to the Authority's Drought Contingency Plan and General Business Rules and Regulations, the same as any other customer of the Authority."[91] The county puts it differently and more narrowly: "In the event of a drought, any water restrictions that may come about due to the lack of rain, Google would be required to follow the same standards and water restrictions as other customers within the Western Virginia Water Authority."[30] The funding agreement supports the county on the terms the county states. Section 2(c) applies the authority's "generally-applicable rules and regulations, including without limitation its General Business Rules and Regulations, Development Rules and Regulations, 'Rules and

Regulations – Wastewater Collection System – Industrial Pretreatment Program', and Drought Contingency Plan, as they may be amended from time-to-time," and requires the owner to comply with them. Section 2(f) disclaims any warranty "that there will not be temporary service interruptions, mandatory drought restrictions, or Force Majeure Events beyond Utility's reasonable control that may impact the flow of water to the Project," and relieves the authority of liability for "any service interruption, drought, restriction, or other curtailment of water supply or wastewater service for the Project for events beyond Utility's reasonable control." Both disclaimers are conditioned on that qualifier rather than general. Neither agreement contains a drought carve-out, exemption, or supply priority for the project, on the full extracted texts of both as fetched September 7, 2026, which do not include the funding agreement's four exhibits.[89][90]

That is as far as the instruments reach, and the question underneath cannot be answered from them. The Drought Contingency Plan is Exhibit D to the funding agreement, and the posted PDF does not contain it. The document the authority publishes, as obtained on September 7, 2026, runs fourteen pages and ends at the signature pages, so Exhibits A through D, including the itemisation of the $1,661,170 payment at Exhibit C and the rules package with the Drought Contingency Plan at Exhibit D, were not posted with it. A public authority has published an agreement whose operative rules on drought are incorporated by reference and withheld from the same file. Whether the plan's own restriction categories treat a single customer of this size the way they treat households and ordinary commercial users is a question about the plan rather than about the agreement, and this study does not have the plan.[89]

Several commercial terms this case has speculated about are absent from both instruments, and the absence carries its bound. The strings "take-or-pay" and "standby" appear in neither document, and the word "minimum" appears in the funding agreement only in "a minimum pressure of 20 pounds per square inch." Payment is ordinary usage billing under the authority's published schedule of rates, fees, and charges. No special rate class appears, and no reservation or capacity-holding charge appears beyond the one-time water and sewer availability fees, notwithstanding that the recitals speak of reserving capacity. Every negative in this paragraph runs against the full extracted texts of both agreements as fetched September 7, 2026, which do not include the funding agreement's four exhibits. On the same texts, neither instrument states a fixed term of years. The only fixed horizon in either is the thirty-year Day N abandonment provision, and the county agreement runs until the new sources are dedicated and accepted "and when any debt financing issued for [them] is fully satisfied" — which is to say, as long as the bonds.[89][90]

The authority's executive director, Mike McEvoy, has framed the revenue as relief for residential customers, saying the data center's payments will help slow rate increases.[33]*

The Arithmetic

The Hanover study ran its water numbers against a county system; Botetourt's must be run against the region's, because that is who is serving the load. The WVWA's two largest sources are Carvins Cove Reservoir — 6.42 billion gallons at full pond, with a treatment plant rated at 28 MGD — and Spring Hollow Reservoir, 3.2 billion gallons of side-stream storage pumped from the Roanoke River, with an 18 MGD plant expandable to 36.[34] The system as a whole holds treatment capacity in the mid-50s of MGD and currently treats roughly 19 MGD on an average day; total billed consumption has been flat-to-declining for two decades, with 26.6 percent more customers in 2025 than 2005 using 10.8 percent less water.[35]* Carvins Cove is the designated initial source for Greenfield, currently supplying about 10 MGD of treated water; its safe yield has been reported, from the authority's financial audits, at 14 to 18 MGD.[36]*

Several of those figures have moved since the snapshot, and three have acquired conflicts. In "A Message for Our Customers," dated July 20, 2026, the authority states: "Currently, the Authority treats 21 million gallons of water per day; however, we have previously treated as much as 23 million gallons of water per day." That runs against the roughly 19 MGD average-day figure reported in May 2026.[91][35]* For Carvins Cove specifically there are now two published treatment-capacity figures from the same authority: 24 MGD on its Google project FAQ, and 28 MGD on its own sources-and-treatment page.[91][34] There are also two production figures measuring different things, both on that same FAQ: 9.48 MGD as a 2025 annual average, and 10 to 12 MGD as a current rate.[91] The same 10-to-12 figure appears once more, later in this Part, as the board chair's relayed estimate of spare capacity at the Cove, which is a third quantity again.[38]* None of them is resolved here. The arithmetic below uses the reported 10 MGD draw against a 14-to-18 MGD safe yield, and both of those remain unverified against the authority's annual comprehensive financial report, which is why the derived headroom figure carries an asterisk. The systemwide percentages in the next paragraph are likewise computed against 19 MGD; against the authority's July 2026 figure of 21 MGD they would fall to roughly 9.5 and 38 percent.

Against those figures, the commitment scales as follows. The initial 2 MGD equals about 10.5 percent of current systemwide production, and roughly seven times the consumption of the authority's largest existing customer, a Coca-Cola bottling plant that drew 270,000 gallons per day in 2025.[37]* At 8 MGD, the campus

would draw the equivalent of 42 percent of today's total system production, would multiply the largest-customer benchmark thirtyfold, and — this is the number that matters — would equal or exceed Carvins Cove's remaining headroom, which at a 14-to-18 MGD safe yield against a 10 MGD draw is 4 to 8 MGD. The board chair's public reassurance tracked the same arithmetic from the other direction: he relayed McEvoy's estimate of "10 to 12 million gallons" of spare capacity at the Cove and emphasized that 2 MGD is a hottest-day peak, not an everyday draw.[38]* Both framings can be true. A system with declining residential demand can absorb 2 MGD without stress, and an 8 MGD buildout still forces the new-source decision the agreements pre-commit the county to fund. The infrastructure framework should treat 8 MGD as the figure attached to the Day N solution, whose pursuit triggers the county's cost-ladder obligations under Section 4.E of the county agreement. That is what converts it into county fiscal exposure measured in nine figures.[89][90] The wastewater side flows to the Roanoke Regional Water Pollution Control Plant, and the authority has identified treated-wastewater reuse for cooling as a potential expansion-phase strategy.[28]

The new source itself is at an early stage, which the arithmetic above should be read against. The authority held an open house on August 25, 2026 at its Field Operations Building on Hollins Road in Roanoke; its posters set out a six-step process and mark step 2, "Water Supply Option Identification and Screening," as "We Are Here." The rendered poster was read on September 7, 2026. Steps 3 through 6 — assessing future needs, engineering and environmental analysis, permitting, and implementation — are all ahead, and no source has been selected. The options screened include Smith Mountain Lake, the Roanoke River, the New River, the James River, reuse, groundwater, the Rockydale and Roanoke Cement quarries, Craig Creek, modifications to Spring Hollow and to Carvins Cove itself, Falling Creek and Beaverdam Creek reservoirs, and purchases of water from the City of Salem and from Montgomery County. On the Beaverdam name, see note 93. The posters carry indicative cost bands, but the extracted text does not map them to options reliably and this study does not assign them. The reuse poster asks whether the Water Pollution Control Plant could serve as a hub for reuse water supply, which connects directly to the expansion-phase strategy noted above.[93][28]

One more figure belongs in the frame. Carvins Cove is not an industrial impoundment; it is the drinking supply for roughly 98,000 Roanoke-area residents and, above the waterline, a 12,000-plus-acre natural reserve that functions as the valley's flagship recreation asset.[22]* The people whose reservoir absorbs the demand are, overwhelmingly, not residents of the county collecting the revenue. Roanoke's mayor noticed; his proposal is documented in Part Nine.

The Air Permit, and the Shell Entity as Applicant of Record

On May 13, 2026, Helio Capital LLC applied to the Department of Environmental Quality for a Minor New Source Review air permit for the campus. Not Google. In the record this study holds, this is the first instance of the shell entity appearing as an environmental permit applicant rather than as a real-estate, performance-agreement, or utility-funding counterparty.

And it is not how the campus's other state permit was filed. **The water permit application names Google LLC.** DEQ's additional-information letter of February 4, 2026 is addressed to Zach Miller at "Google, LLC, 251 Little Falls Drive, Wilmington, DE 19808," a Wilmington, Delaware address, and the agency's first request is about the applicant's identity: "The State Corporation Commission Clerk's Information System shows that SCC Entity T0723124, listed in the application belongs to Google LLC, but there's a different address for the corporate entity listed with the SCC than included in the application." Its second request goes to the property owner, and the agency could not resolve that either: "no Legal Name was listed and I could not find it in the SCC database based on the SCC ID number listed... Botetourt County GIS listed HELIO CAPITAL LLC as the property owner with a different SCC-Registered mailing address than that listed in Section 3 of the JPA."[99] So on one campus, the wetlands permit is sought by the parent and the air permit by the shell, and the regulator reviewing the first of them had to write to the applicant because it could not reconcile the entities or their addresses from the application as filed. Part Eleven's entity question now has a hard identifier attached to it — SCC Entity T0723124 for Google LLC — and a documented address discrepancy for Helio Capital. The agency's own page is not consistent about it: its headings read "Helio Capital LLC's Article 6 Minor New Source Review (NSR) Permit application," while the three file names beneath them all read "Project Raspberry_2026-05-13_Google - Minor NSR Permit Application." DEQ files the application under the shell and names the files after the parent.[84] Part Three is built on that entity and the disclosure architecture around it; the air filing extends the architecture into a third regulatory domain.[84][86]

The corporate relationship is stated nowhere in the extracted text of the application, which is incomplete in the ways note 83 records. It is established by the covering email, which supplies the express statement this case has lacked. Renee Cheng of ALL4 LLC wrote to DEQ's air permitting manager at 7:46 p.m. on May 13, 2026: "I'm writing on behalf of Helio Capital LLC which is a Google business entity that is proposing to construct a data center in Daleville, VA."[88] The application is signed by Samuel Matthews, Data Center Operations Facilities Manager, Helio Capital LLC, from a google.com address, and Form 7 records the authorship precisely: "Renee Cheng, ALL4 LLC, on behalf of Samuel Matthews for

Helio Capital LLC."[86] None of this resolves Part Eleven's "Helio Capital LLC" versus "Helios Botetourt LLC" question, which still requires State Corporation Commission entity records and the deed. It does establish that the filing, the signatory's email domain, and the consultant's covering letter all say Google.

The filing also names four sibling Virginia entities under common ownership, and one of them ties this case to another in the series: Hayden Technologies LLC (registration 74163), Wheeler Survey Company LLC (74152), Nova Mango Farms LLC (74216), and Peanut LLC (53256). Peanut LLC is the Google entity in the Chesterfield case.[17] The covering letter cites permits issued to two of the siblings as precedent — Wheeler Survey for approval of a "To Be Determined" generator, Hayden Technologies for permission to burn hydrotreated vegetable oil alongside ultra-low-sulfur diesel.[86] A researcher looking for a data center's corporate family has, in this ordinary state permit file, an agency document naming four of its siblings.

What the permit would cover: 120 critical emergency generators, being 114 Caterpillar 3516E units at 2,750 electrical kilowatts each, 38 per building, on Tier 2-certified 4,043-brake-horsepower engines, and six Caterpillar 3512C units at 1,750 kWe, two per building, on 2,584-bhp engines; two diesel fire pumps; a booster-pump generator; a generator supporting the HUB; and one for the site entrance booth. Also 48 cooling towers, 16 per building, each with a maximum circulation rate of 6,000 gallons per minute. The applicant requests the ability to run ultra-low-sulfur diesel or a renewable diesel such as HVO.[86]

The emissions arithmetic is where this becomes a finding about how minor-source permitting works. Facility-wide potential emissions are stated at 99.39 tons per year of nitrogen oxides against a 100-ton major-source threshold: a margin of 0.61 tons, six-tenths of one percent. Particulate matter is 6.34 tons a year, carbon monoxide 20.56, volatile organic compounds 1.79, sulfur dioxide 0.09, maximum individual hazardous air pollutant 0.04 as benzene, total HAP 0.08.[87] Table 3-1's columns, read on the filed PDF, run critical emergency generators, auxiliary engines, cooling towers, sitewide total — and on the particulate row they are 1.49, 0.11 and 4.73, against a stated sitewide 6.34 that is a rounding of their 6.33. **The cooling towers are roughly three-quarters of the campus's particulate emissions**, and they are the only source on the list that runs continuously. The mechanism that produces the sub-100 result is a cap on operating hours, and the application says so on its face: the fee box is checked at $4,240, under the heading "Sources subject to Synthetic Minor permitting requirements" and against the line "Minor NSR permit (Article 6)."[86] The application is filed as a synthetic minor, and the difference from a true minor source is that the hours limit is doing the work. One durability point belongs beside it, from DEQ's own page: "Minor NSR

permits issued by DEQ do not expire and remain in effect until the constructed facility or emissions unit is permanently shut down." The tax cap runs twenty years per building and the water agreement's expansion right lapses at thirty. The air authorisation, once issued, runs until the generators come out.[84] A reader who takes "minor source" to describe a facility whose unconstrained emissions fall below the threshold has the structure backwards.

Two things about that hours limit. The cover letter proposes "an annual limit of 3,617 hours of operation per 12-month rolling period for all 120 EGs combined." Every other instance in the extracted text reads 3,613: Form 7 at two places, and the parameter boxes of both emissions tables that compute the result. DEQ's project page took the cover letter's figure. The 96.62 tons per year of NOx from the critical generators that produces the sitewide 99.39 is computed on 3,613, so the enforceable condition and the computation agree with each other and disagree with the narrative and with the agency's summary.[86][87][84] Both counts were confirmed against the filed PDF on September 7, 2026: 3,617 appears once, in the cover letter, and 3,613 four times. The discrepancy is in the document, not in the extraction of it.

The second is a disclosed substitution, and its precise character matters more than its size. Table 3-9's footnote (b) records that "The manufacturer Not-to-Exceed emissions rate for the proposed 1,750 kWe generator for NOX is 6.18 g/bhp-hr," above Virginia's 6.0 g/bhp-hr presumptive Best Available Control Technology limit, and that "However, based on communication with the generator manufacturer and prior engine testing experience, it is anticipated that the generator will meet the required VADEQ 6.0 g/bhp-hr presumptive BACT limit without the use of control devices or by de-rating the engine. Therefore, 6.0 g/bhp-hr is shown and used to calculate annual emissions rates instead." No test data for that engine is cited anywhere in the extracted text. Because the application claims the presumptive limit, it files no control cost analysis: "Because the EGs will meet the presumptive BACT limit, a BACT control cost analysis is not required with this Application." The checklist's BACT Analysis row is unchecked.[87][86] One check must travel with this finding wherever it goes. The substitution does not drive the 99.39-ton total. The 96.62 tons is computed from the 2,750 kWe unit's emissions factor, the higher of the two, not from the 1,750's; that factor, 53.48 lb/hr, is the manufacturer's not-to-exceed rate of 6.00 g/bhp-hr at full load, not a substituted figure. The disclosed substitution and the 0.61-ton margin are adjacent facts in one filing and are not causally linked, and any sentence implying that the substitution explains the margin would be wrong.

The filing's absences carry their scope. Searches of the full extracted text on September 7, 2026 for "public comment," "public participation," "public notice,"

and "public hearing" returned nothing. The only review the applicant asks for is private: a draft of the permit for Helio and ALL4 before final issuance. DEQ separately notified Helio Capital on June 1, 2026 that a public participation period would be required. Likewise, "Air Modeling Data" is a checklist row left unchecked, and no dispersion modeling appears anywhere in the extraction; DEQ required air modeling on June 16, 2026.[86][84] A third demand sits between them: on June 12, 2026 DEQ emailed Helio Capital requiring it to report the horsepower of the engines to be installed. In all three cases the sequence is the finding. The step was imposed by the agency, not proposed by the applicant, and it is visible only because the docket preserves the dates.

The third absence is the campus itself. Searches for "square feet," "300,000," "28,000," and "acres" across the same extraction returned nothing. Form 7 gives "Property Area at Site: 312" with no unit stated, and, on the same page, "No. of Employees: 30" — a figure worth setting against the performance agreement's fifty per data center, and the only one of its kind in the permitting record. DEQ's page says the project "would disturb 240.4 acres of a 343.6-acre parcel," and that verb reconciles those two: a disturbance area inside a parcel is not a contradiction. What does not reconcile is Form 7's unitless 312 against either. And 343.6 is itself unstable across the record: the Corps notice calls it a property, not a work area, and states no disturbance figure at all, while DEQ's page gives it once as a parcel and twice, at a different decimal, as "the 343.61-acre Project Raspberry study area" and "study limits." Google submitted an "updated project study area boundary" to DEQ on April 14, 2026, which the page lists without saying what changed. The roughly 300,000-square-foot buildings and the 28,000-square-foot office reported earlier in this Part come from the January 2026 wetlands filing as reported by the Rambler, not from the air application.[86][23]* The Form 7 milestones box gives new equipment installation from August 2027 to March 2030 and start-up dates from July 2028 to March 2030; the form asks for per-phase dates and was answered with a single undifferentiated range, so the filing states no per-building phasing.[86]

The Cooling Question, Unresolved on This Record

The air filing describes one cooling technology for this campus, and it is wet. All three buildings carry 16 towers each, referenced CT-1-01 through CT-1-16, CT-2-01 through CT-2-16, and CT-3-01 through CT-3-16. Form 7 gives all three tower groups a normal and a maximum operating schedule of 24 hours a day, seven days a week, 52 weeks a year, and states "N/A – these will operate 8,760 hr/yr" against the first of them, the CT-2 and CT-3 cells being blank in the extraction. The two expressions differ by a day, 8,736 hours against 8,760, and the filing does not reconcile them. The emissions tables model them at 8,760 hours a year, which is

every hour of the year. That figure is a worst-case permitting assumption rather than an operating commitment, but it is the assumption the applicant chose. The extraction contains no mention of air cooling: a case-insensitive search on September 7, 2026 for "air cool," "air.cool," "dry cool," "hybrid," "adiabatic," "chiller," "closed loop," and "recirculat" across the whole 1,742-line extraction returned nothing on every pattern, and on those patterns no building is distinguished from any other.[86][87]

The filing is also a clean negative on water quantity, and this is the most citable finding in it. The word "water" appears three times in the extracted text of the application: in "chromium-based water treatment chemicals," in a discussion of why a federal cooling-tower standard does not apply; in an unchecked form row for oil-water separators; and in "Density of Water: 8.34 lbs/gal" as a unit conversion. Searches for "makeup," "make-up," "blowdown," "blow-down," "evaporat," "potable," "reclaim," "withdraw," "water source," "gallons per day," "gpd," "gal/day," and "gal/yr" returned nothing, same date and same scope. So the filing establishes 48 evaporative towers running continuously while stating no water quantity at all. The four water-adjacent numbers in it — 6,000 gallons per minute per tower, its restatement as 360,000 gallons per hour in a Form 7 capacity column, 0.0005 percent drift, and 1,500 parts per million of total dissolved solids — are cooling-tower emissions inputs. Circulation rate is recirculating throughput, not withdrawal and not consumption. Drift is entrained droplets, quantified only because they are a particulate source. Evaporation, which is the actual consumptive use, is not in the filing, and neither is makeup water or blowdown. None of these figures converts to a water demand figure and none may be printed as one.[86][87]

Against that filing sits an announcement. On July 22, 2026 the Western Virginia Water Authority posted: "Google has announced on its website that it plans to use air-cooling technology for the first building at its upcoming data center campus at the Botetourt Center at Greenfield. Based on this updated information, the Western Virginia Water Authority anticipates that the project's overall water demand will be lower than originally projected. We do not have updated demand figures at this time, but we will share updates as we find out." The same notice states that "The existing agreements previously posted on the Authority's website remain in effect."[92]

The honest form of this is a chronology, and the chronology has four dated points. October 14, 2025: the funding agreement Google executed opens Section 7(a) by acknowledging the importance to the owner of "continuous evaporative cooling to protect sensitive equipment required for essential operations."[89] May 13, 2026: the air application filed with the state regulator describes 48 wet towers, 16 per

building, all three buildings identical, at 8,760 hours a year, and mentions air cooling nowhere.[86] July 22, 2026: the authority reports the company's announcement of air cooling for the first of the three buildings and says it has no revised demand figure.[92] August 14, 2026: the last document in DEQ's project docket, with no revised air application in it as of the September 7, 2026 capture.[84]

Four documents, four dates, one direction of travel and then a reversal that has not reached the permitting file. This study does not reconcile them. The announcement is real and the filing is explicit, and they describe different designs for building one, ten weeks apart. Nothing in the record supplies a number that would let anyone choose between them: neither the company nor the authority has published a revised demand figure, and the authority says in terms that it does not have one.

Two consequences follow for the arithmetic above, and neither is a revision of it. The contracted Day 1 capacity is unchanged at no more than 2 MGD, the Day N study parameter is unchanged at up to 8 MGD, and the agreements themselves remain in effect on the authority's own statement. The arithmetic earlier in this Part is written against those figures and is not softened here. What is added is the date: the arithmetic is the arithmetic of the record as it stood on September 7, 2026, and the announcement stands beside it unresolved. Three things would change it — a revised New Source Review application in DEQ's docket, a demand figure from the authority, or a published figure from Google for the campus. Until one of them arrives, the analysis is written against the contract and the permit file, which are the only documents in this case that carry a demand figure or a design capable of being priced.

PART FIVE: THE DISCLOSURE FIGHT

Gendreau v. McEvoy

The water numbers became public because a one-person newsroom litigated them loose. The Roanoke Rambler requested the authority's Google agreements after the September 2025 votes; the WVWA released them with the usage figures redacted, citing the proprietary-information exclusion of the Virginia Freedom of Information Act. On October 9, 2025, the Rambler's founder and editor, Henri Gendreau, sued McEvoy in his official capacity in Roanoke Circuit Court. On November 5, 2025, Judge Leisa Ciaffone ruled that a data center's water usage is not a trade secret, reported as the first ruling in Virginia to say so, writing that "there are few resources more precious than water" and citing the public's overwhelming interest in how much of it a private project would consume.[39]*

Google had intervened in the case alongside the authority, and the fight continued past the ruling. The Court of Appeals declined to stay the order on January 28, 2026, and declined again on a renewed request. Facing a March 3 civil-contempt hearing at which the Rambler sought fines against McEvoy personally, the authority released the unredacted records on February 23, 2026; the figures were public by February 25 or 26, depending on the account.[40] The 2-to-8 MGD range and the infrastructure terms date their public existence to that release, eight months after the land sale closed and three months after the entitlement's first anniversary. Two sets of terms were reported before it: the county's near-term payments into the source development fund, from the August 2025 draft agreement, by the Rambler on September 9, 2025, and the new-source cost tiers by WSLS on February 10, 2026.[19][29] WSLS's March 12 synthesis of the released documents put the full deal architecture (investment floors, job minimums, the rate cap, the water range) in front of a broadcast audience for the first time.[18]*

One thing the released records did not contain surfaced five months later, in the authority's own hand. On July 20, 2026 the authority published "A Message for Our Customers," which states: "During 2024 negotiations, a proposal was presented to the Authority to provide this project 10-11 million gallons of water a day. The Authority fully rejected that proposal." The figure appears in neither executed agreement, on the full extracted texts of both as fetched September 7, 2026. The same notice separates the two dates the record had run together, board approval on September 10, 2025 and full execution on October 14, 2025; confirms the 2 MGD Day 1 ceiling; describes the 8 MGD as something Google "can request," approval of which is "contingent upon the Authority's ability to meet the current and future water demand throughout the service area"; and adds that "Any

reference to values greater than those noted in the agreement are speculative or were values rejected by the Authority during early negotiations with Google."[91] Two findings sit in that document. A regional water authority refused a hyperscaler's opening ask, and the refusal reached the public roughly two years later, on the authority's own timing, five months after a court forced the agreements themselves into the open. And the authority's public summary of its own instrument drops the qualifier "materially" that Section 5 carries, and calls the document by a name it does not bear.[89][91]

The NDA That Outlived the Announcement

McEvoy himself supplied the fight's most institutionally revealing detail. Confidentiality agreements in economic development recruitment are routine, and the authority had signed them before; in every prior case, he told WVTF, the NDA expired when the project was announced. This one did not. "The first time after an announcement that confidentiality continued" is the executive director of a public water authority describing the instrument he remained bound by months after the company's name was on a county press release.[41] The continuation was not an oversight. It is the same architecture in a third instrument. Section 9.4.1 of the performance agreement binds only the county and its development authority, and Section 9.1 forecloses third-party beneficiaries, so it cannot itself reach the water authority; what reaches the water authority is Section 31 of its own funding agreement, which runs further. The pattern across the three documents is confidentiality that outlives the announcement, and that is the element all three share. The other two do not distribute evenly, and saying they do overstates the record: the press-relations clause is in the performance agreement alone, and neither water agreement gives the company any role in what the public bodies say. What the water agreements add instead is speech restraint between the public bodies themselves, set out below. The institutional behavior framework should read the Botetourt record as the series' clearest specimen of contractualized opacity: secrecy as a negotiated deliverable rather than a culture or a habit, with the public's agents as counterparties. By mid-March 2026 the authority was publicly weighing changes to how it handles such agreements.[42]* Whether anything binding changed remains unresolved on this record.

Reading the funding agreement establishes that the architecture reaches the authority as well, and that on the authority's side it runs further than on the county's. Section 31 requires that on any public records request implicating confidential information, the authority "promptly notify Owner in writing of the request and provide Owner with copies of all relevant documents related to the request," cooperate "at Owner's cost and expense" in asserting exemptions including the trade-secret exemption at Va. Code § 2.2-3705.6(3), and allow the

owner "to take any and all actions Owner deems necessary and appropriate to protect its Confidential Information, including, but not limited to, intervening in any legal proceedings related to the disclosure of the Confidential Information." Then it goes past what the county's clause does: "Owner will indemnify, defend, and hold Utility harmless from any damages, losses, claims, penalties, or fines, including attorneys' fees and costs, associated with Utility's cooperation with Owner set forth in item (2) above in this section, including but not limited to Utility's withholding the production of any records requested under the Act at Owner's request." And Section 32 dates the beginning of all of it. The parties executed a Mutual Non-Disclosure Agreement "on or about March 11, 2024" — more than eight months before the November 2024 zoning votes, fifteen before the sale closed, and long before any resident had a name to attach to the project.[89]

Read against the litigation, that clause is the finding. Gendreau sued the authority's executive director; the authority defended and lost; Google intervened alongside it. Section 31 provides that the owner "will indemnify, defend, and hold Utility harmless" for costs "associated with Utility's cooperation with Owner," expressly including "Utility's withholding the production of any records requested under the Act at Owner's request." ⚑ **What that clause does not do is reach the Gendreau defense.** The sequence: the authority's board authorized the agreement on September 10, 2025; the Rambler's request and the redacted release came in the weeks after; Gendreau filed on October 9; and the instrument carrying Section 31 was executed on October 14, five days into the litigation. Section 31 is written forward, with no retroactivity language, and Section 32 supersedes the 2024 non-disclosure agreement "from and after the Effective Date." So the clause covers withholdings at the owner's request from October 14 onward. Whether the parties treated it as covering the suit already running is not on this record, and neither is what the September 10 board packet contained, which Part Eleven lists as an unheld document. The finding that survives is structural rather than causal: the instrument that governs the authority's future withholdings puts the cost of them on the company, and it was signed while the authority was being sued over a past one. The county agreement adds a restraint running the other way: Section 2.A.1 binds the county not to "make any statements concerning water supply issues associated with the Project without the Authority's prior written consent." Section 3.A imposes a narrower counterpart on the authority. It must cooperate in public relations and may not attribute released statements or information to the county without the county's prior written consent, and there it stops; nothing in it restricts the authority from speaking about Project water supply. The restriction on water-supply statements runs one way. Both subsections carry a carve-out where a party concludes in good faith, after consulting counsel, that it must release a document under the Freedom of Information Act.[89][90]

Across the two water agreements and the performance agreement, both public bodies restricted their own speech about the project, and the company holds an indemnity against the one that withholds records at its request. The mutual non-disclosure agreement of March 2024 predates the first citizen comments on the rezoning; the rest of the architecture was executed in 2025, after them and before the terms were public.

The fight's costs and benefits distributed unevenly. Google got seventeen months of quiet and a finished entitlement. The county got the deal it wanted and a transparency controversy it is still managing. The authority got sued, lost, and released the records anyway. The Rambler, a subscription local outlet founded in 2021, got a precedent. Ciaffone's ruling binds no other circuit and was never tested on the merits, because the Court of Appeals twice declined only to stay it. It still raises the price of secrecy in every negotiation that follows: a developer's counsel now has to price the possibility of losing. No government body produced it.

PART SIX: THE OPPOSITION

Organizing After the Fact

By the time residents organized, there was nothing left to vote on. The use was by-right, the land was sold, and the agreements were signed. That timing, a direct product of the sequence documented in Part Two, defines everything about the opposition's structure and options, and distinguishes it from every prior case in this series. Hanover's opponents had a rezoning to defeat and defeated it. Henrico's Varina residents faced entitlements already granted and shifted to containment, extracting reforms that bound the future instead of the past. Botetourt's opposition is Varina's situation with fresher wounds and fewer institutional allies: the project they oppose was never theirs to approve, so their work is leverage-hunting at the margins of other bodies' processes.[43]

The central organization is the Southwest Virginia Data Center Transparency Alliance, formed in the fall of 2025, before Google's confirmation but after the sale. Ben Verschoor is its most visible founder; Hunter Hartley has served as spokesperson; the group runs the petition, the social channels, and the meeting calendar. Its earliest public victories were informational; the Prospect credits the Alliance, tipped by a resident who regularly attends board meetings, with discovering the November 2024 rezoning at all.[22]* What is distinctive in the Virginia context is the coalition's breadth: the Roanoke Times documented a conservative Facebook group, Botetourt Conservatives and Independent Thinkers, cross-promoting Alliance meetings alongside left-leaning organizers, under the headline "Political divides disappear in united fight against Google data center in Botetourt." One member's summary: "Democrats, Republicans, independents are coming together to rally around a common cause."[44]* No formal affiliation with the statewide Data Center Reform Coalition had surfaced as of the snapshot, though the Alliance's members have lobbied the General Assembly on the sales-tax exemption; the relationship between the western opposition and the Piedmont-anchored statewide coalition is itself worth investigating.[44]

The grievance hierarchy is consistent across every documented meeting: secrecy first, water second, everything else third. The on-the-record resident statements compiled from county and authority meetings between November 2025 and June 2026 return to the deal's manner more than its substance. "That entire project, the purchase of that property, was done in secret... The board, the county administration, I feel, has created the perception that they do not listen." "The deal to bring Google to Botetourt County illustrates everything that's wrong with the county."[45]* At the water authority's November 20, 2025 board meeting, where a dozen-plus residents spoke, even a board member joined the questioning — "Are

we in this position where if we don't use Google's money to pay for that then it's a problem? How did we get there?"[46]*

The Calendar Since the Announcement

Google's March 26, 2026 confirmation converted a transparency grievance into a siting fight, and the spring's chronology shows an opposition probing for any process still open. On March 31, the board chair's handling of a young Alliance member's citizen comment, interrupted and deferred over a residency question she called "infantilizing," produced its own news cycle.[47]* On April 8, dozens of residents packed the Ashley Plantation Country Club in Daleville for the first community meeting after the announcement, organized by residents and the Alliance, covering the timeline, the land money, light and noise, the elementary school nearby, the Botetourt Honey Bee Sanctuary at the park entrance, and "potential legal remedies, including recalling the supervisors who approved the agreement." A Fincastle resident's call to action stood for the genre: "The masses need to come out to the next meeting and future meetings to help prevent this Google data center from coming into Botetourt County."[48]* A week later protesters stood outside the county's business summit; two days after that, the county Chamber of Commerce endorsed the project as "a transformative investment," its board president arguing the deal "puts Botetourt on the map in a very different way."[49]* In late April, Botetourt protesters traveled to Governor Spanberger's Roanoke bill-signing event to press the sales-tax exemption issue; the governor said she supports making data centers "pay their fair share" on energy while voicing "significant concerns" about retroactively changing existing agreements.[50]* On May 26, dozens packed a Board of Supervisors meeting at which the project was not on the agenda, with a protest outside; a Blue Ridge resident's comment caught the residual fear that no document has yet addressed: "I'm on the same aquifer — my well — as what this would be... But you don't know, and when they start taking even water out of Carvins Cove or Tinker Creek, who knows?"[51]* As of the evidence snapshot, Google and the county have scheduled a public open house for June 17, 2026 at Lord Botetourt High School, the project's first format in which residents can question Google, the utilities, and county staff in one room.[52]

Cardinal News' June 4 assessment of the procedural reality was blunt: multiple protests, "although there's likely nothing procedurally that can stop the project."[53]* That is almost, but not quite, the whole picture.

The Leverage Map

The opposition's actual leverage points, in rough order of bite. The federal Clean Water Act Section 404 permit is the clearest formal intervention: the Corps took

public comment through April 9, 2026 on the wetlands and stream impacts, and permit conditions are a recognized pressure surface.[24] The Appalachian Power transmission application, expected at the State Corporation Commission in summer 2026 as of the snapshot and reported filed on September 4, 2026 (Part Six), creates a second formal proceeding with intervention rights, documented in Part Eight. The water authority's board, which meets in public on the third Thursday of most months and answers to four local governments, has proven responsive to packed rooms and is now reconsidering its confidentiality practices. Site plan and erosion-and-sediment review at the county is ministerial but not instantaneous, and the performance agreement's five-business-day permit-commencement clause will be tested precisely there. The General Assembly fight over the sales-tax exemption is the long game. Elections are the slowest lever of all, and here the calendar is unkind: Botetourt supervisors run in odd years, so the seats elected in November 2025, including the Amsterdam District seat covering the site that Tim Snyder won with 74 percent while promising town halls, do not come back to the voters until 2029, and no supervisor faces election in 2026. Republican primary voters across the region ousted three incumbent supervisors in June 2025, a data point both sides will read as they please.[54]* A recall was discussed at the April 8 meeting; none had been filed as of the snapshot.[48]

What the record does not yet show is the opposition winning anything binding. The disclosure victory was the Rambler's. The June 17 open house is a concession of format, not substance. Written at the snapshot, the expectation was that the fall of 2026, with grading begun, the transmission docket open, and drought indices in the news, would be where the formative stage ends and the Botetourt opposition's actual ceiling becomes measurable. The distributional justice framework should also log who the visible opposition is: the documented meetings have been at a country club and a high school in the county's most affluent corridor, and the named spokespeople are well-resourced newcomers and retirees. The Amsterdam descendant community, the population with the longest stake in Greenfield, is absent from every account of the 2025-26 opposition the record contains, as it was not absent in 2016. That silence is a finding awaiting further inquiry, not a conclusion.

The Close of the Formative Stage

The entitlement-to-construction gap that defined this case at the snapshot is at its end, and the leverage map above becomes a test rather than a forecast. What follows is the record of how it ended, which does not say quite what the headlines said.

The county explained the sequence on its own website, and did so more plainly than the reporting of it. On August 26, 2026 Botetourt announced that Google had "satisfied requirements and received a Land Disturbance Permit from the County to begin grading," the county having "completed its review of Mass Grading Package No. 1, covering the initial phase of site work." The permit, the release says in the next sentence, "allows the company to begin phased grading work on its 312-acre site." Under the heading "Wetlands," the release sets out the reasoning: "Site grading can begin before Army Corps or DEQ permits are issued, provided crews avoid streams and wetlands. To accomplish that, military-style "dry support bridges would provide temporary access across wetland areas." The unclosed quotation mark is the county's own.[96]

The release also states what the permit requires of the work it authorizes: "appropriate erosion and sediment control and stormwater management measures designed to manage runoff and reduce the potential for sediment leaving the construction site." No standard, threshold, plan name or approving official is named.[96]

One caution about how this reached print. Cardinal News, reporting the release on September 3, wrote that "the county release states that the project will not result in disturbances to local wetlands but that temporary access bridges over wetlands may be used during construction." The release says something materially narrower. It states a condition on sequencing, that grading may proceed ahead of the federal and state permits provided crews avoid wetlands, and it names bridging as the mechanism. The word "disturbance" does not appear in it, and the outcome the paraphrase reports is not a finding the county made. The no-disturbance framing belongs to the newspaper and should not be attributed to the county. One bound travels with that, and it is narrower than it first looks. The page as read on September 7, 2026 carries a last-updated date of August 31, three days before the report, which indicates that the text did not change on September 3 and so is probably the text Cardinal News read. That stamp is the county's own and unverified, the content of the August 31 revision is documented nowhere, and the release was first posted on August 26. So what the paraphrase was written from is likely but not established.[85]*[96]

When grading would actually begin the release does not say, and the county's project timeline, as read on September 7, 2026, said "On-site grading is expected to begin before the end of 2026."[96] County Administrator Gary Larrowe told Cardinal News on September 2 that contractors said they will start grading after Labor Day, and its photograph of construction equipment standing on the site is captioned as showing ground "where grading work is expected to start after Labor Day."[85]* Labor Day 2026 fell on Monday, September 7. As of that date this

record established the permit and the stated intention, and it did not establish that grading had begun. The county's project page, as read on October 24, 2026, states that "Grading began at the site during the second week of September," with no year or day printed beside it; on the same date the page's timeline entry read "On-site grading is expected to begin during Fall 2026."[100] WSET reported on October 21, 2026 that "Grading work has begun on the 312-acre site," also without a start date.[101]

Four operational conditions arrive with the release and are the first of their kind the county has published for this project. Intermittent blasting "is expected to be part of the site preparation work," regulated by the Virginia State Fire Marshal's Office, whose representative reviews the blasting plans and must be notified about each blast; frequency "will depend on construction needs and site conditions," and no number is given. Construction and other noise-generating activity is prohibited between 9 p.m. and 7 a.m. The county's noise ordinance "also generally prohibits clearly audible noise at 50 feet from the property line after construction is complete," a standard that binds the operating campus rather than the construction site, and the temporal qualifier is easy to drop. Enforcement sits with the Sheriff's Office. Google "has committed to conducting on-site sound monitoring during both construction and ongoing operations," and the release does not say who performs that monitoring, who receives the results, or whether any of it is published.[96]

The leverage points have moved, and none has produced a binding outcome for the opposition. The state Virginia Water Protection permit remains under review, on DEQ's own page as captured September 7, 2026, with permittee-responsible mitigation the route since the January 2026 application and the plan itself still not filed, which lengthens the review rather than shortening it.[84][99] The federal Section 404 permit is a different matter: DEQ's page carries no status for it, saying only that the Corps comment period closed April 9, 2026, and the Transparency Alliance's September release states there has been "no update" on it. This study therefore records no status for the federal permit.[84][85]* The county's ministerial review, which the performance agreement's five-business-day permit-commencement clause was always going to be tested against, produced a grading permit; this record does not show that timetable being contested. The Appalachian Power transmission application at the State Corporation Commission was expected in summer 2026. Cardinal News reported on September 16, 2026 that the company filed it on September 4, 2026, at an estimated cost of $264 million, with an in-service target of November 15, 2029; the SCC docket was not read for this version.[106] The June 17, 2026 open house at Lord Botetourt High School was

scheduled as of the snapshot, and what happened there is likewise not on this record.

Two developments on the county's own ground are recorded in the county's own releases. At its regular meeting of Tuesday, July 28, 2026 (the release names no date; the Board's agenda and WDBJ7's report give it), the Board of Supervisors voted 3-1 to create a commission of five members, appointed by the Board and serving without compensation, to evaluate the proposed Google campus's potential effects on "the County's environment, infrastructure, utility resources, and overall quality of life"; Walter Michael, Brandon Nicely and Tim Snyder voted yes, Linda Rottman voted no, and Dr. Mac Scothorn was absent. Once its members are appointed, the commission has six months to complete its work and report. On Monday, August 10, 2026, a Planning Commission motion to recommend approval of the Western Virginia Water Authority's commission permit for the Dal-Nita Hills waterline, 3,800 to 4,000 feet of new line along Etzler Drive and Victoria Road, failed 2-2 with the Blue Ridge District seat vacant; because the Planning Commission acted after its 60-day review period, the county release says, the application was deemed approved and advanced to the Board.[94] The Board heard the permit on Tuesday, August 25, 2026 and, as the Fincastle Herald reported, approved it unanimously. A letter from the authority's executive director, read to the Planning Commission, said the line "would not be used to serve the Google data center campus," and Supervisor Tim Snyder said the same at the Board.[102] Minutes of the three meetings were not listed on the county's Agenda Center as read for this version, so the motion wording rests on the releases and the reporting. A county that creates its own commission on the campus ten months after the authority's board authorized the water agreements, and nine months after its own administrator executed the county's, is a finding. Who sits on the commission is not: no appointment was found in the county news items, agendas and reporting read for this version, and Part Eleven lists the membership as a retrieval target. ⚑ The county is a party to one of the two water instruments, and that one is signed by Gary Larrowe as county administrator. It warrants at Section 6.A that its execution and delivery "have been duly authorized by the County's governing body," and at Section 6.B it records that, "To the extent required under Section 6.4(a) of the Parties' Comprehensive Agreement or applicable law, the Botetourt County Board of Supervisors consents to and approves" the Day 1 and Day N infrastructure and the new water supply sources and infrastructure. The Board vote or resolution behind that warranty is not among the records this study holds as of October 24, 2026.[90]

One post-snapshot item bears on the drought question Part Four leaves open. Botetourt County appears on the Virginia Department of Health's August 31, 2026

list of localities with waterworks under conservation measures; the reading that places it on the voluntary rather than the mandatory list was reconstructed from printed totals after extraction reordered the source's headings, and is not confirmed against the rendered document.[95]* Separately, the authority's own website carried a banner in early September 2026 reading "Stage 1: Voluntary Water Conservation measures are in place for all customers," while the same domain's project FAQ states that "The Authority has not had to implement the drought contingency plan during its 20-year history." Both statements were on one authority's site at the same time. Whether Stage 1 voluntary measures amount to implementing the drought contingency plan within the FAQ's meaning is a question about the plan, which this study does not hold. The juxtaposition is recorded; it is not resolved.[91]

PART SEVEN: THE FISCAL FRAMEWORK

The Rate That Doesn't Exist

Botetourt County has no data center equipment tax classification. The county's published rate schedule contains no such class, and none was created in the FY2025, FY2026, or pending FY2027 budgets, which with the current schedule is the whole of the search. No earlier budget was examined. Google's servers will be taxed as ordinary business personal property, at the county's standard rate of $2.94 per $100, a rate the supervisors raised from $2.71 in the contentious FY2025 budget , the same budget that cut real estate from $0.79 to $0.70. ⚑ $2.71 also appears on the county's current schedule as the rate for personal vehicles, mobile homes, motorcycles and trailers; note 55 sources the business-rate history to contemporaneous reporting rather than to a county document. Machinery and tools sits at $2.00.[55]

What Botetourt has instead is the performance agreement's Section 6.2, and the mechanism deserves precision because it inverts the structure every prior case in this series documented. Chesterfield adopted a public ordinance creating a $0.24 rate for everyone, then contractually locked it for Google for thirty years with a grant-back against future increases.[56]* Henrico and Hanover fought their rate battles in budget hearings, in public, with the rate applying industry-wide. Botetourt skipped the ordinance. The agreement provides that whenever the business personal property bill on Google's equipment exceeds an effective $2.40 per $100 of depreciated value, the county pays the excess to the EDA, which returns it to the company as a performance grant, for twenty years per building. The agreement's own Article VI opens with the assurance that this is "Not a Tax Exemption" and that the company "shall, in all events, be required to pay all taxes lawfully assessed," which is true in the narrow sense that the taxes are paid before they are refunded.[15]

Three properties of this structure matter. First, it is a discount on day one, not merely insurance against future increases: $2.40 against the current $2.94 is an 18.4 percent reduction, effective immediately, and available on the county's published rate schedule to no other business. Second, it is invisible in the tax code. A researcher, a competing locality, or a resident reading Botetourt's rate schedule would conclude data center equipment is taxed at $2.94; the real rate lives in a contract. The utility finance framework should flag this as the recruitment playbook's adaptation to the post-2025 environment, in which published rate cuts attract scrutiny — Chesterfield's $0.24 became a statewide controversy — but a contractual cap appears in no rate survey built from published schedules, which is how they are built. Third, the level itself is informative. At $2.40, Botetourt's cap

sits far above Chesterfield's $0.24 and Henrico's old $0.40, below Henrico's current $2.60, the reported $3.09 state average, and Prince William's $4.50. Google accepted, in a county where no competing bidder has surfaced on the record this study has searched, an effective rate ten times what it locked in Chesterfield. The bargaining implication runs both ways: the company pays more where its alternatives are fewer, and a county with no rate class and no rate history left perhaps a dollar per hundred on the table relative to the regional frontier — or secured an above-market rate it could never have legislated without inviting the industry-wide fight Hanover is now having. Which reading is correct depends on negotiation records no FOIA has yet reached.

The regional table, updated to September 7, 2026:

Jurisdiction	**Data center equipment rate (per $100)**	**Status, updated to September 7, 2026**
Prince William	$4.50	"Computer equipment and peripherals used in a data center." Prince William publishes by tax year: $3.70 in 2024, $4.15 in 2025, $4.50 in 2026
Henrico	$2.60	Raised from $0.40 in FY2026 budget; $0.40 had stood since the 2017 cut from $3.50
Botetourt	$2.94 nominal / $2.40 effective	No data center class; contractual cap, Google only, 20 years per building
Hanover	$0.45	Set annually on a calendar-year basis. On June 24, 2026, after an advertised hearing at up to $3.00, the board adopted $0.45 for calendar year 2026 by resolution, 7-0, and referred the rate to its Finance Committee for further study
Mecklenburg	$0.66	"Data Center Computer & Peripherals," effective July 1, 2026; the FY2024-25 ordinance sets it under Va. Code § 58.1-3506(A)(43)
Chesterfield	$0.24	Locked 30 years for Google with grant-back
Dickenson, Lee, Scott, Wise, Norton	$0.24	Reported as adopted jointly to market far southwest Virginia. Scott County's own 2026 tax levy schedule carries "Data Center Tax $0.24." Of the other four, only Wise was reached: its personal property page lists no

		data center class. Dickenson, Lee and Norton were not retrieved

Sources: the localities' own published rate schedules and budget documents, retrieved September 7, 2026, except Botetourt's effective $2.40, which is contractual and comes from notes 15 and 97, except that the far southwest row is confirmed on its own schedule only for Scott County; the joint-adoption claim for the other four rests on a 2021 regional-authority release describing the rate prospectively.[98] Two corrections matter for the series: any reference to Henrico at $0.40 is current only through spring 2025, and any reference to Prince William at $4.15 is current only through tax year 2025.[57][58][59][60][61][98]

What the Revenue Is Worth

The county's public revenue claims have ranged across an order of magnitude, and the range is itself the finding. ⚑ **The low end of that range has no contractual anchor.** An annual revenue figure of about $1 million is attributed to WSLS's March 12, 2026 synthesis of the released documents.[18]* The performance agreement is on this record in full, and it contains no revenue floor. Article VI is a grant-back: Section 6.1 requires the company to pay "all taxes lawfully assessed and collected," Section 6.2 obliges the county to refund whatever the company pays above a $2.40 rate, and nothing anywhere in the agreement guarantees the county a minimum. A search of the extracted text for "floor," "minimum," "not less than," "at least" and "guarantee" returns the $1 billion capital commitment, the $86,000 salary figure, the one-megawatt threshold in the Section 1.1 definitions, the "at a minimum" in the confidentiality clause at Section 9.4.1, and the "not less than $1,093,132" Axon line, and no revenue term at all. What the agreement fixes is a ceiling on the rate, not a floor under the yield.[15][97] The county's March 2026 newsflash claims each building's incremental tax base is expected to yield "$10 million in annual local taxation," which is the county's own words on its own page rather than a report of them,[21] and the county administrator has said "about $10 million in revenue per year per building, with three buildings planned" — roughly $30 million a year at full buildout, which the county describes as "more than twice the contribution of the County's current top three companies combined."[62]* Thirty million dollars against the county's $98.8 million FY2026 revenue budget would be roughly 30 percent of the county's current scale, from one taxpayer. The pending FY2027 budget was advertised at $95.8 million in general fund revenue and $159.1 million across all funds, and was tabled in late May amid a school-funding dispute. Against the general fund it implies roughly the same proportion; against all funds, about 19 percent.[63] The honest statement of the projection is conditional: it requires all three buildings built and filled with

equipment, assessed values that survive depreciation schedules the public has not seen, and a rate environment the grant-back clause caps. Between a broadcast report's $1 million and the county's advertised $30 million lies the entire fiscal case for the deal, and nothing in the public record this study has searched adjudicates where actual revenue will land. The low figure is a journalist's reading of the released documents and the high one is the county's projection; neither is a term of any instrument this study holds. The Mecklenburg experience, where Microsoft's payments now approximate a quarter of the county budget, shows the upside is real where buildout completes; the same county's record shows the timeline is measured in decades.[64]*

Revenue has already started: the scheduled payments began on time, and the county reported the early installments funding ambulances, fire-truck refinancing, and body cameras by January 2026, and real estate taxes on the parcel now run at commercial rather than EDA-exempt status.[65]*

The Proportionality Finding

A $3 billion commitment in a county of 34,129 is, in per-capita terms, the largest in this series, and the margin is not close.

Case	Announced investment	Population	Investment per resident	Caveat
Botetourt / Google	$3.0B (per-building floor × 3)	34,129	~$87,900	The $1B floor is contractual and per building; the agreement names no number of buildings, and floors bind only buildings actually built
Mecklenburg / Microsoft	$2.0B+ (cumulative since 2010)	30,824	~$64,900	Realized over 15 years, not announced at once
Hanover / Hickory Hill	$1.78B (developer-projected, 20-year)	115,300	~$15,400	Developer claim; not independently verified in this series
Chesterfield / Google	Undisclosed share of $9B statewide	~390,000	Not computable	County-level figure under NDA[66]

Sources: notes 3, 15, 43, 64, and 66, and the companion Hanover and Chesterfield case studies. Population figures are 2024-25 estimates; Hanover's is not separately sourced in this report.

The arithmetic check: $3,000,000,000 / 34,129 = $87,902. Mecklenburg: $2,000,000,000 / 30,824 = $64,885. The comparison's limits are stated in the table, and they cut in both directions — Mecklenburg's figure is realized money while Botetourt's is a paper floor, but Botetourt's excludes whatever Google actually spends above $1 billion per building, which in current hyperscale construction is routinely multiples of the floor. On any reading, no Virginia county in this series has bet a larger share of its civic scale on a single corporate counterparty. The energy geography framework gets the structural observation: the diffusion wave's western edge is landing in jurisdictions so small relative to the projects that a single deal reorganizes the county's fiscal identity, which was not true even in Mecklenburg, where the commitment accreted across a decade and a half.

PART EIGHT: POWER — THE FIRST APPALACHIAN CASE

Translation, Not Transplantation

Everything this series has established about data center power economics was built in Dominion territory, and none of it transfers to Botetourt unmodified. Appalachian Power, the AEP subsidiary serving most of Virginia west of the Blue Ridge, has roughly 530,000 Virginia customers, a generation fleet still anchored by the Amos and Mountaineer coal plants, full exposure to fuel-price shocks through its fuel factor, and a residential rate trajectory (up 158 percent since 2007, more than triple inflation) that made affordability the region's dominant utility politics before any hyperscaler arrived.[67]* Dominion's story in this series is a growth utility socializing massive new infrastructure across a swelling rate base. APCo's is a shrinking-load utility in a poor service territory suddenly offered a customer larger than any this study has found in its Virginia history. The risk calculus differs accordingly: for APCo the data center is salvation and exposure at once, and the regulatory architecture for managing that ambivalence was being built in real time as Google closed on Greenfield.

The Tariff Architecture

Dominion got a new rate class; APCo got contract terms. The SCC's framework for Dominion, approved in its 2025 biennial review, created the GS-5 class for loads of 25 MW and above, with fourteen-year minimum contract obligations and high minimum-demand charges.[68] APCo took a different instrument to the same destination. In Case No. PUR-2025-00057, filed March 24, 2025, the company petitioned to revise the terms and conditions of its existing Large Power Service schedule for new loads of 100 MW at a site or 150 MW aggregated: minimum contract terms of twelve years following a ramp-up period of up to four, collateral requirements, and exit obligations. APCo told the commission the design tracked the settlement it had just reached in West Virginia. The case concluded with a settlement among the company and customer parties; the final order's approved percentages remain a verification target at the docket.[69]*

The West Virginia template matters here because Google negotiated it. In APCo's West Virginia large-load tariff case, Google intervened to object to contract duration and minimum-take terms, and the compromise, struck in January 2025 among APCo, Google, and the state's energy users group and modeled on the Indiana Michigan Power settlement, landed at twelve-year contracts with an 80 percent minimum power commitment.[70]* The company building in Botetourt has, in other words, already litigated the shape of APCo's large-load protections in an adjacent state, and the AEP system's broader pattern is consistent: AEP Ohio's landmark tariff, approved July 2025, requires new data center customers to pay for

at least 85 percent of subscribed demand for up to twelve years with a three-year exit fee.[71]* The utility finance framework should treat these settlements as the live answer to the question Dominion's GS-5 answers by rate class: who holds the bag if the load doesn't come. What no public document this study has searched discloses is the campus's actual contracted load. As of the June 12, 2026 snapshot, Google had stated no megawatt figure for Greenfield. Cardinal News reported on September 16, 2026 that Appalachian Power's transmission application gives Google's peak demand as approximately 300 megawatts, a figure in the company's filing rather than a commission finding; the application was not read for this version.[106] APCo's operative integrated resource plan, filed October 2025 in West Virginia for the two-state system, acknowledges more than 1 gigawatt of expected demand additions "not modeled in the plan due to timing considerations." The Botetourt campus sits somewhere inside that unmodeled gigawatt.[72]*

The Wires

The physical buildout is public in outline. AEP's Daleville Area Transmission Improvements Project would rebuild or reconductor about 17 miles of 138 kV line, add a short new segment, upgrade the Botetourt, Cloverdale, Mount Union, and Trinity substations, and construct one new substation, with the rebuilt 138 kV line serving as the campus's primary supply; the three on-site substations in Google's plans are separate, customer-side facilities. As of the snapshot, APCo expected to file its SCC application in summer 2026 and begin construction in fall 2027.[73]* Cardinal News reported on September 16, 2026 that the application was filed on September 4 and describes nearly 20 miles of transmission line, a different count from the project page's about 17 miles, at an estimated $264 million; the SCC docket was not read for this version.[106] The company's public position on cost allocation is categorical: the project "won't raise rates" for residential customers because Google is paying for the upgrades, while the rebuilt lines also benefit existing reliability.[74]* The claim is presently unverifiable and inherently partial — direct assignment of the Daleville project's costs says nothing about the generation, capacity-market, and system-upgrade costs that large new load imposes over time, which is precisely the cost category the GS-5 and L.P.S. fights exist to allocate. The SCC docket is the venue where that claim acquires or loses content, and it is the opposition's second formal intervention point after the Corps permit. APCo held its public open house on the project on June 3, 2026.[74]

Generation-side, the campus's announced renewable supply is a power purchase agreement announced December 18, 2024, for 100 percent of the output of Rocky Forge Wind — Apex Clean Energy's 79.3 MW project on North Mountain in Botetourt itself, Virginia's first onshore wind farm. Google concedes Rocky Forge "will not fully cover" the campus's needs; at hyperscale load factors it would be a

fraction.[75] The balance comes from APCo's system, which is to say from Amos, Mountaineer, gas, and whatever the company builds next — its planning now includes recoverable site-development costs for a small modular reactor at Joshua Falls near Lynchburg, approved by the SCC in November 2025.[76]* The ratepayer context into which this load arrives: a fuel-factor reduction in late 2025 as deferred fuel costs from the 2021-22 gas spike finally cleared, a renewable rider increase in March 2026, a $61.4 million base-rate request filed May 29, 2026, and a 2025 securitization statute passed specifically to manage the company's affordability crisis.[77]* In that base-rate case a compromise filed October 14, 2026, endorsed by Appalachian Power, the SCC staff, Google and others, would add no base-rate revenue and provide no residential base-rate increase for one year beginning March 1; it is a proposal before the commission, whose final order is due by January 15.[103] AEP's national posture frames what the valley should expect next: the parent reported 63 gigawatts of incremental load expected by 2030, around 90 percent of it data centers, and raised its five-year capital plan to $78 billion.[78]* The wave did not stop at Greenfield. Greenfield is where it came ashore.

PART NINE: THE REGION AND THE WAVE

The Recruitment Machine

The deal was a coordinated product of the county, the Roanoke Regional Partnership, and the Virginia Economic Development Partnership, with the Partnership's director celebrating that "the Roanoke Region could be in the forefront" of the AI buildout and the Rambler's headline capturing the regional self-image: with a billion-dollar agreement inked, "the Roanoke Valley enters the game."[79]* The recruitment apparatus performed exactly as designed — seventeen months of confidential coordination, a site held in inventory for thirty years, an entitlement delivered on demand. The institutional behavior framework should resist treating this as aberration. It is the Greenfield model working: the county bought the land in 1995 precisely so that, when a transformative employer appeared, nothing would stand between the prospect and the pad. The 2016 Eldor episode demonstrated the model would move historic buildings; 2024 demonstrated it would move the zoning code. On the two episodes this study documents, the 2016 Eldor relocation and the 2024 rezoning, the model offered residents no mechanism for saying whether the transformation on offer was one they wanted, because the model predates any transformation large enough to raise the question. No recruitment before 2016 was examined.

Roanoke's Claim

The project's geography produced a regional fight with no precedent in this series. The water comes from Carvins Cove, whose users are mostly Roanoke City and Roanoke County residents; the revenue goes to Botetourt. In July 2025, Roanoke's mayor formally requested 15 percent of the project's annual tax revenue and replacement of the drawn water within ten to fifteen years, citing the city's historic investment in the authority's infrastructure. Roanoke County's administrator wrote that if the city got a share, the county expected the same as "an equal partner." No Botetourt response to the letter, and no revenue-sharing arrangement, had been reported as of the snapshot. ⚑ The sources behind that run to September 11, 2025; whether the county answered at any point in the nine months to June 12, 2026 is not established here.[80]* Cardinal News called the request unprecedented and noted its echo of the valley's old annexation wars. The infrastructure framework should file this as the regional-authority accountability gap's fiscal expression: when the serving institution is regional and the taxing institution is local, the mismatch generates claims that no party in this record has identified an instrument of Virginia law to settle; this study has not searched the Code for one. The WVWA's own governance, with Botetourt holding one seat in eight, is the same gap in board form. The authority committed a Day 1 allocation roughly seven times

its largest existing customer's draw, and wrote into the same instruments a Day N figure roughly thirty times it, on the vote of the eight-member board whose composition Part Four sets out, and it approved both agreements unanimously. Whether that unanimity reflected genuine regional consensus or information asymmetry under NDA is an open question with a paper trail: the September 10, 2025 board packet and minutes.[27]

The regional accountability gap this Part describes does not have to be inferred from the governance structure. The county and the authority wrote it into their agreement as a binding recital, quoted in Part Four, and the localities whose supply and development opportunities that recital names were not parties to the instrument that names them.[90]

The Wave West of the Ridge

Botetourt is the first hyperscale commitment west of the Blue Ridge in this series, and the diffusion behavior around it is already observable. Franklin County, which sits inside the WVWA service area and was named in Google's own alternatives analysis, confirmed in May 2026 that data center companies have contacted it, and is rewriting its zoning preemptively: bans on private-well service, noise limits, 200-foot setbacks, confinement to designated districts. Montgomery County directed its planning commission to study data center land uses, which its ordinance currently neither defines nor allows. Campbell County's Board of Supervisors removed data centers from the by-right uses in its heavy industrial zones by emergency ordinance, 5-2, on December 2, 2025, and adopted the amendment as an ordinance, 7-0, on May 5, 2026. Appomattox County had a 452-acre campus proposal, as reported in March 2026.[81][82]* Cardinal News reported on October 5, 2026 that the project, AVAIO Digital Partners' "Project Hercules," is permitted by right, data centers being classed as industrial manufacturing in the county's two industrial districts, so that it "did not require any public hearings or special approvals from the county's board of supervisors"; the article also reports a recent board resolution, undated in the article, approving the project's performance agreement, and construction expected to start by the end of 2026.[104] The pattern differs from the eastern diffusion the series documented, where the wave moved from saturated Loudoun into counties competing to receive it. The neighbors' first institutional response to Botetourt has been defensive ordinance-writing: regulation before recruitment, Hanover's posture rather than Henrico's. In Franklin and Montgomery it has been done with no project on the table. In Campbell it followed residents' concerns about two proposed data center projects that had submitted plans by right, which the county says may proceed under vested rights.[82][104] Appomattox is not counted here: the sources this study cites show its project proceeding by right under the county's existing industrial

classification, and none shows the county writing a defensive ordinance. Campbell sits east of the Blue Ridge rather than in the Roanoke Valley, so this is not a purely western pattern. ⚑ And nothing here establishes that any of the three is responding to Botetourt rather than to the statewide wave; the sequence is suggestive and the causation is not documented. The energy geography framework should treat this as a candidate edge effect rather than a demonstrated one: Botetourt entitled first and disclosed later, and three counties near it are legislating defensively while, as of the June 12, 2026 snapshot, its first building was two to four years from opening on the start-up range in the air permit application. Whether they are legislating against Botetourt's example is the question this record raises and does not answer.

Botetourt's own next chapters are also visible. Cardinal News describes the county as "ground zero" for the region's two converging land rushes, data centers and utility-scale solar; the county that has one hyperscale campus, and the only park in Botetourt zoned to receive another, will face the second-project question — at Greenfield's remaining acreage or beyond it — with its by-right architecture already in place.[53]* The honest baseline this report can set is narrow: across the local coverage this study read for the snapshot, principally Cardinal News, The Roanoke Rambler, the Roanoke Times, WDBJ7, WSLS and WFXR, no second data center proposal in Botetourt, Roanoke City, Roanoke County or Salem had surfaced by June 12, 2026. No planning-department docket in any of the four was searched, so this is a statement about the reporting rather than about the filings. Whatever the record shows in 2031, it diverged from this point.

The record has since moved in Roanoke County, on press reporting. On September 11, 2026 the Western Virginia Regional Industrial Facility Authority voted to enter into a purchase agreement with Clearview Dynamics for 94 acres at Wood Haven Technology Park, and on September 22 it confirmed that the agreement is for a potential data center, with water from Spring Hollow Reservoir (Cardinal News). In the week before October 9 the authority withdrew from its nondisclosure agreement with the buyer, citing transparency concerns (Cardinal News). On Friday, October 16, 2026 the authority confirmed Google's involvement, which the outlets word differently: Cardinal News reported Google as the "corporate parent" behind the project, and a Google spokesperson told it that "Clearview Dynamics is a subsidiary of Google"; WDBJ7 reported that "Google is the company evaluating Wood Haven Technology Park for a potential data center"; Virginia Business reported that "Google is the company considering" the park and that the connection between Clearview Dynamics and Google "was not immediately clear Friday." Due diligence is expected to run through March 2027, and Cardinal News reported on September 22 an anticipated October 2027 closing. WDBJ7 places the

site about 14 miles from the Greenfield campus. The authority's release and the purchase agreement were not read for this version, so the account rests on the reporting.[105]

PART TEN: READINGS BY RESEARCH SPECIALTY

The Institutional Behavior Reading

The core specimen is the sequence: option signed October 1, 2024; land enlarged October 13; rezoning application November 7; use legalized, site rezoned, and easement relocated in one joint session November 26, presented as speculative housekeeping; closing June 2025; corporate confirmation March 2026. The joint-meeting mechanism deserves comparative attention — it eliminated the interval between planning commission recommendation and board action that the single citizen speaker explicitly requested, an interval that in Hanover became the space where opposition organized. The contractualization of secrecy is the second specimen: Section 9.4.1's FOIA-cooperation duty and media-management assignment, plus the NDA that survived the announcement, constitute negotiated opacity as a deliverable, distinct from the cultural secrecy documented in Chesterfield. Third, the institutional learning question: the county's own FAQ, the chair's defenses, and the open-house concession track how a board absorbs a legitimacy shock it cannot procedurally lose. A fourth specimen arrives with the air permit. The entity that applied to the state for authority to install 120 diesel generators is the shell; the express statement of its parentage appears nowhere in the application's extracted text and sits instead in a consultant's covering email; and the two public-process steps that appear in the file, a participation period and dispersion modeling, were both imposed by the agency after filing rather than proposed by the applicant, which is visible only because the docket preserves the dates.

The Utility Finance Reading

Three objects at the snapshot, and one more from the instruments read since. The invisible rate: a $2.40 effective cap living in a contract rather than an ordinance, an 18.4 percent day-one discount that a survey of published rate schedules would not record, set ten times Chesterfield's level: evidence on whether recruitment discounts price to alternatives rather than to cost. The revenue range: a $30 million public claim with nothing underneath it, since the agreement caps the rate and guarantees no yield, and the gap is composed of depreciation schedules, buildout assumptions, and assessment practices that are all still private. And the first APCo case: large-load protections built by settlement (twelve years, 80 percent minimum in the West Virginia template Google itself negotiated) rather than by rate class, on a fossil-heavy system with an affordability crisis, where the marginal data center meets a fundamentally different cost and politics structure than in Dominion territory. A fourth object arrives with the water agreements. The county's recurring multi-decade deposits into the Water Supply Source

Development Fund are characterized in the instrument as "payments for prior services rendered" that "are not debts of the County," and, if construed as debts, as "moral obligations of the County only." The form here is municipal finance rather than water supply, and it is what allows the county's side of a cost ladder reaching a tiered maximum of $200 million, before escalation, to sit outside the county's debt limit. The performance agreement reaches the same place by a different route, declaring itself "a limited pledge" that does not evidence a debt within the meaning of Article X, Section 10(b) of the Virginia Constitution. Two instruments, two drafting techniques, one result: the county's largest commitments in a generation are structured so that neither appears where a voter or a bond analyst would look for debt. Section 4.I holds that characterization only until the authority begins design and construction of the new sources, and what governs the payments after that point is not stated. The framework should read it alongside the invisible tax rate as two instances of one technique: an obligation with the economic substance of a public commitment, given a legal form that keeps it out of the register where the public would look for it.

The Energy, Labor, and Infrastructure Reading

The water arithmetic is the entry point: 2 MGD against 19 to 21 MGD of current production is absorbable; 8 MGD against 4-to-8 MGD of Carvins Cove headroom dates the new-source decision to roughly 2040, twenty years ahead of the 2060 delivery the old plan treated as the end of adequacy, and the cost ladder for that source is the project's largest unpriced liability. That ladder is now readable in the instrument rather than in competing summaries of it: 100 percent of the first $100 million on the county, on four tiers running to $300 million, with the thresholds escalating by the greater of 4 percent or prime from the fifth year, and a drafting gap above $300 million that this study does not fill. The structural finding is the accountability gap: the demand lands on a regional authority where the approving county holds one seat of eight, Roanoke City and Roanoke County together hold six, Franklin County holds the eighth, the approval was unanimous under NDA, and the county's own agreement recites, as a binding term, that the expansion will limit supply and impair development in the localities holding those six seats. The same agreement gives the authority a remedy against the county at Section 4.I: if the county misses a payment or challenges the agreement's validity, the authority may restrict water supply capacity in the county. A member locality that litigates its own water contract does so against a stated consequence for its residents. Labor: fifty permanent jobs per building at an $86,000 median, 150 if all three rise, against a peak construction workforce put at up to 1,000 by the county and about 1,500 by The American Prospect, in a county whose largest previous employer commitment automated its way to 73 percent of its jobs promise.

The Distributional Justice Reading

The site is a former slave-labor plantation whose descendant community remains in Amsterdam, adjacent to the park; the county moved the plantation's surviving slave dwellings in 2016 for a previous recruited employer over a descendant's lawsuit. The $4 million community payment allocates its largest stream to sheriff's office equipment and nothing to the corridor communities or any externality-linked mitigation. The visible 2025-26 opposition is organized from the affluent Daleville corridor; the descendant community is absent from the documented record of it. The water burden falls on 98,000 mostly-Roanoke users; the revenue accrues to Botetourt. Each of these is documented in Parts One, Three, Four, and Six; together they form the distributional map that on-the-ground research should test.

The Energy Geography Reading

Botetourt is this series' first case west of the Blue Ridge and its first hyperscale commitment in APCo territory, secured not by proximity to fiber corridors but by the "necessary confluence" Google's own filing names — power, fiber, and water held in inventory by a county that had been assembling exactly that confluence since 1995. The candidate edge effects are legible without yet being demonstrated: two nearby counties writing defensive ordinances with no proposal on the table and a third, Campbell, writing them after two by-right proposals had arrived; a regional authority's resources annexed to one county's fiscal strategy; and a recruitment model built for factories processing its first customer whose scale reorganizes the host. Whether the ordinance-writing is a response to Botetourt or to the statewide wave is not established on this record, as Part Nine says. Whether diffusion west of the ridge proceeds through copycat recruitment or through the Hanover-style preemptive repricing the neighbors are sketching is the live question this baseline exists to measure.

PART ELEVEN: GAPS IN THE RECORD AND DIRECTIONS FOR FURTHER RESEARCH

Decisions Pending at Snapshot

The June 17, 2026 open house at Lord Botetourt High School. The Corps Section 404 permit decision following the April 9 comment close. The APCo transmission application at the SCC, expected summer 2026, and the final order text in PUR-2025-00057. On-site grading, expected before year-end 2026; the county's project page, as read on October 24, 2026, records that it began during the second week of September.[100] The FY2027 county budget, tabled May 26. Hanover's June 24, 2026 data center rate vote, which will reset the regional rate table this report's Part Seven records. Resolved: on that date the board adopted $0.45 for calendar year 2026 by resolution, 7-0, and referred the rate to its Finance Committee for further study, also 7-0. The advertised increase to as much as $3.00 was not adopted.[58] Any WVWA policy change on confidentiality agreements following the March 2026 review.

Decisions Pending after the Snapshot

The Virginia Water Protection permit application 25-1919, under review since January 21, 2026 and still under review on DEQ's page as captured September 7, 2026, with three DEQ information requests answered and an updated concept mitigation plan filed August 14, 2026. The permittee-responsible mitigation plan, which DEQ's page as captured September 7, 2026 says is under development and not yet submitted. The Minor New Source Review air permit 21819-1, under review since May 13, 2026 and still under review as of September 7, 2026, with a public participation period and air dispersion modeling both required by DEQ after filing. The Corps Section 404 decision, for which DEQ's page as captured September 7, 2026 carries no status. The authority's regional water supply study, at step 2 of six with no source selected at its August 25, 2026 open house. The Appalachian Power transmission application at the State Corporation Commission, which Cardinal News reported on September 16, 2026 as filed on September 4; the SCC docket was not read for this version.[106] Whether Google files a revised air application reflecting the air-cooling announcement for the first building; as of the September 7, 2026 capture of DEQ's docket, none had appeared. The outcome of the June 17, 2026 open house, and of the commission the Board of Supervisors created on July 28, 2026, whose members were not found appointed in the sources read for this version.

Primary-Source Verification Priorities

Claims marked with asterisks in the endnotes rest on secondary sources. The priority targets. Items 1 through 10 are ordered by analytical weight; items 11 through 18 are grouped by subject:

1. **The exhibits to the funding agreement, and the Utility Development Agreement.** The funding agreement's posted PDF, as obtained on September 7, 2026, runs fourteen pages and ends at the signature pages, so Exhibits A through D were not published with it. Their content is not on this record, of which Exhibit C itemizes the $1,661,170 preliminary engineering payment and Exhibit D contains the Drought Contingency Plan; nor is the Utility Development Agreement that both water instruments contemplate and neither contains. 2. The September 10, 2025 WVWA board packet and minutes, for what the eight members were shown before voting unanimously, and to establish what kind of meeting it was. The authority's stated schedule is the third Thursday of the month, and September 10, 2025 was a Wednesday. 3. The Real Estate Option Agreement dated October 1, 2024, referenced in the performance agreement at Sections 1.1 and 3.1 but not posted. Its terms, contingencies, and signatories date the county's binding commitments, and Section 3.1's "as adjusted pursuant to the Real Estate Option Agreement" is the most likely place the gap between the anticipated $14,064,885 and the $14,055,406.37 closing figure resolves.

4. The Carvins Cove safe yield (reported 14-18 MGD from authority financial audits) and the Spring Hollow / Roanoke River withdrawal permit limits — pull the WVWA annual comprehensive financial report and the DEQ permit. The Part Four arithmetic inherits whatever error these carry. 5. The final order in SCC Case No. PUR-2025-00057 and the Daleville transmission application, reported filed on September 4, 2026 (note 106), for the approved minimum-take percentages and cost assignment. 6. The DEQ joint permit application (January 2026, Timmons Group) in full, including the water and energy design figures the Rambler reported officials shared with Google privately. The instrument now has a number — DEQ calls it request number 25-1919, and renders the joint application as both 25-1919 and 20251919 — plus a Marine Resources Commission habitat file at id 20251919 and a DEQ docket carrying individual URLs for all but its first entry, so the target is addressable rather than aspirational. The Marine Resources Commission's habitat document system returned an empty body on two retrieval routes on September 6, 2026, so that file requires a manual download. 7. The November 26, 2024 meeting recording, to check the minutes' characterization of staff presentations and public comment. 8. The "Helio Capital LLC" vs. "Helios Botetourt LLC" entity question — reconcile against SCC entity records and the deed. DEQ's project page and the air permit application both say Helio Capital

LLC, which is a data point and not a resolution. The same filing names four sibling Virginia entities under common ownership, with registration numbers, and none of the five has been checked against SCC records; the cover letter and Form 7 give Wheeler Survey Company LLC two different numbers, 74512 and 74152. Two identifiers now attach to the question from DEQ's own correspondence: **SCC Entity T0723124 is Google LLC**, and DEQ recorded that the joint permit application's property-owner section carried no legal name and an SCC number the agency could not find, while Botetourt County GIS listed Helio Capital LLC as owner at a different SCC-registered address.[99] 9. The Harrington Tract acquisition date (October 13, 2024 per the county attorney's account in the minutes; the date fell on a Sunday, so the recordation date needs the deed book). 10. County claims not yet independently verifiable: the $10 million-per-building revenue projection's assessment assumptions; the "twice the top three companies combined" comparison; the 1,000 construction jobs figure.

11. **The missing parts of the air application.** Attachments 5 and 6, which fall past the point where the extraction stops mid-sentence in a Caterpillar specification sheet. Attachment 2, the site plan and location map, which are images with no text layer and are the only place in the air filing where a campus footprint would appear. Attachment 4's Caterpillar performance tables, roughly 375 lines of which returned unrecoverable characters and are marked as elided rather than guessed. And the emissions spreadsheet named in the covering email, "PTE- Helio Capital LLC (4-24-2026) for VADEQ.xlsx," which was not checked for whether DEQ has published it.

12. **The Local Governing Body Certification Form and the Air Pollution Activity Suitability and Value Form as signed by Botetourt County.** The covering letter states that both were submitted to the county and that the county signed them; neither appears in the extraction. These are county-side documents on a Google air permit and are worth having on their own merits, independent of the air analysis.

13. **The Corps public notice's attachments and the Marine Resources Commission file.** The six attachments linked from public notice NAO-2025-01857 are not on this record as of September 7, 2026, and neither is the joint permit application on the Marine Resources Commission's system.[24]

14. **The July and August 2026 county items.** The Board's vote creating the commission, dated to July 28, 2026 by its agenda and WDBJ7, and the Planning Commission's August 10, 2026 vote on the Dal-Nita Hills waterline are recorded in the county's own releases, and the Board's August 25, 2026 approval of the waterline rests on the Fincastle Herald.[94][102] The county's own meeting

minutes, not listed on its Agenda Center as read on October 24, 2026, would settle the motion wording and the Board's tally by name; the commission's membership is the other open item.

15. **The Virginia Department of Health's August 31, 2026 conservation-measures list, rendered.** Botetourt's placement on the voluntary rather than the mandatory list was reconstructed from printed totals after extraction reordered the source's headings.

16. **The basis for the county's public account of who pays for the new source.** Neither of the two water agreements contains the usage-based mechanic or the date the county's water page reports, for the reasons set out in Part Four. The county's own working papers behind that page would settle where it comes from.

17. **The 2016-17 relocation of the Greenfield dependencies.** The physical move date conflicts across sources, late 2016 in some accounts and February 2017 in others, and the county's archaeological survey report and the deed record would settle both the date and the survey's scope. Endnote 9 defers to this item.

18. **The American Prospect's June 2, 2026 piece, "Take This Data Center and Shove It."** Quote attributions inside it were not independently verified for this study. The underlying interviews and the roughly 1,500 peak construction jobs it reports, against the county's up-to-1,000, are the items to check. Endnote 22 defers to this item.

What Remains Unretrieved, and How It Could Be Got

This section is written for whoever continues the work. It sets out what the record still lacks and the cheapest route to each item.

Several items are ordinary public records held by Virginia local governments and the regional authority, obtainable under the Freedom of Information Act by anyone willing to pay the statutory charges: the Real Estate Option Agreement of October 1, 2024; the Economic Development Authority's Harrington Tract closing documents; the September 10, 2025 authority board packet and minutes; county-Google correspondence after the announcement, where the performance agreement's own FOIA-cooperation clause makes the county's exemption log a finding in itself; and the grading plan submissions. The Utility Development Agreement, when and if it is executed, belongs on the same list.

Some of the record requires no request at all. The Roanoke Circuit Court file in Gendreau v. McEvoy is a public court record. The authority's board meets in public on the third Thursday of each month except August and December, with public

comment, and posts agendas and packets unevenly; the gap in press coverage is precisely the authority's and the EDA's meeting paper, which neither the Rambler nor Cardinal News systematically posts and which any attender can collect. DEQ's project page carries individual URLs for all but the first of the twenty-six documents in the Project Raspberry docket, and is the fastest route to each new filing as it lands. The State Corporation Commission's dockets in PUR-2025-00057 and in the Daleville transmission case (note 106) are public and searchable, and a transmission hearing is where Appalachian Power's "won't raise rates" claim would meet cross-examination.

Three things in this record cannot be got from paper, and they are addressed, like the rest of this section, to whoever continues the work. The physical relationship among the relocated slave dwellings, the honey bee sanctuary, the cherry blossom grove and the grading limits is a matter of standing on the ground. The authority's posture toward its own confidentiality practice is performed at its board meetings rather than papered in its minutes. And the descendant community at Amsterdam, whose stake in Greenfield is the longest of anyone's in this case, appears nowhere in the written record of the 2025-26 opposition; that absence can only be tested by asking, and it should be tested by someone with standing to ask.

APPENDIX: TIMELINE OF TURNING POINTS, 1759-2026

Date	Event
August 28, 1759	William Preston purchases 16 enslaved Africans from the ship True Blue; Greenfield plantation established
1995	County buys ~900 acres of Greenfield farm for $4.6 million following 1994 bond referendum
1996	Park rezoning completed with protective covenants
2014	Greenfield rezoned to Research and Advanced Manufacturing (RAM) district
2016-2017	Eldor recruitment; slave dwellings relocated over descendant lawsuit; no unmarked graves found. The physical move date conflicts across sources, late 2016 against February 2017
October 7, 2020	County conveys Tax Map Parcel 88-20 to the Economic Development Authority by deed, Instrument No. 200004669, as recited in the Board's November 26, 2024 "Resolution Substituting Property Subject to Open Space Easements and Related Matters" (note 16) (Wednesday). ⚑ The 2025 performance agreement defines the Property as Tax Map Parcel 88(26)3; whether the 2025 parcel was subdivided out of the 2020 one is not established here
January 2024	Google site visits begin under code name Project Raspberry
March 11, 2024	Mutual Non-Disclosure Agreement executed between WVWA and Helio Capital LLC, "on or about" this date per § 32 of the funding agreement (Monday)
October 1, 2024	Real Estate Option Agreement signed (Tuesday)
October 13, 2024	EDA acquires 62.767-acre Harrington Tract, merged into the optioned parcel
November 7, 2024	Rezoning application submitted
November 26, 2024	Joint PC/BOS session: data center use added to RAM, Harrington tract rezoned, easement relocated; all 5-0 (Tuesday)
December 18, 2024	Google's PPA for 100% of Rocky Forge Wind output announced (Wednesday)
March 24, 2025	APCo files large-load tariff revisions, SCC Case PUR-2025-00057 (Monday)
June 20, 2025	EDA-Google sales agreement executed (Friday)
June 24, 2025	Board approves performance agreement; title transfers; public announcement: $14,055,406.37 plus $4 million (Tuesday)
July 17, 2025	Roanoke mayor's 15% revenue-share request

	reported (Thursday)
September 10, 2025	WVWA board unanimously authorizes both water agreements; usage figures redacted from released versions (Wednesday)
September 17, 2025	Michael T. McEvoy signs the county water agreement for the authority (Wednesday)
October 8, 2025	Gary Larrowe signs for Botetourt County, making the county water agreement effective — six days before the agreement Google signed (Wednesday)
October 9, 2025	Rambler editor sues WVWA executive director under FOIA (Thursday)
October 14, 2025	Utility Services Funding Agreement executed by WVWA and Helio Capital LLC — a separate event from the board authorization, and the only one of the two evidenced in the instrument (Tuesday)
November 4, 2025	Amsterdam District elects Tim Snyder with 74 percent; the Southwest Virginia Data Center Transparency Alliance had formed that fall (Tuesday)
November 5, 2025	Judge Ciaffone rules data center water use is not proprietary — reported as the first such ruling in Virginia (Wednesday)
December 16, 2025	USACE preliminary jurisdictional determination issued to Google; DEQ's page numbers it NAO-2025-1857 (Tuesday)
January 2026	Google files DEQ wetlands application (three buildings, ~921,000 sq ft); first grading permit applications follow in February
January 21, 2026	DEQ receives the VWP joint permit application, case 25-1919 (Wednesday)
January 28, 2026	Court of Appeals declines to stay disclosure order (Wednesday)
February 23-25, 2026	WVWA releases unredacted records ahead of March 3 contempt hearing: no more than 2 MGD Day 1, up to 8 MGD as the Day N figure (Monday-Wednesday)
March 10, 2026	Army Corps public notice NAO-2025-01857, "Project Raspberry" (Tuesday)
March 11, 2026	DEQ issues Preliminary State Surface Waters Determination SSWD-000661 after a site visit — the only action on the merits in the water file to date (Wednesday)
March 12, 2026	WSLS synthesizes released documents: investment floors, rate cap, water range (Thursday)
March 26, 2026	Google formally confirms the campus; county claims $30 million annual revenue at buildout (Thursday)
April 8, 2026	First post-announcement community meeting

	packs Ashley Plantation Country Club (Wednesday)
April-May 2026	Chamber endorsement; protests at business summit, governor's Roanoke event, and supervisors' meetings
May 13, 2026	Helio Capital LLC files Minor NSR air permit application 21819-1 with DEQ; the covering email states that Helio "is a Google business entity" (Wednesday)
May 15, 2026	Daleville Area Transmission Improvements Project reported (Friday)
May 29, 2026	APCo files $61.4 million biennial review base-rate request (Friday)
June 1, 2026	DEQ notifies Helio Capital that a public participation period will be required for the air permit (Monday)
June 2, 2026	The American Prospect: "Take This Data Center and Shove It" (Tuesday)
June 3, 2026	APCo transmission open house, Read Mountain Middle School (Wednesday)
June 12, 2026	Evidence snapshot
June 16, 2026	DEQ requires air dispersion modeling for the air permit (Tuesday)
June 17, 2026	Scheduled as of the snapshot: Google/county public open house, Lord Botetourt High School; outcome not on this record (Wednesday)
Post-snapshot record follows, current to October 24, 2026 for the items dated in the text	
July 20, 2026	WVWA publishes "A Message for Our Customers": a 2024 proposal for 10-11 MGD was "fully rejected"; signing and execution dates separated (Monday)
July 22, 2026	WVWA reports Google's announcement of air cooling for the first building; "We do not have updated demand figures at this time"; existing agreements remain in effect (Wednesday)
July 28, 2026	Board of Supervisors votes 3-1 to create a five-member commission to assess the proposed Google campus; membership not on this record (Tuesday)
August 10, 2026	Planning Commission motion to recommend the Dal-Nita Hills waterline commission permit fails 2-2; the county deems the application approved and advances it to the Board (Monday)
August 14, 2026	Last document in DEQ's Project Raspberry docket as of the September 7, 2026 capture: Google response and Updated Concept Mitigation Plan (Friday)
August 25, 2026	WVWA regional water supply open house; study at

	step 2 of six, no source selected (Tuesday)
August 25, 2026	Board of Supervisors approves the Dal-Nita Hills waterline after a public hearing, unanimously per the Fincastle Herald (Tuesday)
August 26, 2026	Botetourt County announces that Google has received a Land Disturbance Permit for Mass Grading Package No. 1 (Wednesday); the release states no issuance date and no start date, and the page carries a last-updated date of August 31
August 31, 2026	Botetourt appears on VDH's list of localities with waterworks under conservation measures; voluntary-vs-mandatory placement reconstructed, not confirmed (Monday)
September 3, 2026	Cardinal News reports Google has a county grading permit to begin grading, with VWP and Minor NSR still under review (Thursday)
September 4, 2026	Appalachian Power files its Daleville Area Transmission Improvements Project application with the SCC, as reported by Cardinal News on September 16; docket not read (Friday)
Second week of September 2026	Grading begins at the site, per the county's project page as read October 24, 2026
September 11, 2026	Western Virginia Regional Industrial Facility Authority votes to enter into a purchase agreement with Clearview Dynamics for 94 acres at Wood Haven Technology Park, Roanoke County (Friday)
October 5, 2026	Cardinal News reports Appomattox's AVAIO project as permitted by right, with construction expected to start by the end of 2026 (Monday)
October 14, 2026	Compromise filed in APCo's base-rate case; final order due by January 15 (Wednesday)
October 16, 2026	The authority confirms Google's involvement in the Wood Haven project, as reported by Cardinal News, WDBJ7 and Virginia Business (Friday)

ENDNOTES

An asterisk marks a claim resting on secondary sources, placed either on the in-text citation or at the head of the endnote. Where a primary document for verification has been identified, it appears in Part Eleven.

[1] The research framework categories used in this case study are the author's analytic categories, applied by type of work.

[2] Tommy N. Turner, What Virginia Is Spending, What Virginia Is Getting: A Fiscal Analysis of the Commonwealth's Data Center Tax Exemptions, v4.0, March 2026.

[3] Botetourt County population 34,129 and median household income $81,213: Census Bureau vintage-2024/ACS 5-year estimates as compiled at World Population Review and Data USA; real estate rate $0.70 per Botetourt County Local Tax Rates schedule, botetourtva.gov/383. Daleville CDP: ~3,307 (2026 estimate) vs. 2,716 (2020 Census), median household income $103,056, World Population Review.

[4] Botetourt County, "Botetourt Center at Greenfield," botetourtva.gov/212 (~750 acres; county administration center on site; "The Center is the only location in Botetourt County zoned for data centers."); county Google Data Center page, botetourtva.gov/1021: "The Botetourt Center is the only place in the County zoned and RAM district, making it the only location where a data center could be located." Both retrieved September 7, 2026. 2014 RAM rezoning per the county's published project timeline, botetourtva.gov/1021.

[5] National Register of Historic Places Registration Form, "Greenfield" (011-0026, 2022 delisted nomination), Virginia Department of Historic Resources: Preston's August 28, 1759 purchase of "16 Africans from the ship True Blue"; 1,200+ acres by the 1770s; 38 people enslaved in 1860; descendants "still live in the Amsterdam area of Botetourt County." dhr.virginia.gov.

[6] Virginia DHR, "Greenfield Kitchen and Quarters" (011-5700): c.1845 kitchen with cantilevered second story, c.1864 quarters, "the only survivors of the many dependencies and agricultural buildings that once stood at Greenfield."

[7] Cardinal News, "Why Google's data center project in Botetourt gets applause while others don't and how the planning for it began long before the web even existed," June 25, 2025; Roanoke Times, "Industrial park almost reality," May 21, 1996 (922 acres referenced); county timeline at botetourtva.gov/1021 (1995 Blount Farm purchase, $4,563,900; 1994 $19.7M bond referendum). The supervisor's electoral defeat over the purchase: Cardinal News, June 25, 2025.

[8] Roanoke Regional Partnership release, March 2016 (Eldor: $75M, 350 jobs, largest new-location announcement in Botetourt history); Roanoke Times coverage of the announcement; Cardinal News, "The pandemic forced this plant to automate," March 28, 2023 (256 employees; second VEDP grant extension; investment exceeded $76M). Commonwealth's Opportunity Fund grant: $3.2 million.

[9] *Relocation fight: WVTF, "Preserving Greenfield's Slave Dwellings: Efforts to Keep Them Where They Are," January 8, 2016; Roanoke Times, "Descendant of slaves seeks to stop the relocation of Greenfield plantation buildings" (Shirley Lewis suit against all five supervisors, the EDA, and the deputy county administrator); WTVR, February 25, 2016 (Cheryl Sullivan Willis); WSLS, February 8, 2016 (no unmarked graves found); Roanoke Times, "At a Botetourt industrial park, history and progress on a collision course." Friends of Greenfield Preston Plantation officers and the Rivanna/Dovetail archaeological review per Roanoke Times and WSET coverage. The physical move date conflicts across sources (late 2016 vs. February 2017); deed-level verification at Part Eleven item 17.

[10] Virginia DHR: original Greenfield listing (VLR 2010/NRHP 2011) delisted 2022 due to relocation; "Greenfield Kitchen and Quarters" added to the Virginia Landmarks Register December 2021 (WSLS, December 9, 2021). Greenfield Preservation Advisory Commission creation and 28-acre historic park: WFIR; standing Historic Greenfield Advisory Council: botetourtva.gov/382.

[11] Roanoke Times, "Ballast Point starts to brew in Botetourt County" (June 2017 opening); WSLS, September 10, 2019 (taproom closure, 41 jobs); Roanoke Times, "Sale of Ballast Point brand excludes Daleville operation" (December 2019); Brewbound, March 2023 (New Belgium acquisition, ~60 workers offered jobs).

[12] VEDP press releases: Pratt Industries, February 2019 (50 jobs); Munters, March 2025 (270-job expansion; cooling equipment including data center systems).

[13] Botetourt County, "Google Data Center," botetourtva.gov/1021, fetched June 12, 2026: published timeline ("Early 2024 Google Prospect Coordination… prospect visits with an unknown company"), NDA FAQ ("a common part of nearly every high-profile project"), two-step closing (sales agreement June 20, 2025; title June 24, 2025), $14,055,406.37 price, $50,000/acre list price, $30,000/acre prior maximum, text-amendment characterization ("adopted after a public hearing at which no opposition was expressed"), grading permit applications received February 2026, grading expected before end of 2026. *County Administrator Gary Larrowe's "in the works since January 2024": Cardinal News, June 24, 2025.

[14] *Cardinal News, "Have questions about Google's data center project in Botetourt County? We have some answers," April 3, 2026 (updated April 27): Larrowe on the NDA as "safety rail," signed by "anyone who needed to be in the know."

[15] Economic Development Performance Agreement among Botetourt County, the Economic Development Authority of Botetourt County, and Helio Capital LLC, effective June 24, 2025, posted at botetourtva.gov/DocumentCenter/View/6347. Cited provisions: §1.1 (Property: Tax Map Parcel 88(26)3, Amsterdam Magisterial District, 312.55± acres; Real Estate Option Agreement "dated as of October 1, 2024"); §2.1 (20-year term per data center from operational date); §3.1 ($45,000/acre, ~$14,064,885 anticipated); Art. III (five-business-day permit review commencement; Third Party Inspection Program); §4.1 ($1B capital investment per data center); §4.2 (50 jobs per data center at $86,000 median, defined as 1.5 × $57,257); §4.3 ("No Obligation to Develop"; five-year termination; no return of Community Investments); Art. V ($4M schedule: $1.1M ambulances; $600K fire truck defeasance; 5 × $100K parks; 2 × $150K heart monitors; 5 × $300K body cameras/less-lethal; $1.00/sq ft Fire/EMS at permit); §5.2 (sale-proceeds earmarks including $3.6M events center, $3.5M Buchanan library, $2M schools); §6.1 ("Not a Tax Exemption"); §6.2 ($2.40/$100 effective cap via county payment to Authority, granted back to Company); §9.3.2 (notice c/o Carl Bivens, Troutman, Richmond); §9.4.1 (confidentiality; FOIA cooperation; "Company will manage all media and press relation services regarding Company's involvement with the County and the Authority").

[16] Botetourt County Board of Supervisors and Planning Commission, joint meeting, November 26, 2024 (a Tuesday), botetourtva.gov/AgendaCenter. Retrieved September 7, 2026. ⚑ Three dockets carry this meeting: _11262024-547 is a bare notice, _11262024-548 is the Board of Supervisors packet, and **`_11262024-549` is the Planning Commission packet, which is where the staff reports for Items 2.C and 2.D sit; they are not in the -548 packet at all.** Cited for: the advertised agenda's 12:30 p.m. closed session under Va. Code § 2.2-3711(A)(3) and (A)(5), naming the Amsterdam (including Greenfield) district and, for (A)(5), the Blue Ridge and Valley districts as well. ⚑ **The minutes record four subsections, not two.** The board went into closed session at 12:31 p.m. on motion by Mr. Clinton under (A)(3) and (A)(5) as advertised, and also under **(A)(7)**, consultation with legal counsel on actual or probable litigation, "relating to the case Booth et al. v. O-N Minerals, pending in the Circuit Court of Botetourt County, and Claunch v. Board of Supervisors of Botetourt County, pending in the Virginia Court of Appeals," and under **(A)(6)**, investment of public funds "regarding a potential investment in the Valley District." Ayes: Clinton, Michael, Nicely, White,

Scothorn. The board returned to open session at 2:03 p.m. and adopted Resolution #24-11-01; Item 2.C (62.767-acre Harrington addition, A-1 to RAM); Item 2.D (text amendment adding "greenways and trails, and data center and its definition" to RAM, applicant: Board of Supervisors); staff report: "As this is a speculative request, no use or concept is identified at this time"; community development director: rezoning "for speculative purposes now"; planning supervisor's "21st century" framing and electricity/water acknowledgment; staff genealogy to August 2018 and February 2023 board directions; four in-person and two written rezoning comments; Danny Goad sole speaker on the text amendment; 5-0 planning commission recommendations and 5-0 board approvals; easement relocation 5-0, and the resolution substituting property subject to open space easements, which recites that "by deed dated October 7, 2020, and of record in the Office of the Clerk of the Circuit Court of Botetourt County, Virginia, as Instrument No. 200004669" the county dedicated an open-space easement and "by the same deed of October 7, 2020, the County conveyed Tax Map Parcel 88-20 to the Economic Development Authority," with the plat at Plat Book 64, page 84. Harrington Tract acquisition October 13, 2024 per county attorney's explanation in the minutes.

[17] Tommy N. Turner, Case Study: Chesterfield County, The $0.24 Rate, the Thirty-Year Lock, and the Two-Corridor County, v3.1 (companion in this series; concept DOI 10.5281/zenodo.20672436), Part One (Project Peanut), Part Two (the 30-year $0.24 rate agreement) and Part Seven (the same-day transaction and the nondisclosure agreement).

[18] WSLS, "Documents reveal key details of proposed Google Data Center Project in Botetourt County," March 12, 2026 (a Thursday): Helio Capital LLC identified as the Google development entity; per-building investment and job minimums; an annual local tax revenue figure of about $1 million, which does not appear in the instrument (see Part Seven). ⚑ The broadcast itself is not held, so how WSLS characterised the figure is not established. 20-year server-equipment tax coverage; 2-to-8 MGD range; developer-funded infrastructure transferring to the authority.

[19] *The Roanoke Rambler, "Water Authority Prepares Key Vote on Potential Data Center, After Botetourt Spent Months Wooing 'Project Raspberry'," September 9, 2025: code name; FOIA'd internal records; John Hull's June 24, 2025 email ("working tirelessly for 17-18 months"; briefing "select private sector leaders... in advance of opinion editorial pieces"); water/energy designs shared with Google but not public; ~$8-10M near-term county payments into a Water Supply Source Development Fund per the August 5, 2025 draft agreement.

[20] VEDP press release archive, vedp.org, checked June 12, 2026: no Botetourt-Google release; the August 2025 "Google Investing $9 Billion Across Virginia"

release covers Chesterfield, Loudoun, and Prince William and does not mention Botetourt. Governor Youngkin's quote appears in the county's June 24, 2025 announcement (botetourtva.gov CivicAlert 871). No MEI or Commonwealth's Opportunity Fund award for the project appears in that archive as checked on the same date; no other public record was searched for one.

[21] Botetourt County newsflash, "Google Advances Botetourt County Data Center Campus Project," posted March 25, 2026 (botetourtva.gov newsflash 1084): "$10 million in annual local taxation" per building; "Google will pay for 100% of the power and water costs necessary for the project"; Virginia Tech reservoir-monitoring expansion to Carvins Cove; quotes from Chair Mac Scothorn, Larrowe, and Google's Amber Tillman. Formal confirmation coverage March 26, 2026 (a Thursday): WVTF; WDBJ7; Virginia Business; Cardinal News, March 27, 2026.

[22] *Gabrielle Gurley, "Take This Data Center and Shove It," The American Prospect, June 2, 2026: "minimal public notices," "a grand plan of maximum obfuscation," the Transparency Alliance tipped to the rezoning by a regular meeting attendee, Carvins Cove as drinking source for ~98,000 and a 12,000-acre reserve, cleared trees near the cherry blossom grove and apiary. Quote attributions within the piece not independently verified; full-text verification at Part Eleven item 18.

[23] The Roanoke Rambler, "Google Aims To Build 3 Data Centers, Totaling Nearly 1 Million Square Feet in Botetourt, Records Show," February 3, 2026, reporting Google's January 2026 DEQ joint permit application (Timmons Group): three buildings ~300,000-307,000 sq ft each (~921,000 total), three substations, 28,000 sq ft office; Rocky Forge named; alternatives analysis quoted ("The specific location is critical due to the necessary confluence of required utilities, particularly sufficient electrical power, adjacent fiber connections, and available water").

[24] U.S. Army Corps of Engineers Norfolk District, Public Notice NAO-2025-01857, "Project Raspberry, Botetourt, Virginia," March 10, 2026: the project on a 343.6-acre property, with no work-area or disturbance acreage stated; permanent impacts to 3.24 acres of non-tidal wetlands and 6,715 linear feet of streams on unnamed tributaries to Tinker Creek and Rulman Branch; approximately 120 acres of forested Indiana bat habitat, clearing restricted October 15-March 31; the applicant's estimate of 5.09 wetland and 7,215 stream credits, limited bank availability, and permittee-responsible mitigation as a potential approach; comments through April 9, 2026. Retrieved September 7, 2026, nao.usace.army.mil article 4428952; also reported by Cardinal News, March 18 and 27, 2026. The notice places the project "on a 343.6-acre property" and states no work-area or disturbance acreage, and it does not describe compensatory

mitigation credits as the route. It records instead that "the applicant estimates a requirement of approximately 5.09 wetland mitigation credits and 7,215 stream mitigation credits," that "mitigation bank credit availability within the watershed is limited," and that the applicant "has identified Permittee Responsible Mitigation (PRM) as a potential approach." The two impact totals agree with DEQ's page, which also gives the six sub-components. The Corps cites Section 404 alone, 33 U.S.C. § 1344, with no Section 10 citation, and treats Section 401 certification as "may be required." ⚑ Six attachments are linked from the notice; their contents are not on this record as of September 7, 2026, and neither is the VMRC joint permit application, also linked.

[25] *Construction timeline and jobs: Cardinal News, March 27, 2026 (Tillman: 18-24 months per building, phased "as resources become available"); county webpage per Cardinal News FAQ (up to 1,000 peak construction jobs); The American Prospect reports ~1,500. Performance Agreement §4.3 supplies the 2026 commencement / 2028 occupancy expectation.

[26] Western Virginia Water Authority, "History of the Authority" and "Board of Directors," westernvawater.org: 2004 formation after the 2002 drought; Botetourt joined July 1, 2015 (agreement signed June 29, 2015 at the Greenfield Education and Training Center); eight-member board (3 Roanoke City, 3 Roanoke County, 1 Franklin, 1 Botetourt); meetings the third Thursday of each month except August and December. Note that the September 10, 2025 action recorded at note 27 fell on a Wednesday and so was not taken at a third-Thursday meeting; whether it was a special or rescheduled session is not established here. See Part Eleven item 2.

[27] WVWA board vote September 10, 2025 (a Wednesday), unanimous: joint county/WVWA news release, botetourtva.gov/DocumentCenter/View/5736; WVTF, September 11, 2025; WDBJ7, September 11, 2025; Roanoke Times. The two agreements: Utility Services Funding Agreement (WVWA-Helio Capital LLC) and Water Supply and Infrastructure Planning and Development Services Agreement (WVWA-Botetourt County), the latter posted at westernvawater.org (showpublisheddocument/14538).

[28] Released agreement contents: The Roanoke Rambler, "Water Authority Releases Google Data Center Records Ahead of Scheduled Contempt Hearing," February 2026 (2 MGD on or about January 1, 2028; up to 8 MGD on expansion); WVWA project FAQ, "Google Data Center in Botetourt Center at Greenfield," westernvawater.org ("Carvins Cove is the primary water source for the Botetourt Center at Greenfield"; wastewater to the Roanoke Regional Water Pollution Control Plant; treated-wastewater reuse as potential expansion-phase strategy).

[29] WSLS, "Botetourt faces possible $300M water costs for proposed Google data center," February 10, 2026: county responsible for the first $100 million of new-source costs, declining share thereafter, total commitments up to $300 million, per authority documents.

[30] Botetourt County, "Google Data Center — Water," botetourtva.gov/1023, retrieved September 7, 2026. Cited for the county's drought sentence quoted at Part Four; for the "Pro Rata" account quoted there in the county's own words; and for the county's attribution of the 2040 and 2060 dates to "the Western Virginia Water Authority in a Data Center Q&A." The phrase "the same as any other customer" is the authority's, at note 91.

[31] *Ben Verschoor (Southwest Virginia Data Center Transparency Alliance), WDBJ7, March 31, 2026.

[32] *WDBJ7, "Water authority clarifies when new water source will be needed," February 26, 2026: new source to be identified by ~2040, in service by ~2060; the prior 2010 long-range plan had projected adequacy through 2060.

[33] *Mike McEvoy: WSLS, September 12, 2025 (Carvins Cove and Spring Hollow hold "more than 9 billion gallons" combined; data center revenue to slow residential rate increases); Cardinal News FAQ, April 3, 2026.

[34] WVWA, "Water Sources and Treatment," westernvawater.org: Carvins Cove 6.42 billion gallons at full pond, treatment capacity 28 MGD; Spring Hollow 3.2 billion gallons side-stream storage from the Roanoke River, 18 MGD plant expandable to 36 MGD; plus Crystal Spring, Falling Creek/Beaverdam, and wells.

[35] Cardinal News, "The Roanoke Valley uses less water today than it did 20 years ago — what that means for Google," May 8, 2026: system treats ~19 MGD currently; 26.6% more customers in 2025 than 2005 using 10.8% less water; Google at 2 MGD returns usage to roughly 15-years-ago levels. Systemwide treatment capacity in the mid-50s MGD per the same analysis and WVWA facility ratings at note 34.

[36] *Carvins Cove safe yield 14-18 MGD "according to financial audits" and current draw ~10 MGD: reported in regional coverage (The Roanoke Rambler, "Roanoke's Water, the Region's Growth," May 6, 2026); verify against the WVWA annual comprehensive financial report before relying on the derived headroom figures.

[37] *Largest existing customer: Coca-Cola bottling plant, 270,000 gallons/day (2025), per virginiaplaces.org's WVWA compilation and Rambler reporting. Derived multiples (2 MGD ≈ 7.4×; 8 MGD ≈ 29.6×) are this report's arithmetic.

[38] *Chair Mac Scothorn: WDBJ7, March 16, 2026 ("Google came here for three things: land, water, and energy"; "It's 2 million gallons a day on the hottest day of the summer"; McEvoy's 10-12 MGD spare-capacity estimate relayed).

[39] *Gendreau v. McEvoy, Roanoke Circuit Court, filed October 9, 2025; ruling November 5, 2025 (Judge Leisa Ciaffone): water usage not proprietary under the Virginia FOIA trade-secret exclusion; "there are few resources more precious than water." Per The Roanoke Rambler, "Google Strives To Keep Data Center Water Use Secret After Judge Orders Records Released," and Virginia Business. The court file is a public record; direct verification in Part Eleven.

[40] WVWA release of unredacted records February 23, 2026, figures public February 25-26, ahead of the March 3 contempt hearing; Court of Appeals declined stays January 28, 2026 and on renewal. The Roanoke Rambler; WDBJ7, February 25, 2026; WSLS, February 26, 2026; Fincastle Herald.

[41] WVTF, "Data center water fight spotlights non-disclosure agreements," February 26, 2026: McEvoy — prior NDAs expired at announcement; this was "the first time after an announcement that confidentiality continued."

[42] *WSLS, "Western Virginia Water Authority officials weigh changes amid Google data center concerns," March 19, 2026.

[43] Tommy N. Turner, Case Study: Henrico County (companion in this series), on the Varina entitlements and post-hoc reform; Case Study: Hanover County, v3.0 (companion), Parts Four and Five, on the Mountain Road rejection. The structural comparison, Botetourt's opposition organizing after by-right status like Varina and unlike Hanover, is this report's analysis.

[44] *Southwest Virginia Data Center Transparency Alliance: formed fall 2025; Ben Verschoor (founder), Hunter Hartley (spokesperson), per WDBJ7, March 31, 2026, and Roanoke Times, "Political divides disappear in united fight against Google data center in Botetourt," March 8, 2026 (Botetourt Conservatives and Independent Thinkers cross-promotion; Scott Yates quote; petition without published signature count). General Assembly lobbying: WDBJ7, April 8, 2026. No documented formal Data Center Reform Coalition affiliation as of snapshot.

[45] *Bill Van Velzer and Charles Rule: WSLS, December 17, 2025 and January 21, 2026.

[46] *WSLS, "Google AI data center a hot topic at Western Virginia Water Authority board meeting," November 21, 2025 (November 20 meeting; board member Bivins quoted).

[47] *WSLS, "Tension at Botetourt County board meeting over citizen comments," April 1, 2026 (March 31 meeting; Chloe Johnson; Scothorn's residency-form explanation).

[48] *April 8, 2026 meeting (a Wednesday), Ashley Plantation Country Club: WDBJ7; WSLS; Fincastle Herald, "Residents issue call to action at Ashley Plantation" (Honey Bee Sanctuary; recall discussion; legal-remedies presentations). Pam Dotson quotes per WSLS and WDBJ7. No recall petition filed as of snapshot.

[49] *WSLS, April 15, 2026 (business summit protest); WDBJ7, April 17, 2026 (Chamber endorsement; William Nelms; Danny Goad counterpoint).

[50] *WFIR, April 30, 2026; WSET; Virginia Mercury analysis, May 5, 2026 (Spanberger: "pay their fair share" on energy; "significant concerns" about retroactive changes to existing agreements).

[51] *WDBJ7, May 27, 2026 (May 26 meeting; Anna Lawson and Danny Goad quotes); WFXR (signs: "No Data Center," "We Deserve Transparency").

[52] Cardinal News, June 11, 2026; botetourtva.gov/1021 (open house June 17, 2026, 5-7 p.m., Lord Botetourt High School; Google project website botetourtcountydatacenter.com; unapproved grading plans posted).

[53] *Cardinal News, "Two trends converge on Botetourt County: data centers and solar farms," June 4, 2026 ("ground zero"; "likely nothing procedurally that can stop the project").

[54] *Elections: VPAP results, November 4, 2025 (Tim Snyder, Amsterdam, 74%; Linda Rottman, Buchanan, 91%); The Botetourt Bee; Cardinal News, June 17, 2025 (Republican primaries oust three incumbent supervisors regionally). Botetourt supervisors serve staggered four-year terms elected in odd years; no seats on the 2026 ballot. Staggering implies a cohort standing in 2027, which this study has not identified.

[55] Botetourt County Local Tax Rates, botetourtva.gov/383: business personal property $2.94/$100, real estate $0.70, machinery and tools $2.00 (machinery and tools assessed at 50% of original capitalized cost for the first five years and 42% thereafter, printed on the rate page itself). FY2025 changes (RE $0.79→$0.70; BPP $2.71→$2.94; M&T $1.80→$2.00): Roanoke Times, June 2024; WSET, June 13, 2024. No data center classification appears in the FY2025, FY2026 or advertised FY2027 budgets, which are the three examined; no earlier budget was searched. The $2.94 figure was confirmed against the county's own Local Tax Rates page, retrieved September 7, 2026. That page is headed "2025 Tax Rates," states no

assessment ratio for the business personal property class, and carries no class, rate or ratio bearing the words "data center" — scope: that one page as rendered on that date; the machinery-and-tools sub-page and the underlying ordinances were not retrieved.

[56] Richmond BizSense, June 27, 2025: Chesterfield's agreements lock the $0.24 data center rate for 30 years with annual grant payments offsetting any countywide increase. See also note 17.

[57] Henrico: current $2.60/$100 for data centers of at least one megawatt, henrico.gov business personal property schedule; raised from $0.40 in the FY2026 budget (Richmond BizSense, February 26, 2025; officials cited a $3.09 state average); the $0.40 rate dated to the April 2017 cut from $3.50 (county release, April 2017).

[58] Hanover: $0.45 per $100 for data center equipment, set annually on a calendar-year basis and first adopted as part of the FY2024 budget. There was a removal: Hanover's Board Brief for April 8, 2026 records FY27 budget adoption of "the property tax rates and fees for calendar year 2026 as proposed, with the removal of the Data Center Tax Rate." The minutes of the June 24, 2026 meeting record the county attorney clarifying that "the Board had not yet adopted a data center tangible personal property tax rate for calendar year 2026, noting that the rate is established on a calendar-year basis rather than a fiscal-year basis," and that "if the Board wished to maintain the current rate, a motion would be required to adopt a tax rate of $0.45." The rate is set annually on a calendar-year basis, so the April 8 action left 2026 without a rate rather than repealing a standing one; the April 22 action then authorised a public hearing on setting it as high as $3.00. On June 24 Ms. Dibble "made a motion to adopt, by resolution, a data center equipment tax rate of $0.45 cents for calendar year 2026," carried 7-0; a second motion referring the rate to the Finance Committee for further study also carried 7-0, after Ms. Dibble withdrew an earlier version specifying "at least one year of study." Richmond BizSense, April 27, 2026, and The Center Square, for the April action as reported. See the companion Hanover case study, Part Seven.

[59] Prince William: **$4.50/$100** for "Computer equipment and peripherals used in a data center," Tax Rates 2026, pwcva.gov, retrieved September 7, 2026. The county publishes by tax year: $3.70 in 2024, $4.15 in 2025, $4.50 in 2026. Prince William Times, April 2025, for the earlier increase.[98]

[60] Mecklenburg County: $0.66/$100, published as "Data Center Computer & Peripherals," effective July 1, 2026 through June 30, 2027, mecklenburgva.com, retrieved September 7, 2026.[98] The county's rate schedule cites no enabling statute, but the FY2024-25 tax ordinance, obtained by hand download the same

day, does: "A tax of $.66 per $100.00 assessed valuation of computer equipment and peripherals as defined by §58.1-3506(A)(43) of the Code of Virginia located in Mecklenburg County."

[61] Dickenson, Lee, Scott, and Wise counties and the City of Norton, reported at $0.24/$100 adopted jointly; Data Center Dynamics; Cardinal News data center tax coverage. **Scott County's own "2026 Tax Levy Rates" schedule, obtained by hand download on September 7, 2026, carries "Data Center Tax $0.24,"** which puts one of the five on its own primary document.[98] ⚑ Of the other four, only Wise County's was reached: its personal property page lists four rates and no data center class — scope: that page on September 7, 2026, not the county's ordinances. Dickenson, Lee and Norton were not retrieved at all. The joint-adoption claim itself still rests on a 2021 Lonesome Pine Regional Industrial Facilities Authority release describing the rate prospectively.

[62] *WDBJ7, March 26, 2026 (county estimate ~$30M annually; Larrowe: "about $10 million in revenue per year per building, with three buildings planned"); county newsflash March 25, 2026 ("more than twice the contribution of the County's current top three companies combined"). Assessment assumptions undisclosed.

[63] Botetourt County FY2026 adopted budget: $98.8M total revenues, adopted April 22, 2025 with no tax increases (county release, CivicAlert 827; WFXR). FY2027: advertised at $159.1M all-funds / $95.8M general fund, no rate increases; adoption tabled May 26, 2026 pending auditor and school-funding discussions (Fincastle Herald; WDBJ7, May 14, 2026).

[64] *Mecklenburg/Microsoft comparators: cumulative investment "more than $2 billion" since 2010 (VEDP case study; Data Center Dynamics expansion announcements); Microsoft revenue approximating a quarter of the county budget and the $154M school complex (Cardinal News, April 10, 2025 and January 22, 2026). Population 30,824 (2024 estimate).

[65] *WDBJ7, January 17, 2026: county leaders on revenue already flowing to public safety and schools. Itemizations in that report mix the $4M community investment with sale-proceeds earmarks; the agreement's Article V and §5.2 (note 15) are the authoritative split.

[66] Google's $9 billion statewide announcement, August 27, 2025 (Google company blog; The Richmonder): Chesterfield anchor plus Loudoun and Prince William expansions; no Chesterfield-specific figure disclosed. Chesterfield population ~390,000 (Census QuickFacts).

[67] *Appalachian Power Virginia residential rates up 158% since 2007, more than three times inflation: Clean Virginia, "The Path to Affordable Power," November 2025; bills up ~35% 2021-2023: WDBJ7, November 6, 2023. APCo ~530,000 Virginia customers per company filings.

[68] Dominion GS-5: created in the SCC's 2025 biennial review order (Virginia Mercury, November 25, 2025; Data Center Dynamics) — ≥25 MW class, 14-year minimum contract obligation, minimum demand charges; SCC fact sheet, "SCC Data Center Initiatives," updated February 2026.

[69] *SCC Case No. PUR-2025-00057, filed March 24, 2025: APCo petition to revise Rate Schedule L.P.S. terms for new loads ≥100 MW per site / ≥150 MW aggregated; proposed 12-year minimums after up-to-4-year ramp, collateral, exit terms (SCC notice as published; Virginia Mercury, April 25, 2025). Settlement reached (ReisingerGooch regulatory update, November 2025); case reported complete with multiyear minimum-billing commitments (Cardinal News, May 15, 2026). Final order text and approved percentages: verification target, Part Eleven.

[70] *West Virginia PSC Case No. 24-0611-E-T-PW (APCo/Wheeling Power): Google intervened on duration and minimum-take; January 2025 compromise modeled on the Indiana Michigan Power settlement — 12-year contracts, 80% minimum commitment (West Virginia Public Broadcasting). APCo told the Virginia SCC its PUR-2025-00057 proposal tracks this tariff.

[71] *AEP Ohio data center tariff: PUCO order July 9, 2025 approving stipulation — new data center customers >25 MW pay ≥85% of subscribed demand for up to 12-year terms, exit fee of three years of minimum charges (POWER Magazine; Data Center Dynamics; KJK analysis). Indiana Michigan Power settlement order February 2025 (Utility Dive; AEP releases).

[72] *APCo 2025 Integrated Resource Plan, filed October 1, 2025 (WV PSC Case Nos. 25-0859-E-IRP / 25-0860-E-IRP), covering the two-state system through 2035: preferred portfolio pairs gas and solar additions with continued Amos/Mountaineer reliance; acknowledges "over 1 gigawatt of expected demand additions not modeled in the plan due to timing considerations" (APCo release; Sierra Club and Power Engineering analyses; WVVA on the May 2026 hearing schedule). No Botetourt-specific load appears in the plan.

[73] Cardinal News, "Appalachian Power plans upgrades to serve Google data centers in Botetourt," May 15, 2026: Daleville Area Transmission Improvements Project — ~17 miles of 138 kV rebuilt or reconductored, ~0.1 mile new line, upgrades to the Botetourt, Cloverdale, Mount Union, and Trinity substations, one new substation; SCC application expected summer 2026, construction fall 2027;

AEP Transmission project page, aeptransmission.com/Virginia/DalevilleArea. APCo spokesperson George Porter confirmed Google as the customer.

[74] *Roanoke Times, "APCo: Botetourt transmission project for Google data center won't raise rates" (Porter: Google pays for the upgrades); open house June 3, 2026, Read Mountain Middle School (WVTF, June 2, 2026; WSLS, June 3, 2026).

[75] Rocky Forge Wind PPA: Google to purchase 100% of output of Apex Clean Energy's 79.3 MW Rocky Forge project, North Mountain, Botetourt County — Virginia's first onshore wind farm; announced December 18, 2024 (Cardinal News; Apex/Google release). "Will not fully cover" the campus: Google spokesperson, Cardinal News, March 27, 2026. Total campus megawatts undisclosed on the public record this study has searched.

[76] *SCC approval of APCo small modular reactor site-development cost recovery at Joshua Falls: Cardinal News, November 14, 2025.

[77] *APCo rate actions: fuel factor reduction request, October 2025 (~$10/month on a 1,000 kWh bill; Cardinal News; SCC release); renewable rider +$4.36/month effective March 1, 2026 (Cardinal News, November 25, 2025); biennial review filed May 29, 2026, $61.4M base-rate request, ~$9.10/month net (The Center Square; WFXR; SCC release); HB 2621 (2025) securitization and rate-relief statute (Virginia Business; Roanoke Times).

[78] *AEP Q1 2026 earnings: 63 GW of incremental load expected by 2030, ~90% data centers; five-year capital plan raised to $78 billion (AEP release; SEC 8-K).

[79] *Roanoke Regional Partnership release, June 24, 2025 (John Hull quotes; coordination with VEDP and the county); The Roanoke Rambler, "With $1 Billion Google Data Center Deal Inked, the Roanoke Valley Enters the Game," July 17, 2025 ("the largest industrial announcement the region has seen").

[80] *Cardinal News, July 17, 2025 (Mayor Joe Cobb's request: 15% of annual Google tax revenue and water replacement within 10-15 years; Roanoke County Administrator Richard Caywood's "equal partner" letter) and July 24, 2025 (the request as unprecedented; annexation-era echo); WDBJ7 Target 7, September 11, 2025.

[81] *Franklin County: WSLS, May 12, 2026 (county contacted by data center companies); WDBJ7, May 6 and May 26, 2026 (draft zoning rewrite: no private-well service, noise limits, designated districts, 200-foot setbacks; no project proposed).

[82] *Montgomery County: Cardinal News, September 8 and December 15, 2025 (local-control resolution; zoning study; ordinance currently neither defines nor allows data centers). Campbell County: Cardinal News, Emma Malinak, "Data

center zoning amendment up for final approval in Campbell County," January 5, 2026 (the amendment "was adopted as an emergency ordinance by a 5-2 vote on Dec. 2," which from the article's date is December 2, 2025; it removed data centers from the by-right uses in the heavy industrial zones; the two projects off Cabin Field Road and Mt. Athos Road "allowed by-right" per the county attorney); Campbell County Board of Supervisors, minutes of May 5, 2026, public hearing "Update to Chapter 22 (Data Centers)," amendment to Chapter 22-15(A)(17) adopted 7-0. Appomattox County 452-acre proposal: WDBJ7, March 24, 2026.

[83] Primary documents retrieved September 7, 2026: Virginia DEQ published document 36352, the Minor New Source Review permit application narrative with VADEQ Form 7 pages and attachments, deq.virginia.gov/home/showpublisheddocument/36352; DEQ document 36350, emissions tables 3-1 through 3-9; DEQ document 36351, the covering email; Western Virginia Water Authority document 14540, "Utility Services Funding Agreement," westernvawater.org/home/showpublisheddocument/14540; and WVWA document 14538, "Water Supply and Infrastructure Planning and Development Services Agreement Between Western Virginia Water Authority and Botetourt County." All five are automated text extractions of the source PDFs, and none has been proofread against a rendered page. Known gaps: 14540's posted document ends at the signature pages, and its Exhibits A through D are not in it; 14538's signature block returned unreadable characters in extraction; the executed copy was obtained and the dates read from the rendered page on September 7, 2026 — McEvoy 9/17/2025, Larrowe 10/8/2025; 36352's extraction terminates mid-sentence inside a Caterpillar specification sheet, with Attachments 5 and 6 absent, Attachment 2 an image carrying no text layer, and roughly 375 lines of Attachment 4 marked as elided because they returned unrecoverable characters. Every mechanical search reported in this document was run against these extractions on September 7, 2026, and the search patterns are given at the point of use. Two further documents were retrieved on September 7: the county's August 26, 2026 grading release (note 96) and the September 3, 2026 Cardinal News report bearing on it (note 85). Both are static web pages rather than PDFs.

[84] Virginia Department of Environmental Quality, "Project Raspberry," subheaded "Google Data Center Campus," topics of interest, deq.virginia.gov/news-info/shortcuts/topics-of-interest/google-s-project-raspberry. Read September 7, 2026. ⚑ **The page carries no last-reviewed, updated or posted date on its face**, so every "currently" on it, and every "as of" this study attaches to it, rests on the capture date and nothing else. The latest document it lists is dated 14 August 2026. Cited for: the PEEP request numbers 25-1919 (VWP, received 21 January 2026) and 21819-1 (Minor NSR, received 13 May 2026), which

the page calls request numbers rather than case numbers, and which it also renders "JPA No. 25-1919" and "JPA No. 20251919"; the USACE preliminary jurisdictional determination of 16 December 2025, numbered NAO-2025-1857 in one tab and NOA-2025-1857 in another; the public notice NAO-2025-01857 of 10 March 2026 and the comment period closing 9 April 2026; the VMRC habitat link at id 20251919; "On May 13, 2026, Helio Capital LLC applied to DEQ for a Minor NSR Permit," against file names reading Google; the proposed permanent impact figures with their six sub-components, published as the applicant's; the compensatory mitigation passage quoted at Part Four, which the page attributes to the application twice over and nowhere adopts; the Preliminary State Surface Water Determination issued 11 March 2026 after a DEQ site visit, and the June 2025 applicant delineation behind it; the document list, nineteen dated headings and twenty-six links running 21 January to 14 August 2026, covering both permits, of which this study narrates the VWP correspondence only; DEQ's emails of 1 June 2026 (application completeness, and separately that a public participation period would be required), 12 June 2026 (report the horsepower of the engines) and 16 June 2026 (air modeling required); "Botetourt County is a VESMP authority"; the summary figure of 3,617 generator hours; the facility-wide emissions figures and equipment inventory, which the page publishes in the same reported form as the wetland figures — "According to the application, the proposed Project Raspberry data center campus would emit"; "Minor NSR permits issued by DEQ do not expire and remain in effect until the constructed facility or emissions unit is permanently shut down"; the campus description of three buildings at approximately 300,000 square feet, three substations and a 28,000-square-foot office; "Project Raspberry would disturb 240.4 acres of a 343.6-acre parcel," alongside the same page's "343.61-acre Project Raspberry study area" and "study limits"; Google's updated project study area boundary submitted 14 April 2026; the site address at 1016 International Parkway DC-1A; and the two Western Virginia Water Authority instruments, which the page names separately and attaches Google to only one of. Agency contacts named on the page: Shawn Crist, VWP project manager; Erin Rau, senior air permit writer; Kate Miller, public outreach coordinator, at kathryn.miller@deq.virginia.gov. ⚑ Of the twenty-six linked documents, three are cited at notes 86 to 88 and two more, DEQ's February 4, 2026 letter and Preliminary Determination SSWD-000661, at note 99; the others were not read as of September 7, 2026. The page's site vicinity map was not read. Anything this study says about the contents of any other docketed filing rests on the page's description of it.

[85] *Cardinal News, Samantha Verrelli, "Roanoke Valley Field Notes: Google gets permit to begin grading for Botetourt County data center," September 3, 2026 (a Thursday), retrieved September 7, 2026. Cited for: "Google received a permit to

begin grading for its planned data center campus in Botetourt County, according to a press release"; the report that "Contractors said that they will start grading after Labor Day, County Administrator Gary Larrowe told Cardinal News on Wednesday," the Wednesday being September 2; the photograph caption describing construction equipment standing at the site "where grading work is expected to start after Labor Day"; the Southwest Virginia Data Center Transparency Alliance's press release "condemn[ing]" the grading permit, stating that Google is "months overdue" in completing its state permit application, and stating "that there has been no update on a joint permit application from the Army Corps of Engineers"; "According to a Virginia Department of Environmental Quality webpage, the Virginia Water Protection permit application and the Minor New Source Review Permit applications are under review by the department"; and the paraphrase of the county release discussed in Part Six. Every reference in the article to grading beginning is in the future tense, and no sentence in it states that grading has commenced. Labor Day 2026 fell on Monday, September 7, four days after the article was published.

[86] Minor New Source Review air permit application, Helio Capital LLC to Virginia DEQ Blue Ridge Regional Office, May 13, 2026 (DEQ doc 36352; see note 83 for retrieval bounds). Cover letter cited for: the equipment inventory (114 Caterpillar 3516E at 2,750 kWe on 4,043-bhp Tier 2 engines, 38 per building; six Caterpillar 3512C at 1,750 kWe on 2,584-bhp engines, two per building; two fire pumps; booster-pump, HUB and site-entrance generators; "48 cooling towers (16 per building), each with a maximum circulation rate of 6,000 gallons per minute"); the proposed "annual limit of 3,617 hours of operation per 12-month rolling period for all 120 EGs combined" and 100 hours each for the remaining units; the BACT paragraph and the sentence "Because the EGs will meet the presumptive BACT limit, a BACT control cost analysis is not required with this Application"; the ULSD-or-HVO request; Wheeler Survey Company LLC at registration 74512 and Hayden Technologies LLC at 74163, permit condition 16; the statement that the Local Governing Body Certification Form and the Air Pollution Activity Suitability and Value Form "were submitted to Botetourt County, which signed both forms"; the request that a draft permit be sent to Renee Cheng at ALL4 before final issuance; and the signature of Samuel Matthews, Data Center Operations Facilities Manager, Helio Capital LLC. Form 7 pages cited for: the fee box checked at $4,240 under "Sources subject to Synthetic Minor permitting requirements: Minor NSR permit (Article 6)"; company representative Samuel Matthews at sjmatthews@google.com; the authorship line "Renee Cheng, ALL4 LLC, on behalf of Samuel Matthews for Helio Capital LLC"; affiliated entities Hayden Technologies LLC (74163), Wheeler Survey Company LLC (74152), Nova Mango Farms LLC (74216) and Peanut LLC (53256); the milestones box, New Equipment Installation

August 2027 to March 2030 and Start-up Dates July 2028 to March 2030; "Property Area at Site: 312" with no unit stated; the cooling tower rows CT-1-01 through CT-3-16 at 360,000 per tower, with "N/A – these will operate 8,760 hr/yr" appearing on the CT-1 row and the CT-2 and CT-3 cells blank in the extraction and a 24/7/52 normal and maximum operating schedule; the 3,613-hour combined limit for the critical generators at two places; the unchecked checklist rows for BACT Analysis and for Air Modeling Data; and the assignment of rows covering GEN-1-1 through GEN-1-38 to stacks GEN-1-1S through GEN-1-36S.

[87] Emissions tables, Attachment 3 to the same application (DEQ doc 36350), Tables 3-1 through 3-9, footer-dated April 2026. Table 3-1: sitewide potential emissions, NOx 99.39 tpy against a 100 tpy Title V major source threshold, PM/PM10/PM2.5 6.34, CO 20.56, VOC 1.79, SO2 0.09, maximum individual HAP (benzene) 0.04, total HAP 0.08, PSD threshold 250. Table 3-3: critical generators, quantity 120, NOx 96.62 tpy, on the stated parameter "Total Hours of Operation for All Critical Emergency Generators Combined: 3,613" and on the note that "The maximum of each emissions factor across the two Caterpillar emergency generators was used to conservatively estimate annual emissions," which is the 2,750 kWe unit at 53.48 lb/hr. Table 3-6: 3,613 hours restated. Table 3-7: 48 towers, 6,000 gpm circulating flow, 0.0005 percent total drift, 1,500 ppm total dissolved solids, 8,760 hrs/yr maximum annual operation, with circulating flow, drift and TDS "based on facility design documents." Table 3-9 footnote (b): quoted in full at Part Four. Table 3-1's columns, read on the filed PDF, run critical emergency generators, auxiliary engines, cooling towers, sitewide total, so the 4.73 tpy of particulate belongs to the cooling towers.

[88] DEQ published document 36351, covering email, Renee Cheng, Senior Managing Consultant, ALL4 LLC, to Paul Jenkins, Air Permitting Manager, DEQ, Wednesday, May 13, 2026, 7:46 p.m., subject "Minor NSR Air Permit Application for Helio Capital LLC," quoted at Part Four. The email names a second attachment that is not doc 36352, "PTE- Helio Capital LLC (4-24-2026) for VADEQ.xlsx," an Excel version of the emissions calculations dated April 24, 2026; whether DEQ has published that file was not checked.

[89] Utility Services Funding Agreement between the Western Virginia Water Authority ("the Utility") and Helio Capital LLC, a Delaware limited liability company ("the Owner"), WVWA document 14540, executed October 14, 2025 by Michael McEvoy for the authority and Aaron McGarry for Helio Capital, DocuSign envelope 0DF6E566-E6EE-439B-93CB-48A07DA07A15; see note 83 for retrieval bounds. Cited provisions: the page-one banner ("CONFIDENTIAL / CONTAINS TRADE SECRETS AS DEFINED IN VA. CODE § 59.1-336, ET SEQ. / PROTECTED FROM DISCLOSURE UNDER FOIA, VA. CODE § 2.2-3705.6(3)"); the recitals (Day

1 Water Solution of "no more than Two Million (2,000,000) gallons per day," Day 1 Wastewater Solution of 570,000 gpd, and the Utility Development Agreement "to which Botetourt County may be a party if required by either Party"); § 1 (the $1,661,170 PEC Payment, itemized at Exhibit C, funding the PER, the WSP, the FSCC and engineering design of Route 11 Transmission Main – Phase 3, with § 1(a) restricting the proceeds to the first three); § 1(d) (the WSP scope and the "could require up to Eight Million (8,000,000) gallons per day" language); § 1(e) (the Carvins Cove facilities study, and dock and pier improvements on the Day N trigger); the § 2 chapeau (four preconditions to availability); § 2(a) (the Water Capacity Allocation of no more than 2,000,000 gpd, which is also where the minimum pressure of 20 psi sits) and § 2(b) (the Sewer Capacity Allocation of no more than 570,000 gpd); § 2(c) (generally applicable rules, including the Drought Contingency Plan at Exhibit D); § 2(f) (no warranty against mandatory drought restrictions, and no liability for curtailment, both qualified by "beyond Utility's reasonable control"); § 3 (availability fees at the published schedule); § 4 (the Utility Development Agreement); § 5 (Day N notice; "no obligation, and makes no warranty or guarantee"; "materially impair or limit"; additional fees and an additional utility development agreement; the thirty-year abandonment); § 6(a) (usage billing at published rates); § 6(f) ("Owner shall not use private well water for any use"); § 7(a) ("continuous evaporative cooling to protect sensitive equipment required for essential operations," and "Utility does not guarantee a sufficient or uniform pressure or an uninterrupted supply"); § 16 (notice to Helio Capital LLC c/o Carl Bivens, 1001 Haxall Point, Richmond); § 21 (recitals incorporated as binding material terms); § 29 (force majeure, which lists droughts); § 31 (confidential information, notification, cooperation at the owner's expense, intervention, and indemnification for withholding); and § 32 (the Mutual Non-Disclosure Agreement executed "on or about March 11, 2024"). Exhibits A, B, C and D are referenced in the instrument and are absent from the retrieved text.

[90] Water Supply and Infrastructure Planning and Development Services Agreement between the Western Virginia Water Authority and Botetourt County, Virginia, WVWA document 14538; see note 83 for retrieval bounds. The execution dates, illegible in the extraction, were read from the executed copy on September 7, 2026: Michael T. McEvoy for the authority on 17 September 2025 and Gary Larrowe for the county on 8 October 2025, which is therefore the Effective Date. Google is not a party and is not named; the recitals define "the Owner" only as "the company developing the Project." Cited provisions: the recitals (the county's request that capacity be made available "on or about January 1, 2028"; "up to 8 total mgd at some unspecified date in the future"; the recital that the Day N Solution "will limit the water supply available to the Authority's member localities across the Service Area and will impair economic and other development

opportunities in those localities"; the interim shortfall recital covering the 1385 and 1580 HGL pressure zones and the Route 220 and Interstate 81 area; the parties' Comprehensive Agreement of July 1, 2015; and Va. Code §§ 15.2-2243, 15.2-5114 and 15.2-1205, with § 15.2-5148 cited separately at § 6.B(ii)); § 2.A.1 (the county not to make statements concerning Project water supply without the authority's prior written consent, with a good-faith FOIA carve-out); §§ 2.A.2-3 and 2.C (county land, easement and NPS permitting obligations); § 2.B.2 (county to fund Carvins Cove dock and pier improvements if the owner does not); § 3.A (the authority's narrower counterpart: cooperation and attribution consent, carrying no water-supply-statements restriction); §§ 3.B and 3.C (the authority's Day 1 and Day N service obligations); the § 4 preamble and Schedule A (the Water Supply Project and the twelve Water Supply Development Services); § 4.A (the county responsible for all Costs "Unless otherwise provided in this Section 4"); § 4.B (the Water Supply Source Development Fund; six event-triggered deposits totalling $8,000,000; annual county deposits of $500,000 and then $1,000,000 from December 31, 2028; the authority's $250,000; and the escalator at § 4.B.6); § 4.D (authority financing, which "may include a moral obligation or general obligation pledge by the County"); § 4.E (the four tiers, the threshold escalator, "The Authority will be responsible for the remaining Costs of the Water Supply Project," and the third-party pro rata provision); § 4.G (the thirty-year Day N abandonment); § 4.I (deposits as an estimate of prior services; discontinuation of services; restriction of available water supply capacity in the county; and enforcement by specific performance, mandatory injunction or mandamus); § 6.A (execution, delivery and performance "duly authorized by the County's governing body"); § 6.B (the Board of Supervisors' consent to and approval of the Day 1 and Day N infrastructure and the new water supply sources and infrastructure, "To the extent required under Section 6.4(a) of the Parties' Comprehensive Agreement or applicable law"); § 6.B(v) ("payments for prior services rendered," "not debts of the County," "moral obligations of the County only"); § 9.B (term running until dedication, acceptance, and satisfaction of any debt financing); § 19 (binding on future governing bodies); § 20 (recitals incorporated as binding material representations, warranties and terms); and § 30 (force majeure, which contains the only occurrence of "drought" in this instrument). The arithmetic on the tiers — a $200,000,000 county maximum at a $300,000,000 project, before escalation — is this study's own.

[91] Western Virginia Water Authority, "A Message for Our Customers," July 20, 2026, westernvawater.org/home/showpublisheddocument/14812. Quoted: the 2024 proposal of 10-11 million gallons a day that "The Authority fully rejected"; "The only water supply agreement with Google is the legally binding Utility Service Agreement," signed by the board on September 10, 2025 and "fully executed on

October 14, 2025"; "no more than Two (2) Million gallons of water per day initially (Day 1 Water Solution)"; that "Google can request a total of Eight (8) Million gallons of water per day," approval being "contingent upon the Authority's ability to meet the current and future water demand"; "Currently, the Authority treats 21 million gallons of water per day; however, we have previously treated as much as 23 million gallons of water per day"; and "Any reference to values greater than those noted in the agreement are speculative or were values rejected by the Authority during early negotiations with Google." From the same domain: the authority's project FAQ, stating that "The Authority has not had to implement the drought contingency plan during its 20-year history" and that Carvins Cove "currently produces 10-12 MGD, with the treatment capacity of 24 MGD," with 2025 annual production averaging 9.48 MGD; and the site banner carried in early September 2026, "Stage 1: Voluntary Water Conservation measures are in place for all customers."

[92] Western Virginia Water Authority, "Recent Update from Google," July 22, 2026. The notice runs four paragraphs; Part Four quotes the first and one sentence of the second.

[93] Western Virginia Water Authority regional water supply study: open house held August 25, 2026 at the Field Operations Building, 3322 Hollins Road NE, Roanoke; study posters at westernvawater.org/home/showpublisheddocument/14907, marking "We Are Here" at step 2 of a six-step process and listing the screened options with indicative cost bands; ⚑ The posters carry one Carvins Cove figure, "Storage Capacity: 6.4 billion gallons," and no treatment-capacity or production figure at all; the 24 MGD and 9.48 MGD figures are on the authority's project FAQ at note 91, not here. Naming caution: the Beaverdam Creek Reservoir on that option list is a Roanoke-area water body, distinct from the Beverdam Reservoir in Department of Environmental Quality drought indicators for the Northern Coastal Plain and from Loudoun Water's Beaverdam. Three water bodies of similar name in three regions; the locality has to travel with the name.

[94] Botetourt County news release, "Board Approves Creation of Independent Commission to Assess Proposed Google Data Center Campus," botetourtva.gov/CivicAlerts.aspx?AID=1164, posted July 28, 2026, retrieved October 24, 2026: the 3-1 vote by name, the five members appointed by the Board and serving without compensation, the scope, and the six months that run once members are appointed. The release dates the vote only to "the Board's meeting"; the Board's regular meeting of Tuesday, July 28, 2026 is on its agenda (botetourtva.gov/AgendaCenter, agenda of July 28, 2026, which gives item titles and presenters only and lists no item titled as a commission), and WDBJ7 reported

the vote that evening as "3-1 Tuesday" in a story stamped July 28, 2026, 10:07 PM EDT. Botetourt County news release, "Dal-Nita Hills Waterline Project Project Advances to Board of Supervisors," botetourtva.gov/CivicAlerts.aspx?AID=1166, posted August 10, 2026, retrieved October 24, 2026: the 2-2 vote by name and district, the Blue Ridge District vacancy, the statement that "the Planning Commission's consideration occurred after the 60-day timeframe" and that failure to act within it results in the application "being deemed approved," the letter from Western Virginia Water Authority executive director Michael McEvoy read by Community Development Director Nicole Pendleton, and the Board's scheduled consideration on August 25, 2026. The Planning Commission agenda package for "Monday, August 10, 2026" carries the request as a section 15.2-2232 review. Minutes of the July 28, August 10 and August 25 meetings were not listed on the county's Agenda Center as read on October 24, 2026.

[95] *Virginia Department of Health list of localities with waterworks under conservation measures, dated August 31, 2026, on which Botetourt County appears. The reading placing the county on the voluntary rather than the mandatory list was reconstructed from printed totals after PDF extraction reordered the source's headings, and is not confirmed against the rendered document; see Part Eleven item 15.

[96] Botetourt County news flash 1180, "Grading to Begin for Google Data Center Project," botetourtva.gov/m/newsflash/Home/Detail/1180, posted August 26, 2026 and last updated August 31, 2026, retrieved September 7, 2026. Quoted for the Land Disturbance Permit and Mass Grading Package No. 1 on the 312-acre site; the wetlands sequencing paragraph, reproduced with the county's own unclosed quotation mark; the erosion, sediment control and stormwater requirement; the blasting paragraph; and the noise and sound-monitoring paragraph. The release states no date for the start of grading, and names no individual permit, application or docket number for the state and federal reviews it says will continue. The county's project domain bocodatacenter.com redirects to botetourtva.gov/1021, whose timeline read on September 7, 2026 "On-site grading is expected to begin before the end of 2026"; note 52 records a separate Google-run project site at botetourtcountydatacenter.com, and this study has not established whether the two carry the same material. Scope caution: this is the page as it stood on September 7, 2026. Cardinal News reported the release on September 3, three days after the recorded last-updated date, which makes the page as retrieved the likely text that report was written from. The stamp is the county's own and unverified, the content of the August 31 revision is documented nowhere, and the release was first posted on August 26, so the possibility that the quoted text differed cannot be excluded. Likely, and not established.

[97] Economic Development Performance Agreement among Botetourt County, the Economic Development Authority of Botetourt County, and Helio Capital LLC, effective June 24, 2025, posted at botetourtva.gov/DocumentCenter/View/6347. Retrieved September 7, 2026; 19 pages. Every provision reference in note 15 was checked against the instrument on that date. Cited here for: § 1.1 ("'Facility' means one or more Data Centers on the Property"; the definition of Affiliate); § 2.2 (Change of Circumstances); § 3.2 (permit review commencement; Third Party Inspection Program); § 5.1.1 and § 5.2.1 (reallocation of community investments and of sale proceeds); § 6.3.2 (tax return provided to track the twenty-year clock); § 6.3.6 (a $10,000 administration fee increasing 10% every five years, with no periodicity stated); § 6.4 (Limited Pledge, and the capitalised debt disclaimer); § 7.3 (county limited to terminating for an uncured monetary default); § 7.6 (waiver of consequential and punitive damages); § 9.1 (no third-party beneficiaries); § 9.2 (assignment permitted to an Affiliate without consent); § 9.4.1 (the full disclosure procedure, the compliance carve-out, and the survival clause); § 9.4.2 (partial waiver of tax confidentiality, verification only); § 9.11 (American Rule). Searches returning nothing, against the full extracted text on September 7, 2026: "clawback," "claw-back," "recapture," "repay," "refund," "reimburse"; and "noise," "blasting" and "hours of construction." ⚑ "Water" returns one hit, "stormwater" at § 3.2; there is no water-supply provision. ⚑ Pages 16 through 19 carry no text layer. They were rendered to images and read visually on September 7, 2026: Helio Capital LLC signed by Carl Bivens as "Authorized Signatory," witnessed by Sarah Farney; Botetourt County by Gary P. Larrowe, County Administrator, witnessed by Kimberly Stewart, with Michael W.S. Lockaby, County Attorney, approving as to form; and the Economic Development Authority by John F. Kilby, Board Chair. No signature line is dated. Page 19 ends "[End of Agreement]," so the instrument as posted carries no exhibits. ⚑ The Real Estate Option Agreement referenced at § 1.1 and § 3.1 is not held, so the gap between § 3.1's anticipated $14,064,885 and the $14,055,406.37 closing figure cannot be resolved here.

[98] Comparator data center equipment tax rates, retrieved from the localities' own published schedules and budget documents on September 7, 2026. Prince William, "Tax Rates 2026," pwcva.gov: $4.50 per $100 for "Computer equipment and peripherals used in a data center," the county publishing by tax year, at $3.70 in 2024 and $4.15 in 2025. Henrico, FY27 Appendix D and the Finance service page: $2.60 for data centers of "at least one megawatt of electrical power capacity," with FY25 Appendix D confirming the $0.40 predecessor. Hanover, Board Brief for the June 24, 2026 meeting, hanovercounty.gov, posted July 23, 2026, which renders the action as the board voting "to maintain the County's data center tax rate at 45 cents"; the published tax rates page carries "Data Center Tax $0.45." **The minutes show the motion was to adopt $0.45 for calendar year**

2026, which the county attorney had just explained was the only way to hold the rate at that level, the rate being annual rather than carried forward. See note 58. Mecklenburg and Chesterfield as at notes 60 and 56. ⚑ **No source retrieved states an assessment ratio for any data center class**, so this table compares nominal rates rather than burdens.

[99] Virginia DEQ correspondence in Joint Permit Application 25-1919, obtained September 7, 2026; every string quoted here was checked against the full text. Two documents out of a docket of roughly two dozen are held, without enclosures and without the applicant's replies. **Additional Information and Permit Application Fee Request Letter**, February 4, 2026, DEQ to Zach Miller, Google LLC, four pages, fourteen numbered requests, of which the twelfth concerns culvert design, the thirteenth industrial-site requirements and the fourteenth the application fee: the applicant-identity and property-owner items quoted at Part Four; a request for the conservation easement plat and existing preservation areas; a request to verify that all utilities "solely serving this single and complete project" are in the impact maps, noting that "Water, sewer, and other utilities potentially serving this single and complete project, do not appear to be included in the submittal"; the Corps-verified resources table; the observation that "No verification of ephemeral streams was provided in the submitted application" and that they "were not shown in the map submitted as part of the PJD," which is what made a state surface waters determination necessary; the permittee-responsible mitigation item quoted at Part Four, with PRM checklists enclosed; a request for field verification of the Unified Stream Methodology assessments and a site visit; a functional analysis that the letter says "may be required by DEQ as the proposed total wetland impacts (3.2 acres) are greater than 1.01 acres," against standard mitigation ratios of "2:1 for forest, 1.5:1 for scrub-shrub, and 1:1 for emergent"; a pre- and post-development hydrologic analysis for secondary impacts at the 1-, 2- and 10-year storm; and culvert design requirements. The application is recorded as "signed January 8, 2026" and received January 21. ⚑ The letter's running header reads "February 2025" on a February 2026 letter, a template artifact. **Preliminary State Surface Waters Determination**, March 11, 2026, same file: **SSWD-000661**, issued under 9VAC25-210-45, enclosing "PROJECT RASPBERRY FIGURE 4: STATE WATERS MAP SHEET NUMBERS 1 - 8 dated 10/01/2025," and classifying delineated waters under the Cowardin system. ⚑ The Secretary of Natural and Historic Resources is Stefanie K. Taillon on the February letter and David L. Bulova on the March one.

[100] Botetourt County, "Google Data Center" project page, botetourtva.gov/1021/Google-Data-Center, retrieved October 24, 2026: the update line "Grading began at the site during the second week of September.", printed

with no year or day; the timeline entries "the grading plans and land disturbance permit issued by the County in August 2026" and "On-site grading is expected to begin during Fall 2026."; and the statement "The company must avoid disturbing wetland areas until DEQ and other State permits are complete." The page displays no last-updated date. The update line is a county statement that grading began; it is not evidence on the status of the state or federal permits.

[101] *WSET, Jaida Simone, "Residents rally as plans for Google data center move forward in Botetourt County," October 21, 2026, 11:03 PM: "Grading work has begun on the 312-acre site." The article gives no start date.

[102] *Fincastle Herald, Matt de Simone, "Supervisors unanimously approve Dal-Nita Hills waterline project," September 1, 2026: the Board "unanimously approved a proposed waterline project last Tuesday," which from the publication date is August 25, 2026, the date of the Board's 6:00 p.m. public hearing on the permit (Board agenda of August 25, 2026, item 19, "WVWA/Dal-Nita Hills Commission Permit Request"). The article gives no numerical tally. Supervisor Tim Snyder is reported saying the line would not serve the Google campus. The quoted line from the authority's letter is from the county release at note 94. Minutes not read.

[103] *Cardinal News, Matt Busse, "APCo compromise would freeze residential rates for a year," October 21, 2026: compromise filed October 14; no residential base-rate increase for one year beginning March 1 (the year is not printed in the article), with the average residential bill then rising 92 cents from March 2028; no increase in base-rate revenue, against the $61 million more the company had sought; return on equity 9.8 percent, against 9.75 percent authorized and 10.5 percent requested; endorsed by Appalachian Power, the SCC staff, Google, Kroger, Walmart and others, with the Attorney General's office, the Virginia Poverty Law Center, Virginia Organizing and Steel Dynamics neither signing nor opposing; a public comment hearing on Monday, October 19 and a hearing with case participants on Tuesday, October 20; briefs due November 24; final order due by January 15. The commission's record was not read for this version.

[104] *Cardinal News, Emma Malinak, "Project Hercules data center construction expected to start by end of the year in Appomattox County," October 5, 2026 (updated October 23, 2026), re-read October 24, 2026: data centers are classed as "industrial manufacturing," which is "permitted by right in the county's two industrial districts"; "As a by-right project, the data center did not require any public hearings or special approvals from the county's board of supervisors to move in."; a "recent resolution to approve the performance agreement," with no adoption date given, while attorneys were "finalizing the language"; the state

Department of Environmental Quality's approval of the stormwater management plan, per the county administrator; construction "should" start "by the end of the year," per the economic development authority's chair. On Campbell County: "The zoning amendment was initially adopted as an emergency ordinance in December, then formalized in the spring" (no year is printed for December), and "The amendment was made after residents raised concerns about two proposed data center projects that submitted plans by right"; the county's director of community development said those projects "are eligible to proceed with 'vested rights'" and had not yet submitted formal site plans or construction permit applications. The article gives "more than 400 acres" for the Appomattox site; the 452-acre figure is from a linked company release.

[105] *Cardinal News, Samantha Verrelli, "Wood Haven project in Roanoke County confirmed as potential data center, will use Spring Hollow water," September 22, 2026 (the September 11 vote, the September 22 confirmation, Spring Hollow, the anticipated October 2027 closing); Cardinal News, October 9, 2026, cardinalnews.org/2026/10/09/why-did-regional-authority-that-owns-wood-haven-pull-out-of-data-center-nda-transparency-it-says/ (the withdrawal from the nondisclosure agreement, announced "earlier this week," and the authority's statement that "communities across Virginia have raised concerns about transparency on data center projects"); Cardinal News, Samantha Verrelli, "Google confirmed as parent company for a data center project in Roanoke County," October 16, 2026 ("corporate parent"; the spokesperson's statement; due diligence "expected to run through March 2027"); WDBJ7, Madeleine Ahmadi, "Google confirmed as company behind proposed Roanoke County data center," October 16, 2026, 5:34 PM EDT ("evaluating"; "about 14 miles from Google's Botetourt County campus at Greenfield"); Virginia Business, October 16, 2026, virginiabusiness.com/google-data-center-roanoke-county-wood-haven/ ("considering"; 94 acres of the 111-acre park). The three Cardinal articles carry October 23, 2026 update stamps, and what changed was not established. The authority's October 16 release and the purchase agreement were not read.

[106] *Cardinal News, Matt Busse, "New details emerge about Botetourt grid upgrades for Google data center," September 16, 2026 (updated October 23, 2026), re-read October 24, 2026: Appalachian Power's "Sept. 4 application" to the State Corporation Commission for the Daleville Area Transmission Improvements Project; "$264 million" for transmission line and substation upgrades; "nearly 20 miles of transmission line"; Google peak demand of approximately 300 megawatts, which the article attributes to the application and says had not been disclosed before; in service "by Nov. 15, 2029"; and the company's statement that "other customers are not expected to pay more because of this work." The article prints

no case number; its link to the application points to the commission's docket search at case ID 147168. The SCC docket was not read for this version.

ABOUT THE AUTHOR

Tommy N. Turner is an independent researcher and writer who documents the local-government and energy dimensions of the data center build-out. His series of jurisdiction-level case studies covers the Virginia counties where those decisions have been made, refused, or contested, and the analytical volumes extend the work into the systems the decisions run on: the transmission network and the cost-allocation machinery, the water law that governs industrial withdrawal, and the disclosure rules that determine what a resident is entitled to know before a vote is taken. Botetourt is the first case in the series west of the Blue Ridge and the first in Appalachian Power territory.

Like the rest of the series, this volume is assembled from primary records: the executed performance agreement between the county, its economic development authority, and Google's shell entity; the two Western Virginia Water Authority agreements and their recitals; the Minor New Source Review air permit application and its emissions tables, filed with the Department of Environmental Quality in May 2026; county meeting minutes and staff reports; the Norfolk District public notice and the state permit dockets; the National Register nomination for the Greenfield plantation; and census estimates. It also relies on the sustained local reporting of Cardinal News and The Roanoke Rambler, which broke most of what the public record now contains, including the circuit court ruling on trade-secret exemptions under the Virginia Freedom of Information Act, and which this study cites heavily and identifies underlying documents for wherever it can.

His work spans data center fiscal and environmental policy across Virginia, Georgia, and Tennessee, local public finance, and the governance questions the two raise, and he writes opinion and analysis on Virginia public affairs for outlets including the *Richmond Times-Dispatch*, the *Virginia Mercury*, the *Virginian-Pilot*, the *Roanoke Times*, *Cardinal News*, and *RTO Insider*. He serves on the advisory board of an Alfred P. Sloan Foundation-funded study at Emory University on data centers and the Southern energy buildout. The study had no role in this case study. He holds an MBA from Emory's Goizueta Business School and spent three decades in banking, banking technology and consulting before turning to research full time.

The case studies and analytical volumes are published as open, citable editions, each deposited with a persistent identifier and revised in place rather than replaced. He works from Williamsburg and Christiansburg, Virginia.

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