



SPORTS:
Liberty & Fauquier football, volleyball, golf, field hockey.
Pages 17-21

Investigators outline evidence in 'Trip' Bopp homicide case

Judge certifies 4 suspects' murder charges to grand jury

By Coy Ferrell
TIMES STAFF WRITER

At the end of a 2 1/2 hour hearing on Sept. 16, attorneys for the four defendants accused of murdering 24-year-old "Trip" Bopp in Remington on April 22 had no argument as to why the case against their clients shouldn't move forward.

Senior Assistant Commonwealth's Attorney Abigail Owens called four law enforcement officers to the stand to lay out her case, which included text messages, videos, cell phone location data and, in one case, GPS data from

a court-ordered ankle monitor worn by one of the defendants at the time he allegedly took part in Bopp's murder.

After Owens rested her case — and the defense attorneys declined to offer any counterargument — Fauquier County General District Court Judge Jessica Foster ruled without hesitation that a grand jury should hear the case when it convenes Sept. 27. If the grand jury indicts the four defendants, their cases will be adjudicated in circuit court.

Bopp, the son of a recently retired Fauquier sheriff's deputy, was shot



TIMES STAFF PHOTO/COY FERRELL
Jury Guerra is escorted out of the court building Sept. 16. She is one of four people charged with first-degree murder in the shooting death of "Trip" Bopp.

and killed in his driveway after returning to his home and interrupting a burglary, according to investigators. He had no prior connection to the defendants.

See **HOMICIDE**, page 4

Pearson Elementary teacher arrested for allegedly tying 7-year-old to a chair

Staff Report

A music teacher at H.M. Pearson Elementary School in Catlett has been charged with assault and battery and contributing to the delinquency of



Brendan Henry

a minor. On Wednesday, Sept. 15, Brendan Mitchell Henry allegedly used his belt to restrain a 7-year-old girl who he felt was being disruptive in the classroom, according to Sgt. Steven Lewis of the Fauquier County Sheriff's Office. The student was not injured in the incident.

Henry, 23, of Herndon, was taken into custody Sept. 20, without incident, by officers with the Fairfax County Police Department. A Fairfax County magistrate conducted a bond hearing and released Henry on a \$2,000 unsecured bond. Lewis explained, "Fairfax police arrested him where he resided on the warrants obtained by our detectives."

Fauquier County Public Schools spokesperson Tara Helkowski said, "Once school administration was made aware of the incident, Mr. Henry was immediately escorted off campus and placed on administrative leave."

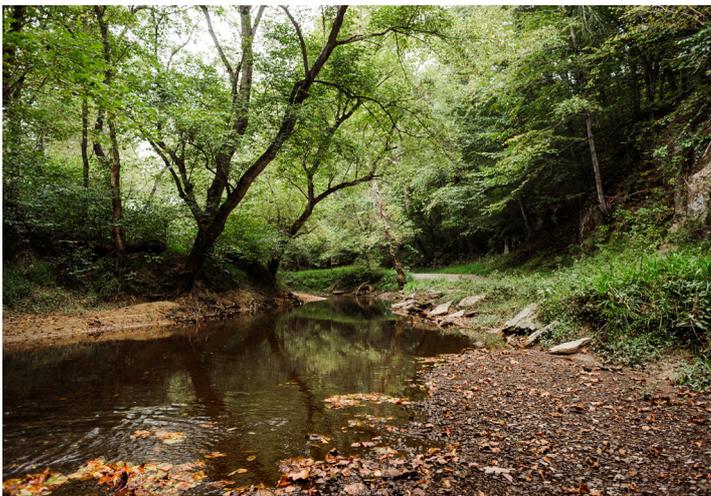
Helkowski added that a letter was sent home to Pearson parents about the incident. She said, "Our top priority is to make sure all of our students and staff feel safe. The school counselor, school social worker and school psychologist will be available for any students who may need support at this time."

See **TEACHER**, page 5

Despite 'extraordinary efforts' to clean up local waterways, streams remain polluted

Carter Run in north-central Fauquier has been on the list of impaired streams since before 2014.

TIMES STAFF PHOTO/COY FERRELL



By Peter Cary

PIEDMONT JOURNALISM FOUNDATION

In February 2014, the U.S. Environmental Protection Agency issued a two-page release on what it deemed an anti-pollution "success story." It cited all the projects undertaken to remove E. coli bacteria from Carter Run, a pretty stream that winds some 20 miles through north-central Fauquier County. The program had been so successful, the EPA said, that the stream would be removed from Virginia's list of impaired waters "in the near future."

See **POLLUTION**, page 6

Live theater returns to Liberty High School. See calendar of events, page 12.



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Despite ‘extraordinary efforts’ to clean up local waterways, streams remain polluted

POLLUTION, from page 1

Seven years later Carter Run is still on the state register. So are 36 other streams or sections of streams that have been listed for years as impaired for drinking, recreation or sustaining fish. They include well-known Fauquier streams, such as Goose Creek, Great Run, Thumb Run, Cedar Run and most of the Rappahannock River, comprising 306 miles of the county’s waterways.

There are 17,000 miles of streams in Fauquier, but not all have been tested.

State and local officials note their extraordinary efforts to clean up these streams, including spending more than \$12 million on repairing broken septic systems, fencing cattle out of the streams and more. David Evans, a coordinator for the state Department of Environmental Quality who oversees rural pollution reduction efforts, notes that some streams have seen improvement, and a few – though none in Fauquier -- have been removed or “delisted” from the state-wide register of impaired water bodies.

Yet the overall problem persists, highlighting the difficulty of cleaning up the state’s – and Fauquier’s – waterways. “It’s very challenging. It’s a long-term challenge; the data tells you that,” Evans said.

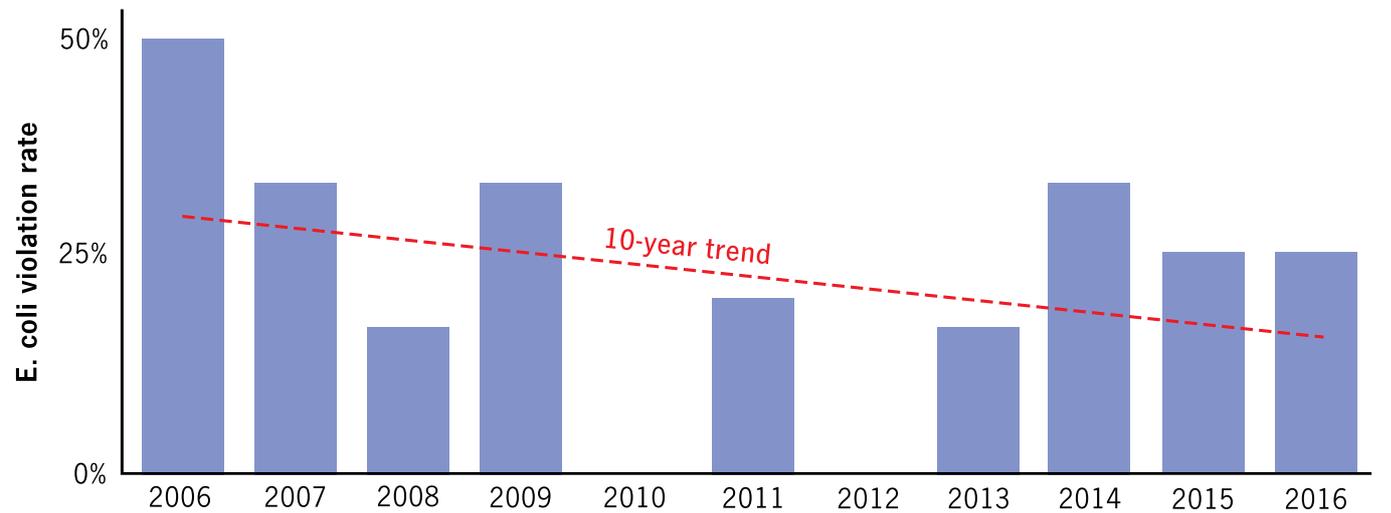
For starters, stream impairment is a complex issue. Contamination may come from various nutrients found in fertilizers, from PCBs in the soil, or from sediment, which smothers insects that feed fish. Urban stormwater runoff carries a lot of this. But in rural Fauquier, the problem is most often E. coli bacteria from humans, cattle or wildlife. A typical stream may be besieged by multiple farms with animals, by leakage from numerous septic systems, or both.

To gauge the cleanliness of streams, the state, other agencies and citizens test them regularly. For instance, employees of the John Marshall Soil and Water Conservation District, which runs several programs to improve water quality, checks 32 sites in Fauquier County monthly for E. coli bacteria and seven other sites quarterly for stream bug life, says Melissa Allen, the district’s manager. State officials and citizens monitor hundreds more.

If a stream is frequently found to violate EPA standards, it may be put on the state’s impaired streams list and be declared unfit for drinking, recreation or fish consumption -- or inhospitable to insect life, depending on the pollutant. (The EPA standard is an ideal, Evans said, and waters labeled impaired may be OK for boating or swimming if the state health

Carter Run at Cliff Mills Road bridge

Percentage of measurements that violated E. coli standard, by year



SOURCE: VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY NONPOINT SOURCE MANAGEMENT PROGRAM

department has not closed them.)

Then the state and the EPA decide whether to establish a Total Maximum Daily Load or TMDL for pollution on the stream, identifying the pollutants of concern and their sources. That can take more than a year, involving the DEQ, fish and game officials, health agencies, environmental groups and the public.

Once that study is done, and if improvement seems achievable, the next step is to develop an implementation plan to determine what actions can be taken and by whom. In agricultural areas, the actions include fencing cattle out of streams, creating buffers to filter runoff before it reaches the water and improving pastures to encourage water to seep into the ground instead of running into the stream.

But all this has to be done within the context of state funds, agency manpower and whether a stream is seen as improvable. In Fauquier County, with 37 impaired streams or stream segments, only 10 have approved TMDL plans. Three implementation plans covering eight streams have been written in recent years – but only one remains. “There’s just, as a practical constraint of the staffing and the funding available, there’s just so many that we can do,” said the DEQ’s Evans.

“The percentage of known impaired streams that have a TMDL, or are even under the process of having a TMDL developed, is small,” said Peggy Sanner, Virginia executive director of the Chesapeake Bay Foundation. “And then of those that have a TMDL, those that reach the end of the road, i.e., the qualities that would warrant delisting, is smaller still. It’s a very bad problem.”

Carter Run is an example. In 1998, the DEQ placed a 3.55-mile segment of the stream that it was monitoring

on its list of impaired waters due to high amounts of E. coli from human, pet, livestock and wildlife sources. By the mid-2000s, the state had developed implementation plans for three sets of Fauquier streams and their tributaries. One was for Carter, Thumb, Great and Deep runs. Another was for Marsh, Brown and Craig runs. A third covered Goose Creek and Little Run.

That opened the door for state grants administered by the John Marshall Conservation District, which either pays or shares the cost with landowners for anti-pollution projects. By 2017, for the Carter Run group of streams, the district helped landowners install 68 miles of cattle exclusion fencing, create 242 acres of stream buffer and plant 94 acres of cover crops. By 2012, another report says, 86 septic tanks were pumped out and 30 more were repaired or replaced.

Carter Run’s E. coli trend line headed down. From 2004 to 2012, the E. coli violation rate (the percentage of too-high levels per sampling) dropped by two-thirds, pointing toward zero. In 2014, the EPA issued its “success” statement predicting that Carter Run would soon be removed from the list of impaired waters. But by the end of 2014, the E. coli numbers had jumped back up to 2009 levels. No one knows exactly why – rainfall, testing vagaries, agricultural practices could have played a role. But the numbers stayed up. The trend line was still heading gently down, but it was no longer pointing toward zero. Carter stayed on the impaired streams list.

Meanwhile, the projects were running out of steam. In 2012, only funding for Carter Run and Thumb Run remained, and those projects were closed out in 2017. Eighty-five percent of the state’s cattle fencing goal for Carter Run had been reached, but only 3% of the pasture management goal. Sixty-eight percent of hoped-for septic system repairs had been done, but only 11% of expected new installations.

John Marshall officials consulted with the DEQ and decided not to try to renew those grants. “I think to-

wards the end of those grants, they didn’t believe there was sufficient interest from homeowners that had septic and agricultural [pollution] producers, to be able to proceed with another grant,” said Evans.

“All these projects are voluntary,” said Allen. “If we’re not getting the people to sign up, then we have to move on. You know, they’re not required to sign up.” The only active TMDL grant-funded project in Fauquier now is for Upper Goose Creek.

However, the John Marshall district has now partnered with Friends of the Rappahannock and others to apply for new, and somewhat different, grants for the Carter Run and Marsh Run groups of streams. Their projects would focus on stormwater retention, rain gardens, tree plantings, stream buffers and reforestation of agricultural land, rather than cattle fencing. “I think the prospects are very positive for it,” Evans said.

And John Marshall has also applied for a new Goose Creek grant that will emphasize septic repairs and pump-outs. Allen said she hopes that someday Goose Creek will be taken off the impaired waters list. “One of the reasons why we’re continuing is because we know that we may have a chance, you know, of de-listing. I feel confident that we’re continuing really good work there,” said Allen.

A DEQ-supplied chart of Goose Creek’s E. coli pollution levels shows a distinct downward trend through 2017, then two bad years in 2018 and 2019, and then two very good years in 2020 and 2021. Evans said that heavy rains, which wash pollutants into streams, may have had an effect. The overall E. coli trend line slopes slightly downward.

Sanner, whose watchdog organization seeks to cut pollution that flows into the Chesapeake Bay, said that even if the numbers are not always encouraging, the work is worth doing: “Even if we can’t measure the specific result directly, we can know that if we hadn’t put that practice in, the results would be far worse. So, they may not be perfect, but they are helping stem the tide of pollution to our waterways.”

“You have to have people that understand that conservation and water quality conservation are important.”

MELISSA ALLEN

District manager of the John Marshall Soil and Water Conservation District



2020 Census: Fauquier's population increased by 12% over the last decade

By Coy Ferrell
TIMES STAFF WRITER

Population growth slowed in Fauquier County from 2010 to 2020, according to local data from the 2020 U.S. Census released this month. The county added 7,769 people during the decade, growing the population by 12% to 72,972 people.

The 12% growth rate represents a slowdown from the previous decade; the population increased by 18% from 2000 to 2010.

In line with the county's "service district" zoning plan, which allows by-right residential or commercial development in certain concentrated areas, the most expansive population growth took place in two areas: Vint Hill and Bealeton, both of which are part of service districts.

The Vint Hill election precinct, which covers the former Vint Hill Farms Station along with surrounding suburban developments including Brookside, gained 2,580 new residents, a 63% increase from 2010.

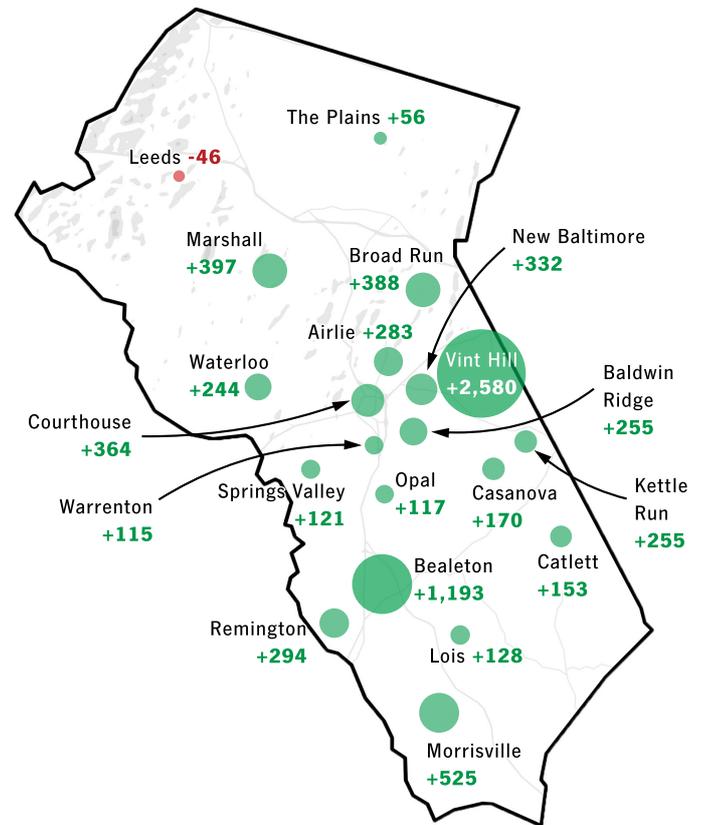
(Precinct-level data was compiled by the Virginia Public Access Project.) The Vint Hill precinct is located entirely within the New Baltimore Service District.

The Bealeton precinct, which covers the area north of Route 28 and between U.S. 15/29 and U.S. 17, added another 1,193 residents. The precinct comprises about half of the Bealeton Service District, including the Mintbrook subdivision.

Marshall District Supervisor Mary Leigh McDaniel said that the data shows that the service district plan is generally working. "No surprises in the data," McDaniel said.

See **CENSUS**, page 8

Population change by precinct, 2010 to 2020



In the past decade, two areas of Fauquier County added the most residents: the U.S. 15/29 corridor east of Warrenton – especially around Vint Hill – and Bealeton.

DATA SOURCE: 2020 U.S. CENSUS, COMPILED BY THE VIRGINIA PUBLIC ACCESS PROJECT

Maria Embrey, pleading guilty to accessory to murder after the fact, will serve no more jail time

By Robin Earl
TIMES STAFF WRITER

As part of a plea bargain, Maria Embrey of Stephen's City pleaded guilty Monday morning to a Class 1 misdemeanor charge of accessory after the fact in a felony for her part in the murder of Kelly Gray of Bealeton on June 18, 2020. The original charge of accessory after the fact in a homicide was a Class 6 felony. Jayme Yowell, assistant commonwealth's attorney, who appeared in court Monday for Amy Cassandra, senior assistant commonwealth's attorney, agreed to the plea agreement for the prosecution.



Maria Embrey

See **EMBREY**, page 12

Lack of land for data centers in Prince William could cause pressure in Fauquier

By Peter Cary
PIEDMONT JOURNALISM FOUNDATION

In Prince William County, pressure is building to make more land available for data center construction. Meanwhile, Fauquier County is seeing an uptick in interest in data centers. Such developments are prompting concerns in Prince William that if the county doesn't do more to attract the huge, equipment-packed buildings – which provide a healthy amount of tax revenue – then they will migrate to Fauquier or elsewhere.

"If no viable options are available, data center operators that need more server capacity now will move to other markets, passing Prince William County by," wrote Carter Wiley, a Northern Virginia commercial real estate broker, in a *Prince William Times* opinion piece. Jeanine Lawson, a Prince William supervisor from the Brentsville District, said she has



TIMES STAFF PHOTO/COY FERRELL

One of Fauquier's data centers was constructed in Vint Hill in 2019.

heard other supervisors express the same worries.

Bolstering those concerns, in late May, the Prince William economic development department released a map and supporting data that showed that of 8,700 acres of land in the county once thought available for data center use – land in the so-called data center overlay district -- only 600 to 1,100 acres could be considered "market viable."

See **DATA CENTER**, page 6

What's going on? Find out on pages 20-21



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Lack of land for data centers elsewhere could cause pressure on Fauquier

DATA CENTER, from page 1

This coincided with a flurry of activity aimed at expanding available data center parcels in Prince William. On May 19, the supervisors voted to hire a consultant to start work on amending the overlay district, a set of zones where data centers are allowed by right. The results of that study, by consultant Stantec, are due by early next year. On June 15, the board approved a one-million-square foot technology park for data centers outside the district near Haymarket, and on July 20, the board voted 5-3 to study a comprehensive plan amendment to allow data centers in a 4.5-mile-long corridor in the once-sacrosanct rural crescent.

Driving these moves is a desire to add more data centers, whose equipment and real estate is taxed, to bolster the county's tax base and favor homeowners. Also at play is the worry that the cost of industrial land in Prince William, already approaching \$1 million an acre, might drive data centers next door to Fauquier, where land is considerably cheaper.

Data centers in Fauquier

Not long ago, that would have seemed unlikely, as Fauquier officials saw little interest from data developers. But, on Aug. 10, the Warrenton Town Council approved a zoning amendment to allow data centers in the industrial zone with a special use permit. This would address interest from Amazon Web Services to put a data center on 41.7 acres of land at the intersection of U.S. 29 Business and U.S. 17, an area currently zoned industrial.

David Dobson of Rixeyville told the council members that he had a 21.7-acre parcel in Warrenton just across U.S. 17 from the potential AWS site. He asked the council to reduce its minimum data center lot size of 25 acres to allow his site to be linked to Amazon's or to serve the federal government. The council approved the text amendment, clearing the way for an application from Amazon and allowing for data centers on 20 acres.

Town council members emphasized at the Aug. 10 meeting that any specific data center application would be looked at carefully to make sure it would not negatively impact residents' quality of life. The special use permit process allows the council to put further restrictions on any potential data center proposal.

Fauquier already has two data centers, with others either stalled or on hold. One, owned and operated by the French OVH Groupe SAS, was constructed in Vint Hill in 2019. A nearby 80-acre parcel in Vint Hill was re-zoned in November 2018, to allow for construction of a data center, but none has yet been built. Another is located at the Warrenton Training Center, northwest of town. Reportedly run by Vadata, an Amazon subsidiary, it generated county tax revenue of \$2.1 million on its equipment in 2020.

Also in Fauquier, outside of Remington, a 234-acre site owned by Point One Holdings Inc. known as Remington Technology Park was re-zoned for a data farm in March, 2018, and approval was given to



POINT ONE HOLDINGS, INC.

The first of six buildings in what would be the Remington Technology Park was approved in February 2020. Nothing has been constructed yet.

“There is an abundance of power and infrastructure to support data centers, but there is a scarcity of existing land parcels where they are allowed.”

CARTER WILEY

Northern Virginia real estate broker

build the first of six buildings in February 2020. Yet nothing has been constructed. “We need to find the right customer at the right size to be able to start. We continue to see increasing interest in Fauquier County locations as a spillover from Prince William,” said company Chief Operating Officer Colin Clish in an email. Point One had said in its filings that the build-out could take five to seven years.

Convergent VA LLC, a McLean company, submitted an application to re-zone 139 acres north of Remington for a data center in February 2019, but has since withdrawn the application. “The developer lost interest and just asked us to put it on hold and have not heard back from them on that,” said Fauquier Supervisor Chris Butler (Lee District). Similarly, a company called Catlett Station II submitted a re-zoning application for a 60-acre site at Catlett Road and Gaskins Lane in March, but put that on hold also.

Butler, whose district includes the Remington sites, said he is not opposed to strategically placed data centers as they produce considerable tax revenue and require little in services. But, he added, “They eat up a lot of land,” which Fauquier supervisors seem intent on preserving. He said he could not speak for the board, but added, “We all did pretty much agree that we’re not going to come close to what Loudoun or Prince William are doing. I have no desire to do that,” Butler said.

In Prince William, the data center land business has been brisk. A majority of supervisors want to see if more land can be made available, as they look to Loudoun. Taxes on Loudoun's 20 million square feet of data projects contribute 24% of the county's general fund. Prince William County currently has about 5.2 million square feet of data centers generating \$64 million, about 4.7% of the county's \$1.34 billion budget.

In 2017 Prince William county supervisors adopted a strategic plan calling for 35% of its tax

revenue to come from the commercial sector, up from the current 15%. But that goal may not be realistic. Supervisor Lawson, who generally opposes expanding data center projects into the county's rural zone, noted that the current strategic plan no longer cites the same 35% goal, which she called a “moonshot.”

In April, Prince William raised the tax rate on computer equipment in data centers from 15 cents to \$1.50 per \$100 of valuation. Fauquier's tax rate on the equipment is \$2.30. Fauquier and the town of Warrenton require data centers to use recycled water for cooling, but Prince William does not.

The Market Viability Review released by Prince William County's economic development department looked at all 8,700 acres in its data center overlay and divided them into six categories. The review noted that data center developers prefer lots of 30 to 40 acres, and most are looking for 100-acre lots that can be turned into a “campus.” Ruling out land already owned by data center operators, or land environmentally unsuitable, and parcels too small to be used, the study turned to seven remaining parcels that were site-ready – meaning they were over 30 acres and had suitable typography – plus 98 smaller ones that might be assembled into larger parcels. Those totaled 1,378 acres, of which it estimated 600 to 1,100 might eventually become data centers – what they called “market viable.”

“So, there's limited land viability in the data center overlay,” said Jeff Green, PWCDED's information technology communications manager. He noted that the board had already hired a consultant to study what might be done about that.

The study also listed 27 parcels in Prince William owned by data center companies or developers, many owned for three or more years. Yet, according to the latest tax assessment, 26 of the 27 had not been built on. While that could be interpreted to mean that demand for data storage was not as intense as believed, experts said it was more likely that the developers were just land banking as they anticipated the need to continue to grow exponentially.

Whether – and when – that will happen is an open question. “I really think data centers are gonna be the shopping malls of 2050,” said Warrenton Vice-mayor Sean Polster, as his town council paved the way for two of them. “They would be big, vacant buildings. What do you do then?”

“We’ve got a lot of agricultural parcels, especially in the southern end, a lot of large farms, and I don’t want to see data centers eating them up.”

CHRIS BUTLER

Fauquier County Board of Supervisors

Fauquier Times

October 27, 2021

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It was a crazy International Gold Cup See page 35.



PHOTO BY RANDY LITZINGER

First place Kettle Run silences Handley in showdown game

In a high stakes battle for first place in the Northwestern District, Kettle Run senior quarterback Beau Lang (above) threw four touchdown passes as the Cougars defeated Handley 47-34 last Friday. The Cougars improved to 8-1 and 5-0 in district play with one game remaining Nov. 5 at Sherando. See sports, page 31.

Density amendment could lead to new apartments in Old Town Warrenton

By Robin Earl
TIMES STAFF WRITER

A proposal by a local planning consultant on behalf of an Old Town Warrenton property owner would double the density of apartments allowed – from 25 per acre to 50 per acre -- on the second and third floors of Central Business District properties with a special use permit. Old Town Warrenton and adjacent streets make up most of the CBD.

(Apartments are prohibited on the ground floor except by special use permit.)

Chris Mothersead, who is also a former director of planning and development for the town, addressed a Warrenton Planning Commission work session Oct. 19 on behalf of Malcolm Alls of Alls Real Estate, who owns property near the post office on Main Street. Mothersead said he had talked to seven Old Town property owners and they were all in

favor of the higher density.

“It would change the use of Main Street, not the look of it,” he said.

Rob Walton, current director of community development for the town, explained that the change in density would allow property owners to expand the number of apartments they could offer for rent. He cited as an example the space over Miller Carpets (the former Designs by Teresa) at the

See AMENDMENT, page 2

Local data centers must use 'recycled water,' but what does that mean?

By Peter Cary
PIEDMONT JOURNALISM FOUNDATION

It may be a Catch-22. At the least, it's a head-scratcher.

Both Fauquier County and the Town of Warrenton require any data centers built in their jurisdictions to use recycled water for cooling. But neither Fauquier's nor Warrenton's wastewater treatment plants produce recycled water for data center use.

So how is this supposed to work? The answers range from murky to problematic to too-soon-to-tell.

- Officials who run a data center in Vint Hill, approved in 2017, sent two answers to the *Fauquier Times* about what water they were using for cooling: first they said they used public water, though not a lot. Then they said they did not regularly draw from the groundwater. County officials have varying recollections of how the center planned to cool its servers, and the project's plans don't really address the issue.

See DATA CENTER, page 4



SOURCE: GOOGLE

These colorful pipes are responsible for carrying water in and out of Google's data center in The Dalles, Oregon. The blue pipes supply cold water and the red pipes return the warm water back to be cooled.

It's Happening in southern Fauquier See Page 21.



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Local data centers must use ‘recycled water,’ but what does that mean?

DATA CENTER, from page 1

- Another data center is operating at the secretive Warrenton Training Center north of Warrenton. Adam Shellenberger, the county’s chief of planning, said because it is on federal property it was not subject to local approval and the county has no information on its cooling system.
- A third data center near Remington, which has been approved but not yet built, had hoped to use county-supplied recycled water from a pipeline near its location. But the water is fully contracted to a nearby power plant, and is not treated to data center standards anyway. The center’s developer said the center will use air chillers instead.
- All signs are that Amazon Web Services wants to build a data center on property it just acquired in the town of Warrenton. But it has not yet begun the application process, and since Warrenton does not supply recycled water, it is unclear how it would cool its servers.

The answers to some of these questions may lay in the meaning of “recycled water.” Most often it is interpreted to mean effluent from water treatment plants that is treated to a high level – though not so high as to be potable. Loudoun County, for instance, sends such recycled water to 35 data centers there. But memos from Fauquier and Warrenton officials suggest they may also allow data centers to re-circulate their cooling water in an in-house closed loop, though they would not allow replenishment of these systems from public water.

Chuck Floyd, a former Fauquier assistant zoning administrator who has researched data center cooling as an engineering consultant said, “You know, at the end of the day, the county wrote these regulations so nobody would build a data center. That’s what they wanted. They don’t actually want anything.”

How cooling works in Loudoun and Prince William

All this will become important as the number of data centers expands in Fauquier. The industry is booming in Loudoun, which sends recycled water to half its data centers, and in Prince William, which supplies no such water and does not require its use. Fauquier’s data center industry is in its infancy, but there are signs it will grow. Besides Amazon’s recent acquisition in Warrenton, three Vint Hill parcels zoned for data center use were recently sold to a Lynchburg company.

Data centers are huge consumers of electricity and water. Their power demands pose a problem for

the electric grid, but the power also heats up servers that must be cooled. And water is a very efficient cooler.

Data centers that use water for cooling can consume hundreds of thousands of gallons a day, and some use more than a million; that poses a threat to aquifers and reservoirs. So some communities have put limits on the amount of water the data centers can use, or require that they use recycled water.

The Fauquier County Water and Sanitation Authority does produce recycled water. About 15 years ago it began piping it to an Old Dominion Electric Cooperative plant near Remington for cooling. But according to Ben Shoemaker, the water district’s executive director, the water does not meet the standard for data center cooling.

That’s because in 2014 the state Department of Environmental Quality posted regulations for treatment and uses of reclaimed wastewater. Lesser-treated water, known as Level 2, can be used to irrigate sod farms, wash streets, or water livestock, for instance.

The more intensely treated Level 1 water is to be used where there is potential for human contact, and that includes the air conditioning systems in data centers, Shoemaker said.

Loudoun Water was not thinking of data centers when it opened its

Broad Run wastewater treatment plant in 2008, said Mark Peterson, the utility’s general manager. Because its discharge flowed into the Potomac River, it required a high level of treatment. But as data centers proliferated there, they were allowed to tap into the Level 1 water for their massive cooling needs. “It was a way to save potable water,” said Peterson.

Data centers in Fauquier County

In 2014, concerned over the potential of data centers to drain its aquifer, Fauquier County officials decided to allow data centers in its industrial zone but restricted them to using “recycled water for cooling” unless they obtained a special exception. Then, as now, the county was not producing Level 1 recycled water.

Three years later, the French company OVH was approved to renovate an 80,000 square-foot building at Vint Hill and turn it into a data center. The site plan notes: “Data Center – Using Recycled Water for Cooling.” But the

“You know, at the end of the day, the county wrote these regulations so nobody would build a data center. That’s what they wanted. They don’t actually want anything.”

CHUCK FLOYD
Civil engineer

application documents do not indicate how it would do so.

Rob Walton, then the county’s assistant zoning chief who signed off on the site plans, said his recollection is that OVH used a geothermal cooling system when it started.

Heather Jenkins, now assistant chief for zoning and development, said her understanding is that OVH had a closed loop cooling system that they initially filled up from water trucks, and could top it off the same way. “I am not aware of any refilling or replenishment of the cooling system from a Fauquier County water supply,” she wrote in an email. And OVH did not obtain a special exception to use anything other than recycled water.

Francois Sterin, chief industry officer of OVHcloud in France, said in an email Oct. 13 that the data center was “using water from [the] Fauquier County system.” He said the center used a closed-loop cooling method that used water “very

responsibly,” at about one-tenth the rate of the industry average. “We are always looking at ways to reduce our environmental impact including water and will continue to look at ways to reduce our water usage,” he wrote.

The *Times* asked OVHcloud how much water it was using and whether it was using public water without a special exception. On Oct. 18, OVH wrote that it had neither requested nor received a special exception “because OVHcloud does not employ a cooling method that uses a regular or sustained draw from groundwater supplies for which an exception would be required.”

The *Times* asked the water authority for information on OVHcloud’s use of water at Vint Hill, but did not receive the information by press time.

Meanwhile, Floyd had moved from the county to an engineering firm that represented another property at Vint Hill. In 2018 he wrote to county officials asking about alternatives to using recycled water. Jenkins replied with a two-page letter stating that “recycled” meant re-circulating water, either rainwater, stormwater, grey water, or other treated effluent, “or water employed in a closed-loop type of system that does not require continual, regular, groundwater replacement.” She said other non-water cooling methods also were possible.

“And so, the county has basically

said to data center developers, you need to tell us how you’re going to recycle this water. And we’ll tell you whether it works or not,” said Floyd.

When Point One Developments Ltd. applied in 2018 for a re-zoning of 234 acres east of Remington to build a six-building data center park, it faced a similar dilemma. Its plans said simply: “Data Center using recycled water for cooling.” Colin Clish, a partner and COO of the company, said initially they had hoped to tap into the recycled water that Fauquier’s water authority was sending to the ODEC plant, but they learned that ODEC had contracted for most of the water, 500,000 gallons a day. And, according to Shoemaker, the water’s quality is too low for data center use anyway.

Point One decided to use air chillers, which use outside air to cool a closed loop of glycol – similar to a home’s central air-conditioning system. “This system is quite efficient in the winter and less so in the summer. But the balance works out,” Clish said. “Virtually no water is used.”

Future data center in Warrenton

On Aug. 10, the Warrenton Town Council passed a zoning amendment that would allow Amazon, or anyone else, to build a data center in its industrial zone. The amendment stipulates that a center use “recycled water or air chillers, in conjunction with using recycled water, for cooling purposes.” The town’s water comes mainly from a reservoir.

Walton, who is now the town’s community development director, said in an email that one option would be that Amazon could build a pipeline to the town’s wastewater plant. But since the plant is not producing Level 1 reclaimed water, it is not clear how this would work. A June 6 staff memo suggests another idea: a closed loop of cooling water with replenishment of what evaporates. But the zoning ordinance says “potable water shall not be used for cooling.”

Julie Bolthouse, the Piedmont Environmental Council’s Fauquier land use representative, said perhaps Warrenton officials had just not thought it all through. “Are they just thinking, ‘Oh, data center? Yeah, we’ll just use recycled water,’ and haven’t really thought about the level of treatment to make that work?” she asked.

Floyd said the town and county should just forget the whole recycled water requirement: “I don’t understand why the localities just don’t enact zoning provisions that say, ‘You cannot use potable water for cooling. You figure out how you’re going to cool it.’” He said that in a world where technology was advancing every minute, that would make the most sense.

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COLIN CLISH
COO, Point One Developments Ltd.

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