

Issue Paper: Citizen Concerns Regarding Data Center Impacts on Wetlands in New Kent County, Virginia, and Strategies for Protection

Executive Summary

New Kent County, Virginia—particularly the eastern corridor near Route 33—faces pressure from the statewide data center boom. Citizens have raised strong concerns about irreversible harm to wetlands, which are critical for water quality, flood control, wildlife habitat, and the health of the Pamunkey, Chickahominy, and York River systems feeding the Chesapeake Bay.

Recent local actions (discontinuation of a proposed Technology Overlay District in July 2026) and a 2026 Virginia Department of Environmental Quality (DEQ) groundwater study underscore the risks. Wetlands face both direct fill/conversion from construction and indirect threats from groundwater withdrawals that alter hydrology. Effective protection requires avoidance-first site selection, strict local performance standards (including prohibition or severe limits on groundwater use for cooling), mandatory public review via conditional use permits, robust compensatory mitigation that prioritizes local functional replacement, and stronger coordination with state and federal regulators.

Background and Local Context

New Kent County lies entirely in Virginia's Coastal Plain, within the Richmond metropolitan region. The county contains extensive tidal and nontidal wetlands along the Pamunkey, Chickahominy, and related tributaries. These include highly valuable freshwater and brackish marshes that support fish spawning (e.g., shad, herring, striped bass), water quality filtration, and flood attenuation.

Virginia hosts the world's highest concentration of data centers. Proposals have targeted New Kent (a Technology Overlay District study along the Route 33/Eltham Road corridor covering roughly 1,800 gross acres, with net developable acreage reduced by Resource Protection Areas, National Wetlands Inventory wetlands, and floodplains) and neighboring Charles City County (Point One and earlier Diode Ventures proposals).

In July 2026, the New Kent Board of Supervisors unanimously directed staff to discontinue the Technology Overlay District framework and declared a policy preference against advancing data center applications while developing a strict ordinance with performance standards. A draft is expected for a September 2026 work session, followed by public hearings. A citizen survey indicated approximately 87% opposition among respondents.

Charles City residents have repeatedly opposed projects citing on-site gas turbines, diesel generators, new aquifer wells, and by-right industrial zoning that limits public input.

Primary Citizen Wetland Concerns

Citizens' concerns center on both direct and cumulative indirect impacts:

- **Direct physical impacts:** Construction of buildings, substations, roads, stormwater ponds, and utility corridors often requires fill or conversion of forested (PFO), scrub-shrub (PSS), and emergent (PEM) wetlands and stream channels. U.S. Army Corps of Engineers public notices for regional data center projects routinely document multi-acre wetland losses and thousands of linear feet of stream impacts, even after redesigns that avoid a majority of on-site wetlands. Compensatory mitigation typically involves purchasing credits from banks (including facilities serving or located in New Kent), but credits generated elsewhere may not fully replace local hydrologic, habitat, or water-quality functions.
- **Hydrologic and groundwater threats:** Many data centers use evaporative cooling that can consume large volumes of water. The 2026 DEQ report on groundwater east of I-95 (covering New Kent, Charles City, and surrounding Coastal Plain counties) concluded there is virtually no remaining capacity in the Potomac Aquifer for major new industrial withdrawals under current permitting standards. Groundwater levels are projected to decline over the next 5–10 years. Declines risk land subsidence, saltwater intrusion, reduced baseflow to streams and wetlands, and degradation of wetland functions. Private wells and public supplies are also vulnerable.
- **Water quality and secondary effects:** Stormwater runoff from large impervious surfaces, potential chemical discharges from cooling systems, and construction sedimentation can degrade wetland and downstream water quality. Noise, lighting, and habitat fragmentation further diminish the ecological value of remaining wetlands.
- **Cumulative and equity issues:** Multiple projects across the region compound impacts on shared watersheds. Local tribes (including Chickahominy voices) and rural residents have highlighted threats to traditional resources, rural character, and the integrity of the Chesapeake Bay watershed. Mitigation banking can shift benefits away from the impacted community.

These concerns are heightened by Virginia's drought conditions and the recognition that data centers' water and energy demands can outpace local infrastructure and ecological carrying capacity.

Existing Regulatory Framework

Wetlands in New Kent are protected through overlapping layers:

- **Federal:** Clean Water Act Section 404 requires U.S. Army Corps of Engineers permits for discharges of dredged or fill material into waters of the United States. Individual permits (often needed for larger impacts) trigger public notice, alternatives analysis, and

compensatory mitigation. Nationwide Permit 39 is restricted or replaced by state programmatic approaches in Virginia.

- **State:** Virginia Marine Resources Commission (VMRC) and DEQ jointly review applications. DEQ issues Section 401 water quality certifications and regulates groundwater withdrawals (permits required above certain thresholds). The Chesapeake Bay Preservation Act establishes Resource Protection Areas (typically 100-foot buffers landward of perennial waters and tidal wetlands) with strict limits on development and requirements for mitigation of any encroachments.
- **Local:** New Kent maintains a Wetlands Board (for tidal wetlands) and Chesapeake Bay Preservation Board. County code requires minimization of clearing in RPAs, native plantings for mitigation, and setbacks. Zoning and comprehensive plan designations influence allowable uses.

Despite these tools, by-right industrial zoning in some areas, limited local capacity for independent technical review, and the ability of developers to purchase off-site credits can leave residual risks to local wetland functions.

Recommended Strategies to Protect Wetlands

Protection is most effective when avoidance is prioritized over minimization and compensation. Recommended approaches include:

1. **Strong local ordinance standards** (aligned with the Board's current direction):
 - o Require a conditional use permit (or equivalent public hearing process) for all data centers, regardless of underlying zoning.
 - o Mandate independent, third-party wetland delineations, hydrologic impact assessments, and full alternatives analyses demonstrating avoidance of wetlands, RPAs, and floodplains to the maximum extent practicable.
 - o Prohibit or severely restrict groundwater use for cooling; require closed-loop or surface-water systems with demonstrated capacity and no adverse wetland hydrology impacts.
 - o Establish large minimum buffers (beyond standard RPAs), noise/lighting limits, and performance bonds covering long-term monitoring and restoration.
 - o Require zero net loss of wetland acreage *and* function within the same watershed, with preference for on-site or nearby permittee-responsible mitigation over distant bank credits.
2. **Site selection and planning:** Continue and strengthen the practice (used in the earlier TOD study) of excluding RPAs, National Wetlands Inventory wetlands, and FEMA floodplains from developable acreage calculations. Direct any potential development away from high-value tidal marshes and headwater systems.
3. **Enhanced public process and transparency:** Ensure early, accessible public notice of all Joint Permit Applications; support citizen participation in Wetlands Board, Chesapeake Bay Board, and Board of Supervisors hearings; and require developers to fund independent technical reviews upon request by the county.
4. **State and regional advocacy:** Support legislation or DEQ rulemaking that tightens groundwater permitting for data centers, requires full accounting of evaporative losses

and discharges, and elevates wetland functional assessments. Coordinate with neighboring localities and watershed groups on cumulative impact analyses.

5. **Conservation and restoration tools:** Encourage conservation easements, expansion of local mitigation banks that restore high-function wetlands in New Kent, and use of nutrient/stream credits tied to wetland projects. Prioritize living shorelines and nature-based solutions where shoreline work is needed.
6. **Monitoring and enforcement:** Require long-term post-construction monitoring of wetland hydrology, water quality, and vegetation; impose meaningful penalties and adaptive management requirements for non-compliance.

Conclusion and Call to Action

Wetlands in New Kent County are finite, irreplaceable assets that undergird the county's environmental health, rural quality of life, and contribution to the Chesapeake Bay. Data center development, if poorly sited or inadequately regulated, poses clear risks through direct destruction and aquifer-driven hydrologic change—risks confirmed by local opposition and the 2026 DEQ groundwater findings.

Citizens can most effectively protect these resources by remaining engaged in the upcoming data center ordinance process (September 2026 work session and subsequent hearings), submitting comments on any Joint Permit Applications, supporting candidates and policies that prioritize avoidance and strict performance standards, and collaborating with the Wetlands Board, environmental organizations, and neighboring communities.

Well-crafted local standards that treat wetlands and groundwater as limiting factors—rather than obstacles to be mitigated after the fact—offer the best path to safeguarding New Kent's natural heritage while allowing appropriate economic activity elsewhere.

Key references for further reading include New Kent County Planning/Environmental Division materials, the July 2026 Board actions, the 2026 DEQ Groundwater Supply East of Interstate 95 report, U.S. Army Corps of Engineers public notices for regional data center projects, and Chesapeake Bay Preservation Act guidance. Residents are encouraged to contact the New Kent Environmental Division and Board of Supervisors for the latest ordinance drafts and meeting schedules.