



COMPREHENSIVE PLAN / ZONING & ORDINANCES AUDIT PEC INPUT- Environment & Heritage/Overlay Districts, E& H Performance Standards, Landscaping

Use form to provide key audit information: 1) Review both the 2001 and 2019 Comp Plan to note policy gaps and issues not addressed. 2) Review three ordinance documents (Zoning, FSM, LSDO) to determine existence or levels of enforcement for policies/issues. Use Section (§) references where applicable. 3) Describe Issue and Recommendations.

Links to key documents: [2019 Comp Plan](#), [2001 Comp Plan \(RGP\)](#), [CPAM Revisions to the 2001 RGP](#), [Facilities Standards Manual \(FSM\)](#), [Land Subdivision & Development Ordinance \(LSDO\)](#).

1. Comp Plan Policy or Issue Area (2001 & 2019)	2a. Zoning Ordinance § Reference or N/A (Brief text or summary)	2b. Facilities Standards Manual § Reference or N/A (Brief text or summary)	2c. Land Subdivision & Dev. Ordinance § Reference or N/A (Brief text or summary)	3. Issue Description / Recommendations
<p>NEHR Policy 1: Provide protection for natural, environmental, and heritage resources. Strategy 1.1 Mechanisms Action: A, B, C: Map & Identify those properties that are not conducive to development & protect Actions E, G, H, I: are supportive,</p>	<p>1-102 L Inadequate, needs more specifics</p>	<p>N/A</p>	<p>Not reviewed yet</p>	<p>Issues:</p> <ul style="list-style-type: none"> • Vague language in 1-102 L • No mechanism currently in use <p>Recommendations: To help accomplish actions under this policy</p> <ul style="list-style-type: none"> • Start by creating the map of the interrelated environmental, natural and heritage resources <ul style="list-style-type: none"> ○ Provide a mechanism to require evaluation of these existing resources onsite • Revamp criteria and fund PDR program (no ordinance needed) • Create TDR ordinance including sending & receiving areas, criteria and process <ul style="list-style-type: none"> ○ Require analysis of impact of TDR on the specific application and accomplishing desired goals ○ Perform a comparative analysis of the PDR and TDR programs for cost, ease of use, benefits, etc • Establish an environmental commission for reviews • Provide rural performance standards that factor in overlay zones and avoidance of natural resources including prime soils in calculating density. • Consider potential to use overlay zones for additional critical environmental features—i.e. prime soils.

interrelated mechanisms				
<p>NEHR Policy 1: Provide protection for natural, environmental, and heritage resources.</p> <p>Strategy 1.1 Mechanisms</p> <p>Action: C Adopt ZO Regs & devel standards to ID resources to protect and develop around during land development.</p> <p>NEHR Policy 1: Strategy 1.1 Actions D, F, J: Supportive, interrelated mechanisms</p>	<p>N/A for conservation design approach</p> <p>1-102 L Closest consideration :</p> <p>4-2100 Village Conservation Overlay</p> <p>5-1500 F.(f) 5-1508 D.(f)</p> <p>6-1613 A.1</p> <p>Inadequate, needs revision</p>	<p>Previous Environmental and Cultural Resources Existing Conditions Plat section (7.800) was deleted.</p> <p>8.106.B.2.b and 8.102.B.6 on subdivisions.</p> <p>7.300.A.4 b Tree conservation</p> <p>NOTE: Envir. Site Design language helpful, not enough</p>	<p>Codified ordinances 848.055 Use Value Assessment. (VA code 58.1-3230 <i>et seq.</i>)</p>	<p>Issues:</p> <ul style="list-style-type: none"> • No mechanism currently in use • Needs enforcement • No indication of how to proceed if these resources are identified • Limited application (only on very steep slopes needing SPEX) • Does not define minimal impacts or eliminating impacts or improving conditions. • Why omit stand of Virginia Pine in FSM (1.a.i)? <p>Recommendations:</p> <ul style="list-style-type: none"> • Restore existing conditions mapping requirement for both ZO and FSM to achieve conservation design. • Review other counties’ similar requirements—PW and Clarke, Stafford • Needs to apply everywhere. • Add “habitats” – these are identified as “element occurrences” along with species by the DCR Natural Heritage Office • In FSM add “Certified Ecologist” to list of qualified experts. The Ecological Society of America has a rigorous certification process. • Expand on the Use Value program. • Write other methods into zoning/FSM. • Include rare and endangered plant and animal species and habitats and their protection as a special case • Incorporate treatment plan for any existing historic resource with penalty for neglect/inappropriate care. <ul style="list-style-type: none"> ◦ Include a standard for when maintenance / restoration of historic resource is required • Require Planning Commission to obtain comments and advice from the Heritage Commission when heritage resources are involved. • Expand CAPP control in historic districts • Protection against destruction and encroachment requires monitoring and regular and routine enforcement, not complaint based enforcement
<p>NEHR Policy 1: Strategy 1.1 Action G: Retain conservation easements</p>				<p>Issues:</p> <ul style="list-style-type: none"> • Stewardship of county held easements is inadequate. <ul style="list-style-type: none"> ◦ Seek input from organizations and create standards / protocol for easement stewardship; or work (ie. pay) an organization to develop stewardship program <p>Recommendation:</p> <ul style="list-style-type: none"> • Implement a stewardship program
<p>NEHR Policy 1: Strategy 1.3 Action A:</p>	<p>Alternative Methods standards, Incentives 2-</p>	<p>Are new state stormwater</p>		<p>Issues:</p> <ul style="list-style-type: none"> • County leadership inadequate, • Incentives largely ineffective <p>Recommendations:</p>

Act as a leader, set examples, provide incentives	1006, Rt 28 section	regs adequate?		<ul style="list-style-type: none"> County task-force provide list of examples to set Review to understand existing language and reasons why it hasn't worked to determine potential improvements.
NEHR Policy 1: Strategy 1.4 Link resources in recreational corridors	N/A today.	N/A today		<p>Issues:</p> <ul style="list-style-type: none"> Recreational corridors largely non-existent today <p>Recommendations:</p> <ul style="list-style-type: none"> Define linear parks and trails regulations and ensure donation with legislative applications On a separate track, come up with funding sources, plan for getting grants to acquire parkland and develop trails.
NEHR Policy 1: Strategy 1.4 Action A.iv: Prioritize protection of priority open space including properties recognized by Federal, State and County organizations	6-1092 6-1803.F			<p>Issues:</p> <ul style="list-style-type: none"> Lack of information regarding priority open space at other government levels <p>Recommendations:</p> <ul style="list-style-type: none"> One example- County should recognize properties already recognized by NPS in its published work: Civil War Battles of Aldie Middleburg and Upperville.
RSCR Policy 2: Protect natural ecosystems, restore water quality for healthy surface and groundwater resources				<p>Overall Issue:</p> <ul style="list-style-type: none"> Increasing imperviousness is a problem throughout the county; particularly in the rural areas. <p>Recommendation:</p> <ul style="list-style-type: none"> Require higher standards to protect groundwater recharge, manage stormwater effectively Provide standards to minimize increase in impervious cover Provide regulations/incentives to decrease impervious cover <ul style="list-style-type: none"> Include references to types of material used (ie. pervious pavement) <ul style="list-style-type: none"> Stormwater utility or % allocation of general fund to work with willing landowners Explore incentives and include appropriate regulations to use Smart Pond technology to improve stormwater management and reduce storm-related pollution. Add Chesapeake Bay Professional Landscape Certification as a requirement for any professional who develops landscape plans for development purposes.
RSCR Policy 2: Protect natural ecosystems, restore water quality for healthy surface and groundwater resources: Strategy 2.2	5-1100 Scenic Creek Valley Buffers are inadequate for new Comp Plan 4-1500	5-400 Section needs strengthening		<p>Issues:</p> <ul style="list-style-type: none"> Scenic Creek Valley buffers inadequate No RSCR overlay currently <p>Recommendations:</p> <ul style="list-style-type: none"> Increase buffer width per Comp Plan Utilize a RSCR overlay district- consider Fairfax examples Create a new FP study category for planting trees in Riparian Zones to overcome existing limitations Improve regs to reduce % of disturbance allowed in FP Create new text that incorporates need to include impaired streams in regulations and watershed data to help in planning.

<p>RSCR Policy 2: Strategy 2.1 Action I Mitigation Banks within LoCo.</p>	<p>N/A</p>	<p>N/A</p>		<p>Issues:</p> <ul style="list-style-type: none"> • State law changes discouraged county from asking developers to use wetland banks in Loudoun • Loudoun County’s own development (roads, bldgs, schools) is being mitigated outside of Loudoun <p>Recommendations:</p> <ul style="list-style-type: none"> • Lobby GA to revise state law to allow county to discuss local mitigation • Need to require in-county mitigation for County projects, and explore offering mitigation on County property as an incentive for in-county wetland and stream banks <ul style="list-style-type: none"> ○ Determine how much county has spent on projects mitigated outside of the county. ○ As noted elsewhere, if floodplain and stream corridors are transferred to the County with rezonings, then there’s potential for the development of stream and wetland banks owned by the County.
<p>RSCR Policy 2: Strategy 2.2 Action C Incentivize property owners to protect & maintain 100 ft buffer</p>	<p>No incentive language</p>	<p>N/A</p>		<p>Issues:</p> <ul style="list-style-type: none"> • Currently no hook for incentivizing non-developing landowners to maintain 100 ft buffers on streams <p>Recommendations:</p> <ul style="list-style-type: none"> • Consider reduced tax rate on land for maintaining buffers as incentive—with specific actions required. • % allocated from general fund to work with willing landowners • Alternatively, the county could purchase the buffer areas from landowners for linear parks and trails.
<p>RSCR Policy 2, Strategies 2.3, 2.4 and 2.4 Relates to overall strategy language</p>	<p>New text in ZO</p>	<p>New text in FSM</p>		<p>Issue: Residential and commercial development creates hard, impervious surfaces that generates much more runoff than undeveloped land. Runoff carries pollutants to receiving streams and rivers. The impervious surfaces also prevent groundwater recharge.</p> <p>Recommendations: Requiring the use of porous/permeable pavement for residential roads, sidewalks, parking will improve water quality in streams and rivers. It will also permit groundwater recharge.</p> <p>Resources:</p> <ul style="list-style-type: none"> • EPA Green Parking Lot Resource Guide • Sustainable Green Parking Lots-Montgomery County Planning Commission • Permeable Pavement, Low Impact Development Standards. Los Angeles County, CA, Code of Ordinances § 22.44.1340 (G). • Low Impact Development and Natural Channel Design Protocol (LID/NCDP), credits & discounts to incentivize managing 60% of stormwater runoff. San Antonio, TX. Sec. 35-210 Low Impact Development and Natural Channel Design Protocol (LID/NCDP). • Mandatory permeable surface minimums for new development. Mandatory minimum of green space within Mixed Space districts, and requires specific permeability and vegetation minimum for the space. Fairway, KS. Fairway, KS, Code of Ordinances Sec. 15-264 Zoning Districts.
<p>RSCR Policy 2: Strategy 2.3</p>				<p>Issues:</p>

Protect and improve stream and watershed health Action A: Develop standards				<ul style="list-style-type: none"> As greenfield development goes up, stream and watershed health go down. Continuing to reduce ecosystem health and thereby beneficial services is not sustainable. Recommendations: <ul style="list-style-type: none"> Consider performance standards that are determined/managed on a subwatershed basis. <ul style="list-style-type: none"> Standards that limit impervious cover increase Standards for types of preferred LID materials Standards that limit removal or incentivize retention of native vegetation. Calculate density based on performance standards.
RSCR Policy 2: Strategy 2.3 Action C: Establish incentives/ funding for reforestation & SWM BMPs				Issue: <ul style="list-style-type: none"> Need more public engagement to help local environment & to meet WIP3 commitments Recommendation: <ul style="list-style-type: none"> % allocated from general fund to work with willing landowners. <ul style="list-style-type: none"> Expand funds for tree plantings. Consider reduced tax rate on land for maintaining buffers as incentive—with specific actions required
RSCR Policy 2: Strategy 2.3 Action F This needs a work-around solution	ZO must have mechanism to be stronger than CP	Needs strengthening		Issues: <ul style="list-style-type: none"> FEMA won't allow planting in floodplain without expensive floodplain studies, effectively halting voluntary riparian plantings Recommendations: <ul style="list-style-type: none"> County provide the needed studies to restart riparian buffer plantings.
RSCR Policy 2: Strategy 2.4 Action E: Collaborative partnerships	N/A	N/A		Issues: <ul style="list-style-type: none"> Need more public engagement to help local environment and to reach WIP3 commitments Recommendations: <ul style="list-style-type: none"> Should be a priority--mostly outside of regulatory docs—working with community instead to restart community partnership initiatives
RSCR Policy 2: Strategy 2.5 Protect rivers and public drinking water supplies	Needs strengthening Look at CR lot standards for water & sewer	Needs review & strengthening		Issues: <ul style="list-style-type: none"> Cleaning up public drinking water is costly, and more expensive than preventative measures to protect the source. Recommendations: <ul style="list-style-type: none"> Need initiative/agreements to create community-based Source Water Protection Plans, coordinating with Loudoun Water.
RSCR Policy 2: Strategy 2.5 Action A: Protect Reservoirs, streams, etc with 300 ft no-build buffer & 1000 ft buffer				Issues: <ul style="list-style-type: none"> Consider how Linear Parks and Trails could be included as part of these buffers and priority open space <ul style="list-style-type: none"> Use development bonus and/or other appropriate incentives

<p>RSCR Policy 2: Strategy 2.6 Preserve and protect groundwater quantity and quality Action A: Comprehensive protection strategy Actions B-I: should be part of A.</p>				<p>Issues:</p> <ul style="list-style-type: none"> • Current practices are not enough and are not integrated effectively to protect existing users for today and the long term <p>Recommendations:</p> <ul style="list-style-type: none"> • Actions B through I would all be part of a comprehensive strategy • Use performance standards as limiting factors in density calculations • Consider elements of the strategy like Action I, to tie surface and groundwater standards and protections together • Remove all loopholes to requirement for hydrogeological studies
<p>SGR Policy3: Protect soils, steep slopes, mountainsides Strategy 3.2 Protect Prime Farmland Soils</p>	<p>N/A Prime Soils term not present 5-657</p>	<p>N/A term not present</p>		<p>Issues:</p> <ul style="list-style-type: none"> • Can't protect without language that addresses it. • Need more specifics re: development avoidance <p>Recommendations: Address stockpiling more effectively 5-657</p>
<p>SGR Policy 3: Strategy 3.3 Protect ridgelines, slopes, mountainsides</p>	<p>4-1600, 4-1900, 5-1508</p>	<p>Ridgelines? Mountainsides, Slopes referenced</p>		<p>Issues:</p> <ul style="list-style-type: none"> • Mountainside protection is inadequate and difficult to enforce. <p>Recommendations:</p> <ul style="list-style-type: none"> • Consider using elevation as had existed in the ordinance previously • Provide limitations to ensure that former woodlots are not converted to development lots • Add provision of linear parks and trails to the purpose and intent of 4-1601 section of the ordinance.
<p>FTV Policy 4: Forests, Trees, Vegetation Protect for inherent value re: environment habitat, stormwater and community benefits</p>	<p>Language re: native plants N/A No ecosystem benefits addressed 5-1300 Tree planting & replacement 5-1404 Buffer Yards (little to be done here probably) consider HOA review</p>	<p>Limited native plant language</p>		<p>Issues:</p> <ul style="list-style-type: none"> • Vegetation is treated more like decoration or means to provide screening/buffering than as the valuable resources it provides <p>Recommendations:</p> <ul style="list-style-type: none"> • Need to strengthen 5-1408 General Landscape Provisions • Demonstrate a holistic, integrated approach to inter parcel habitat connections • Address tree planting benefits more specifically and directly re: riparian plantings, consider what incentives there may be

<p>FTV Policy 4, Strategy 4.1: Preserve, protect, and manage forest resources for their economic and environmental benefits.</p> <p>Action A. Require applicants to submit a Tree Cover Inventory...where applicable...a Tree Conservation Plan...should Demonstrate... long-term sustainability... address the removal and monitoring of invasive woody vegetation and insects.</p>	<p>Division D: Landscaping, Buffering and Tree Preservation</p> <p>5-1303 Canopy Requirements</p> <p>Section 6-1900 Historic Districts Regulations.</p> <p>6-1905 A.2.g Regarding landscape maintenance</p>	<p>7.302 TREE CONSERVATION AND LANDSCAPE PLANS A-E Details of planting plans</p>	<p>1245.14 Tree Preservation</p> <p>All subdivision and site plans shall be designed to encourage the preservation of existing trees. A Tree Preservation/Landscape Plan shall be developed in accordance with the Zoning Ordinance using criteria contained in the Facilities Standards Manual.</p>	<p>Issues:</p> <ul style="list-style-type: none"> No requirement in FSM to prioritize planting of native vegetation in Tree Conservation Plan (NHR 6.2 Action C) or removal of invasive species (FTV 4.1 Action C). (Table 3 is comprised of 45% non-native trees and shrubs.) ZO includes one limited reference (in the historic districts regulations section) to invasive species removal (and it only applies to vines). FSM or LSDO do not include any requirements to address the removal of invasive woody vegetation and insects (as also noted in FTV 4.1 Action C.) Typically, applications include in their Tree Conservation and Preservation section one line addressing invasive removal: “Such Management Techniques may include, without limitation, pruning and the removal of vines, invasive species, trees uprooted or damaged by extreme weather conditions, and trees or limbs that are diseased, insect-infested, dead, or are considered a hazard to life or property.” <p>Recommendation:</p> <ul style="list-style-type: none"> Remove non-native trees and shrubs from Table 3 list in FSM. Remove non-native trees and shrubs from ZO Section 5-1400 Buffering and Screening. Create language to address invasive species removal. In addition, add language to FSM Tree Conservation and Landscape Plans to specifically address invasive species removal.
<p>FTV 4.1 Action B. Incentivize and encourage the preservation of existing trees within required landscape buffer areas and for screening of uses.</p>	<p>Division D: Landscaping, Buffering and Tree Preservation</p> <p>5-1303 Canopy Requirements (full reqmts detailed below in FTV 4.2 Action B)</p> <p>5-666 Schools, Public (Elementary,</p>	<p>7.300 TREE CONSERVATION B. Conservation of Existing Trees and Vegetation to Meet Canopy and Buffer Requirements</p> <p>7.303 TREE PROTECTION</p>	<p>1245.14 Tree Preservation</p>	<p>Issues:</p> <ul style="list-style-type: none"> Very few, and very specific, ZO applications in regards to tree preservation. <p>Recommendations:</p> <ul style="list-style-type: none"> Need ZO that cover all situations, not just a select few.

	<p>Middle or High). H) Building and Site Design. (5) Floodplain:</p> <p>5-702 Rural Hamlet Option. M) Advisory Rural Hamlet Siting and Design Guidelines. (2) Landscaping.</p> <p>5-1414 Buffer Yard and Screening Matrix. (5) Buffer Yard Type 5. (e) DESIGN ELEMENTS SPECIFIC TO THE ROUTE 7 CORRIDOR: (ii) POLLINATOR HABITAT Design</p> <p>Guidelines for Policy Areas - Transition and Rural,</p>	<p>Tree protection measures during land disturbing activities outlined.</p>		
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	Towns Historic Villages, and JLMA has language as well.			
FTV 4.1 Action C. Require the removal of invasive plant species during the development process.				Issues: <ul style="list-style-type: none"> • ZO, FSM, or LSDO do not include any requirements to address the removal of invasive woody vegetation and insects during the development process. Recommendations: <ul style="list-style-type: none"> • See above re: invasive species regulations
FTV 4.1 Action D. Develop and adopt a Tree Preservation Ordinance.				Issues: <ul style="list-style-type: none"> • Does Division D: Landscaping, Buffering and Tree Preservation Section 5-1300 Tree Planting and Replacement qualify as a robust Tree Preservation Ordinance? <ul style="list-style-type: none"> ○ While it does address tree canopy requirements, it does not address planting native vegetation or invasive species removal. Recommendations: <ul style="list-style-type: none"> • Review tree preservation ordinances in other jurisdictions to determine what would constitute a comprehensive Tree Preservation Ordinance.
FTV 4.1 Action E. Inventory and map trees and native vegetative resources to be preserved or managed in accordance with County standards and create and maintain a database of these resources to include, but not be limited to, old growth forests, significant tree stands, specimen trees, heritage trees, and State or National Champion trees.	Division D: Landscaping, Buffering and Tree Preservation 5-1303 Canopy Requirement s 4.2 Action B) (addresses inventory but not database portion of Action E)			Issue: <ul style="list-style-type: none"> • Aside from Specimen and Champion Trees there does not appear to be such a database, unless the County utilizes State data for priority protection areas. • Access to such a database would allow us knowledge if tree preservation priority areas have been identified, and if they are being protected. (Need to check with Mapping & Geographic Information) Recommendations: <ul style="list-style-type: none"> • Conservation priority areas are part of state and regional (NVRC) documents and goals. These should be integrated into a local database of target areas. • The database should be consulted and used in applying performance standards.

<p>FTV 4.1 Action F. Participate in community tree projects such as the Arbor Day Foundation’s Tree City USA Program.</p>				<p>Issue:</p> <ul style="list-style-type: none"> • Many useful community tree planting projects are being waylaid due to current riparian buffer planting limitations. <p>Recommendation:</p> <ul style="list-style-type: none"> • As noted elsewhere, the county must resolve the issue and provide the means for riparian plantings to continue.
<p>FTV Strategy 4.2: Promote tree planting and preservation to reduce the heat island effect, manage stormwater run-off, and improve water quality, air quality, and wildlife habitat.</p>				<p>Issue:</p> <ul style="list-style-type: none"> • Tree planting helps the county reach WIP3 goals and achieve many other economic and environmental benefits but it’s not being encouraged or incentivized enough. <p>Recommendation:</p> <ul style="list-style-type: none"> • As noted elsewhere, the county must resolve the issue and provide the means for riparian plantings to continue. • Provide neighborhood incentives for communities to be part of the solution.
<p>FTV 4.2 Action A. Prioritize the planting of native vegetation, specifically along those corridors that provide connections to other natural, environmental, and heritage resources.</p>	<p>Division D: Landscaping, Buffering and Tree Preservation 5-1404</p>			<p>Issues: No requirement in FSM to prioritize planting of native vegetation. (Table 3 is comprised of 45% non-native trees and shrubs.)</p> <p>Recommendations: Remove non-native trees and shrubs from ZO section 5-1400 Landscape, Buffering and Screening and Table 3 list in FSM.</p> <p>Issues: Landscape plans can make it hard and costly for HOAs to maintain in the long run. Reducing the need for mowing these areas can also reduce air pollution/climate impacts.</p> <p>Recommendations: Provide native vegetation and planting standards for steeply sloped areas, median plantings, drainage swales, etc., to use appropriate native species that will not need to be mowed.</p>
<p>FTV 4.2 Action B. Develop Countywide goals and objectives for the creation, maintenance, and preservation of the County’s tree canopy.</p>	<p>Division D: Landscaping, Buffering and Tree Preservation 5-1303 Canopy Requirements A-D 5-1304 Variations.</p>	<p>7.300 Tree Conservation Sections A, B, C (as referenced above)</p>		<p>Issues:</p> <ul style="list-style-type: none"> • Additional/higher tree canopy goals will help the county reap more benefits <p>Recommendations:</p> <ul style="list-style-type: none"> • Explore potential to increase local canopy goals through state regulations.

	5-1305 Enforcement.			
HASR Policy 5: Historic, Archaeologic and Scenic Resources Strategy 5.1 Protect Context, Character & Values	6-401H-Z in conjunction with heritage commission 6-1800 6-1900 (breached—how to deal with this—maybe with BMI) 4-2102 Traditional Villages 6-1305 SPEX—refer to Heritage Commission 6-307 HDRC	Archaeological surveys, Cemetery regs 7-800 , for prelim. plat reqmts, 8-102		Issues: <ul style="list-style-type: none"> • Inadequate protections Recommendations: <ul style="list-style-type: none"> • Require Existing Conditions survey of heritage resources with treatment plan requirements during land use application. • Provide enforcement if inappropriate treatment occurs. • Viewsheds as scenic resources can be interwoven with linear parks and trails overlay.
HASR Policy 5: Strategy 5.1 Actions A-N	4-1212 (K) Villages/Adaptive Reuse			Issues: <ul style="list-style-type: none"> • Adaptive Reuse can be hard to implement due to parking regulations in villages. Some historic structures (think Waterford) are directly on a street and need parking for employees. Recommendations: <ul style="list-style-type: none"> • <u>Consider offering SPEX</u> in cases of Adaptive Reuse
HASR Policy 5: Strategy 5.1 Actions A-N	6-1900 HDRC CAPPs and Article 6-401 Land Use Applications, Check List Phase. <u>Duties of Zoning Administrator (H) To maintain the inventory of</u>			Issues: <ul style="list-style-type: none"> • CAPP are required for historic structures, when located within a HD. Recommendations: <ul style="list-style-type: none"> • Consider adding <u>checkbox on land use applications</u> related to the County’s historic building registry (within HC) and CAPP required in all land use applications for any historic structure (as defined by the HC registry), not just those located in HD.

	<u>buildings and structures within an Historic Site or HCCD as required by Section 6-1808</u>			
HASR Policy 5: Strategy 5.1 Actions A-N	6-307 (E) HDRC is tasked with Interagency Coordination			Issues: <ul style="list-style-type: none"> Heritage Commission can also help/do more to assist. Recommendations: <ul style="list-style-type: none"> Heritage Commission can assist in the issuing of CAPP for land use applications that are not located in HCCD. In Section 1300 (SPEX), specifically 6-1305 Staff Review of Application, (A) Referral: this may be too late in process to effectively protect historic resources
HASR Policy 5: Strategy 5.1 Actions A-N		8.102 #30 Preliminary Subdivision Plats and 7.830 Cemetery Buffers		Issues: <ul style="list-style-type: none"> Locations of cemeteries etc are protected by buffering standards, however when a historic structure is identified by Phase-1 Archaeology on land use applications (FSM 8.102 #20), a Secretary of the Interior's Standards-appropriate <u>treatment plan</u> is also needed for the historic resource Recommendations: <ul style="list-style-type: none"> Require the Secretary of the Interior's Standards-appropriate <u>treatment plan</u> to avoid demolition by neglect
NHR Policy 6: Natural Heritage Resources Protect interconnections, avoid fragmentation Strategy 6.1 RTE species protections	4-910 Land Use Arrangement, Design and Form of the Countryside Village 5-1300 Tree planting otherwise limited references—mostly to	8-100 Plat rqmts, Champion & specimen trees, tree survey, tree conservation plan Chapter 7		Issues: <ul style="list-style-type: none"> Countryside Village& RV Rural Village do mention conservation, but limited area and needs strengthening Recommendations: <ul style="list-style-type: none"> Add land use arrangement and design requirements for other development types so that interconnections are not lost, and fragmentation does not occur, and RTE species are better protected.

	trees & native pollinator plants			
<p>NHR Policy 6: Natural Heritage Resources Protect interconnections, avoid fragmentation</p> <p>Strategy 6.2 Wildlife Habitats, avoid fragmentation, promote preservation</p>	Limited references	Limited references		<p>Issues:</p> <ul style="list-style-type: none"> • There is no way to ensure that wildlife corridors are preserved other than through a RSCR/linear parks and trail overlay. • NVRC and DCR have documents that reference critical natural resources, but the county has not adopted or referenced them in development guidance. <p>Recommendations:</p> <ul style="list-style-type: none"> • Use existing reference documents as a reference point for creating performance standards relating to wildlife habitats and corridors. • Performance standards could also identify the need to protect tree canopy/forest cover to be contiguous with adjacent parcels and along riparian areas. • Performance standards that protect vegetation between forest cover and nearby wetlands also helps ensure that habitat fragmentation doesn't destroy existing amphibian populations.
<p>NHR 6.1 Action A. Use open space requirements, passive recreation, nature preserves, incentives and regulations to protect areas of natural biodiversity and rare, threatened, and endangered plant and animal species, and plant communities in keeping with the federal Endangered Species Act and to foster the implementation of the Virginia Wildlife Action Plan.</p>				<p>Issues:</p> <ul style="list-style-type: none"> • See above <p>Recommendations:</p> <ul style="list-style-type: none"> • See above
<p>NHR 6.1 Action B. Require development applications to</p>		8.106. B. 2. Construction Plans		<p>Issues:</p> <ul style="list-style-type: none"> • Inadequate protections <p>Recommendations:</p>

<p>identify Loudoun County’s natural heritage resources through coordination with the Virginia Department of Conservation and Recreation (VDCR) – Division of Natural Heritage and the Virginia Department of Game and Inland Fisheries (VDGIF). For those development applications that have a likely presence of one or more natural heritage resource, the County will require the applicant to conduct relevant assessments. In cases where the presence of the species is identified, the County will require the applicant to develop and submit a plan for impact avoidance.</p>		<p>and Profiles</p> <p>8.107 B. f. Documents to Accompany Site Plans</p>		<ul style="list-style-type: none"> • Target protections through proffers • PDR and/or TDR could be used to help with protection of critical habitats
<p>NHR 6.1 Action C. Ensure that the study of natural heritage resources is conducted by qualified research organizations such as the VDCR and VDGIF, and develop implementation</p>		<p>Ditto above</p>		<p>Issues:</p> <ul style="list-style-type: none"> • See above <p>Recommendations:</p> <ul style="list-style-type: none"> • See above

strategies for the preservation of identified natural heritage resources.				
<p>NHR Strategy 6.2. Conserve and protect wildlife habitats, wildlife travel corridors, and access to streams and water sources through the preservation of natural resources such as native vegetation, forest cover, woodlands, floodplains, streams and stream corridors, wetlands, and undeveloped areas associated with steep slopes.</p>	<p>Section 4-1600 MDOD - Mountainside Development Overlay District 4-1601 Purpose and Intent.</p>			<p>Issues:</p> <ul style="list-style-type: none"> • While there is language to protect tree preservation and tree canopies, is that information mapped and used to create wildlife corridors? • The MDOD has not protected steep slope areas from being denuded of tree cover and graded for rural uses such as limited breweries. <p>Recommendations:</p> <ul style="list-style-type: none"> • The regulations need to be reviewed in conjunction with Grading Permit requirements and tightened up. • In general, the standards for land clearing and development in mountainside areas should be carefully reviewed.
<p>NHR 6.2 Action A. Require development proposals to create links to adjacent open space and natural resources to help prevent habitat fragmentation and foster biodiversity.</p>				<p>Issues:</p> <ul style="list-style-type: none"> • The lack of requirements to link open space areas and avoid habitat fragmentation is a weakness of the zoning and land development regulations. <p>Recommendations:</p> <ul style="list-style-type: none"> • Make changes to plat requirements and • See above recommendations
<p>NHR 6.2 Action B. Identify essential wildlife corridors and encourage protection of these areas through conservation easements acquired by the County or others, participation</p>				<p>Issues:</p> <ul style="list-style-type: none"> • More county action is needed for conservation. <p>Recommendations:</p> <ul style="list-style-type: none"> • Consider how inability to meet performance standards could trigger purchase or transfer of development rights in order to preserve the assets • Many avenues are needed to conserve critical county resources including County proffers.

<p>in the Open Space Preservation Program, development design, and other means.</p>				
<p>NHR 6.2 Action C. Ensure that new development, redevelopment, and infill development incorporates existing native vegetation and plantings of native vegetation into the landscape design.</p>				<p>Issues:</p> <ul style="list-style-type: none"> • No requirement in FSM to prioritize planting of native vegetation in Tree Conservation Plan. (Table 3 is comprised of 45% non-native trees and shrubs.) • Only requires native plantings in specific areas (Goose Creek Reservoir) or for golf courses. <p>Recommendations:</p> <ul style="list-style-type: none"> • Remove non-native trees from Table 3 in development of Tree Conservation and Landscape Plans, Buffering and Screening. <ul style="list-style-type: none"> ○ This should also apply to street trees.
<p>NHR 6.2 Action D. Encourage the preservation and plantings of native vegetation to protect pollinators, migrant birds, and other wildlife.</p>		<p>See above</p>		<p>Issues:</p> <ul style="list-style-type: none"> • Limited references to 3 specific circumstances where native pollinators are required—inadequate for habitat preservation and ecosystem service protection. <p>Recommendations:</p> <ul style="list-style-type: none"> • Remove non-native plants from Table 3 in development of Tree Conservation and Landscape Plans, Buffering and Screening.
<p>NHR 6.2 Action E. Promote and support the establishment of public and private nature preserves throughout the County as part of the protection and enjoyment of natural, environmental, and heritage resources.</p>				<p>Issues:</p> <ul style="list-style-type: none"> • This has not been a regulatory consideration. <p>Recommendations:</p> <ul style="list-style-type: none"> • A Linear Parks and Trails/RSCR overlay would help to support this goal.
<p>CE Policy 7: Complementary Elements-Protect air,</p>	<p>Most references are re: noise,</p>			<p>Issues:</p> <ul style="list-style-type: none"> • Mechanisms to address pollution need strengthening. • Light pollution has a serious impact on wildlife; migrating wildlife in particular. <p>Recommendation:</p>

water, address noise, light, vibrations	glare, vibrations. 5-1504, 5-1505, 5-1507			<ul style="list-style-type: none"> Beyond glare, ensure that night sky impacts are minimized through performance standards.
SUS Policy 8: Promote sustainability efforts throughout the County.	Nothing	Nothing in the entire FSM related to SUS Policy 8 or SUS Policy 9	In LSDO require solar-ready construction & offer incentives for solar-friendly design, such as waiving permit fees, providing density bonuses, and reducing minimum parking requirements.	<p>Issues:</p> <ul style="list-style-type: none"> Currently regulations are lacking <p>Recommendations:</p> <ul style="list-style-type: none"> Ordinances should be developed to incentivize or require: <ul style="list-style-type: none"> Energy efficient construction Lot orientation to maximize PV Solar Panels; Passive solar building design Water conservation Walkable/bike-able/transit community design Electric car charging stations Solar-friendly provisions in development and subdivision regulations including incentives: <ul style="list-style-type: none"> Waiving permit fees, providing density bonuses, and reducing minimum parking requirements. Mandate solar-ready construction Loudoun should access up to 100 hours of free technical assistance from national solar experts like NREL to address these and other gaps and barriers to solar, Cities and counties can still sign up for the SolSmart program. For more information, go to http://www.solsmart.org/ Review plans from other jurisdictions in Virginia that address energy and sustainability: Arlington County, Community Energy Plan, https://environment.arlingtonva.us/energy/community-energy-plan-cep/ Fairfax County, Environmental Vision, https://www.fairfaxcounty.gov/environment/sites/environment/files/assets/documents/pdf/environmental-vision-2017.pdf City of Fairfax, Comprehensive Plan, Ch. 4, Environment and Sustainability, https://www.fairfaxva.gov/home/showdocument?id=12382 Albemarle County, Environmental Services Division Environmental Management and Sustainability, https://www.albemarle.org/departments.asp?department=envmgt&relpage=23398 Loudoun must develop and adopt a Climate and Energy Action Plan to set goals for reducing and eliminating green house gas emissions from all sources. It must include community input from all Loudoun districts. Once adopted as part of the Comprehensive Plan, then relevant development regulations can be developed. A great resource: From Policy to Reality. Model ordinance for sustainable development. https://www.leg.state.mn.us/edocs/edocs?oclcnumber=45992633
Strategy 8.1. Support sustainability practices within the Loudoun County Government.	Nothing			<p>Issues:</p> <ul style="list-style-type: none"> In 2019, there was a BMI to update the County Energy Strategy. Instead of a stakeholder group process, the initiative was sent to committee. Staff reports to the committee and the scope of it's recommendations are limited to County operations. The 2009 adopted CES included both public and private sector recommendations. The County Energy Strategy should be updated and adopted.

<p>Action A: Update and implement the County Energy Strategy (CES)...</p>				<p>Recommendations:</p> <ul style="list-style-type: none"> County Energy Strategy should include both public and private sectors
<p>B. Continue to evaluate... energy demands of government buildings... Transport. Needs... develop plans for energy efficiency.</p>	<p>Nothing</p>			<p>Recommendations/Resources:</p> <p>BUILDINGS</p> <ul style="list-style-type: none"> Municipal Green Building Code, Environment Code Chapter 7, San Francisco. http://library.amlegal.com/nxt/gateway.dll/California/environment/chapter7greenbuildingrequirementsforcity?f=templates\$fn=default.htm\$3.0\$vid=amlegal:sanfrancisco_ca\$anc=JD_Chapter7 SEC. 705. LEED CERTIFICATION REQUIREMENTS FOR MUNICIPAL CONSTRUCTION PROJECTS. SEC. 706. LOCALLY-REQUIRED MEASURES FOR MUNICIPAL CONSTRUCTION PROJECTS. <ul style="list-style-type: none"> (c) Indoor Water Use Reduction. (d) Renewable Energy Efficiency, Better Roofs, and Energy Resilience. San Francisco Green Building Code, https://sfenvironment.org/green-building-ordinance-sf-building-code Local Amendments to Building Standards – Ordinances https://www.dgs.ca.gov/BSC/Codes#@ViewBag.JumpTo <p>ENERGY</p> <ul style="list-style-type: none"> CA 2019 Building Energy Efficiency Standards, https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency (new construction of, and additions and alterations to, residential and nonresidential buildings). Virginia Energy Conservation Code, https://building.arlingtonva.us/codes-ordinances/energy-conservation/ Virginia Energy Conservation Code, https://codes.iccsafe.org/content/VECC2015 <p>TRANSPORTATION</p> <ul style="list-style-type: none"> Legislation in the Virginia General Assembly, 2020: https://lis.virginia.gov/cgi-bin/legp604.exe?201+sbj+081 HB 585 Comprehensive plan; certain localities to promote transit-oriented development. Introduced by: Elizabeth R. Guzman, https://lis.virginia.gov/cgi-bin/legp604.exe?201+sum+HB585 Bloomington, MN Code of Ordinances, https://perma.cc/B3PS-7JNL Chicago Zoning Ordinance and Land Use Ordinance, 17-3-0400 Bulk and density standards. Chicago, IL, Zoning Code §§ 17-3-0403-B (2018); 17-10-0102-B (2018).
<p>C. Encourage benchmarking... to establish a baseline for energy demand estimates.</p>	<p>Nothing</p>			<p>Recommendations/Resources:</p> <ul style="list-style-type: none"> Benchmarking energy use of existing and planned County buildings should be used to design renewable energy facilities to service public buildings. Any increase in demand for energy should be provided for by clean renewable sources of energy, after facilitating energy conservation measures. City of Atlanta, Sec. 8-2222 – 8-2228 (2016). - Benchmarking requirements. https://library.municode.com/ga/atlanta/codes/code_of_ordinances?nodeId=PTIIICOORANDECO_PT8COHUDE_CH2BURE_ARTJENWA_S8-2222BERE Orlando, FL, Code of Ordinances § 15.03, 15.08 (2016).
<p>D. Use the data from benchmarking the energy use to set</p>	<p>Nothing</p>			<p>Recommendations/Resources:</p> <ul style="list-style-type: none"> Reduce Loudoun’s greenhouse gas emissions by putting a moratorium on fossil fuel infrastructure expansion, new fossil fuel hook-ups to buildings.

policy and regulations...				<ul style="list-style-type: none"> The 2009 County Energy Strategy includes Loudoun County Energy Use in 2007 (p. 28, Figure 10.1)
E. Whenever feasible, build County-constructed facilities to LEED Silver, or equivalent, standards.	Nothing			Recommendations/Resources: <ul style="list-style-type: none"> Require County buildings to be LEED Silver and include a mechanism by which a waiver to this requirement can be obtained.
F. Continue to evaluate all sustainability efforts and improve efforts as new options and technologies become available.	Nothing			Recommendations/Resources: <ul style="list-style-type: none"> Need timeline targets to review technological improvements and criteria for adoption of new technologies.
G. Continue to monitor the efforts of MWCOG.	Nothing			Recommendations/Resources: <ul style="list-style-type: none"> As a participating member of the MWCOG and all policy boards, Loudoun should select review recommendations, select appropriate ones and implement them.
H. Support Loudoun Water in expansion of the reclaimed water network.				Recommendations/Resources: <ul style="list-style-type: none"> VA DEQ Water Reclamation and Reuse Regulation (9VAC25-740). Continue and expand Loudoun Water's reclaimed water system effluent as an alternative to discharging to surface waters of the state.
I. Incorporate natural, environmental, and heritage resources and BMPs into County Energy Strategy.				Recommendations/Resources: <ul style="list-style-type: none"> Utilizing the benefits of natural systems in BMPs reduces the use of human-powered energy and saves costs.
J. Prioritize government purchase and use of goods and services that have reduced impacts to human and environmental health.				Recommendations/Resources: <ul style="list-style-type: none"> Sustainable and Green Procurement, Richmond, VA. http://www.richmondgov.com/ProcurementGreen/index.aspx <ul style="list-style-type: none"> Richmond's Purchasing Policy No. 51: Sustainable and Green Procurement. Provisions of the Mayor's Order #2011-4: For the Establishment of a Green Government. Green Purchasing: A Guide for Local Governments and Communities. 2006. https://www.state.nj.us/dep/opsc/docs/green_purchasing_guide_local_governments.pdf The MWCOG Regional Climate and Energy Action Plan, (written and adopted by the Climate, Energy, and Environment Policy Committee), has recommendations for local actions to promote sustainability, including government purchasing. https://www.mwcog.org/documents/2017/03/23/regional-climate-and-energy-action-plan-climate--energy-climate-change-energy/
K. Prioritize the use of Loudoun farm products in				Recommendations/Resources: <ul style="list-style-type: none"> LCPS has a Farm to Table program: https://lcpshhealthycafe.org/?page=farmtoschool

government purchase of food.				<ul style="list-style-type: none"> Use of local food sources increases local sustainability and decreases transportation costs, supporting local farms and small value-added product-based businesses
L. Develop a Sustainability Plan...to balance economic development, social well-being, and environmental health.				<p>Recommendations/Resources:</p> <ul style="list-style-type: none"> General Plan Guidelines: 2017 Update. CA Governor’s Office of Planning and Research. http://opr.ca.gov/planning/general-plan/guidelines.html Appendix A. Example Model Goals, Objectives, and Policies and Programs. http://opr.ca.gov/docs/OPR_Appendix_A_final.pdf Sustainability Planning, Hampton Roads, VA. https://www.hrpdcva.gov/departments/planning/sustainability-planning/ RVA Green. http://www.richmondgov.com/Sustainability/documents/RVAGreen_ARoadmapToSustainability.pdf A Community Plan for a Sustainable Future, VA Beach. https://www.vbgov.com/government/departments/planning/green/Documents/Virginia%20Beach%20Sustainability%20Plan.pdf Community Energy Plan, an element of Arlington County’s Comprehensive Plan, adopted 9/19. https://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/13/2019/10/Final-CEP-CLEAN-003.pdf
M. Consider providing electric car charging stations at newly constructed/ County constructed facilities.				<p>Recommendations/Resources:</p> <ul style="list-style-type: none"> AB-1236 Local ordinances: electric vehicle charging stations. CA. https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160AB1236 Charlottesville, VA. Green Building Incentives and Resources. EV Charging Station Mini-Grant Program – for Charlottesville Commercial/Non-Residential Properties. https://www.charlottesville.org/community/community-initiatives/a-green-city/green-building-incentives#EV_minigrant
<p>Strategy</p> <p>8.2. Support energy efficient practices for all in Loudoun County.</p> <p>Action A: Evaluate the energy demands of residential and non-residential buildings, including data centers as well as transportation needs and develop plans for energy efficiency.</p>	Nothing			<p>Recommendations/Resources:</p> <p>Buildings:</p> <ul style="list-style-type: none"> https://building.arlingtonva.us/codes-ordinances/energy-conservation/ new commercial buildings, additions to existing commercial buildings, townhomes of four or more stories, and condominium clusters. 2015 Virginia Energy Conservation Code. https://codes.iccsafe.org/content/VECC2015 commercial & residential. New and existing. <p>Data Centers</p> <ul style="list-style-type: none"> District energy systems (DES), provide heating and cooling to buildings that are connected to and powered by localized utility plants. [1] Loudoun’s CES references district energy in conjunction with data centers. St. Paul, MN has a district energy ordinance: Saint Paul, Minn., Code of Ordinances, App. F §§ 1,2, 5-6 (2007). <p>Transportation</p> <ul style="list-style-type: none"> Transit Oriented Development. VA HB 585: Comprehensive plan; certain localities to promote transit-oriented development. Amended to make it optional. https://lis.virginia.gov/cgi-bin/legp604.exe?201+sum+HB585 signed by Gov. Northam & effective 7/1/20 Transit Oriented Development encouraging affordable housing. City of Los Angeles, CA, Code of Ordinances §§ 12.22(25) (2008); 13.09(E) (1998); 13.07 (1992) Encourage adoption of hybrid and electric vehicles, charging station. Jersey City, NJ, Code of Ordinances § 332-28.1 (2017) <p>Charlottesville, VA. Green Building Incentives and Resources. EV Charging Station Mini-Grant Program – for Charlottesville Commercial/Non-Residential Properties. https://www.charlottesville.org/community/community-initiatives/a-green-city/green-building-incentives#EV_minigrant</p>

<p>B: Research and support opportunities for micro-grid energy and district energy systems.</p>	<p>Nothing</p>			<p>Recommendations/Resources:</p> <ul style="list-style-type: none"> • District Energy https://sustainablecitycode.org/brief/district-heating-and-cooling-zones-3/Schaumburg, IL, Code of Ordinances § 154.70 (C) (2018).
<p>C. Encourage the use of Commercial Property Assessed Clean Energy (C-PACE) and research and support residential PACE program.</p>	<p>Nothing</p>			<p>Recommendation/Resources:</p> <ul style="list-style-type: none"> • Commercial Property Assessed Clean Energy ordinance was adopted, an administrator hired, and the program is “live.” <ul style="list-style-type: none"> ○ Program needs to be expanded to allow CPACE for multifamily buildings as well. • Recommend that County lobbies for Residential PACE enabling legislation in the next session of the VA GA.
<p>D. Prioritize public investment in energy efficient, clean products and infrastructure.</p>	<p>Nothing</p>			<p>Recommendations:</p> <ul style="list-style-type: none"> • Explore and adopt a top 5 list (to start) of actions the county should take (on a regular basis), determine costs and create budget to implement those steps in a time-specific plan to create a more energy efficient infrastructure including: <ul style="list-style-type: none"> ○ Alternative modes of transportation ○ Expansion of water reuse options ○ Creation of district energy systems ○ Use of bioengineering for BMPs ○ Etcetera (new ideas can be added with time)
<p>Strategy 8.3. Support sustainable economic practices within Loudoun County to strengthen economic growth and innovation.</p>				<p>Recommendations:</p> <ul style="list-style-type: none"> • Work cooperatively with data center industry to support increased energy sustainability • Develop a Climate Action Plan to transition to renewable sources of energy to attract businesses that have corporate sustainability goals requiring 100% renewable energy by date certain.
<p>A. Create partnerships... to foster growth of a sustainable economy...</p>	<p>Nothing</p>			<p>Recommendations/Resources:</p> <ul style="list-style-type: none"> • Support/partner on programs to jump-start certification to work in advanced technology and wide variety of science-based fields • Special Issue "Vocational Education and Training for Sustainable Development," MDPI. https://www.mdpi.com/journal/sustainability/special_issues/vocation_edu_sus
<p>B. Promote the production and access to sustainable, healthy local food.</p>	<p>Nothing</p>			<p>Recommendations/Resources:</p> <ul style="list-style-type: none"> • See recommendations on cluster subdivision, easements, TDR, PDR and other conservation programs <ul style="list-style-type: none"> • Cluster developments reduced minimum lot sizes and requiring fifty percent of land be perpetually maintained as open space for agriculture, parks, recreation, or conservation. Concord, MA, Zoning Bylaw § 9.1-9.5 (1962) • Farmland Protection Incentive Measure. TDR program. Unity Land Use Ordinance (PDF) (Current as of 2/2010)
<p>C. Support and expand community gardens throughout the County.</p>	<p>Nothing</p>			<p>Recommendations/Resources:</p> <ul style="list-style-type: none"> • Provide performance standards and/or incentives to increase the use of community gardens in open space areas in developments throughout the county. • Partner with Loudoun County Master Gardeners, Garden to Table to establish vegetable and fruit area in community areas and home gardens http://loudouncountymastergardeners.org/programs/garden-to-table/
<p>Strategy 9.1. Promote water</p>				<p>Recommendations/Resources:</p> <p>Water Conservation. https://sustainablecitycode.org/chapter/chapter-1/1-5/</p>

conservation through... reuse systems, water saving devices, low impact development techniques...				<ul style="list-style-type: none"> Water Efficiency Standards for New Construction, https://sustainablecitycode.org/brief/water-efficiency-standards-for-new-construction/ Water Efficient Upgrades for Indoor Fixtures and Appliances, https://sustainablecitycode.org/brief/water-efficient-upgrades-for-indoor-fixtures-and-appliances/ <p>Low-Impact Development and Stormwater Management, https://sustainablecitycode.org/chapter/chapter-1/1-2/</p> <ul style="list-style-type: none"> Purchase of Development Rights, https://sustainablecitycode.org/brief/purchase-of-development-rights-3/ <ul style="list-style-type: none"> Stafford County, VA, Code of Ordinances §§ 22A-1 – 22A-11 (current through May 25, 2018). Prince George’s County, MD, Code of Ordinances §§ 30-300 – 30-313 (2006). Tree Canopy Cover, https://sustainablecitycode.org/brief/expand-tree-canopy-cover/ <ul style="list-style-type: none"> Virginia Tree Canopy Cover, 33 VA ordinances cited in 2019, Department of Forest Resources and Environmental Conservation, Virginia Tech. http://web2.cnre.vt.edu/vtod/results.cfm?canopy_cover=all
A. Educate and encourage the harvesting of rainwater for non-potable use, such as landscape irrigation.	Nothing			<p>Recommendations/Resources:</p> <p>Water efficient landscape:</p> <ul style="list-style-type: none"> Fort Lauderdale, FL requires new developments to submit landscaping plans as part of the development permit process. Fort Lauderdale, FL, Unified Land Development Code § 47-39.A.13 (2009). California Model Ordinance: Cal. Code Regs. tit. 23 §§ 490-495 (1992) Davis, CA Davis Municipal Code §§ 40.42.010 – 40.42.220 (2018); Redding, CA Code of Ordinances §§ 16.70.010 – 16.70.080 (2018) <p>Rain Gardens: https://sustainablecitycode.org/brief/rain-gardens-4/</p> <p>Rain Garden Incentive Program, City of Olympia (2015), https://perma.cc/3ZG6-YLQM.</p>
B. Establish incentives for sustainable development.	Nothing			<p>Recommendations/Resources:</p> <ul style="list-style-type: none"> Explore and incorporate the most successful incentives offered by other counties and localities. <ul style="list-style-type: none"> https://www.lgc.org/wordpress/wp-content/uploads/2016/02/Sustainable-Incentives-Best-Practices.pdf https://www.naco.org/sites/default/files/documents/GB%20Issue%20Brief-Green%20Building%20Incentive%20Trends.pdf https://www.areadevelopment.com/sustainable-development/Q2-2018/when-green-turns-to-gold.shtml http://www.energy-grants.net/
Strategy 9.2. Promote the use of salvaged, recycled, or locally produced materials whenever possible.	Nothing			<p>Recommendations/Resources:</p> <p>Recycle, Salvage and Reuse Building Materials. https://sustainablecitycode.org/brief/recycle-salvage-and-reuse-building-materials/</p> <ul style="list-style-type: none"> Austin, TX. For certain buildings 1) a maximum weight of waste that may be disposed of per square foot, and 2) a minimum of 50% total waste diversion rate from landfills. Subject to subsequent Council approval, the City also codified an increase in percentage of waste to be diverted from landfills: 50% will increase to 75% by 2020 and 95% by 2030. Austin, TX, Code of Ordinances §§ 15.6.150 – 6.170 (2016).
Strategy 9.3. Evaluate the establishment of Eco-districts within the County.	Nothing			<p>Recommendations/Resources:</p> <p>EcoDistricts, https://ecodistricts.org/about/</p> <ul style="list-style-type: none"> Case Studies: Stories from the Neighborhood, https://ecodistricts.org/case-studies-stories-from-the-neighborhood/ <ul style="list-style-type: none"> SW Washington, D.C. ecodistricts.org/wp-content/uploads/2017/08/ed-case-study-swecodistrict-FINAL-august-3-2017.pdf <p>Sustainable Congress Heights, http://ecodistricts.org/wp-content/uploads/2017/08/ed-case-study-sch-FINAL-august-3-2017.pdf</p>
Strategy 9.4. Promote green building standards and green building.	Nothing			<p>Recommendations/Resources:</p> <p>VA DEQ. https://www.deq.virginia.gov/Programs/PollutionPrevention/VirginiaInformationSourceforEnergy/FinancialIncentives.aspx</p> <p>Energy Efficient Buildings Tax Exemption (Code of VA §58.1-3221.2)</p> <p>Potential Applicants: Business, Industry, and Residents</p> <p>This statute allows any county, city, or town to exempt or partially exempt energy efficient buildings from local property taxes. Eligible buildings are those that: Localities offering exemptions: Charlottesville, Roanoke</p>

Strategy 9.5. Support renewable energy.	Nothing			Recommendations/Resources: Renewable Energy: <ul style="list-style-type: none"> • San Francisco, CA offers a series of incentives for residential installation of solar panels. San Francisco, CA, Environment Code § 18 (2017). • Georgetown, TX offers multiple incentives for residents wanting to add renewable energy sources to their property. Georgetown, TX, Code of Ordinances § 13.04.083 (2012).
A: Adopt solar zoning and permitting best practices for accessory use solar development.	Nothing			Recommendations/Resources: <ul style="list-style-type: none"> • Model Ordinance for Smaller-Scale Solar Energy Projects in Virginia (By Right Permitting) 2012. By: Virginia Department of Environmental Quality http://www.deq.virginia.gov/Programs/RenewableEnergy/ModelOrdinances.aspx The model ordinance suggests that smaller-scale solar energy projects (those mounted over a building, parking lot, or other previously disturbed areas or having a disturbance zone of less than two acres) be permitted administratively • Sources for the above DEQ model ordinance: the Fairfax County, VA Zoning Ordinance, Henrico County, VA Zoning Ordinance, Accomack County (Proposed) VA Zoning District Amendment, Lexington, VA Solar Tax Exemption Ordinance, Harrisonburg, VA Solar Tax Exemption Ordinance and Northampton County, VA
B: Become certified as a “solar-ready” community under the Department of Energy’s SolSmart program.	Nothing			Recommendations/Resources: <ul style="list-style-type: none"> • To access up to 100 hours of free technical assistance from national solar experts like NREL to address these and other gaps and barriers to solar, cities and counties can still sign up for the SolSmart program. For more information, go to http://www.solsmart.org/.
C: Support solar farms with locational criteria to be identified.	Nothing			Recommendations/Resources: <ul style="list-style-type: none"> • The Georgia Model Solar Zoning Ordinance Guide. Version 1.0 July 2018. http://www.energy.gatech.edu/sites/default/files/documents/2018-07-30_mso_guide_final.pdf • Revise DEQ’s Solar Farm design and siting specifications so that agricultural uses are viable in addition to solar farms. The Piedmont Environmental Council does not support solar farms because agricultural uses are not possible using the current criteria.



COMPREHENSIVE PLAN / ZONING & ORDINANCES AUDIT: PEC INPUT-Districts, Lot & Building Standards, Subdivision Design

Use form to provide key audit information: 1) Review both the 2001 and 2019 Comp Plan to note policy gaps and issues not addressed. 2) Review three ordinance documents (Zoning, FSM, LSDO) to determine existence or levels of enforcement for policies/issues. Use Section (§) references where applicable. 3) Describe Issue and Recommendations. Links to key documents: [2019 Comp Plan](#), [2001 Comp Plan \(RGP\)](#), [Current ZO w/updates thru 1/2020](#), [Facilities Standards Manual \(FSM\)](#), [Land Subdivision & Development Ordinance \(LSDO\)](#).

1. Comp Plan Policy or Issue Area (2001 & 2019)	2a. Zoning Ordinance § Reference or N/A (Brief text or summary)	2b. Facilities Standards Manual § Reference or N/A (Brief text or summary)	2c. Land Subdivision & Dev. Ordinance § Reference or N/A (Brief text or summary)	3. Issue Description / Recommendations
	<p>Article 2: Sect. 2-103(B),(C), Sect. 2-203(B),(C)</p>			<p>Issue: Cluster provision is defacto base zoning, despite good intentions. Development takes precedence over resource protection or flexibility in development options. Intended resource protection is not occurring. Currently none of the lots, including Rural Economy lots, are required to maintain the lot size per the base density, failing to achieve the benefits of a cluster - protection of resources.</p> <p>Recommendations: Rewrite ordinance to create performance standards to ensure that resource protection, particularly of prime agricultural soils, actually occurs, by awarding the additional density provided under the cluster based on the degree to which performance standards are met.</p> <p>The 70% open space requirement should include a common open space lot sized for any communal utilities and use of residents. The overwhelming majority of floodplain, steep slopes, hydric soils, and forested land must be located on common open space lots. These are resources that the county wants to protect, but that limit the ability to farm. The majority and balance of the 70% open space must be located on a single Rural Economy lots, and must be at least equal to or greater than the base zoning. Both common open space lots and Rural Economy lots should be placed in Conservation Easement or deed restricted in order to permanently preserve the agricultural resources. The Rural Economy lot may be designated for management by the HOA or the County specifically for farming purposes or purchased by the County for the purpose of permanently preserving land for farming. Ultimately the County will have to determine best practices to ensure the property continues to be farmed through a farming preservation program and track success of the effort. If we fail to meet reasonable expectations with regard to continued agriculture on the properties, the program would allow for the county to actively manage the land.</p>

				<p>Add siting guidelines to ensure that AR1 and AR2 clusters are located a minimum distance away to ensure a greenbelt around villages and towns. In cases where adjacent parcels are subdivided for residential developments, common open space parcels should be contiguous to allow for the provision of interparcel trails. These lands should be deeded to the county and allow public access.</p>
	<p>Sect 2-503,504, Sect 2-603,604, Sect 2-703, 704, Sect 2-803,804, Sect 2-903,904</p>			<p>Issue: Density of residential and commercial uses are often inappropriate where these zones have the greatest impact-in the historic villages. Each village is different, with unbuilt development potential varying substantially, but with little consideration for individual or communal system impacts to the environment, and to surrounding existing residents.</p> <p>Recommendation: Determine maximum allowable density in historic rural villages based on community planning exercises with community input and environmental studies to determine sustainable limits.</p>
	<p>Sect 2-505,506,508 509 Sect 2-605,606,608,609 Sect 2-705,706,708,709 Sect 2-805,806,808,809 Sect 2-905 & 906</p>	<p>FSM 6.210 A.1,2, B, C FSM 6.212</p>		<p>Issue: Carrying capacity of water supply is not considered in the lot requirements for CR districts. Lot sizes and number (cumulative impacts) must be considered relative to the existing wells and septic systems.</p> <p>Recommendation: Reducing density/intensity of development in villages is appropriate, in concert with community planning.</p> <p>Recommendation: A hydrogeological study or other evaluative study must be conducted based on overall development potential of parcels and should not be exempt based on the proposed number of lots submitted at any particular time in the development process.</p> <p>Recommendation: Consider measures to evaluate and protect existing neighboring well. Determine if a wellhead protection overlay is useful to protect existing wells in villages.</p> <p>Recommendation: New requirement--proof of approved wetland permit or lack of need must be provided prior to obtaining a well permit to drill any wells onsite.</p>
	<p>Sect 2-1006 Alternate Neighborhood Development Standards</p>			<p>Issue: Purpose of these alternate standards is not clear--is this preferred, is there an incentive to use these standards, is the goal a more sustainable development pattern?</p>

				Recommendation: Adjust text to clarify.
	<p>Article 3 - Suburban District Regulations</p> <p>3-306,3-406, 3-307,3-407, 3-309, 3-409 Lot and Building requirements for cluster option</p>			<p>Issue: Purpose of these alternate standards is not clear--is this preferred, is there an incentive to use these standards, is the goal a more sustainable development pattern?</p> <p>Recommendation: Adjust text to clarify, and provide incentives if they are not being used.</p> <p>Issue: Smaller lot sizes in appropriate locations could accommodate tiny house options that are more affordable.</p> <p>Recommendaton: Determine best location for this type of option, and create new zoning regulations to allow it.</p> <p>Recommendation: Clearly define and add co-housing options in suburban/redevelopment/infill areas which are appropriate locations.</p>
	<p>Additional Development Standards, Private streets</p> <p>Sect 3-410, 3-500-509, 3-605-610, 3-705-710</p>	FSM Article 4.330		<p>Issue: Due to the use of private streets, there is rarely enough parking in townhouse & two over two sections due to restrictions against parking on streets.</p> <p>Recommendation: Explore solutions to address parking insufficiency, and consider opportunities to include pervious pavement in parking spaces to reduce imperviousness impacts. Address other interconnected safety issues in additional text here.</p> <p>Issue: Open space requirements do not include reference to the need for trail connections to offsite parcels.</p> <p>Recommendation: Add text to clarify desired connections to offsite parcels, and that these open space connections should be deeded, fee simple, to the county for parks & trails facilities.</p>
	Article 5: Division A	FSM Article 4.600 ADDITIONAL TEXT/AMENDMENTS		<p>Issue: If the county is to have an effective linear parks and trail system, comprehensive direction is needed in the zoning ordinance.</p> <p>Recommendation: New text in this section seems appropriate in this section to provide a comprehensive approach to all types of districts and development (though I've noted it throughout the districts below).</p>

	Additional Development Standards, NEW SECTIONS			Recommendation: For a development that requires site plan or lot subdivision plat approval, there should be language that refers both to linear parks and trails and bikeways in accordance with those master plans and with specific guidance to location re: easements, setbacks and lot area reductions. See Chesterfield Zoning Ordinance Sect 19.1-208,209 and 19.1-306. Also include specific language to eliminate conflict re: landowner desire to increase FAR versus provide trail donation.
	Additional Development Standards, NEW TEXT	FSM Article 4.600 ADDITIONAL TEXT/AMENDMENTS		<p>Issue: Our ZO and FSM do not have bike storage facility standards which are critical to encouraging more alternative transportation.</p> <p>Recommendation: Add language in Additional Development Standards in ZO and FSM: "Bicycle Storage Space Standards" to ensure that bike users will have an adequate and appropriate, easy to access location to store their bikes at their destinations.</p>
	<p>PD non-residential districts</p> <p>Sect 4-105-110, 4-405-410, 4-505-510, 4-605-610, 4-705-710, 4-805-810</p> <p>Bldg requirements, use limitations, internal and external relationships</p>			<p>Issue: Text references noisy waste collection sites for non-retail uses, but not for retail.</p> <p>Recommendation: Add text to limit waste collection sites away from adjacent residential uses.</p> <p>Issue: Other uses generate noise (i.e. data centers) that can disturb adjacent neighborhoods.</p> <p>Recommendation: Include text that adds siting limitations or additional requirements near residential areas.</p> <p>Issue: All these uses involve high percentages of impervious cover.</p> <p>Recommendation: Additional requirements should include green roof/building standards, LID requirements for pervious pavement, bioswales and other features as a standard practice.</p> <p>Issue: Neighborhood access to local retail can cause traffic safety problems & speeding.</p> <p>Recommendation: More plan detail should be included regarding design of these connecting travelways to avoid creating problems for neighboring residents.</p>

	<p>PD non-residential districts and mixed use districts- open space requirements</p> <p>Sect 4-111, 4-205, 4-305, 305-307,4-407,4-505,5074-605,607, 4-705,4-706,4-808, 4-908, 4-910, 4-1013,4-1022,4-1114, 4-1124, 4-1216, 4-1309, 4-1360</p>			<p>Issue: Lot yard, bike and pedestrian connections, external relationships, open space requirements, etc do not address interparcel trail connections for county parks and trails in non-residential areas. There is no other section that addresses it either.</p> <p>Recommendation: Add detail and ensure that such lands are fee simple transfers to the county.</p> <p>Issue: An obstacle to getting fee simple transfers to the county for parks/trails on parcels apparently is lot coverage regulations.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> ● Add language that requires land for interparcel trail connections to be fee simple transfer to the county. ● Amend lot and bldg requirements to fix this conflict so that county can acquire these connections without penalizing applicants wanting increased FAR.
	<p>Traditional and Alternative Development Methods</p> <p>Sect 4-2202 Sect 4-2300, 4-2400. 4-2500,4-2600,4-2700</p>			<p>Issue: Do the traditional and alternative methods include sustainable development features?</p> <p>Recommendation: Ensure that both the traditional and alternative methods include LID and green building features as requirements.</p>
	<p>Sustainability Incentives</p> <p>Sect 4-2709</p>			<p>Issue: Loudoun development should be more sustainable to deal with the clear environmental challenges we face.</p> <p>Recommendation: Rather than incentives, sustainable practices should be required in building, lot, design standards.</p>
	<p>HOA Duties & Responsibilities 2-104, 2-204, 5-701 E, all</p>			<p>Issue: County regulations put a lot of responsibility on HOAs, with no guidance or help to communities to understand the extent of those responsibilities. Sales brochures are clearly not enough to provide HOA boards or residents with adequate information regarding the cost of those responsibilities.</p>

	<p>references to sales brochures 3-511, 3-610, 3-710, 4-110, 4-111, 4-912, 4-917,</p> <p>4-1022, 4-1121, 4-1124, 4-1204, 4-1311, 4-1314, 4-1360</p> <p>Ownership, Operation and Management of Common Open Space and Common Facilities</p>			<p>Recommendation: The County should provide a simple explanation of the costs associated with road maintenance (on a per square mile or square foot basis), long term landscape maintenance, provision of stormwater facility maintenance, etc, so that boards and residents have an idea of how much and why HOA dues must be charged, besides standard trash collection.</p> <p>HOAs should be included as referral agencies and there should be at least one or two seats reserved for HOA representatives on ZOAG and the FSM.</p>
	<p>Rt 28 Parks and Open Space regulations</p> <p>Sect 4-2308, 4-2408, 4-2506, 4-2605, 4-2706</p>			<p>Issue: Trail connections from north and south of the Metro stations are critical to help provide alternative modes of transportation to the stations.</p> <p>Recommendation: Require trail connections and fee simple transfer to the county in order to facilitate trail construction and connections along the Broad Run stream corridor to connect to the Metro stations.</p>
<p>Chapter 2: Quality Design</p> <p>QD Policy 1: Provide flexible design guidelines in all policy areas and in priority areas of the County to create more specific design guidelines that encourage innovation and appropriate architectural, site, and landscape design in all development.</p> <p>QD Policy 2:...create compact, walkable development patterns...and connected open spaces...</p>	<p>Need new Place Type specific basic regulations to accomplish this with Core, Complementary and Conditional uses for Infill and Redevelopment, UPA, SPA and TPA place types.</p>	<p>Need new LID & other stormwater management practices for mixed use and urban settings.</p>		<p>Issue: Flexibility should not supercede the importance of known guidelines that make for pedestrian and bike friendly, inviting environments.</p> <p>Recommendation: Use some basic accepted formulas to create walkable, ped-friendly spaces that minimize auto dominance in mixed use and urban settings. Shared parking facilities between dissimilar uses can help.</p> <p>Recommendation: Take advantage of co-benefits in LID, bioswales and other stormwater managment practices to help soften and create a greener urban environment, with a greater sense of place.</p>

<p>QD Policy 4: Where appropriate for the Place Type design spaces to maximize... multi-modal activity...</p> <p>QD Policy 3, Strategy 3.1, Action C:...integrate natural features...</p> <p>QD Policy 5, Strategy 5.1 ...design enhances... pedestrian experience...</p> <p>QD Policy 7: ...where the natural and built environment contribute to an area's "sense of place."</p> <p>UPA Policy 1: Ensure walkable development and connectivity...</p> <p>UPA Policy 2: Provide dynamic and diverse public places and amenities...</p>				
<p>QD Policy 7: Strategy 7.2 and related actions</p> <p>Consider allowing interim uses...</p>	<p>New text needed</p>			<p>Issue: Plan notes several actions to help avoid interim uses that become an obstacle to later evolution of uses in a timely manner.</p> <p>Recommendation: This will take well-crafted new ZO language to help manage effectively..</p>
<p>IR Policy 1, Strategy 1.1 and related actions Where infill development, redevelopment, and reinvestment initiatives could affect established neighborhoods, facilitate community engagement to address County and community concerns and build support for future projects.</p>	<p>New text needed</p>			<p>Issue: When proposals are considered in isolation, it's possible to overwhelm the county's ability to provide services without a holistic view of the ultimate potential and impacts.</p> <p>Recommendation: Create a map of potential sites <u>within a community and analyse the full range of development potential</u> to understand how much development the county can absorb within a certain timeframe so that it won't overwhelm roads, schools, and other public services. See related comments in the process section.</p>

<p>IR Policy 2: Recognize adaptive reuse of existing unused or underutilized buildings as an opportunity to establish or reinforce a community’s identity and sense of place.</p> <p>IR Policy 2: Promote redevelopment and infill projects that balance compatibility and integration with new housing choices and creative designs.</p>	<p>New text needed</p>			<p>Issue: Adaptive reuse may also become desirable/proposed for non-historic buildings that were built for office/retail uses as a more sustainable solution than demolition and rebuilding in some case for affordable housing. These possibilities should be contemplated and considered in the overall discussion of community vision and public facility demands.</p> <p>Recommendation: Consider potential opportunities and build language into the code to take advantage of opportunities, while also including these areas into the <u>overall computation of development potential</u> in the SPA so that we don’t make the mistake of adding more residential potential than roads and services can support.</p>
<p>UPA Policy 3: Provide a diverse mix of choices in all development.</p>	<p>New Text needed</p>			<p>Issue: UPA is not getting enough affordable housing in this planning area where it is most needed to maximize transportation choices.</p> <p>Recommendation: Change ZO to proactively deliver county-owned land for public/private ventures to provide long-term affordable housing in the UPA with development applications.. The UPA would provide the biggest return on dollar invested due to urban densities with relatively minimal land donation as part of the development process.</p> <p>Recommendation: See above for suggestion to include co-housing options in the urban setting provide another way to achieve unmet housing needs.</p>
<p>SPA Policy 2: Create environments where individuals can work, live, learn, and have convenient access to services, shops, and recreation</p>				<p>Issue: It is possible to overwhelm the county’s ability to provide services without a holistic view of the ultimate potential and impacts.</p> <p>Recommendation: See above--re: IR policy 1. Create a map of potential sites <u>within each community</u> and analyse the full range of development potential to understand how much development the county can absorb within a certain timeframe so that it won’t overwhelm roads, schools, and other public services.</p> <p>Issue: Requiring only 30% open space limits later HOA flexibility to expand facilities or adjust to changing community needs. Active recreation trends change with time.</p>

				<p>Recommendation: Allow plans to designate areas as active recreation without specific designations to give HOAs flexibility to change to a more popular use as community interests change.</p>
<p>TPA Policy 1: Ensure that the Transition Policy Area retains the visual character established by extensive natural open space by using compact development concepts with substantial open space requirements...</p>	<p>2-1400 thru 2-1700, 5-1500, 5-600 and 5-701</p>			<p>Issue: Clustered subdivision is an option but not required, limiting the opportunity for open space across the TPA.</p> <p>Recommendations: Clustering should be required for all districts (without bonus density for clustering) to provide for meet the goal of the Policy for open space and the visual look and feel of the TPA. Clustering not only offers environmental and recreational benefits, it allows developers to reduce development costs.</p>
<p>TPA Policy 1: Strategy 1.1 Action A</p> <p>Encourage a variety of housing within individual developments</p>	<p>New text needed</p>			<p>Issue: In the Transition Large Lot Neighborhood Place Type, with larger housing types, developers may not be willing to include smaller units.</p> <p>Recommendations: Devise zoning regulations to include an accessory unit as a limited size stand-alone cottage or over-garage unit, or mother-in-law/nanny suite as a builder option. Work with HOAs to ensure that negative impacts (parking) are addressed through regulations.</p>
<p>TPA Policy 1: Strategy 1.1 Action B</p> <p>Develop zoning regulations and design standards to accommodate Transition Community Centers and Transition Compact Neighborhood Place Types to expand housing diversity and improve commercial viability.</p>	<p>New text needed</p>			<p>Issue: County may hear that more residential is needed to make commercial successful in the Transition Compact Neighborhood or Transition Community Center Place Type.</p> <p>Recommendations: Require market rate units to be built in a range of square footage categories to allow for smaller, more affordable units. As part of rezoning process, ask for (or create a process whereby) a small percentage of the land proposed for development to be donated to the county for affordable rental units through a public private partnership in construction and management.</p>
<p>TPA Policy 1: Strategy 1.1 Action E</p> <p>Continue to support agriculture-related businesses including equine uses, agritourism, commercial nurseries, and similar uses throughout the TPA.</p>	<p>New text needed</p>			<p>Issue: Many farmettes and ag-related uses could be built on smaller existing parcels, but landowners may choose to create housing due to the potential profit differential.</p> <p>Recommendations: Based on county-set criteria, create an opportunity for owners to submit their property for fast-tracked consideration for a PDR program. This</p>

				could allow landowners to have a quicker, more certain way to monetize their property without developing it.
<p>TPA Policy 1: Strategy 1.1 Action G</p> <p>Ensure that open space within developments creates or enhances the following: (buffers, contiguous green space, interconnected trail system)</p>	5-701 New text needed			<p>Issue: There are currently no performance standards relative to trails and open space for by-right subdivisions, resulting in less than preferred conditions overall.</p> <p>Recommendations: Require open space plans and performance standards that guide how trails are to be incorporated into subdivision plans. All open space areas should be put into a conservation easement to be co-held by the County and a land trust. Areas that would provide for interparcel connections should be designated separately, still co-held by the County and a land trust, but not managed by the HOA.</p>
<p>TPA Policy 2: Offer safe and accessible parks and recreation opportunities that provide diverse activities for all ages, interests, and abilities. Strategy 2.1 Actions A-G</p>	5-701 New text needed			<p>Issue: There has been a greater emphasis on playing fields over linear parks and trails in recent years. The new linear parks and trails initiative will help to rebalance opportunities for all.</p> <p>Recommendations: Particularly in the TPA, there are many opportunities to provide co-benefits as a master plan is created to meet Comp Plan objectives. Performance standards for trails and open space for by-right subdivisions would help accomplish the goals of a linear parks and trails master plan.</p>
<p>TPA Policy 3: Target specific areas of the TPA for higher density residential and mixed-use development to create affordable and diverse housing opportunities in compact communities reflective of the historic development pattern of villages and towns in Loudoun. Strategy 3.1 Actions A-B</p>	New text needed			<p>Issue: Without more direct involvement in the creation of affordable and diverse housing opportunities it's unlikely that developments will create an appreciable amount of affordable housing.</p> <p>Recommendations: The County must proactively have land set-aside for the development of affordable housing in public private partnership.</p>
<p>TPA Policy 4: Non-residential uses will include uses that are compatible with resource protection, desired development patterns, and the rural landscape.</p>	New text needed			<p>Issue: Commercial uses may come more through legislative applications and ask for exceptions to Comp Plan guidance.</p> <p>Recommendations: Performance standards that address the desired look and feel of the area should be created in order to make deviations more apparent during the public process, so that the public and decision-makers are fully aware of exceptions.</p>

<p>TPA Policy 5: Ensure that adequate infrastructure (e.g., including roads, utilities, and public facilities) and services are available to meet increased demands of new development.</p>	<p>New text needed</p>			<p>Issue: The Comp Plan lays out some specifics for consideration, but it’s just a guide.</p> <p>Recommendations: Consider new criteria for considering development that is not the TPA Large Lot Neighborhood place type to ensure that adequate infrastructure and services are available.</p>
<p>TPA Policy 6: The Board of Supervisors encourages no further expansion of the TPA boundaries beyond that included with the adoption of the Loudoun County 2019 Comprehensive Plan</p>	<p>New text needed</p>			<p>Issue: Expansion of TPA boundaries is a risk for the future.</p> <p>Recommendations: Incorporate a PDR program for the TPA to extinguish development rights along the western boundary and create a clear boundary.</p>
<p>RPA Policy 1: Foster land use and development patterns that incorporate natural, cultural, heritage, and agricultural resources to preserve character-defining features of the rural landscape while providing opportunities for rural living and businesses.</p> <p>Strategy 1.1. Support uses that protect, preserve, and enhance natural areas and open space, retain farmland and the vitality of the rural economy, and foster a high quality of rural life for residents.</p> <p>Action A. Provide incentives for the consolidation of underutilized or undeveloped small lots into larger parcels for agricultural and rural economy uses.</p> <p>Action B. Consider cost-share initiatives to assist in establishing conservation easements...</p>	<p>New text needed</p>	<p>New text needed</p>		<p>Issue: Changes to existing ordinance language need to be enhanced with new ideas.</p> <p>Recommendation: Add performance standards to existing uses to reduce the detrimental effect they have on farming. An incentive program for consolidating smaller parcels should be explored, and a higher cost-share by the county during the process of recording conservation easements.</p>
<p>RPA Policy 2: Limit residential development to protect the land resource for agricultural operations, rural economy uses, and open space uses; minimize traffic impacts; and</p>	<p>Amend text per recommendations for Sect2-District regulations</p>	<p>Amend text</p>		<p>Issue: As noted above, cluster regulations need change to accomplish these goals.</p> <p>Recommendation: See recommendations re: rural districts above, and in performance standards.</p>

<p>reduce the demand for additional public facilities and services.</p> <p>Strategy 2.1. Where residential development does occur in the RPA, it should be designed to preserve the rural character, work with the land form to preserve and protect natural features, and conserve land for agriculture, equine uses, rural economy uses, passive recreation, and open space.</p> <p>Actions A. Evaluate and revise zoning regulations and design standards to improve the design of subdivisions and clustered residential development by incorporating natural features and buffering from roadways and scenic byways.</p> <p>Action B. Encourage the provision of publicly accessible and connected open space.</p>				
<p>RPA Policy 3: Agricultural and rural business uses that are compatible with the predominant land use pattern will be developed in a manner that is consistent with the County’s growth management, economic, and environmental goals.</p> <p>Strategy 3.1. Ensure compatibility of rural economy uses through the evaluation of the scale, use, intensity, and design (site and building) of development proposals in comparison with the dominant rural character and adjacent uses.</p> <p>Actions A. Evaluate and revise zoning regulations and development standards for rural economy uses. Such regulations and standards will address traffic capacity, safe and adequate road access, number of employees, site design standards (e.g., land disturbance, buffering, use</p>	<p>Amend performance standards 5-1500 and Additional Regulations for Specific Uses- Section 5-600</p>			<p>Issue: Performance standards need to be better standardized.</p> <p>Recommendation: See suggestions in performance standards.</p>

intensity, siting, and architectural features), and public health, safety, and welfare.				
Strategy 3.2. Promote the retention and development of rural business uses that sustain the rural economy and support the County’s agricultural, equine, and tourism industries. Actions A-E				<p>Issue: Tourism-related ag enterprises have received a lot of support, but not as much for actual farming. Farming is critical to our food security and supply.</p> <p>Recommendation: Better regulations and programs to support farming and food supply are needed, working hand in hand.</p>
<p>Strategy 3.3. Promote and expand agricultural enterprises and the rural economy, and attract rural entrepreneurs to locate in Loudoun. Action C. Develop additional incentives to retain and encourage agricultural enterprises and support land preservation.</p> <p>Strategy 3.6. Support and increase farming activities and maintain a resilient food network for local consumption</p>	New text needed			<p>Issue: Tourism-related ag enterprises have received a lot of support, but not as much for actual farming. Farming is critical to our food security and supply.</p> <p>Recommendation: Better regulations and programs to support farming and food supply are needed, working hand in hand.</p>
Strategy 3.3, Action F. Facilitate the provision of appropriate on-site housing options for farm interns and apprentices in support of agricultural workforce development.	Amend text for tenant housing and			<p>Issue: Adequate tenant/group housing options are needed for farm workers</p> <p>Recommendations: Flexibility in providing farm worker options will help to keep costs down including group housing or tiny-house type facilities, but with the requirement of being on production agriculture farms, and require removal if land is sold for development.</p>
<p>RHV Policy 1: Development and uses in Rural Historic Villages must be compatible with the historic development pattern, community character, visual identity, intensity, and scale of the individual villages.</p> <p>Strategy 1.1. Encourage the retention and development of a variety of compatible residential, commercial, and community uses that enhance the attractiveness and vitality of the Rural Historic Villages. Actions B, C, F</p> <p>Strategy 1.4 Action A</p>	Amend text in CR and RC districts.			<p>Issues: Noted above in comments on CR and RC districts</p> <p>Recommendations: See above</p>

<p>Town Policy 1: Collaborate with the Towns on matters of common interest to preserve the identity of each Town and their role as economic and social centers. The County recognizes that the Towns may be impacted by proposed development near their borders and will consider, as appropriate, Town comments on development near their borders.</p> <p>Strategy 1.1 Work with the Towns to develop and implement a shared vision for the Towns and their surrounding areas and gateways</p> <p>Actions A-G</p> <p>Strategy 1.2 Encourage new development to locate within the Towns before moving into the JLMAs or surrounding area.</p>	<p>New text needed</p>			<p>Issues: Town-related JLMA zoning needs strengthening</p> <p>Recommendations: Work on regulations and programs to help strengthen town input on development near its borders, and promote greenbelts through regulation and PDR/TDR options.</p>
<p>Strategy 1.3 Continue to recognize the Towns as the preferred location of public facilities serving the Rural Policy Area, when otherwise consistent with Town policies and when suitable land and services are available. Actions A&C</p>	<p>New text needed</p>			<p>Issues: Land around towns is vulnerable to sprawl through efforts to expand town boundaries, or extend utilities.</p> <p>Recommendations: Strengthen regulations against extending town utilities into surrounding areas. Promote greenbelts through PDR/TDRs.</p>
<p>All strategies related to the areas around each of the towns and preservation of their borders, preventing sprawl around the towns including spatial separation from development outside of town.</p>	<p>New text needed</p>			<p>Issues: See above</p> <p>Recommendations: See above</p>



COMPREHENSIVE PLAN / ZONING & ORDINANCES AUDIT: PEC INPUT-Process

Use form to provide key audit information: 1) Review both the 2001 and 2019 Comp Plan to note policy gaps and issues not addressed. 2) Review three ordinance documents (Zoning, FSM, LSDO) to determine existence or levels of enforcement for policies/issues. Use Section (§) references where applicable. 3) Describe Issue and Recommendations. Links to key documents: [2019 Comp Plan](#), [2001 Comp Plan \(RGP\)](#), [Current ZO w/updates thru 1/2020](#), [Facilities Standards Manual \(FSM\)](#), [Land Subdivision & Development Ordinance \(LSDO\)](#).

1. Comp Plan Policy or Issue Area (2001 & 2019)	2a. Zoning Ordinance § Reference or N/A (Brief text or summary)	2b. Facilities Standards Manual § Reference or N/A (Brief text or summary)	2c. Land Subdivision & Dev. Ordinance § Reference or N/A (Brief text or summary)	3. Issue Description / Recommendations
	6-407 A.(4) Map Interpretations and Boundary Determination, Limestone Overlay District.			<p>Issue: The Limestone Overlay District has many features which are critical to understand when determining boundaries, otherwise existing wells and natural resources could be negatively impacted.</p> <p>Recommendation: The minimum number of test borings and depth should be increased to more than three, and spaced out in a site-specific manner determined/approved by County staff to ensure that critical features are not missed.</p> <p>Boring density must be sufficient to evaluate each landscape position and geologic breaks within the area to be mapped.</p>
	6-504 Civil Violations			<p>Issue: Some people deliberately violate the law to avoid government oversight , paying in the fines as a cost of doing business.</p> <p>Recommendation: Civil fines should be increasingly expensive in order to stop repeat offenders. Each time a repeat violation occurs, consider increasing the fee by double. The upper limit of fines should also be increased since it is a drop in the bucket in comparison to other costs of doing business.</p>
	6-700 Site Plan Review			<p>Issue: As an administrative process, the public has no opportunity to comment on applications--particularly in by-right development, but should have the opportunity to comment and may have information useful to staff.</p>

				<p>Recommendation: Create an administrative public input process so that comments and concerns are included in the LOLA public record.</p>
	6-1404 Cluster Open Space Requirements and 6-1404 D			<p>Issue: Communities are not always amenable to public use of their private trails.</p> <p>Recommendation: Common open space that provides interparcel links should be dedicated and transferred to the County as public parkland.</p> <p>Issue: Although major floodplain areas cannot be counted as common open space, the areas also do not belong to the County.</p> <p>Recommendation: Major floodplain areas should be dedicated and transferred to the County as public parkland. This would also allow for the County to have added flexibility in creating County-owned stream restoration banks.</p>
<p>IR Policy 1, Strategy 1.1, 1.7, and related actions Where infill development, redevelopment, and reinvestment initiatives could affect established neighborhoods, facilitate community engagement to address County and community concerns and build support for future projects.</p> <p>SPA Policy 2: Create environments where individuals can work, live, learn, and have convenient access to services, shops, and recreation</p>	New text needed	New process guidance needed		<p>Issue: In areas where there are multiple redevelopment and infill opportunities, the community can be overwhelmed and may push back as projects are proposed in isolation, creating a negative environment.</p> <p>Recommendations: Create a process where HOAs or a community advisory board serve as a referral agency for development proposals nearby. This board would also be crucial in setting the overall community vision, as redevelopment and infill potential is considered.</p>
IR Policy & UPA Policy:				<p>Issue: Adequate residential parking.</p> <p>Recommendation: Create a residential parking workgroup similar to Arlington to create a recommended methodology and implementation plan to provide adequate parking in UPA and mixed use/redevelopment areas.</p>

				<p>Issue: Excess commercial parking</p> <p>Recommendation: Consider a similar working group to determine how best to determine adequate but not overparked conditions.</p>
UPA Policies				<p>Issue: Guidance for zoning ordinance changes for this area need a comprehensive approach to be successful.</p> <p>Recommendation: This planning district needs guidance on zoning and more by a task force similar to the one that Fairfax used for Tysons, working to flesh out the urban Place Types with even more detail, including trail connections to the broader community and environmental considerations.</p>
SPA Policy 1: Foster community identity within the Suburban Policy Area. Strategy 1.1. Create new Community Plans	New text needed			<p>Issue: The County should be sure to engage effectively with HOAs as well as the residents in existing neighborhoods is essential.</p> <p>Recommendations: Include text re: process in the ZO.</p>



COMPREHENSIVE PLAN / ZONING & ORDINANCES AUDIT: PEC INPUT-Uses & related performance standards, parking

Use form to provide key audit information: 1) Review both the 2001 and 2019 Comp Plan to note policy gaps and issues not addressed. 2) Review three ordinance documents (Zoning, FSM, LSDO) to determine existence or levels of enforcement for policies/issues. Use Section (§) references where applicable. 3) Describe Issue and Recommendations. Links to key documents: [2019 Comp Plan](#), [2001 Comp Plan \(RGP\)](#), [Current ZO w/updates thru 1/2020](#), [Facilities Standards Manual \(FSM\)](#), [Land Subdivision & Development Ordinance \(LSDO\)](#).

1. Comp Plan Policy or Issue Area (2001 & 2019)	2a. Zoning Ordinance § Reference or N/A (Brief text or summary)	2b. Facilities Standards Manual § Reference or N/A (Brief text or summary)	2c. Land Subdivision & Dev. Ordinance § Reference or N/A (Brief text or summary)	3. Issue Description / Recommendations
	<p>Article 2: Section 2-102-E.F.,2-202-E.F.</p> <p>Tables 2-102 and 2-202</p> <p>Article 5: Section 5-600</p>			<p>Issue: Similar uses lack similar standards in the RPA.</p> <p>Recommendation: Update text to create uniform standards for similar uses.</p> <p>Issue: External impacts may increase from sites with multiple uses that bring in disparate users at the same time (i.e. sporting events and outdoor recreation facilities, or event facilities and commercial facilities for the general public operating at the same time)</p> <p>Recommendation: Regulations should reduce potential external traffic, noise, lighting impacts.</p> <p>Issue: Co-housing use is confusing and wide- open to interpretation.</p> <p>Recommendation: Delete co-housing as a permitted group living use in the RPA except to accommodate farm workers. Provide allowance for a community communal eating/socializing facility in an HOA in the household living category to achieve the goal that this category was initially intended to accommodate.</p> <p>Issue: Golf courses carry a heavy impact on ecosystems.</p> <p>Recommendation: Eliminate golf courses as a special exception use going forward in the AR and CR districts.</p>
	<p>Sect 2-503,504,</p>			<p>Issue: Some uses are inappropriate for where CR1, CR2, CR3, CR4 and RC zoning is located.</p>

	<p>Sect 2-603,604,</p> <p>Sect 2-703, 704,</p> <p>Sect 2-803,804,</p> <p>Sect 2-903,904</p>			<p>Recommendation: Review list and eliminate inappropriate uses which could negatively impact the village pattern or character or the ecosystem carrying capacity of the area (i.e. golf courses or on CR zoned land). Appropriate uses should be determined through a community planning process with the residents of the historic villages.</p> <p>Issue: Intensity of uses are often inappropriate where these zones have the greatest impact-in the historic villages. Each village is different, with unbuilt development potential varying substantially, but with little consideration for individual or communal system impacts to the environment, and to surrounding existing residents.</p> <p>Recommendation: Initiate community planning exercises for each historic rural village to get community input and perform environmental studies to determine sustainable limits to allowable development. Then adjust zoning accordingly.</p>
	<p>Sect 5-600 Additional Regulations for Specific Uses.</p>			<p>Issue: Differing uses may have some similar impacts to neighbors and local roads, but don't have similar impacts in every case.</p> <p>Recommendation: The uses in this section should be reviewed to ensure that like impacts are adjusted to have like regulations.</p> <p>Issue: Where lot sizes are minimal, but uses allow for substantial numbers of guests, parking can be a problem, with people parking offsite along bordering roads.</p> <p>Recommendation: Going forward, review this section and increase lot sizes and parking requirements to address this problem.</p>
	<p>Sect 5-620</p>			<p>Issue: Manufactured housing regs would not allow "tiny house" style houses, most of which are on wheels.</p> <p>Recommendation: Adjust these regs to allow beneficial aspects of this type of housing with strict regs to prevent abuse from unintended uses.</p>
	<p>5-657 Stockpiling of Dirt. Any stockpiling of dirt in the AR and TR districts shall comply with the following standards:</p>			<p>Issue: Stockpiling of dirt has become a problem that needs more detail to avoid the abuses recently experienced in various places in Loudoun.</p>

	5-667 Brewery, Limited.			<p>Recommendation: Changes in State law plus a DEQ working group will help to provide additional means to control abuse. Stricter enforcement is also essential.</p> <p>Issue: Minimum lot size and noise, traffic and parking issues are exacerbated by the minimum lot size due to allowed events. Breweries in particular, appear to need events to stay solvent, so wedding events, musical events, etc are standard. These draw crowds and create offsite impacts that the uses strictly related to the manufacture and sale of beer would have. Other counties (Clarke) do not allow these uses on limited (farm) brewery sites.</p> <p>Issue: The definition is not the appropriate place for the lot size requirement to be located.</p> <p>Recommendation: Increase minimum lot size and address the offsite impacts in the body of the regulations.</p> <p>Issue: While the state guidelines note that farm breweries must grow the ingredients on the farm, and the main purpose of the farm brewery is farming, that is not the case for Loudoun farms since the regulations are so vague.</p> <p>Recommendation: Loudoun should include language about farming being the primary use and set a minimum acreage of land that must be actively farmed.</p>
	Sect 5-1100 Parking			<p>Issue: Residential neighborhoods with private roads (most often townhouse areas) generally do not have enough parking options due to limited on-street parking or parking spaces and counting garage and driveway spaces, back to back.</p> <p>Recommendation: Work with HOA leaders for recommendations on addressing parking issues, including limiting the use of private streets which seem to be generating a good portion of the parking issues due to fire apparatus access. See related notes in the Districts section.</p> <p>Issue: Retail, office and commercial uses generally have too much parking, based on the maximum usage, not normal use.</p> <p>Recommendation: Shared use parking, pervious overflow parking options should be employed. See related notes in the Districts section.</p>

Sect 5-1500 Performance standards

Issue: Cluster development isn't achieving the desired resource protection for prime soils since the cluster automatically allows the designated density increase without effectively protecting prime soils.

Recommendations: Add language to the purpose section (5-1501) to protect prime soils and other resource protection measures as performance standards that must be met, before cluster density is calculated on top of the base density.

Performances standards should include: % of prime soil protection--undeveloped on the rural economy lot, minimum relative size of single rural economy lot (prime soil onsite must exceed a certain percentage of all prime soils in the development), natural and cultural resource location on open space parcel, uses acceptable on the open space parcel(s), location of water/sewer system on the open space parcels, limitation of rural economy lot to strictly production agriculture/farming (not other rural economy uses), standards for clearing vegetation and invasive species. Cluster lots over the base density would be permitted according to the percentage of performance standards that are achieved.