

## **Supplemental Packet**

The following supplemental materials are attached:

- E. Overview of the Loudoun County Fiscal Impact Model  
*For the Loudoun 2040 Comprehensive Plan*

# STAKEHOLDERS MEETING AGENDA

*Monday, April 9, 2018*

*6:00 PM Welcome / Administrative Items / Information Updates*

- Introductory Comments from Committee Chair – Jeff Salmon
- Meeting Objectives – Alaina Ray

*6:10 – 6:55 PM High Level Fiscal Impact Assessment Overview  
Process Presentation and Discussion*

- Staff Presentation
- Stakeholders Committee General Questions
- Round Robin Discussion

*6:55 – 7:55 PM Envision Loudoun 2040 General Plan Chapter 6:  
Fiscal Management & Facilities Review*

- Staff Presentation
- Stakeholders Committee General Questions
- Round Robin Discussion

*7:55 – 8:05 PM Break*

*8:05 – 9:55 PM Envision Loudoun 2040 General Plan Chapter 6:  
Land Use Review*

- Staff Presentation
- Stakeholders Committee general Questions
- Round Robin Discussion

*9:55 – 10:00 PM Next Steps*

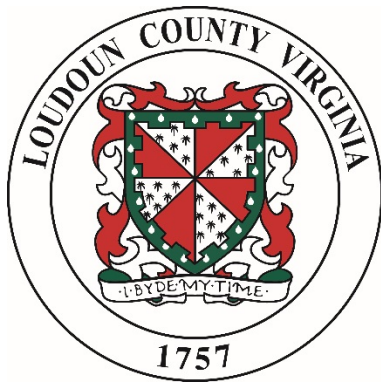
**Important Documents**

- A. Agenda 4-9-18**
- B. Staff Cover Memo 4-9-18**
- C. Envision Loudoun 2040 Chapter 2: Built Environment/Land Use**
- D. Envision Loudoun 2040 Chapter 6: Fiscal Management & Facilities**
- E. Overview of the Loudoun County Fiscal Impact Model**

# **Overview of the Loudoun County Fiscal Impact Model**

*For the Loudoun 2040 Comprehensive Plan*

**April 6, 2018**



**Loudoun County Department of Management and Budget**

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## INTRODUCTION

As part of the Envision Loudoun process to develop the *Loudoun 2040 Comprehensive Plan*, the Department of Management and Budget (DMB) is working with the consulting firm TischlerBise to support efforts to make fiscally informed land use decisions. Communities need analytical tools and technical support to assess and balance multiple priorities when making land use and development decisions. As part of the Envision Loudoun process, a fiscal impact model and corresponding analysis are currently being developed.

On January 22, 2018, TischlerBise and DMB staff presented a conceptual overview of the fiscal modeling efforts planned for the Envision Loudoun process. In follow up meetings, members of the Stakeholders Committee expressed a desire to gain more information and understand the technical design, methodologies, and assumptions that will be used in the fiscal model. Additionally, Stakeholders requested more information on the anticipated main drivers of the modeling results.

### Scope of this Paper

This paper provides a discussion of the fiscal impact model. The following topics are addressed in this document:

- Overview and general importance of fiscal impact analysis;
- Role of fiscal impact modeling for the Envision Loudoun process;
- Model design goals and components;
- Methodologies used to develop assumptions;
- Assumptions that will be used as inputs in the fiscal model;
- Evaluation of fiscal impact results; and
- Anticipated “drivers” of fiscal impact results.

## WHAT IS A FISCAL IMPACT ANALYSIS?

In general, a fiscal impact evaluation analyzes cash flow (revenue generation and operating and capital costs) to a jurisdiction associated with the provision of public services and facilities to serve new development—residential, commercial, industrial, or other land use. A fiscal impact analysis is different than an economic impact analysis, which evaluates the economic benefits to a community in terms of jobs, income, and economic output. *Fiscal analysis enables local governments to estimate the difference between the costs of providing services due to development and the taxes, user fees, and other revenues that will be collected by the government as a result of new development.*

### Importance of Fiscal Impact Analysis in Local Land Use Decisions

A fiscal impact analysis (FIA) goes beyond the annual budget *to clarify the longer-term financial effects of land use and development decisions and related public infrastructure and service costs* to help ensure that local officials understand the short- and long-term fiscal effects prior to making such land use and development decisions.

A FIA projects net cash flow (revenue generation and operating and capital costs) to the public sector due to residential and/or nonresidential (commercial, office, industrial, etc.) development. In simple terms: revenues (generated from growth such as property taxes, sales and use taxes, charges for service) minus expenditures (generated from growth such as cost to provide public safety services, recreation programs, library services, etc.) equals the “net fiscal impact”. *In other words, will sufficient revenues be available to cover the resulting costs to provide services and infrastructure?*

When faced with a land use or development proposal, a FIA can provide a perspective to objectively analyze proposed changes and communicate the overall impacts. This process can help develop a compatible land use plan, build community support for resulting land use decisions, and provide elected officials and others with

additional information to help make those decisions. FIA provides a better understanding of how land use decisions affect a jurisdiction's bottom line. It also helps communities understand potential trade-offs between short-term revenue opportunities and long-term outcomes.

A goal of the FIA for Envision Loudoun is to provide support to decision makers, local government staff, and community stakeholders to identify and quantify impacts.

## Use of Fiscal Impact Modeling by Loudoun County

Loudoun County has a tradition of using fiscal impact analysis to evaluate changes to the comprehensive plan. Fiscal impact modeling was first utilized by Loudoun County in the late 1980s to evaluate the fiscal impact of the Choices and Changes General Plan. Loudoun County also has used fiscal impact analysis to evaluate the impact of development along the Silver Line. To understand whether a proposal is fiscally beneficial, the focus of these studies has been on the fiscal difference between current and proposed land use patterns and policies.

In addition, Loudoun County has developed and utilized several practices to enable the County to plan and budget for service and facility demands resulting from a consistently high level of growth. The County began implementation of these practices in the mid-1990s, after members of the Board of Supervisors became concerned about the potential fiscal impact of anticipated growth. At the Board's direction, key planning tools were developed over a period of years to help ensure that Loudoun County remains a well-served community with a high quality of life and an economic balance to allow an affordable tax rate. These tools include assumptions for growth forecasts and capital facility needs. Loudoun County's Fiscal Impact Committee is an advisory committee to the Board that reviews and recommends these assumptions. Fiscal impact analysis efforts can be informed by these assumptions, and frequently also utilize additional assumptions that pertain to types of development that will be new to the county, along with independent market demand forecasts designed to support the evaluation of new land use patterns.

## THE FISCAL IMPACT ANALYSIS MODEL

### Approach and Design

The fiscal impact model and analysis are designed to evaluate the impact of future growth under the proposed *Loudoun 2040 Comprehensive Plan* developed through the Envision Loudoun process and compare it to future growth under the current plan. A fundamental question is whether forecasted revenues generated by future growth and development in the *Loudoun 2040 Comprehensive Plan* are sufficient to cover forecasted expenditures related to service and facility demands which could result from this same growth and development. Results will be shown as the "Net Fiscal Impact" and can be fiscally positive (revenues exceed costs), fiscally neutral (revenue equals cost), or fiscally negative (costs exceed revenues). This tool is intended to assess the fiscal direction (positive, neutral, negative) and general magnitude (how much) of proposed land use decisions compared to what is currently approved as part of the Revised General Plan. The model also will forecast Metrorail Tax District revenues and forecast the tax base for the two Metrorail station districts.

The fiscal model will include four scenarios, to allow comparison between the Loudoun 2040 Plan and Revised General Plan, and also to demonstrate how much different the Loudoun 2040 Plan results could be, based on faster or slower development:

- Revised General Plan Baseline – utilizing development forecasts based on the "medium" demand forecasts from the Market Analysis, constrained by the development potential (supply) available under the current Revised General Plan.

- Proposed Loudoun 2040 Plan: medium – utilizing development forecasts based on the “medium” demand forecasts from the Market Analysis, constrained by the development potential (supply) available under the proposed plan.
- Proposed Loudoun 2040 Plan: low – utilizing development forecasts based on the “low” demand forecasts from the Market Analysis; like the Proposed Plan medium forecast, the demand forecast will be constrained by the development potential (supply) available under the proposed plan.
- Proposed Loudoun 2040 Plan: high – utilizing development forecasts based on the “high” demand forecasts from the Market Analysis; like with the other Proposed Plan forecasts, this will be constrained by the development potential (supply) available under the proposed plan.

The analysis will answer questions such as:

- Are the revenues generated by development enough to cover related expenditures for services and capital facilities?
- How does the net fiscal impact for the proposed plan compare to the Revised General Plan?
- If development occurs more or less rapidly, how much does that change the results for the proposed Loudoun 2040 plan?
- What capital facilities could be needed to accommodate future development?
- What land is needed for those capital facilities?
- What revenue growth is expected for the Metrorail Tax District under each plan?
- What tax base growth is expected for the Station Districts under each plan?

Results (outputs) from the fiscal impact model will include the following:

- Loudoun County General Fund operating costs and revenues
- Loudoun County Public Schools (LCPS) operating costs and revenues
- Capital facility needs and costs
- Land needed for capital facilities
- Tax district revenues for the Metrorail Service District
- Tax district real property base for the Metrorail Service District and the two smaller station districts (Ashburn and Loudoun Gateway – Airport)

### **Flexible Design**

Flexibility of the model has been a key goal in order to provide the ability to answer different types of questions that could arise throughout the Envision Loudoun process. The model is also designed to accommodate other sensitivity or “what if” tests that could evaluate changes in assumptions including (1) demographic factors such as household size and pupil generation rates and (2) impacts of alternate real property value assumptions.

While the fiscal model is designed for flexibility, small changes in land use may not result in material differences in fiscal results. Large differences in fiscal model results can suggest that varying an assumption can lead to actual, material differences in practice. Smaller differences can suggest that varying the assumption is less likely to have an impact.

### **Forecast Period**

The fiscal impact model is designed to reflect net fiscal impacts of future growth through 2040. Results will be reported both in five year increments and cumulatively, beginning in 2017. This allows for evaluation of the net fiscal impact over time. This is consistent with other components of the Envision Loudoun effort.

### **Inflation**

Inflation will not be incorporated into the model, to enhance the ability to understand the long-term financial forecasts and provide clearer discussion of comparable scenarios. Using constant dollars (rather than incorporating inflation) enables the model's results to be expressed in today's dollar values. Accounting for inflation would add a significant level of complexity to the modeling effort because it would involve developing assumptions for different rates of inflation for different factors.

### **Residential and Nonresidential Proportionate Shares**

Proportionate share factors are used to allocate some revenues and costs to residential and/or nonresidential development. TischlerBise has relied on extensive public and private sector input to establish reasonable "weighting factors" to account for time spent at either residential or nonresidential development. Development of these shares is described in Attachment 1. Based on this analysis, the cost allocation for residential development is 74 percent, while nonresidential development accounts for 26 percent of the demand. This demand is then translated into per capita, per job, and per student figures, where applicable, for the detailed revenue and expenditure budgetary lines included in the model.

### **Fiscal Analysis Zones**

The model is also designed to provide results for six geographies listed, known as fiscal analysis zones, to allow for more detailed analysis.

- Countywide
- Suburban Policy Area
- Transition Policy Area
- Metrorail Tax District, and
- Metro Station Districts (Ashburn and Loudoun Gateway – Airport)

These geographies were selected because the focus of the plan changes are on development in new Urban Policy Areas and in the Suburban and Transition Policy Areas, which could result in substantially different level of development in these areas.

The Rural Policy Area, Towns, and the Leesburg Joint Land Management Area (JLMA) were not designed as their own distinct geographies because minimal changes are expected to these areas. As a result, differences between the Loudoun 2040 Plan and the Revised General Plan are expected to be small. However, it is possible to show results for these areas combined as a Rural, Towns, and Leesburg JLMA geography.



## Fiscal Model Assumptions

### Development and Economic Assumptions

Assumptions about development characteristics (real property valuations, vacancy rates, household sizes, square feet per employee) will be drawn primarily from the 2017 Fiscal Impact Committee Guidelines. The Guidelines data will be supplemented in the following cases:

Differing characteristics within ¼ mile of Metrorail (Ashburn and Loudoun Gateway) stations - Consistent with past modeling of the impact of Metrorail, adjustments will be made to assumptions for new office, retail, and multifamily development located near Metrorail stations. Valuation premium percentages will be applied to the assessed values expected for development elsewhere to reflect expected higher values for development near these stations. Adjustments to other characteristics also will be made to reflect differences in household sizes, student generation rates, the square feet per employee, and vacancy rates.

**Table 1. Assumptions for Development Located Within ¼ Mile of Metrorail Stations**

	Square Feet per Employee	Household Sizes	Student Generation Rates	Vacancy Rates	Valuation Premium
<i>Urban – within ¼ mile of the Ashburn and Loudoun Gateway Stations</i>					
Office	175	n/a	n/a	7.5%	10%
Retail	450	n/a	n/a	7.0%	5%
Multifamily Attached	n/a	1.85	0.12	5.0%	10%
<i>Elsewhere in the County</i>					
High Density Office	235	n/a	n/a	10.0%	n/a
Retail	350	n/a	n/a	7.0%	n/a
Multifamily Attached	n/a	1.97	0.21	6.5%	n/a

Note: the student generation rates shown for multifamily attached units located elsewhere is 90% of the rates used for the Capital Intensity Factor and shown in the 2017 Fiscal Impact Committee Guidelines, as described below.

Rental vs. Owned MF Units - Differences in valuations are anticipated to be significant between rental and owned multi-family units. County staff will be working with TischlerBise to develop this assumption.

Hotel Product Type - Hotels will be separated out as a development type to allow the demand for hotels to be forecast separately and for the fiscal differences for this unique product type to be reflected. One fiscal difference is that hotels generate Transient Occupancy Taxes (TOT). Examples of other differences include basing forecasts of development and employees on room demand, and the ability to attribute BPOL Hotels and Motels revenue directly to this development.

Affordable Dwelling Units – The model will incorporate differences in valuation for affordable dwelling units (ADUs). A portion of most residential product types (single-family detached rural is the exception) will be modeled as affordable dwelling units (ADUs). Designating some units as ADUs within the model allows fiscal impact calculations to reflect that 1) proffers do not offset the capital costs for these units and 2) these units have a lower assessed value than market rate units.

Age Restricted - A portion of multi-family attached units will be modeled as age-restricted. Designating some units as age-restricted within the model allows fiscal impact calculations to reflect 1) that these units do not create demand for school facilities and 2) any differences in assessed values compared to non-age-restricted units.

LCPS Enrollment Forecasts - Forecasts of LCPS enrollment will be developed assuming 90% of the student generation rates developed for Loudoun County's Capital Intensity Factor (CIF). The student generation rates developed for the CIF are shown in the Fiscal Impact Committee Guidelines. These rates represent all children in school (whether in LCPS or otherwise). Applying 90% to the rates ensures that only the students that would have an impact on LCPS operating expenditures are counted.

### Product Types

Modeling will be done using a detailed set of product types, which are based on the land use place types recommended by the Stakeholder's Committee. The table provides a list of the residential and nonresidential product types used for this process. Attachment 2 provides the development characteristic assumptions for each.

**Table 2. Product Types for the Fiscal Model**

Residential	Nonresidential
Single-Family Detached <ul style="list-style-type: none"> <li>• Suburban</li> <li>• Rural</li> </ul>	Office <ul style="list-style-type: none"> <li>• High Density</li> <li>• Urban (within ¼ mile of a Metrorail station<sup>1</sup>)</li> <li>• Low Density</li> </ul>
Single-Family Attached	
Multi-Family <ul style="list-style-type: none"> <li>• Attached</li> <li>• Urban Attached (within ¼ mile of a Metrorail station<sup>1</sup>)</li> <li>• Stacked</li> </ul>	Industrial <ul style="list-style-type: none"> <li>• Light Industrial</li> <li>• Heavy Industrial</li> </ul>
	Data Centers
	Retail <ul style="list-style-type: none"> <li>• Retail</li> <li>• Urban (within ¼ mile of a Metrorail station<sup>1</sup>)</li> </ul>
	Other <ul style="list-style-type: none"> <li>• Non-Public</li> <li>• Public</li> </ul>
	Hotel <sup>1</sup>

### Base Year

The financial data used to construct the model will reflect 2016 as the base year. This year was selected when work on the fiscal model started because it represented (1) the last full year of audited actuals; and (2) most recent available final year-end development data. The model will be based on actuals as shown in Loudoun's Comprehensive Annual Financial Reports (CAFRs) and all results will be in 2016 constant dollars.

### Capital Needs and Cost Assumptions

Future growth typically results in the need for additional public facilities (e.g., schools, parks). Capital needs, including the number and types of facilities, will primarily be generated utilizing the 2016 Capital Facility

<sup>1</sup> These product types are not included in the *2017 Fiscal Impact Committee Guidelines* as they have been developed for the Envision Loudoun fiscal modeling effort.

Standards. Using population forecasts, these standards will generate the incremental amount of demand for new facilities each year.

The fiscal model also will incorporate these adjustments, to better reflect capital facility needs:

- In some cases, increased jobs in the County will generate a need for capital facilities. Examples include public safety facilities and space to support general government functions.
- Transportation facilities (such as roads) are not currently covered by the Capital Facility Standards. DMB is working with the Department of Transportation and Infrastructure to obtain their estimates of capital needs. This approach allows the County's costs associated with road and other transportation improvements to be incorporated.
- While Capital Facility Standards exist for school facilities, DMB also is working with LCPS to obtain their estimates of capital needs. This allows LCPS to directly evaluate needs based on planned land use and development forecasts.

### Capital Costs

Capital costs will be calculated based on facility and land cost assumptions used for the 2017 CIF, adjusted to the 2016 base year.

Facility costs are based on those shown in the CIF, reduced by 4.7% to account for inflation from 2016 to 2017.

A per acre land cost of \$610,000 was determined using the weighted average of land costs in the Ashburn, Dulles, and Leesburg planning subareas. This weighted average reflects the remaining vacant developable land in each planning subarea.

### Allocating Costs to Nonresidential as well as Residential Development

For facilities that serve both nonresidential and residential development, a portion of the costs will be allocated to nonresidential development. To do this, the current residential standard will be used as the starting point, with the allocation of costs to the nonresidential and residential sectors based on the proportion of total population and total jobs in the County.

**Table 3. Facilities with Capital Costs Allocated to Nonresidential and Residential Development**

Public Safety Facilities and Equipment	Other Facilities
<ul style="list-style-type: none"><li>• Sheriff station</li><li>• Fire station</li><li>• Fire engine</li><li>• ALS ambulance</li><li>• Ladder truck</li><li>• Heavy rescue squad</li><li>• Fire tanker truck</li><li>• Brush truck</li></ul>	<ul style="list-style-type: none"><li>• General government support</li><li>• Transit bus maintenance facility</li><li>• Transit buses</li><li>• Roads (lane miles)</li></ul>

The methodology is described in further detail and accompanied by tables showing the resulting standards, in Attachment 3.

### Proffers and Other Offsetting Revenues

Proffers, provided as part of rezonings, are one source of revenue to offset capital costs. The fiscal impact model will include proffers for capital facilities (including cash, and in-kind provision of land and/or structures), road improvements, and transit. Conversely, since all County capital costs will be modeled, costs not offset by proffers, for example, those resulting from by-right development and from Affordable Dwelling Units (ADUs), also will be included in the fiscal model.

Proffers that do not offset costs incurred by County government will not be included in the model. Table 4 below shows the proffers that will and will not be included in the fiscal impact model. For example, proffers can be provided to volunteer fire and rescue stations. These stations are independent entities with their own budgets. The fire and rescue proffers do not offset expenses appearing in the county budget, so they will not be included in the fiscal model.

More generally, any targeted revenues or other means to pay for capital facilities will be considered in the model. This is particularly important for transportation costs, where other revenues are available (Northern Virginia Transportation Authority, NVTa) and the responsibility to develop infrastructure is shared with the state.

**Table 4: Proffers Included in the Fiscal Model**

Proffer Type	Included in the fiscal model?	Offsets cost incurred by county government?
Capital facility	Yes	Yes
Road improvements	Yes	Yes
Transit Proffers	Yes	Yes
Fire/rescue	No	No, payments go directly to volunteer stations and do not offset County capital costs.
Unmet housing needs	No	No, the County manages a program and receives proffered funds that go into a trust that is used to fund construction of housing units.
Open space easements	No	No, provision of cash or easements is intended to ensure the adequate provision of active, passive and natural open space in the County. Participation is anticipated for residential developments with densities of 3.5 to 4.0 du/ac and high density residential developments above 4.0 du/ac.
Regional road contribution	No	No, the general regional road contribution offsets the costs of a development project's impacts to the road network. Policy allows the Board to consider accepting regional road cash contributions in lieu of capital facility contributions only if such regional road contribution is above and beyond a project's impacts upon the regional road network.

### Capital Facility and Infrastructure Deficits

As noted above, the fiscal modeling and analysis will focus on the impact of future development, comparing the fiscal impacts under the proposed Loudoun 2040 Plan scenarios and current Revised General Plan. Because any

current deficits will be present regardless of how development occurs in the future, the costs to address these deficits are the same regardless of changes to the Plan.

Existing capital needs are accounted for during the process to develop the Capital Intensity Factor (CIF) The CIF is based on the per-capita costs of providing various capital facilities resulting from additional residential density. To determine which facilities are needed for each CIF region, staff conducts a facility deficit analysis as follows:

1. Forecasts of the County's population growth are generated for each planning subarea based on anticipated residential growth;
2. The Capital Facility Standards (CFS) establish population standards for each type of capital facility in the County;
3. The number of facilities needed in each planning subarea is calculated by dividing the forecasted population in a given year by the population standards for the facility; and
4. Existing and planned (in the Adopted Capital Improvements Program, the CIP) facilities are subtracted from the total numbers of required facilities to calculate a deficit (or surplus).

### Operating Expenditures

Operating expenditures will be forecast using 2016 actual costs, and attributing those costs to residential development, nonresidential development, or a mix of the two. General Fund Operating Expenditures are either allocated 100 percent to residential development (and projected on a per capita basis) or allocated between residential and nonresidential land uses and allocated based on proportionate share factors (74 percent residential; 26 percent nonresidential). School Operating Expenditures are allocated 100 percent to residential development and modeled on a per student basis.

Figure 1 on the following page shows the different major expenditure categories in Loudoun County's General Fund, along with a single row for the School General Fund at the bottom. This figure indicates

Figure 1. Summary of Operating Expenditure Methodologies

		RESIDENTIAL	NONRESIDENTIAL	FIXED
<b>GENERAL FUND EXPENDITURES</b>				
<i><b>General Government Administration:</b></i>				
Legislative:		X	X	
General and Financial Administration:		X	X	
Elections Administration:		X		
<i><b>Judicial Administration:</b></i>				
Courts:		X	X	
Commonwealth's Attorney:		X	X	
<i><b>Public Safety:</b></i>				
Law Enforcement:		X	X	
Traffic Control:		X	X	
Fire, Rescue and Emergency Management:		X	X	
Corrections and Juvenile Detention:		X		
Inspections:		X	X	
Other Protection:				
Fire, Rescue and Emergency Management		X	X	
Animal Control		X		
General Services		X	X	
Sheriff's Office		X	X	
<i><b>Public Works:</b></i>				
Maintenance of Highways, Bridges and Sidewalks:		X	X	
Construction and Waste Removal:		X	X	
Maintenance of General Buildings and Grounds:		X	X	
<i><b>Health and Welfare:</b></i>				
Health:		X		
Mental Health, Substance Abuse and Development Svcs:		X		
Welfare/Family Services:		X		
<i><b>Parks, Recreation and Culture:</b></i>				
Parks, Recreation and Community Services:		X		
Cultural Enrichment:		X		
Library:		X		
<i><b>Community Development:</b></i>				
Planning and Community Development:		X	X	
Environmental Management:		X	X	
Cooperative Extension Program:		X		
Transit:		X	X	
<i><b>Education:</b></i>				
Educational Institutions		X		
<b>SCHOOL GENERAL FUND EXPENDITURES</b>				
School Operating Expenditures		X		

assumptions for which expenditures are allocated to residential development only and those which are also allocated to nonresidential development for the purposes of the modeling effort. There is a third “fixed” column which would indicate any expenditure that is not expected to increase based on future development. In the case of operating expenditures, all are expected to increase with development, so there is no “X” in this column for any expenditure category.

## Revenues

Similar to operating expenditures, some revenues will be forecast based on attributing 2016 actual revenues to residential development, nonresidential development, or a mix of the two. Revenues derived from taxation will be forecast based on applying tax rates to property values, or in some cases by attributing revenues related to specific types of development. For many of the other revenues, the proportionate share factors (74 percent residential; 26 percent nonresidential) will be used. Where possible (for example, for certain Business & Professional License tax categories), the revenue methodology will be tailored to specific product types.

Figure 2 shows different major revenue categories in Loudoun County’s General Fund, along with a single row for the School General Fund at the bottom. This figure indicates how revenues are related to residential and nonresidential development in the model. There is a third “fixed” column which indicates revenues that not expected to increase based on future development.

In addition to General Fund revenues, which are used in the calculation of net fiscal impact, the fiscal model will also forecast revenues to the Metrorail tax districts.

While many of the revenue lines will be modeled using proportionate share factors (74 percent residential; 26 percent nonresidential), some of the largest sources of revenue will not. By far the largest two revenue sources are real property and personal property, which combined provide over 70 percent of the revenues in Loudoun County’s General Fund. The methodology for each is described below. The calculation of Metrorail tax district revenues is also described.

Real property revenues - Real property revenues will be calculated based on average assessed values by product type, from the 2017 Fiscal Impact Committee Guidelines, when available. The revenue generated by vacant land also will be included.

Because 2016 is the base year, 2016 tax rates will be used as assumptions in the model. Using 2016 rates ensures that financial assumptions are consistent throughout the model: tax rates, actual revenues, and actual expenditures. The 2016 real property tax rates are listed below.

- 2016 real property tax rate = \$1.145 per \$100 in assessed value
- Metrorail Tax District = \$0.20 per \$100 in assessed value
- Metrorail station districts = \$0.00 per \$100 in assessed value

In addition to the real property tax rate generating revenues for the General Fund, two additional taxes used to generate revenue for Metrorail also apply to real property. These revenues are not used for other purposes, and are not included in the General Fund. The Metrorail Tax District generates funds to pay the debt service on debt issued by Loudoun County for the construction of the Silver Line. This tax is on assessed real property within the district. The tax rate can be set up to \$0.20, its current level.

Like for the Metrorail Tax District, the station districts also are subject to a tax on real property. The tax rate can go up to \$0.20. The tax rate on both of the Metrorail station districts (Ashburn and Loudoun

Figure 2. Summary of Revenue Methodologies

**GENERAL FUND REVENUES**

*From local sources:*

**General Property Taxes:**

Real Property Taxes  
Real and Personal Public Service Corp. Prop. Taxes  
Personal Property Taxes  
Machinery and Tools Taxes  
Penalties and Interest

RESIDENTIAL	NONRESIDENTIAL	FIXED
X	X	
X	X	
X	X	
	X	
X	X	

**Other Local Taxes**

Local Sales and Use Taxes  
Business License Taxes  
BPOL CLASSIFIED  
Consumer Utility Taxes  
Taxes on Recordation and Wills  
Motor Vehicle Licenses  
Bank Franchise Taxes  
Hotel and Motel Room Taxes

	X	
	X	
X	X	
X	X	
X	X	
X		
	X	
	X	

**Permits, Privilege Fees and Regulatory Licenses:**

Animal Licenses  
Permits and Other Licenses

X		
X	X	

**Fines and forfeitures:**

Fines and Forfeitures

X	X	
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**Revenue from Use of Money and Property:**

Revenue from Use of Money  
Revenue from Use of Property

X	X	
X	X	

**Charges for Services:**

X	X	
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**Miscellaneous Revenue:**

		X
--	--	---

**Recovered Costs:**

Recovered Costs

X		
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*From the Commonwealth:*

**Non-categorical Aid:**

State Property Tax Reimbursement  
Auto Daily Rental Tax  
Taxes on Deeds  
State Revenue Reductions  
Mobile Home Titling Taxes  
Motor Vehicle Carrier's Taxes

		X
X		
X	X	
		X
		X
		X

**Shared Expenses:**

X	X	
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**Categorical Aid:**

X	X	
---	---	--

*From the Federal Government:*

**Payments in Lieu of Taxes:**

		X
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**Categorical Aid:**

X	X	
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**SCHOOL FUND (NON-TAX REVENUES)**

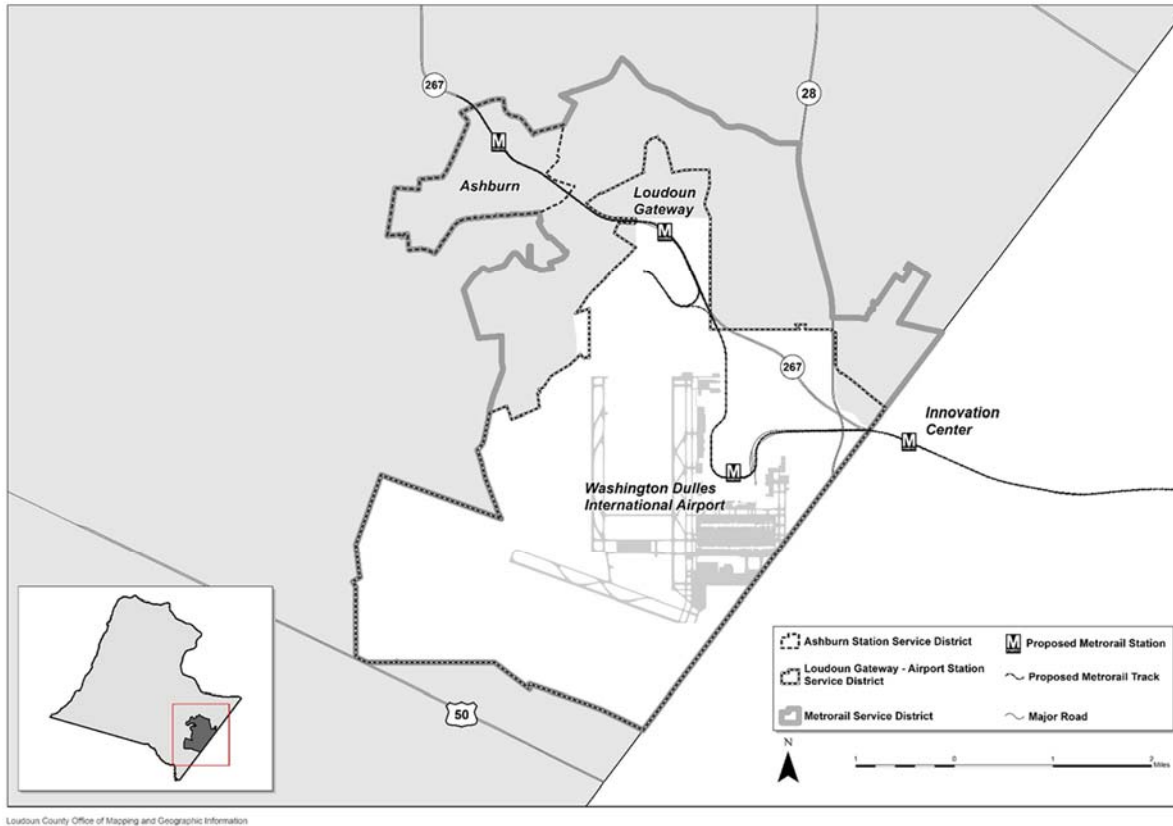
School Non-Tax Revenues

X		
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Gateway – Airport) currently is zero. The Board of Supervisors can raise this rate when needed to generate funds to help fulfill ongoing payments to the Washington Metropolitan Area Transit Authority (WMATA) for provision of Metrorail transit services to these stations.

**Figure 3 Metrorail Tax Districts**



Personal property revenues – Personal property falls into two general types: vehicles and other property. For the residential sector, personal property taxes apply to the value of vehicles. The County average personal property value per residential unit will be scaled (increased/decreased) in proportion to the real property values of the different unit types compared to the County average.

For nonresidential development, personal property taxes also apply to vehicles, along with computer equipment, furniture and fixtures, and for some types of development, heavy equipment and machinery and tools taxes. Wherever possible, these taxes will be attributed to the relevant type of development. For example, most computer equipment revenues will be attributed to data centers (84%).

## EVALUATING FISCAL RESULTS

### Fiscal Impact Analysis Report

A report will document the assumptions (including development forecasts) entered into the fiscal model and the model's resulting forecasts (model outputs). This report will include tables and graphs designed to answer the questions presented on page 3 of this paper.

The fiscal model will provide forecasts of the impact of future development, whether based on the proposed Loudoun 2040 Plan or the Revised General Plan Baseline. Results can be grouped into these three categories:

- Net Fiscal Impact (revenues minus expenditures)
- Capital Facility and Land Needs
  - Capital Facility Needs
  - Land Needs
- Metrorail Revenues/Tax Base
  - Metrorail Tax District Revenue and Tax Base
  - Metrorail Station District Tax Base

Two examples of tables which will be included in the report are shown in Attachment 4. These tables are high-level summaries, the first of the model's development inputs, and the second of model forecasts. Both examples present cumulative, countywide data. Both also include data from the different scenarios included in the model.

Key features of the data to be provided by the fiscal model and described in the report are:

- ***Comparisons of results between the proposed Loudoun 2040 Plan – medium scenario and the Revised General Plan Baseline:*** this comparison will show whether fiscal results from the two plans are largely similar or different, if different – whether the proposed Loudoun 2040 Plan has a better outlook for net fiscal impacts and Metrorail revenues, and whether any differences between the plans are small or large
- ***Presentation of results by the policy areas that are the focus of this plan:*** the Suburban Policy Area and the Transition Policy Area, as well as countywide
- ***Presentation of results by the three Metrorail tax districts:*** the larger Metrorail Tax District and the two smaller station districts
- ***Provision of results in both five-year increments, and also cumulatively over the 2017-40 forecast period:*** providing results over time can highlight how fiscal results vary over time, while cumulatively results provide a high-level view of plan outcomes
- ***Comparisons of results between the proposed Loudoun 2040 Plan – medium scenario and both high and low scenarios for the proposed Loudoun Plan:*** the high and low scenarios demonstrate how results could vary, if development occurs more quickly or slowly than forecast under the medium scenario

## Major Drivers of Fiscal Impact Results

For any fiscal impact analysis, numerous factors can influence the fiscal results. The following factors vary between different communities:

### Budgetary

- Local revenue structure
- Services provided
- Local service levels (e.g., the ratio of sheriff's deputies to population)

### Development

- Demographic and market characteristics of new growth
- Mix of future residential and nonresidential growth

### Capital Facilities

- Capacity of existing infrastructure
- Capital needs
- Capital costs
- Proffers or impact fees available to offset capital costs

The most important of these in Loudoun County's context are the local revenue structure, the demographic and market characteristics of new growth, the mix of future residential and nonresidential growth, and proffers available to offset capital costs.

Local Revenue Structure - Every community has at least one major revenue source, and in some cases, several on which it is reliant. For Virginia jurisdictions, real property tax revenue is the single largest revenue source, with personal property taxes, sales taxes, and business and professional occupation license (BPOL) taxes also as significant contributors. For the fiscal model, attention has been given to the development of a robust set of product types reflective of development that can occur under the proposed Loudoun 2040 Land Use Place Types, along with development of real property assessed values and demographic and economic characteristics for these product types.

Demographic and Market Characteristics of New Growth - Next to a community's revenue structure, no other factor has as great an impact on the net fiscal results as the demographic and market characteristics of different land uses. Examples of demographic and market variables for residential development include average household sizes, pupil generation rates, and the assessed value of housing units. Square feet per employee and assessed values per square foot are important characteristics for nonresidential development.

Mix of Residential and Nonresidential Development - One reason communities seek to attract nonresidential development is to boost tax generation. In general, nonresidential development results in a net positive fiscal impact (local revenues exceed expenditures) and residential development results in a negative fiscal impact. However, this result can vary for different uses and in different jurisdictions, based on differences in the revenue structure and the characteristics of new growth.

Proffers Available to Offset Capital Costs - The capital costs resulting from new development are substantial. Loudoun County's proffer policies call for 100% of the costs to be offset, excepting the capital costs for affordable

dwelling units (ADUs) and currently, units that could be developed by-right on the property (“base density units”). The fiscal model will reflect that capital costs are largely offset, based on this policy. Any change to reduce proffers available to offset capital costs would negatively affect fiscal results.

### Using Fiscal Forecasts as Part of the Envision Loudoun Planning Process

The fiscal forecasts provided by this process will reflect the land use policies established by the proposed Loudoun 2040 Plan as compared to the Revised General Plan. Differences in results will reflect differences in the development trajectory over time under either plan. To the extent that the proposed Loudoun 2040 Plan allows for additional development beyond that allowed under the Revised General Plan, and there is demand for that development, development trajectories and resulting fiscal results will vary.

Fiscal information is being provided to support the development of the Loudoun 2040 Plan, as one of several different factors to consider. Since fiscal results rely on forecasted development, along with the other assumptions presented in this paper, it is important to consider that these forecasts are not precise and definitive predictions of what will occur in the future. Rather, comparing the results under the proposed Loudoun 2040 Plan to the Revised General Plan Baseline is a means to understand whether there appears to be differences between fiscal results under the two plans. Fiscal results can be used to assess:

- the fiscal direction (positive, negative, neutral) and
- general magnitude (how much) of any differences.

Similarly, Metrorail Tax District revenues and tax base results can be compared between the two plans.

## ATTACHMENT 1 – Calculation of Residential and Nonresidential Proportionate Share Factors

Proportionate share factors are used to allocate some revenues and costs (e.g., Fire/EMS and Sheriff) to residential and/or nonresidential development. TischlerBise has relied on extensive public and private sector input to establish reasonable “weighting factors” to account for time spent at either residential or nonresidential development. These factors have been developed through a functional population analysis. Functional population is similar to what the U.S. Census Bureau calls "daytime population," and accounts for people living and working in a jurisdiction. These weighting factors are shown below with yellow shading (default values).

**Figure 1-1. Proportionate Share**

FUNCTIONAL POPULATION/PROPORTIONATE SHARE					
<i>Loudoun County</i>					
			<i>Demand Units in 2015</i>	<i>Demand Hours/Day</i>	<i>Person Hours</i>
<b>Residential</b>					
Population	Loudoun County	368,669			
Residents Not Working			178,476		
Workers Living in	Loudoun County		190,193		
Residents Working in	Loudoun County		59,186	14	828,604
Residents Working outside	Loudoun County		131,007	14	1,834,098
<i>Residential Subtotal</i>					6,232,222
					<b>73.6%</b>
<b>Nonresidential</b>					
Residents Not Working			178,476		
Jobs Located in	Loudoun County		152,489		
Residents Working in	Loudoun County		59,186	10	591,860
Non-Resident Workers	Loudoun County		93,303	10	933,030
<i>Nonresidential Subtotal</i>					2,238,794
					<b>26.4%</b>
<b>TOTAL</b>					<b>8,471,016</b>
					<b>100%</b>

*Sources: Loudoun County, 2017 FIC Guidelines for 2015 Population; US Census, OnTheMap Application and LEHD Origin-Destination Empl. Statistics*

The functional population analysis starts with 2015 estimates of jobs and population in Loudoun County (see green highlighting) from Loudoun County (population estimate) and the U.S. Census, OnTheMap Application and LEHD Origin-Destination Employer Statistics (employment and commuter estimates).

Residents who work in Loudoun County are assigned 10 hours to nonresidential development and 14 hours to residential development. Residents who work outside Loudoun County are assigned 14 hours to residential development. Jobs held by non-residents are assigned 10 hours to nonresidential development. Residents who do not work are assigned 20 hours per day to residential development and four hours per day to nonresidential development (annualized averages) to account for time spent shopping, eating out, and other social/recreational activities.

Based on Loudoun County's 2015 (most current data available) functional population analysis, the cost allocation for residential development is 73.6 percent, while nonresidential development accounts for 26.4 percent of the demand.

## ATTACHMENT 2 – Development Characteristic Assumptions by Product Type

Data shown are from Table 1 of the 2017 Fiscal Impact Committee Guidelines, except where otherwise noted. For household sizes, vacancy rates, and the square feet per employee, long-run rates are shown here. The Envision Loudoun fiscal model will incorporate the annual rates shown on tables A-7a, A-7b, B-3 and B-7 of the Guidelines for years prior to stabilization at long-term rates.

**Table 2-1. Residential Product Types**

Product Type	Sources	Household Size	Student Generation Rate	Vacancy Rate	Assessed Value
<b>Market Rate</b>					
Single-Family Detached-Suburban	1	3.78	0.96	2.0%	\$683,000
Single-Family Detached- Rural	1	3.39	0.83	5.0%	\$827,600
Single-Family Attached	1	3.09	0.62	2.5%	\$473,100
Multi-Family Attached, Renter	1, 4	1.97	0.21	6.5%	\$176,300
Multi-Family Attached, Owner	1, 4	1.97	0.21	6.5%	\$331,300
Multi-Family Attached Urban (within 1/4 mile from Metrorail Station), Renter	2, 6	1.85	0.12	5.0%	\$193,900
Multi-Family Attached Urban (within 1/4 mile from Metrorail Station), Owner	2, 6	1.85	0.12	5.0%	\$364,400
Multi-Family Stacked	1	2.42	0.44	5.6%	\$332,600
<b>Market Rate Age Restricted</b>					
Multi-Family Attached, Renter	1, 6	1.97	0.0	6.5%	\$141,000
Multi-Family Attached, Owner	1, 3	1.97	0.0	6.5%	\$264,800
Multi-Family Attached Urban (within 1/4 mile from Metrorail Station), Renter	2, 6	1.85	0.0	5.0%	\$155,000
Multi-Family Attached Urban	2, 6	1.85	0.0	5.0%	\$291,300

Product Type	Sources	Household Size	Student Generation Rate	Vacancy Rate	Assessed Value
(within 1/4 mile from Metrorail Station), Owner					
<b><i>Affordable Dwelling Units</i></b>					
Single-Family Detached-Suburban	1, 3	3.78	0.96	2.0%	\$210,400
Single-Family Attached	1, 3	3.09	0.62	2.5%	\$157,000
Multi-Family Attached, Renter	1, 5	1.97	0.21	6.5%	\$104,200
Multi-Family Attached, Owner	1, 4	1.97	0.21	6.5%	\$107,700
Multi-Family Attached Urban (within 1/4 mile from Metrorail Station), Renter	2	1.85	0.12	5.0%	\$104,200
Multi-Family Attached Urban (within 1/4 mile from Metrorail Station), Owner	2	1.85	0.12	5.0%	\$107,700
Multi-Family Stacked	1, 4	2.42	0.44	5.6%	\$137,100
<b><i>Affordable Dwelling Units, Age Restricted</i></b>					
Multi-Family Attached, Renter	1, 6	1.97	0.0	6.5%	\$83,300
Multi-Family Attached, Owner	1, 5	1.97	0.0	6.5%	\$92,200

Notes:

- 1) Student generation rates for urban multi-family are derived from Clarion Associates, November 30, 2017. All other student generation rates are set at 90 percent of the value shown in the 2017 Fiscal Impact Committee Guidelines.
- 2) Valuation premiums do not apply to affordable dwelling units within ¼ mile of Metrorail stations.

Sources:

- 1) Loudoun County Fiscal Impact Committee, 2017 Fiscal Impact Committee Guidelines
- 2) Clarion Associates, November 30, 2017
- 3) Loudoun County Commissioner of the Revenue
- 4) Loudoun County Commissioner of the Revenue and Department of Management and Budget
- 5) Loudoun County Department of Family Services and Department of Management and Budget
- 6) Loudoun County Department of Management and Budget

**Table 2-2. Nonresidential Product Types**

<b>Product Type</b>	<b>Sources</b>	<b>Gross Square Feet per Employee</b>	<b>Vacancy Rate</b>	<b>Assessed Value per Gross Square Foot</b>
Office-High Density	1	235	10.0%	\$160
Office-Urban (within 1/4 mile from Metrorail Station)	2, 5	175	7.5%	\$176
Office-Low Density	1	251	10.0%	\$160
Light Industrial	1	600	10.0%	\$99
Heavy Industrial	1, 5	700	10.0%	\$99
Data Centers	1	3,704	6.0%	\$214
Retail	1	350		\$221
Retail-Urban (within 1/4 mile from Metrorail Station)	2, 5	450	7.0%	\$232
Other-Non Public	1, 4	840	5.7%	\$250
Other-Public	1	840	1.0%	n/a
Hotel	2, 3	1,000	n/a	\$116

Sources:

- 1) Loudoun County Fiscal Impact Committee, 2017 Fiscal Impact Committee Guidelines
- 2) Clarion Associates, November 30, 2017
- 3) Loudoun County Commissioner of the Revenue
- 4) Loudoun County Commissioner of the Revenue and Department of Management and Budget
- 5) Loudoun County Department of Management and Budget



### ATTACHMENT 3 – Capital Facility Methodology

Capital needs including the number and types of facilities and resulting land needs primarily will be generated utilizing the 2016 Capital Facility Standards.

**Table 3-1. 2016 County Government Capital Facility Standards**

Capital Facility	Building Square Footage	Up To Acres	Standard
Animal Shelter	25,000 square feet	5	1 Shelter for the County; Maintain the existing western Animal Shelter for livestock, large animal housing, seizures, or other special needs.
Sheriff Station	18,000	4.00-5.00	1 Station per 100,000 population
Library	40,000	7	0.6 square feet per capita
General Government Support Facilities	N/A	N/A	4 square feet per capita
Recycling Drop-off Centers	3,000 sq. ft. container pad	0.25	Maximum of 9 sites; reduce number of sites when warranted based on increase curbside recycling rates
	6,050 sq. ft. parking area		
Special Waste Drop-off Centers	600 sq. ft. pavilion	1	1 Center for the County
	1,600 sq. ft. container pad		
	6,050 sq. ft. parking area		
Fire Station -East	18,000 - 20,000	5	1 Station per 25,000 population
Fire Station - West	18,000 - 20,000	5	1 Station per 10,000 population
1500-gpm Engine	N/A	N/A	1 Engine per 10,000 population
ALS Ambulance	N/A	N/A	1 Ambulance per 10,000 population
Ladder Truck	N/A	N/A	1 Ladder Truck per 25,000 population
Heavy Rescue Squad	N/A	N/A	1 Heavy Rescue Truck per 50,000 population
Tanker	N/A	N/A	1 Tanker per 10,000 population

Capital Facility	Building Square Footage	Up To Acres	Standard
Brush Truck - west	N/A	N/A	1 Brush Truck per 10,000 population
Transit Buses	N/A	N/A	1 Bus per 3,370 population
Park and Ride Lots	N/A	4.00 – 13.00	1.15 spaces per 100 residents 200 -700 spaces per lot
			4- 13 acres
			70 spaces per acre
Transit Bus Maintenance Facility	28,000 square feet	10	1 Facility per 247,500 population
MH Residential Facility	3,400 (SFD)	0.25 (SFD)	1 bed per 5,900 population
	1,000 (Condo)		
DS Residential Facility	3,400 (SFD)	0.50 (SFD)	1 bed per 5,900 population
	1,000 (Condo)		
Juvenile Detention Center	40,000	6	1 Center for the County
Youth Shelter	8,000	2	1 Shelter for the County
Emergency Homeless Shelter	9,000	2	1 Shelter for the County
Adolescent Independent Living Residence	9,000	2	1 Residence for the County
Recreation Center	83,000	15	6 Recreation Centers for the County
Adult Day Center	7,000	4	1 Center per 15,000 population aged 55+ years
Teen Center	20,000	5	1 Center per 10,000 residents aged 12-14 years
Senior Center	15,000	5	1 Center per 10,000 population aged 55+ years
Community Centers	20,000	6	1 Center per 45,000 population
Satellite Maintenance Facility	5,000	3	3 Facilities for the County
Regional Park	10,000	200+	5 Regional Parks for the County
Community Park	800	30-74	1 Community Park per 25,000 population
Neighborhood Park	400	1-29	1 Neighborhood Park per 10,000 population

Capital Facility	Building Square Footage	Up To Acres	Standard
District Park	5,000	75-199	8 Parks for the County
Group Home	8,000	2	1 Group Home for the County

TischlerBise is incorporating Loudoun County's 2016 Capital Facility Standards into the fiscal model. Using population forecasts, these standards will generate the incremental amount of demand for new facilities each year. In some cases, increased jobs in the County will also generate a need for capital facilities. Examples include public safety facilities and space to support general government functions. In addition to the facilities included in the Capital Facility Standards, transportation facilities such as roads (expressed as lane miles) will be included in the fiscal model to reflect costs associated with changes to the Countywide Transportation Plan. Finally, Loudoun County Public Schools will provide input on the number of future schools needed, based on each scenario.

#### **Allocation of Costs to both Nonresidential and Residential Development**

For facilities that serve both residential and nonresidential development, costs are allocated to both types of development. The methodology to do this uses the current residential standard and determines the proportional employment base served, given the relationship between population and employment in the County today.

For example, the Capital Facility Standard for Sheriff Stations is 1 station per 100,000 persons. Currently, the jobs to population ratio is 0.45 jobs per capita. Therefore, the model assumes the sheriff station serves 45,000 jobs (i.e.,  $0.45 \times 100,000$  population). Facility square footage and costs for the facility and land are first allocated to residential and nonresidential development using the proportionate share factor (73.6%/26.4%) and then are divided by the applicable demand factor—namely population and jobs.

An example of the calculation is as follows:

##### Residential Share

- Facility Square Footage:  $(18,000 \text{ square feet Sheriff Station}) \times 73.6\% [\text{residential share}] / 100,000 \text{ persons} = 0.1325 \text{ sq. ft. per capita.}$
- Total Costs (Facility and Land):  $(\$14,083,601 \times 73.6\%) / 100,000 \text{ persons} = \$103.66 \text{ per capita}$

##### Nonresidential Share

- Facility Square Footage:  $(18,000 \text{ square feet Sheriff Station}) \times 26.4\% [\text{nonresidential share}] / 45,000 \text{ jobs} = 0.1056 \text{ sq. ft. per job.}$
- Total Costs (Facility and Land):  $(\$14,083,601 \times 26.4\%) / 45,000 \text{ jobs} = \$82.62 \text{ per job}$

The fiscal model will combine the resulting residential and nonresidential square footage demand, and resulting costs, to calculate the total for the Sheriff Station.

#### **ATTACHMENT 4 – Model Output Examples**

The fiscal model will be designed to both:

- document the inputs used in each model run, and
- provide fiscal results, organized to provide answers to the types of questions detailed in the body of the white paper.

Figure 4-1 on the following page, is a table that will be used to summarize the inputs into the model for each of the four scenarios.

Figure 4-2 on the last page of this attachment, is a table that demonstrates how the fiscal results from the Proposed Plan can be compared to the Revised General Plan baseline.

While both of these tables present cumulative data, data also will be presented in five-year increments to communicate forecast fiscal impact trends over time.

### Cumulative Growth Projection Detail

#### ENVISION LOUDOUN PRODUCT TYPE FISCAL MODEL

MODEL VERSION: *Filename: Envision Loudoun Product Type Fiscal Model\_forWhitePaper\_03.28.18.xlsm*  
 RUN DATE: *3/28/2018*

**Figure 4-2. Comparison of Fiscal Results, Proposed Plan to Revised General Plan Baseline: cumulative, 2017-40**

**DIFFERENCE BETWEEN PROPOSED PLAN MEDIUM (Scenario 3) and REVISED GENERAL PLAN (RGP) (Scenario 1)  
ENVISION LOUDOUN PRODUCT TYPE FISCAL MODEL**

**CUMULATIVE (Years 2017-2040)**

**Residential Units**

Single Family Detached

Single Family Attached

Multi-family

Group Quarters

**Total Residential Units**

**Total Households**

**Total Population**

**Total School Enrollment**

**Nonresidential Gross Square Footage**

Office

Industrial

Data Center

Retail

Other

Hotel

**Total Nonresidential Gross Square Footage**

**Total Employment**

Total Revenues

Total Expenditures

**Total Net Fiscal Impacts**

Scenario 1: RGP Trend	Scenario 3: Proposed Plan Medium	Difference between Proposed Plan Medium and RGP
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MODEL VERSION:

RUN DATE:

Filename: Envision Loudoun Product Type Fiscal Model\_forWhitePaper\_03.28.18.xlsm

3/28/2018

# STAKEHOLDERS MEETING AGENDA

*Monday, April 9, 2018*

*6:00 PM Welcome / Administrative Items / Information Updates*

- Introductory Comments from Committee Chair – Jeff Salmon
- Meeting Objectives – Alaina Ray

*6:10 – 6:55 PM High Level Fiscal Impact Assessment Overview  
Process Presentation and Discussion*

- Staff Presentation
- Stakeholders Committee General Questions
- Round Robin Discussion

*6:55 – 7:55 PM Envision Loudoun 2040 General Plan Chapter 6:  
Fiscal Management & Facilities Review*

- Staff Presentation
- Stakeholders Committee General Questions
- Round Robin Discussion

*7:55 – 8:05 PM Break*

*8:05 – 9:55 PM Envision Loudoun 2040 General Plan Chapter 2:  
Land Use Review*

- Staff Presentation
- Stakeholders Committee General Questions
- Round Robin Discussion

*9:55 – 10:00 PM Next Steps*

**Important Documents**

- A. Agenda 4-9-18**
- B. Staff Cover Memo 4-9-18**
- C. Envision Loudoun 2040 Chapter 2: Built Environment/Land Use**
- D. Envision Loudoun 2040 Chapter 6: Fiscal Management & Facilities**

**County of Loudoun**  
**Department of Planning & Zoning**  
**MEMORANDUM**

**DATE:** April 4, 2018

**TO:** Stakeholders Committee

**FROM:** Ricky Barker, Director of Planning & Zoning

**SUBJECT:** April 9, 2018 Stakeholders Committee Meeting

**General Plan Chapters**

At the April 9 Stakeholders Committee meeting, staff will provide presentations regarding the following Loudoun 2040 General Plan documents:

- Chapter 2: Built Environment/Land Use (Attachment C); and
- Chapter 6: Fiscal Management & Facilities (Attachment D).

Most maps and graphics have not yet been embedded into these draft General Plan Chapters; however, some of the maps will be available at the April 9 meeting. Also, significant work is still underway on Chapter 2, particularly related to the Introduction Section and the Place Types. These sections are still in progress and will be completed and provided prior to the April 30 Stakeholders Committee Meeting.

Discussion regarding the draft chapters will be conducted in the “round robin” format used to review the previous chapters. If changes to the chapter language is preferred, please feel free to provide the specific alternate language during the meeting so that those changes can be incorporated into the chapters if the Stakeholders Committee agrees to the revisions.

As previously promised, Staff Positions will be provided if staff does not support certain Stakeholders Committee recommendations. These Staff Positions will be carried forward for consideration by the Planning Commission and Board, if the Positions are still applicable at that time.

Staff is still evaluating the Stakeholders Committee’s recommendations for the Transition Policy Area and has not yet reached a position as to increased density in this policy area. Staff will continue to evaluate the impacts of allowing additional potential residential development in the Transition Policy Area and will provide a Staff Position as soon as feasible.



Regarding the Stakeholders Committee's recommendation to reclassify certain Rural Policy Area land bays to Transition Policy Area, staff has previously indicated that it does not support this recommendation. As such, below is a Staff Position related to Chapter 2: Built Environment/Land use.

Chapter	Stakeholders Committee Recommendation	Staff Position
2	Reclassify Land Bays P1, P2, and Q1 from Rural Policy Area to Transition Policy Area	Staff does not support reclassifying any land within the existing Rural Policy Area

#### **High Level Fiscal Impact Overview Process**

Also at the April 9 Stakeholders Committee meeting, staff will provide a presentation regarding the High Level Fiscal Impact Overview Process. A white paper is being developed to accompany this presentation and will be distributed to the Stakeholders Committee by Friday, April 6. As a reminder, the full fiscal impact and transportation modeling results will be provided to the Stakeholders Committee at the July 9 meeting. Any final recommendations from the Stakeholders Committee as a result of the fiscal and transportation model results will be forwarded to the Board of Supervisors and Planning Commission.

# Chapter 2 – Land Use

## Vision

Loudoun will carry forth our successful land use and growth management policy while promoting well-planned, high quality development including new development opportunities that fulfill our goal of providing a full spectrum of housing and employment options linked to supporting commercial, entertainment, educational, agricultural, and recreational activity.

## What is New

The County has accommodated a high rate of growth over the past decades by concentrating new development in the Suburban Policy Area where utilities and roadways can serve the population more efficiently. Accommodating the planned growth while maintaining a rural landscape and agricultural economy in the West is one of the reasons that Loudoun is recognized as one of the best counties in the United States to live, work, and play. Much of Loudoun's success is due to its previous land use planning that has guided, managed, and directed growth in appropriate locations. Loudoun County's growth management strategy has comprised an approach that 1) focuses the location and intensity of development in eastern Loudoun and around towns, which maintains the agricultural character, pastoral landscapes, and natural resources of the County's rural areas; 2) uses service standards and development forecasting to plan the location and timing of investments in infrastructure, facilities and services; and 3) calculates a fair share contribution by new development towards associated capital facility impacts. This approach recognizes that more concentrated population centers better facilitate the provision of emergency response services, roads, utilities, and public facilities. Further, the location of such services and facilities often guides subsequent development patterns. By concentrating these services in the urban and suburban areas of the county and appropriately scaling their availability and levels of service in the rural areas, the county can facilitate growth patterns that help achieve long term land use and fiscal goals.

Loudoun will continue to be an attractive place for development given its geographic location in the region, school system performance, and notable quality of life measures. However, new land use policies and approaches are needed to address a limited land supply, the County's connection to the regional Metrorail network through the Silver Line extension in 2020, and the growing demand for new development options.

## Priority Receiving Areas for New Growth and Development

Loudoun 2040 has established priority receiving areas for new growth and development to assist in guiding future growth and development. This was based in general on availability of infrastructure and the degree of difficulty associated with redevelopment and revitalization projects.

1. Areas Near Silver Line Stations
2. Suburban Infill Areas
3. Mixed Employment
4. Redevelopment/Revitalization Areas
5. Transition Policy Area

The highest ranked priority area was proposed around the future Silver Line metro station areas, followed by vacant Suburban Policy Area (SPA) infill properties, mixed employment areas (formerly Keynote), and targeted redevelopment/revitalization areas. Staff recommended these areas because the County already has existing or planned public facilities to serve future growth and development; therefore, additional development in these areas is more fiscally sound. The lowest ranked receiving area was proposed for the Transition Policy Area (TPA) because of the limited existing and future facilities planned in this area and the significant transportation capacity needed to serve new growth and development. Loudoun 2040 does not call for any increasing in density or new land uses in the TPA with the exception of several areas adjacent to the boundary of the TPA which will be discussed later in this chapter.

### Changes to the Suburban Policy Area

- Providing more flexibility in land use planning – Although many of the designated land use categories (Place Types) have a predominate use, there is flexibility to consider other uses provided they are compatible and provide appropriate transitions to adjacent existing uses.
- Allowing a mix of uses (including residential) in areas previously designated for Keynote Employment – Suburban office development has seen little to no growth or demand in a number of years. The Committee has generally designated the Keynote Employment areas of the current Revised General Plan as a Mixed Employment Place Type that maintains a predominately non-residential designation, but also allows for residential development of compatible scale to encourage future development in these areas.
- Allowing for appropriate infill residential development for undeveloped/underdeveloped parcels – With less than 1,200 acres of developable land left in the SPA and the potential high demand for new housing units, the Committee is recommending that the overall planned density of a number of undeveloped/underdeveloped infill parcels be changed from 4 dwelling units per acre to 6 dwelling units per acre. In addition, a number of larger infill parcels have been designated for a mixture of housing types with up to 24 units per acre.

### Creating an Urban Policy Area

- Designating urban mixed use areas – The Committee has also addressed the need for designating Urban Areas, which also include the Silver Line planning area. The new Urban

Policy Areas have been divided, generally, into two mixed use types: 1) Silver Line Metro Stations with highest intensity/transit-oriented uses, and, 2) walkable places that are not Metro-related with lesser intensity of use along Route 7. The intent of these areas is to provide for walkable mixed-use and transit-oriented development that will support anticipated growth, offer a diversity of housing to meet changing housing needs, and offer flexible land use policies to allow for innovation and changing market demands over time.

- Designating Transit Station Mixed Use – The land area around the proposed Silver Line Metro Stations has been designated as a Transit Station Mixed Use Place Type. This designation will not denote where residential is appropriate or inappropriate. Instead, the plan will reference the 65 Ldn Airport Overlay District and state that residential uses are not supported within this area. This approach would provide flexibility so the Comprehensive Plan would not have to be amended should the boundaries of the Overlay District be changed as a result of the new airport noise study. These Transit Station Mixed Use areas are recommended for a mix of uses in an urban environment. This land use recommendation specifies vertical development providing for multi-family, commercial, entertainment, cultural, civic, and recreational uses to support denser urban living. The land area within ¼ mile of the transit stations will be planned for up to 125 dwelling units per acre and no height limit. Land area outside of the ¼ mile of the transit station would be planned for up to 48 dwelling units per acre and up to 8 stories.
- Designating redevelopment/revitalization areas – The Committee addressed the need to identify and designate areas for redevelopment of aging and underperforming properties and corridors, such as older auto-centric shopping centers, older areas around Old Sterling, which are ideal locations for introducing new mixed use projects to re-invigorate and re-activate the community activity in those areas. Policy recommendations include providing incentives, promoting public-private partnerships, investing in public infrastructure improvements and providing land use flexibility to encourage redevelopment, revitalization, and adaptive reuse of these areas.
- The Stakeholders Committee has stated support for a general recommendation to allow increases in density beyond those listed for the underlying land use category based upon the provision of affordable/workforce housing above the minimum requirement. The details related to such a policy are currently being developed by staff and will be presented to the Stakeholders Committee as part of their review of the draft General Plan chapters.

### **Changes to the Transition Policy Area:**

- Establishment of new land use place types that promote the guiding principles, provide for better plans for the use of open space, and create an opportunity for increase density based upon meeting certain performance standards.
- Identify specific areas acceptable for increase residential development based upon specific evaluation criteria (i.e., transportation, environmental, compatibility, and proximity to services).

- Land use recommendation for light industrial along Sycolin Road and the Greenway and expansion of commercial areas at certain intersections along Braddock Road and Route 50.

## Introduction

As the Suburban Policy Area approaches buildout and as new urban centers are developed near Metrorail transit stations, the county's growth management policies require further refinement to ensure that they align with the public's expectations about growth as they relate to where it should occur, how fast it should occur, and how impacts can be mitigated. Consequently, this plan introduces new Policy Areas – the Urban Policy Areas – to help meet the ends of the growing county and its increasingly diverse citizenry. The Urban Policy Areas are envisioned as a collection of dense, mixed use, transit-oriented communities that will more efficiently absorb much of the County's anticipated growth while taking advantage of the Metro Silver Line rail transit extension.

The five Policy Areas described in this chapter provide the geographic foundation for the county's growth management and land use strategies. In keeping with the current strategies, the majority of the county's growth is envisioned to occur in the Urban and Suburban Policy Areas in the eastern part of the county. Rural Policy Area policies continue to promote the current low-density, agricultural character of western Loudoun to support a robust rural economy. The Transition Policy Area will continue to provide a visual and spatial transition between rural and higher density areas of the county while allow for strategic land use changes.

# Infill and Redevelopment

## Vision

A community where careful investment in services, facilities, and growth management maintain the vitality and quality of our neighborhoods, revitalize underused areas, and redevelop those parcels that can help create and maintain complete communities where people feel connected to each other and to places that are expressions of community character.

## Introduction

Loudoun County is a maturing community. For the last several decades, the approach to planning and zoning focused on managing and directing rapid suburban growth on primarily undeveloped land, or greenfield development, in eastern Loudoun County designated for growth in the Revised General Plan. Today, much of eastern Loudoun County, known as the Suburban Policy Area, has been developed and there is a limited supply of land remaining for new greenfield development.

With the period of greenfield development ending in the Suburban Policy Area, Loudoun County has reached a critical juncture in its planning and development history. Additionally, some existing neighborhoods and commercial and employment centers are aging, underutilized, and at risk for disinvestment and decline. Development efforts will begin shifting to a greater focus on redevelopment in aging areas, infill development on the few remaining vacant parcels, and adaptive reuse of existing buildings, complimented with revitalization initiatives as needed. These types of development bring unique challenges and opportunities that are inherently different from greenfield development. Since some future development will come in the form of redevelopment, infill, or adaptive reuse, and some areas of the County would benefit from revitalization, the following policies and implementation steps establish a supportive environment for these development types.

## Opportunities

With redevelopment, infill development, and adaptive reuse comes opportunities. Redevelopment offers communities the opportunity to reimagine underutilized or underperforming sites, create unique places, and include amenities desired by residents. Infill development maximizes the use of public investments and existing infrastructure, offers an opportunity to develop a more cohesive development pattern, encourage reinvestment, and can create meaningful connections between neighboring developments. Adaptive reuse projects can support historic preservation goals, generate activity within vacant buildings and underutilized areas, and preserve iconic or prominent buildings exemplifying community character while maintaining compatibility with the surrounding neighborhood. Each can also provide opportunities to diversify housing stock. These projects result in upgrading or retrofitting older or substandard infrastructure for the site and surrounding area and generally increase the value of a property and contributions to the tax base. Projects within the County's developed areas should result in efficient extensions or connections of utilities between developed sites, improved levels of service and potential reduced user costs,

and alleviated development pressure in areas planned for limited growth and not adequately served by infrastructure.

## Revitalization Need Emerging

Suburban development in Loudoun County is relatively new and is just beginning to experience decline that can occur in aging suburbs. As Loudoun's communities continue to age, the need for revitalization to support and enhance these neighborhoods and commercial centers will emerge.

### Revitalization in Potomac and Sterling

The Potomac & Sterling communities are two of the oldest and most diverse communities in Loudoun County. With neighborhood development beginning in the 1960s, the communities are mostly built-out. Housing stock has been in place for approximately 50 years and a need for revitalization has emerged. The 2007 recession also significantly affected Potomac and Sterling, with the largest concentration of foreclosures and subsequent vacancies in the County occurring in these communities and compounding the decline of the area.

Recognizing the need for revitalization in Potomac and Sterling, the Loudoun County Department of Planning and Zoning undertook a community outreach project in 2008. During the outreach, residents identified needs and desires to improve community vitality through redevelopment, infill development, and adaptive reuse. They asked for revitalization efforts that would stem decline in the community. Community members expressed concerns that poor neighborhood maintenance created blight conditions and caused an increase in crime. Furthermore, residents worried their neighborhoods lacked law enforcement personnel, neighborhood volunteer watch groups, and teen programming.

### Progress since Community Outreach

In recent years, the County undertook certain recommendations born from the Potomac and Sterling Outreach. To address the foreclosure issue and the deterioration of housing, the County made considerable investment of Community Development Block Grants (CDBG), tax dollars, and Neighborhood Stabilization funds; provided grants to non-profit housing providers to purchase and renovate homes to sell to low and moderate income families; and provides loans and grants directly to qualified residents through several programs. The County also revised the Zoning Ordinance to address community appearance issues and began proactive code enforcement, as well as established a full service Eastern Loudoun Sheriff's Substation in Sterling Park.

## Challenges

Redevelopment, infill development, and adaptive reuse projects also face particular challenges which are different from the challenges of greenfield development. Common challenges include:

- The County's land development regulations generally address greenfield development and lack the flexibility needed to address site constraints and facilitate redevelopment or infill development projects.
- Redevelopment sites and adaptive reuse projects are often in need of infrastructure improvements and experience other fiscal challenges that result in projects that are more costly than greenfield development.

- Redevelopment sites are often owned or leased by multiple entities, making it difficult to craft a unified vision and project.
- Redevelopment projects may displace populations because market-provided affordable housing is demolished or rents and property taxes increase due to the new development.
- Potential opposition from the community is often one of the biggest challenges for redevelopment, infill development, and adaptive reuse projects.

Considering the complexity of challenges related to these projects, developing a community vision for redevelopment, infill development, and adaptive reuse projects in anticipation of such projects is critical but often missing. The County should take a leading role in developing this community vision by identifying and prioritizing areas that would benefit from redevelopment and revitalization, and conducting proactive planning efforts to establish this vision. In addition, the County should require developers to consider and include community input for infill projects. A community vision endorsed by the locality provides assurances to developers and the community. It also identifies the locality's role in advancing such projects.

## Public Input

Loudoun County citizens provided input on redevelopment, infill development, and adaptive reuse topics during the *Envision Loudoun* process. The prevalent public comments, summarized below, on these important planning topics informed development of the Infill and Redevelopment policies.

- The creation of more mixed-use, walkable communities as part of redevelopment projects is important to the community.
- Residents envision revitalized or redeveloped older shopping centers in the Suburban Policy Area, such as Cascades Plaza and Sterling Plaza.
- Members of the community support redevelopment and infill projects that offer housing choices.
- The community expects redevelopment and infill projects to protect environmental and natural resources and provide open space.
- County residents recognized redevelopment or infill development projects should occur only where the transportation network and public services are available to support them.
- Citizens seek the addition of amenities such as bus stops, sidewalks, and crosswalks in older residential neighborhoods and commercial centers in the Suburban Policy Area.

## Principles

The following principles guide the redevelopment, infill, adaptive reuse and revitalization policies, strategies, and actions of Loudoun 2040 for:



- Make a great place through quality redevelopment of aging areas, infill development, and adaptive reuse that complements, strengthens, and benefits surrounding communities.
- Support an enhanced quality of life and a strong sense of community where people feel connected to each other and to places that are expressions of community character.
- Encourage efficient use of land and maximize the use of existing infrastructure, public facilities, and community amenities.
- Foster redevelopment and revitalization of aging or underutilized commercial and employment areas.
- Foster infill development that is compatible with existing neighborhoods.



Addison McDonald residential development is an example of infill development in Brambleton. Two parcels, each with a residence, and totaling approximately 7 acres will be developed with 39 townhouses surrounding a village green and will be annexed into the neighboring HOA.



Lucketts Community Center. The County has adaptively reused several historic schools for community centers in rural villages, providing gathering places while protecting iconic buildings and community character.

## Policies, Actions, and Strategies

**Policy 1: Redevelopment, infill development, and adaptive reuse projects and revitalization initiatives will enhance quality of life and neighborhood character, fulfill community needs, and improve economic opportunities.**

### Strategy

- 1.1. Facilitate community engagement for redevelopment, infill development, adaptive reuse, and revitalization initiatives to build County and community support for future projects.

### Actions

- A. Identify and prioritize areas for redevelopment, infill development, adaptive reuse, and revitalization, and create a common vision and objectives for these areas through a public process.
- B. Address redevelopment, infill development, adaptive reuse, and revitalization as part of community and small area plans.
- C. Identify methods for ensuring developers will follow through on commitments to communities that are products of a facilitated engagement process between the developer and the surrounding neighborhoods and developments.
- D. Evaluate the creation of overlay districts to encourage revitalization and convey community support and buy-in for investment in priority/targeted areas.

### Strategy

- 1.2. Support projects that provide community amenities, fulfill community needs, and benefit the surrounding communities.

### Actions

- A. Conduct analysis of local market demands to determine what is needed to foster successful redevelopment.
- B. Evaluate the appropriateness of mixed use development for projects through the small area plan process.
- C. Ensure projects increase and diversify housing opportunities when in conformance with other Plan policies.
- D. Develop strategies to address displacement and housing affordability when redevelopment occurs.
- E. Encourage annexation of residential projects into adjoining HOAs to make the provision of amenities more economical.
- F. Develop criteria, such as site constraints, important resources, and community amenity gaps, to identify infill sites appropriate for use as park, civic, and open space rather than private development.
- G. Endorse the development of interim uses on underutilized properties that are

#### **Redevelopment Guidelines**

1. Require redevelopment projects replace, at a minimum, market-provided affordable units lost through a redevelopment process.
2. Require the provision of comparable community amenities lost through redevelopment.

compatible with the surrounding development pattern.

### Strategy 3

*Enhance established residential communities specifically in need of revitalization and will not involve a redevelopment project.*

#### Actions

1. Identify and prioritize neighborhoods with an emerging need for revitalization and reinvestment, and work with these communities to identify needs and desires and build support for revitalization.
2. Identify strategies to preserve and enhance a community's sense of place and social fabric.
3. Identify, and include in the Capital Budget, capital facilities improvements necessary to support revitalization in targeted areas.
4. Identify and utilize funding sources for community revitalization strategies.
5. Educate the community about funding sources for home improvement and repair.
6. Provide incentives and resources for the provision of community amenities, such as pedestrian/bicycle facilities, sidewalks, traffic calming, street lighting, and bus stops, as well as cultural centers and community gathering places.
7. Develop incentives that encourage the private sector to improve retail and commercial establishments in targeted areas.
8. Provide resources for community-based initiatives, such as neighborhood volunteer watch groups and teen programming.

### Strategy 4

*Facilitate redevelopment, infill development, and adaptive reuse projects through technical assistance, an improved regulatory framework, and streamlined review processes.*

#### Actions

1. Provide general project guidance, such as best practices, tool kits, examples of "approvable" development types, and profiles of successful projects.
2. Provide development process and planning and zoning support services and technical assistance for specific projects.
3. Develop and maintain a redevelopment webpage with information and resources for residents and developers.
4. Develop zoning regulations and design standards that acknowledge the need for flexibility, existing conditions and constraints, and previous development standards; allow for innovative design and emerging development types; and provide certainty and clear direction for developers.
5. Develop incentive programs for qualifying projects such as an increase in permitted density where infrastructure is available, reduce fees, or expedite review processes.

### Strategy 5

*Incentivize redevelopment, infill, and adaptive reuse projects, and revitalization efforts in priority areas to be established by the County.*

#### Actions

1. Evaluate and implement the use of fiscal tools to incentivize redevelopment, such as tax increment financing (TIF), public improvement districts (PID), or utility upgrade financing.
2. Evaluate entering into public-private-partnerships to initiate redevelopment and adaptive reuse efforts and reduce development risks in priority areas.
3. Direct public investment and resources to priority areas to facilitate redevelopment.

### Strategy 6

*Achieve unified site design, efficient use of existing infrastructure, and maximum land development potential through the consolidation of small, adjacent, underutilized properties.*

#### Actions

1. Facilitate redevelopment of multi-ownership sites through a planning process that engages owners and the larger community in the creation of a shared vision for the area.
2. Create incentives for parcel assembly and funding opportunities for infrastructure improvements associated with redevelopment projects to alleviate private sector risk and costs.

## **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.**

### Strategy 1

*Support adaptive reuse projects that provide cultural activities and community gathering places.*

#### Actions

1. Use the Heritage Preservation Plan to guide the adaptive reuse of historic resources.
2. Establish a collaborative program for adaptive reuse projects to foster entrepreneurship and encourage innovative ways to reuse buildings and sites.

### Strategy 2

*Prioritize adaptive reuse of existing buildings with historic significance or importance to a community over demolition.*

## **POLICY 3**

**Promote redevelopment and infill projects that balance compatibility and integration with new housing choices and innovative designs.**

### Strategy 1

*Redevelopment and infill projects will be evaluated based on compatibility and the integration of the development within the context of the surrounding development patterns. (RGP-C)*

Action

1. Ensure redevelopment and infill development that is consistent with the Place Types land use structure and further the goals and objectives of the *Loudoun County Comprehensive Plan*. (WP)
2. Ensure residential development on infill sites that is designed to fit into the surrounding context. (Developed by Stakeholders Housing Subcommittee)

**Guideline**

Evaluate redevelopment and infill projects using the following criteria:

- a. Place type designation;
- b. Size of the subject parcel relative to surrounding parcels;
- c. Relationship to established development pattern;
- d. Compatibility of site design with or without buffering from adjoining properties;
- e. Transition to adjoining properties;
- f. Residential densities on adjacent parcels, projects, or landbays;
- g. Range of proposed housing types and choices;
- h. Intensity of proposed uses;
- i. Mix of uses provided;
- j. Building form and scale;
- k. Vehicle, bicycle, and pedestrian connectivity;
- l. Provision of community green spaces and other amenities;
- m. Protection of environmental resources and restoration of degraded resources on the site;
- n. Amount and location of open space and impervious surface;
- o. Adequate public facilities and services, transportation facilities, and infrastructure; and
- p. Effect of noise, light, and traffic generated on the site.

# Quality Development

## Introduction

Loudoun County has consistently focused on promoting a high quality of life for its residents by establishing standards that encourage high quality developments. Quality Development is the term that this Plan will use to refer to a broad area of topics related to the visual and physical qualities that new development should possess, such as sensitive integration of the natural and built environments, sustainable energy technology, pedestrian and bike friendly environments that promote activity and connectivity in spaces between buildings and developments, accessible and connected parks and open spaces, context sensitive site and building design that promotes compatibility between adjacent developments and land uses, and well-designed architecture that promotes visual appeal and interest throughout the County. By encouraging quality development, distinctive identities can be realized for certain areas through the use of high quality design, siting, landscaping, architecture, signage, sustainability and other design elements. Loudoun County intends to encourage a return to historic patterns with an emphasis on high quality design, compact walkability, and public spaces that can be integrated into the evolution of existing places and in the design of new developments.

Quality Development is a complex topic and touches upon many aspects of daily life. It defines where and how one lives, works, and plays in the County. The vision for the 2040 General Plan identifies quality of life and sustainability as key pieces of Loudoun County's future. Loudoun County has consistently focused on promoting a mix of complementary land uses and project designs that ensure the long-term sustainability, or environmental and economic health, of both the individual development and the broader community. To maintain and improve the quality of life in Loudoun County, countywide policies are presented that will allow the County to address future growth and change. More specific information on multimodal transportation, complete streets, infill development, and conservation will be provided in the 2040 Transportation Plan, Infill and Redevelopment section of this chapter, and the Natural and Heritage Resources chapter.

### Community Input

*The context and appearance of the built environment was the second largest theme from the Listening and Learning workshops. Comments from participants mainly concerned preservation and maintenance of natural landscapes and open space, high quality development where it is approved, and the protection of environmental corridors. As existing developments age, redevelopment will increase and, therefore, policies are needed to ensure this is done well. Lastly, the community expressed a desire to ensure that a high priority is placed on the character of new development, especially in terms of how it contributes to the county's overall identity and on environmental practices in the county.*



The Revised General Plan held over 70 pages of design guidelines in order to stream line the process you will find design guidelines in each policy area as its own section as well as in each chapter as call out boxes. Loudoun County's zoning regulations support quality development through a variety of inter-related provisions. Fundamentally, the lot and building standards applicable in each zoning district are intended to ensure the proportionality of new development to the surrounding community, with the integration of open space as a design component in all geographic settings. The County's zoning regulations also enhance the quality of new development through requirements for minimum tree canopy, buffer landscaping and screening, and increased setbacks from major road corridors. In addition to the Zoning Ordinance, Loudoun County has a history of accepting proffered design guidelines as a component of the rezoning or legislative application process to help ensure quality design of buildings, development sites and civic/public spaces.

## SUSTAINABILITY

Sustainability seeks to achieve, in a balanced manner, economic development, social development, and environmental protection. Many have defined sustainability as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Over the last several decades, Loudoun County has infused sustainability into the community fabric in order to foster a high quality of life.

Sustainable development calls for practices that are economically cost-effective, enhance human health and well-being, and protect and restore the environment. Several programs have been implemented in the County that work towards a more sustainable County. Green Loudoun (Loudoun County General Services) entails [Clean Waters Initiative](#), [Energy Management \(Energy Strategy 2009\)](#), [Environmental Policy](#), Stormwater Management ([Plan 2013-2018](#)), and Solid Waste Management ([Plan](#)). From FY2010 to FY2018, Energy Use has shifted from using 56% Electric, 40% Natural Gas, 1% Oil, 2% Propane to 75% Electric, 24% Natural Gas, 1% Oil.

Energy use is the major human cause of greenhouse gases. The electricity sector is currently the largest emitter of greenhouse gases, followed by the transportation sector; industry, commercial, and residential fuel use; and agriculture. In 2007, the CES identified if Loudoun County remained on a business-as-usual track, by 2040 the County would require 46% more energy to manage the expected growth, while accounting for some expected improvements in the efficiency of both existing structures and new construction. Over the same period, total greenhouse gas emissions would increase by 50%.

The County enforces the 2012 IECC (International Energy Conservation Code), the most current model code establishing the minimum design and construction requirements for energy efficiency. County policies call for all county-constructed facilities to be constructed to a minimum of LEED Silver, or equivalent standards. Green building rating systems allow a consistent metric with which to measure site development and building performance. Also, rating systems raise the awareness of the environmental impacts of site development and buildings and help determine measures to minimize those impacts.

## Principles

The following principles guide the Quality Development policies, strategies, and actions of Envision Loudoun 2040:

- Make a great place through quality development that complements, strengthens, and benefits surrounding communities.
- Encourage a mix of complementary land uses and project designs that ensure the long-term sustainability, or environmental and economic health, of both the individual development and the broader community.
- Foster distinctive identities through the use of high quality design, siting, landscaping, architecture, signage, sustainability and other design elements.

## Policies, Strategies, Actions

**Policy 1: Provide flexible design guidelines in all policy areas in the County and create more specific design guidelines in priority areas of the County that encourage innovation.**

### Strategy

- 1.1. Identify and prioritize areas in the County for more specific design guidelines.

### Actions

- A. Develop a user-friendly, illustrative design handbook(s). Promotes an overall sense of place through design elements that relate to block size, circulation and connectivity, streetscape and street sections, building form, placement (setbacks), orientation, articulation, Parks and Open Spaces, Public and Civic uses, landscaping, and sustainability.
- B. Create incentives that provide the opportunity to implement all design guidelines.

**Policy 2: Development must create a walkable pattern of compact development implemented by smaller blocks, shorter distances, inter-parcel connectivity, greater diversity of uses on the same street, and connected open spaces that facilitate interaction of people and offers a more affordable and convenient lifestyle.**

### Strategy

- 2.1. Ensure related County guidelines and regulations encourage this development pattern.

### Actions

- A. Update County regulations to support this development pattern.



### Policy 3: Development must provide diverse environments and experiences.

#### Strategy

- 3.1. Ensure development considers its context and development potential by integrating uses and the natural environmental features from site to site.

#### Actions

- A. Develop flexible guidelines and regulations that supports this policy.
- B. Create incentives to ensure a mix of environments and experiences within a development.

### Policy 4: Space is designed to maximize pedestrian and bicyclist activity, comfort and convenience.

#### Strategy

- 4.1. Development must ensure pedestrian and bicyclist connectivity and safety while pursuing high quality design.

#### Actions

- A. Create guidelines and regulations that ensure bike lanes, shared spaces and paths of travel.
- B. Create guidelines and regulations that ensure innovative traffic calming designs.

### Policy 5: Development should encourage greater interaction between activity inside buildings and the public realm.

#### Strategy

- 5.1. Design guidelines that emphasize the quality of experience in public spaces.

#### Actions

- A. Develop eye-level design guidelines, regulatory features, and additional design elements that contribute to the quality of the human experience of space and the built environment.

### Policy 6: Development with high quality design and mix of uses encourage longer stays in spaces and activity in order to create vibrant areas and create a sense of place.

#### Strategy

6.1. Inviting areas will have high quality design elements that imply the ability to stay for increasing vibrancy, which may include public/civic gathering spaces, outdoor rooms, public art spaces and passive / active recreation spaces.

Actions

- A. Create guidelines that ensures the siting of public seating, art, landscaping, outdoor rooms, safety, and other innovative elements maximizes public life opportunities.

**Policy 7: Encourage high quality architectural, site, and landscape design in all development.**

Strategy

7.1. General nonresidential/commercial design guidelines will encourage architectural creativity and diversity within the framework of the community's scale and massing.

Actions

- A. Develop a user-friendly, illustrative design guideline handbook for nonresidential/commercial development in priority areas.

Strategy

7.2. Encouragement of the submission of site development and architectural guidelines for new developments, where applicable.

**Policy 8: Encourage sustainability efforts throughout the County.**

Strategy

8.1. Support sustainability practices within the Loudoun County Government.

Actions

- A. Continue to evaluate the energy demands of government buildings as well as transportation needs and develop plans for energy efficiency.
- B. All county-constructed facilities shall be constructed to a minimum of LEED Silver, or equivalent standards.
- C. Continue to evaluate all sustainability efforts.
- D. Support Loudoun Water in the expansion of the reclaimed water network.

Strategy

8.2. Support environmental practices.

Actions

- A. Update and implement the County Energy Strategy (CES) to reduce the impacts

- of climate change.
- B. Evaluate the energy demands of residential and non-residential buildings, including data centers as well as transportation needs and develop plans for energy efficiency.
- C. Encourage benchmarking the energy use of existing and planned buildings to establish a baseline for energy demand estimates.
- D. Research opportunities for micro-grid energy.

Strategy

8.3. Support sustainable economic practices.

Actions

- A. Promote the Loudoun Sustainable Business Certification with the Chamber of Commerce.

**Policy 9: Encourage sustainable development practices, including long-term water conservation, green building principles, sustainable site design, renewable energy, adaptive re-use of historic structures, and integrated energy management planning.**

Strategy

9.1. Promotion of water conservation through innovative, cost effective reuse systems, domestic water saving devices, and low impact development techniques, which integrate hydrologically functional designs with methods for preventing pollution and educational programs.

Actions

- A. Educate and encourage the harvesting of rainwater for non-potable use, such as landscape irrigation.
- B. Establish incentives for sustainable development.

Strategy

9.2. Promotion of the use of salvaged, recycled, or locally produced materials whenever possible.

Strategy

9.3. Evaluation of the establishment of Eco-districts within the County.

Strategy

9.4. Promotion of green building standards and green building.

# Urban Policy Areas

## Vision

The Urban Policy Areas are complete communities that accommodates living, working, shopping, learning, and playing in close proximity to each other and in a few areas with access to the Metrorail. These areas are a high-quality public environment with accessible and connected spaces, and a rich mix of uses that give a sense of place and distinctiveness. Communities with development types, patterns, and densities that will create jobs, grow the tax base, and be fiscally sustainable.

## Introduction

The new Urban Policy Areas (UPA) are planned and designed to be strong, diverse regional activity centers and economic drivers that will be leaders in innovation in the Washington D.C. Metropolitan Area providing economy-driving employment uses and urban living opportunities while balancing new development with the needs of Washington Dulles International Airport. The UPA entails areas around Route 7 as well as three MetroRail Stations; Innovation Center, Loudoun Gateway, and Ashburn. Route 7 area will focus on making a more walkable community that is connected from One Loudoun Development Route 28 and then Dulles Town Center. The three MetroRail Stations is transit oriented development where the core has the highest density in the County. These areas are the top priority growth areas in the county where mixed use is emphasized in all in development. The process of getting these areas to walkable communities may involve partial infill and redevelopment due to the current suburban nature. More information about infill and redevelopment can be found in the Infill and Redevelopment section of this chapter.

The communities will provide a variety of housing choices that offer innovative options for families, empty-nesters, singles, and seniors across socio-economic groups. They will be communities that are rich in amenities, offering dense mixed-use environments, with a balanced community of businesses, commercial development, and residential uses. Densities below those envisioned in the land uses discussed may have an adverse impact on the County's long-term tax revenue generation potential and should be avoided unless they are demonstrated to be interim uses that can evolve to an ultimate desired use that aligns with the long term vision of the Plan.

### Community Input

*Throughout the Envision Loudoun comprehensive planning process, participating residents indicated higher density in Eastern Loudoun especially along major transportation routes and MetroRail Stations was desirable. These residents were also very interested in providing interconnected sidewalks and trails, and balancing development with green open space and the established communities surrounding the areas.*

The UPA communities has a network of green spaces that are an amenity for residents while providing protection of valuable environmental resources. Characterized by the highest quality of design, the UPA is known for its livability, vibrant, active neighborhoods, and transportation systems.

Transportation hubs offering a wide array of transportation mode choices including walking, biking, driving, and transit found in all the communities. The UPA is a place where walking and bicycling can be convenient travel modes, diversity of use is nurtured, and public spaces are beautiful, safe, and accessible. A grid-form street network is not only necessary for new development but is convenient, active, and attractive. This network prevents traffic congestion, maximize travel choices, and safely and efficiently move people throughout the area.

The UPA is an amenity-rich area with a vibrant sense of place that appeals to multiple generations of residents, workers and visitors. Aiming to be the region's best places for living, working, playing, and visiting.

## Policies, Strategies, Actions

**Policy 1: Ensure walkable development and connectivity to the community throughout the UPA as it is important to foster the urban character.**

### Strategy

- 1.1. Development designed to provide for a walkable mixed-use environment that supports multi-modal transportation choices and fosters substantial pedestrian activity within the ½-mile area and to surrounding areas.

### Strategy

- 1.2. Emphasize walkability in the ½-mile buffer area by providing pedestrian and bicycle commuter connectivity to the core of the Metrorail stations and surrounding neighborhoods as well as enabling future connections from undeveloped parcels.

### Strategy

*Urban design characteristics of the areas will include:*

- *small blocks,*
- *tree-lined grid pattern of streets,*
- *building façades set at the back of the sidewalk,*
- *ground floor retail uses with transparent façades,*
- *distinctive public spaces,*
- *streetscapes and street furniture including public art, water features, and landscaping,*
- *public plaza gathering places and spaces that promote culture and the arts,*
- *and network of green space that accommodates passive and active recreational opportunities.*

- 1.3. Support a high level of pedestrian connectivity including connected street grid patterns with sidewalks, short block lengths, connected trails and pathways providing connections to surrounding neighborhoods.

Strategy

- 1.4. The Ashburn and Loudoun Gateway Metrorail Stations will serve as transit and commuter hubs while providing an urban walkable environment. Development proposals provide a balance the needs of commuters with the desire to create a walkable urban environment.

Strategy

- 1.5. Accommodate a long-term vision with an appropriate mix of residential and non-residential uses that fulfill daily and convenience needs of its residents and employees.

Actions

- A. Mixed-use neighborhoods accommodate infrastructure plans for near-term and long-term transit circulator service.
- B. Community facilities like schools, community centers, and libraries are located to allow as many residents as possible to be within a short walking distance.

**Policy 2: Key element of the Urban Policy Area is a public realm that is multilayered within the development.**

Strategy

- 2.1. Densities in the area are expected to sustain an urban development pattern with pedestrian activity.

Strategy

- 2.2. The County promotes concepts like outdoor dining, event space, street fairs, and public art within Compact, Walkable Non-Residential areas.

Actions

- A. Accommodate walkable features and amenities like centralized activity areas such as shopping and dining areas with wide sidewalks, more narrow pedestrian-oriented streets, transit stops, and community gathering places (e.g. parks and plazas).

**Policy 3: Provide a diverse mix of choices in all development.**

Strategy

- 3.1. Accommodate office developments and/or high-employment generating uses that conform to the overall vision for a walkable urban development pattern.

Actions

- A. Create partnerships with universities and private sector companies to foster growth of an Innovation District at the Loudoun Gateway Station that supports workers and students in the advanced technology and science industries.

Strategy

3.2. Development within ½-mile of the Loudoun Gateway Station should reflect the station area’s long-term vision of a global destination, activity center, and leader in innovation and entrepreneurship.

## Design Guidelines

The Design Guidelines are to build upon our current high quality development in a manner that allows innovative design and new responses to the market. While the Design Guidelines are not regulatory requirements, the County’s prefers that all future developments comply with these guidelines. The Design Guidelines do not supersede or otherwise limit the application of adopted zoning regulations, ordinances, building codes, or any other design standards or regulations administered by Loudoun County.

All applications for development in the UPA are expected to include project specific design guidelines, site plans, illustrative, landscape plans, building elevations, and other similar graphics that demonstrate consistency with the UPA Design Guidelines and planning principles in this document.

When using the guidelines make sure to analyze the impact a potential development may have on the landscape, considering not only appearance, but practical considerations such as proximity to utilities, community amenities, jobs, and housing to maximize the use of existing infrastructure and limit travel distances. Development should contribute to creating unique places within the Urban Policy Area by working with existing topography and site features, responding to the local context, and reinforcing the compact walkable character, rather than simply attempting to place suburban design onto the urban landscape.

*The goals of the UPA Design Guidelines are to:*

- *Promote accessibility and establish links to transit*
- *Promote walkability*
- *Encourage human activity between buildings and streets*
- *Establish human scale of buildings at street level (first floor of a multi-story building)*
- *Create visually interesting and compatible buildings and site designs that use building forms, materials, fenestration, repetition, rhythm, color and architectural variety resulting in delightful blends of form, volumes, textures and colors in the various neighborhoods*
- *Create inviting spaces for varied activity*
- *Create a sense of place and uniqueness*

## Building Orientation and Setbacks

Buildings, particularly along urban-type streets and “main streets” should have common design strategies which promote walkability, accessibility and activity in the ‘outdoor room’ or ‘outdoor hallway’ between streets and buildings.



1. Locate buildings at the front property line or at the minimum required setback to create a strong pedestrian pathway framed by adequate spaces for sidewalks, plantings, street furnishings, and lighting along buildings. Where additional setback is necessary, that area can be used to create a plaza, pocket parks or public gathering spaces adjacent to the street, incorporating activity space, outdoor seating, landscape features or water features for example.
2. Design grade level entrances providing direct access to building entrances from sidewalks and streets.
3. Make primary entrances to buildings visible from the street and sidewalk.
4. Create primary entrances for pedestrians that are easily identified and accessible with as direct a path as possible to transit amenities.
5. Maintain at least one entrance from the public way at retail and restaurant establishments.
6. Incorporate transitions from the sidewalk to the front door such as landscaping, overhead cover (canopies, awnings or trellises) and/or porches at individual entrances to businesses and residences.
7. Comply with Americans with Disabilities Act (ADA), Universal Design and/or International WELL Building Institute guidelines at primary pedestrian entrances. Alternate approaches for persons with mobility limitations (such as a ramp next to the main path to the primary entry) should not be necessary.
8. Incorporate passageways or alleys into mid-block developments, particularly on long blocks, that facilitate safe pedestrian movement through the depth of the block to the front of the next parallel block. Pedestrians should not have to walk the circumference of a block in order to access the middle of the next parallel block or alley or parking behind the block.
9. Activate use of mid-block passageways or alleys so that they are visually interesting, functional, well-lit, and safe spaces.

## **Building Design and Façades**

Addressing architectural features of buildings is an important component of creating the ‘sense of place’ that is desired for the planning area, particularly with respect to the denser and more intensely used areas.

1. Incorporate different façade treatments such as forms, textures, colors, materials, and distinctive architectural features that add visual distinctiveness throughout the policy area while building consistency in their application within individual developments to create uniqueness and identifiable character of each new development.
2. Add scale and interest to the building façade by articulated massing. Blank or long expansive walls with no detail or variation in form, color, texture, openings or material are undesirable, particularly in activity centers and along pedestrian pathways or linkages.



3. Use of architectural features, enhanced materials, fenestration, planting, lighting, and signage should contribute to a more pedestrian friendly streetscape.
4. Reinforce the existing façade rhythm along the street with architectural elements, landscaping, signage, street lighting and street furnishings.
5. Include overhead architectural features, such as awnings, canopies, trellises or cornice treatments that provide identifiable entries shade and reduce heat gain.
6. Contribute to visual interest, human activity along streets and neighborhood safety by providing pedestrian scaled windows and fenestrations at the street level that act as pathways to activity inside buildings and “eyes on the street”.
7. Devote 65% to 75% (minimum) of façade for ground floor retail, restaurants, and professional office uses to pedestrian entrances and pedestrian-level display windows in mixed-use environments, along main streets, and other activity centers.

### **Sidewalks, Streets Trees, and Plantings**

Sidewalks, in conjunction with street design and building placement, support ease of pedestrian movement and link people from their homes to community amenities such as parks, public spaces, retail and commercial areas, transit stops, nodes, landmarks and the Metrorail stations. Sidewalks also enrich the quality of the public realm by providing appropriate connections and street furnishings in the public right of way. Sidewalks create the basis for the concept of the ‘outdoor rooms’ and ‘outdoor hallways’ which support human activity at planned centers and along linkages.

Planting street trees and ground cover plantings has proven over time and across urban development to improve the human experience between building and streets. Along with creating inviting spaces, comfort for human activity, and positive impacts to the natural environment, street trees and ground level plantings contribute greatly to the visual appeal of building façades and outdoor spaces.

1. Create a continuous and predominantly straight sidewalk to support two-way pedestrian traffic with enough space for streetscape amenities such as street furnishings, street trees, ground cover plantings areas, street lighting, signage, and utilities.
2. Create amenities that act as a buffer between pedestrians and moving vehicles by the use of landscape and street furniture (benches, newspaper racks, pedestrian information kiosks, bicycle racks, bus shelters, and pedestrian lighting, etc.).
3. Use street furnishings to create a consistent rhythm (i.e., consistent height of light standards or consistent shade pattern of trees) and encourage the activity and use of the sidewalk area between buildings and streets as an outdoor room.
4. Incorporate closely planted shade-producing street trees to encourage pedestrian activity along streets and promote comfort in the outdoor activity spaces. They may be interspersed with existing or proposed street trees. Select native trees and plantings with low

maintenance requirements. Plant outdoor spaces with ground cover, low-growing vegetation or permeable materials that accommodate both pedestrian movement and car door swings where on street parking is designed and planned.

## **Street Furnishings and Lighting**

Street furnishings and lighting should be designed to strengthen the pedestrian experience and encourage outdoor use and activity in activity centers and spaces between buildings and streets. These amenities that are located in the ‘outdoor room’ should also serve to create neighborhood identity and visual coherence with the use of building and street lighting.

1. Provide usable space in the sidewalk areas which should include street furnishings such as benches, trash cans, kiosks, street gardens, bike racks, outdoor sitting spaces, and public art.
2. Provide adequate lighting levels to safely light the pedestrian path.
3. Use adequate, uniform, human-scaled and glare-free lighting to avoid uneven light distribution, harsh shadows, and light spillage.
4. Use poles, standards, fixtures and lighting types that achieve “dark sky” compliant goals and objectives such as lighting when necessary, reducing glare, use of energy efficient lighting systems, lighting enough to promote safety and security, and considers ecological impacts to the natural environment and humans.

## **On-street Parking**

On-street parking provides numerous benefits in urban environments such as reducing the need for parking decks and parking lots, buffering pedestrians and moving vehicle traffic, vehicle traffic calming and providing parking near community amenities, businesses and retail uses shaping the outdoor “rooms”.

1. Provide parallel or angled on-street parking wherever possible.
2. Eliminate street parking within pedestrian crossings.
3. Create traffic calming along streets designed for low speeds.

## **Public Spaces**

Public spaces are areas that serve as centers for human activity which could be a destination, a space to pass through, or a linkage. These spaces should provide a focal point for gathering, communicate community or neighborhood identity, and help make for complete neighborhoods. These spaces could include plazas, promenades, courtyards, park spaces that are landscaped and/or hardscaped, and should include trees and ground cover vegetation to create inviting spaces for activity and gathering.

1. Orient buildings so that public spaces receive sunlight as well as provision for high quality, safe, night lighting.

2. Balance sunlight accessibility with shade producing trees and overhead cover.
3. Provide a variety of on-site features to maximize use and enjoyment of public spaces, including but not limited to:
  - Water features / public art
  - Outdoor furnishings
  - Vegetative ground cover, gardens and shade tree plantings/reforestation
  - Use of stormwater management (SWM) best practice features to create open spaces
  - Open spaces for gathering large groups of people
  - Variety of ground cover materials such as permeable and impermeable surfaces as well as natural ground cover

# Suburban Policy Area

## Vision

The Suburban Policy Area contains self-sustaining communities that offer a mix of residential, commercial, and employment uses; a full complement of public services and facilities; amenities that support a high quality of life; and a design that incorporates a holistic approach to preserving and improving community character through compatible development.

## Introduction

The 60,000-acre Suburban Policy Area (SPA) is located in the easternmost portion of the County, in close proximity to the job centers and activity areas located east of Loudoun. The Suburban Policy Area is defined on the north by the Potomac River and on the south by Braddock Road. Its eastern edge is the Fairfax County line, and its western edge begins at the Potomac and follows a southerly path along the Goose Creek just east of Leesburg, the Goose Creek and Beaverdam Reservoirs, and a combination of property lines, roads, power line easements, and Washington Dulles International Airport's 65 Ldn (day-night average noise level) noise contours. The earliest planned development occurred within the Potomac and Sterling communities during the 1960s signaling the beginning of the transformation of eastern Loudoun County from farmland with a centuries old rural heritage to the suburban area that it is today.

The SPA is designated as one of the growth areas of the County and has accommodated most of the residential and commercial development over the past decades due to the presence of central water and sewer utilities and an expanded road network. Two major events helped to open the SPA to residential development: 1) the construction of Washington Dulles International Airport, and 2) the construction of a major sewer line that accommodated the airport and improvements to Route 7 and Route 28.

Route 7 and Route 28 have evolved into critical transportation corridors that are contributing to Loudoun County's reputation as an international center for technology, communications and global data management sectors. Given its connection to Dulles International Airport, Route 28 continues to play a major economic role for Loudoun County as a key location for on-going development. The County is committed to the continuing growth of and need for an economically vibrant Route 28 Transportation Improvement District, both for the District's contribution to the transportation improvements to Route 28 and to the economy of the County. Additionally, the SPA surrounds three Urban Policy Areas—two near the Silver Line Metro Stations and one around the Dulles Town Center Mall—that will include new dense, urban, transit-oriented types of development.

## Land Use

The SPA consists of a mix of commercial areas and neighborhoods which provide a broad range of quality environments. The commercial areas of the SPA are focused areas for employment uses within a variety of commercial and workplace environments, including traditional office and industrial parks, mixed use employment centers, and commercial centers.

Residential neighborhoods in the eastern corner of the County were built between 1960 and 1990, while neighborhoods built in the western area of the SPA were built in the early 1990s or later. The older neighborhoods commonly reflect the housing styles and neighborhood designs that were prominent in the era they were developed and provide a more limited mix of housing types (primarily single-family) while relying on neighborhood commercial developments located on major roads like Route 7 for easy access to amenities. The master planned developments west of Route 28 include a variety of housing types organized around neighborhood centers designed as the focal point of the community and provide easy access to daily needs. Parks, greenways, and open space frame developments and link neighborhood residents to nature, neighborhood destinations, and beyond in both the western and eastern neighborhoods.

### **Influences and Opportunities**

The County will focus efforts on fostering and maintaining community identity within the SPA and its communities. The SPA is not and should not be one homogenous area. Many existing neighborhoods in Eastern Loudoun are becoming increasingly diverse, bringing a new set of expectations and attitudes to these communities. As new development continues in this area, the roads are becoming increasingly congested. Today, with a growing acceptance of alternative means of travel and rising energy costs, the lack of transit access and safe pedestrian connections is a mounting concern. Continuing the County's goal to create communities with unique community visions would help identify and strengthen the creation of distinct places within the SPA, ensure that they are well designed and serviced and that they provide diverse and stimulating social, cultural, recreational and livable environments for their residents. Policies below address ways to improve livability through: 1) protecting and enhancing elements of Natural and Heritage Resources, including open space and pedestrian connections; 2) ensuring compatible and complementary infill development; and 3) revitalizing existing neighborhoods in a way that protects and enhances our existing communities. The concept of creating Community Plans is one which offers tremendous potential to ensure that the vision of the SPA is fully achieved and to guide the remaining build-out of each area.

Rapid growth in the County, with the majority occurring in the SPA, has put development pressure on allowing additional development outside of the SPA. Today there is little undeveloped land remaining in the SPA as most land has already been developed or is approved for development. With limited developable land in this area, the County is at a juncture in its planning efforts for greenfield development. Redevelopment and infill will soon begin to play an increasing role in development decisions within the SPA which will mark a significant shift in the county's planning and development activities. Because much of the SPA is currently developed, most new projects will be smaller in scope and need to be evaluated based on how they can be integrated into the surrounding community. As the primary location for suburban-scale residential and nonresidential development, the manner of growth and redevelopment in the SPA is of vital importance.

### **Growth and Demand**

The demographic, market and land use trends of the past decades have led to greater demand for mixed-use and urban environments. National trends show that changes in typical households (for example millennials, seniors, empty nesters) may demand different housing types, public services,

and lifestyle options than provided in the past. To attract top talent, many employers are focusing on employee satisfaction when considering locations and designs of office space. Employers in professional services, technology, and innovation sectors are shifting away from traditional suburban offices towards urban “live, work, play” environments to enhance quality of life. While the County previously established an overall land-development strategy that encouraged compact, mixed-use development providing people with the opportunity to live, work, recreate, and shop in a pedestrian-friendly environment, the development that has occurred in Loudoun has largely remained single-use and automobile-oriented.

Loudoun continues to be an attractive place for residential development given its geographic location in the region, school system performance, and notable quality of life measures. Demand for residential product will need to meet a wide variety of preferences, driven by attractiveness for families, young adults forming new households, and downsizing occurring in the Baby Boomer generation. Demand for non-residential development will be driven by the addition of new households, the County’s assets, infrastructure, and the County’s technology-related industries. Retail users will follow new residential development, seeking locations that offer accessibility and visibility to an expanding customer base. Other employers seeking office and industrial space will locate in areas that serve their target needs. The County previously designated land along its primary transportation corridors for “Keynote Employment” areas to provide locations for corporate campus style office development; however, suburban-style office development has stagnated to an extent that it is no longer considered a significant economic contributor to the County or a sustainable land use pattern. It is expected that mixed-use developments, such as One Loudoun or those proposed near the future Silver Line Metro Stations, will be the most attractive environments for retail and office uses in the coming years. To provide alternative means of addressing office development and land uses along Route 7, Loudoun County Parkway, and Route 28, the “Keynote Employment” planned land use designation has been replaced with a number of mixed-use designations.

### Community Input

Throughout the Envision Loudoun comprehensive planning process, participating residents indicated strong support for creating a sense of place in communities, expanding housing diversity and affordability, and providing more arts, cultural, and entertainment uses. These residents were also very interested in the preservation of new and existing “green” open space, creating more public parks, providing interconnected sidewalks and trails, and balancing development with green open space.

In addition, changes in technology over the past decade have contributed to the escalated development of data centers within the County. To date, there are approximately seventeen million square feet of data center facilities completed, under construction, or planned. Future demand for data centers will need to be accommodated in places that have access to utilities, including electricity, water, and fiber. The supply of industrial and flex space is being outpaced by demand, resulting in low vacancy rates. As available greenfield sites in eastern Loudoun County become

more limited, preservation of key tracts for targeted employment uses will be critical to ensure future economic growth.

Overall, the County's approach is to ensure future development is complementary to the existing development pattern of the SPA while supporting the necessary flexibility in form and use that will be needed to create vibrant mixed-use environments. As each new development is absorbed into the SPA's built environment, it will be viewed in the context of its larger community with an emphasis placed on the character of the development and how it contributes to the needs and overall identity of the SPA and Loudoun County.

## Suburban Policies, Strategies and Actions

### Policy I: Foster community identity within the Suburban Policy Area.

#### Strategy

Build upon and enhance the sense of place in the Suburban Policy Area and its communities.

#### Actions

Update the County's adopted Small Area Plans and create new Community Plans and other appropriate plans which address the particular needs and guide the remaining build-out and/or redevelopment of specific areas within the Suburban Policy Area.

Establish design principles for individual communities within the Suburban Policy Area which ensure a high quality of development and redevelopment is achieved.

Ensure development and redevelopment proposals conform to the applicable Development Guidelines of this plan.

#### Strategy

Enable residents to become more involved in their neighborhoods.

#### Actions

Develop a public outreach program to educate neighborhood residents regarding County programs available to them.

Expand civic outreach to involve underserved individuals.

Support citizen organizations in their efforts to improve their communities.

Foster the development of community partnerships to improve community character, maintenance and safety.

#### **Community Character**

Community character is the aggregate of features and traits that form the individual nature and uniqueness of a community. It includes the constructed and natural landmarks and surroundings that cause someone to identify with a particular place or community. This character is shaped by natural, cultural, societal, historic, and economic forces.



Invest in programs that allow residents to formulate and assume stewardship of neighborhood values, standards, and goals.

**Strategy**

Ensure the compatibility of new development within the Suburban Policy Area with the existing development pattern which surrounds it.

**Action**

Evaluate the appropriateness of a proposed use or development with the surrounding community.

**Strategy**

Promote the design and development of Suburban Policy Area communities as walkable and interconnected places.

**Actions**

The County, in collaboration with other governmental agencies and the private sector, will ensure through a variety of measures that all public spaces in residential and commercial areas are accessible by pedestrians.

Retail and office development proposals should combine open and civic space in features such as pedestrian promenades and plazas, public art, entrance features, linear parks and trails, outdoor seating, lawns and greens, and similar design features that invite pedestrian activity.

Require convenient access by foot and bicycle for residential, office, institutional, civic, and retail areas in the Suburban Policy Area.

The 2040 Transportation Plan will provide additional transportation policy direction for the transportation network (walkability, multimodal, connectivity) in the Suburban Policy Area.

**Policy 2-Create environments where individuals can work, live, and have convenient access to services, shops, and recreation.**

**Strategy**

Allow a mix of uses or uses that complement and complete existing communities.

**Actions**

Provide incentives for redevelopment, infill development and adaptive reuse projects that will enhance quality of life and neighborhood character, fulfill community needs, and improve economic opportunities (see Infill and Redevelopment).



Allow new multi-family residential units to be located within existing commercial centers, both retail and employment, to bring housing to Employment areas and allow for more walkable, mixed use communities

Promote residential and office uses above first floor retail.

Allow flexibility in the development phasing for mixed-use projects while establishing a build-out relationship between the residential and non-residential components that ensures a mix of uses is achieved and to best balance the fiscal costs and benefits of the project.

Promote high quality site and building design, landscape design and buffering in Employment areas

*Employment areas include the following Place Types: Mixed Employment, Light Industrial, Regional and Community Commercial.*

that reflect their function as a gateway to the Urban Areas and location along major vehicular thoroughfare (see Quality Development)s.

Accommodate transit infrastructure in Employment Areas. (see Transportation Plan).

Ensure pedestrian and bicycle connectivity to surrounding networks and transit nodes within Employment areas.

*Ensure that development in Employment areas include detailed concept plans, landscape plans and illustrative elevations to demonstrate their design and compatibility.*

**Policy 3- Support the Route 28 Highway Transportation Improvement District, established by the State as a means of providing additional local revenue to pay for improvements to Route 28.**

**Strategy**

Ensure protection of the Route 28 Tax District as an important economic key of attracting major national and international corporations, and ensuring the long-term viability of Dulles Airport

**Action**

Continue the non-residential policy to limit residential development in the Route 28 Tax District to the three (3) Mixed Employment Centers that are strategically located to capture high-quality and high-density Office, thereby catalyzing the office development potential while having an overall positive impact to the County's Route 28 Tax District debt obligations.

Once the County's financial obligation to the Tax District is met, identify specific areas within the Tax District where the County could consider residential development on a case by case basis that results in a net positive impact to the County.

## Design Guidelines

The Design Guidelines are to build upon our current high quality development in a manner that allows innovative design and new responses to the market. While the Design Guidelines are not regulatory requirements, the County's prefers that all future developments comply with these guidelines. The Design Guidelines do not supersede or otherwise limit the application of adopted zoning regulations, ordinances, building codes, or any other design standards or regulations administered by Loudoun County.

When using the guidelines make sure to analyze the impact a potential development may have on the urbanizing landscape, considering not only appearance, but practical considerations such as proximity and quality of connections to community amenities, jobs, and housing to maximize the use of existing infrastructure and limit travel distances.

Development should contribute to creating unique places within the Suburban Policy Area by working with existing topography and site features, responding to the local context, and reinforcing the regional character. Sustainability requires maximum consideration for using the landscape for benefits such as solar heat gain or shelter from wind. Dense areas of buildings should contribute to a hospitable microclimate. Development should locate close to the road and avoid isolating itself on the site in order to "maximize presentation." The bulk of the design should be appropriate to the function of the development.

*The goals of the SPA Design Guidelines are to:*

- *Create visually interesting and compatible buildings and site designs that use building forms, materials, fenestration, repetition, rhythm, color and architectural variety resulting in delightful blends of form, volumes, textures and colors in the various neighborhoods*
- *Create inviting spaces for varied activity*
- *Create a sense of place and*

## Development Criteria:

1. How the use contributes to and complements the existing development pattern;
2. Consider innovative uses that contribute to the surrounding community;
3. Consistency with the desired form, character and land uses of the underlying Place Type;
4. Differences between the height, scale, bulk, setback from the street, or other physical features of the proposed development and existing development in the immediate area;
5. Presence and quality of a spatial or physical transition between uses;
6. Availability of adequate roads, services and infrastructure; and
7. Relationship to existing Natural and Heritage resources.

## **Building Orientation and Setbacks**

1. All development should include a site design that is compact and makes buildings the prominent feature of the site as viewed from adjoining/adjacent roads, especially along major thoroughfares. Site design and development should strive to minimize site disturbance and minimize removal of existing, viable vegetation.
2. It is desirable to have civic, open spaces, green spaces, and vegetation to separate parking lots from buildings and areas for human activity. Civic spaces and green spaces are encouraged to have public art enhancements.

## **Building Design and Façades**

1. Buildings within larger multi-building developments should exhibit a unity of design through the use of similar elements such as rooflines, exterior materials, facade treatments, window/fenestration arrangements, sign location, and architectural styles and details.
2. Large freestanding stores, retail centers, commercial centers, and restaurants should be encouraged to provide usable outdoor civic or public spaces.
3. Required drainage and stormwater management facilities, such as holding basins, drainage swales, and culverts should be incorporated as features into the site design of the project, to the extent possible. Natural drainage features should be conserved to the greatest extent possible, minimizing impervious facilities to the extent technically feasible.
4. Building massing and walls should be varied to break down the scale of large buildings and commercial/retail centers. Long, flat facades are strongly discouraged. It is desirable that building facades should incorporate wall relief, recesses, off-sets, angular forms, or other features to avoid presenting a "blank side" to neighboring properties.
5. Pitched, mansard, and other distinctive roof forms are strongly encouraged.
6. Rooftop mechanical equipment should be screened. Preferably, screening should be incorporated into the roof form. Ground mounted mechanical equipment should be screened.
7. High traffic non-residential buildings should incorporate continuous arcades over the front walkway to provide weather protection for shoppers and create a pedestrian-oriented environment.

## **Sidewalks, Streets Trees, and Plantings**

1. Large parking areas should be landscaped with trees and shrubs throughout to reduce the visual impact, provide shade, and reduce the heat island effect or heat absorption of the parking area.
2. The street frontage of development should be landscaped with trees to help create a green edge on both sides of the street.

3. Existing natural environmental features such as natural topography, hedgerows, mature trees, and berms should be integrated into the landscape plan for non-residential centers, when feasible.
4. Non-residential buildings and parking areas should be sufficiently screened and buffered from adjoining residential areas by distance, transitional uses, landscaping, and/or natural vegetation to mitigate the effects of noise, lighting, and traffic on the surrounding residences.
5. Residential areas should be buffered from adjacent retail non-residential uses by trees, fences, and hedges.
6. Sidewalks should be provided to all development to accommodate benches, bikes, strollers, trees, and planters.

### **Street Furnishings and Lighting**

1. Provide usable space in the sidewalk areas which should include street furnishings such as benches, trash cans, kiosks, street gardens, bike racks, outdoor sitting spaces, and public art.
2. Signs for development should be developed as an integral part of the overall center design. A unified graphic design scheme is strongly encouraged and in conformance with an appropriate regulatory framework.
3. Site and building lighting should reduce glare and spillage of light onto adjoining properties and streets. Fixtures should be attractive site elements that are compatible with the architecture of the non-residential activity centers.
4. Both lighting and signs should be designed for pedestrians, bicyclists, and vehicles.

### **Parking, Circulation, and Loading**

1. All development should strive to create inter-parcel connectivity for pedestrian and vehicular circulation to increase pedestrian activity and decrease vehicular traffic on roadways necessitated by broken inter-parcel connections.
2. Pedestrian traffic, internal to non-residential centers, should be provided with a safe travel route from the parking area to the building with a demarcated pathway and clear directional signage. Trees and other plantings should be provided along the walkway.
3. Parking areas should be visually screened from adjacent streets and residential areas by heavy landscaping, depressing the parking area, and/or by constructing earthen berms.
4. All loading and storage areas must comply with Zoning Ordinance regulations and must be screened from adjacent residential areas by earthen berms, masonry walls, permanent wooden fencing, or dense landscaping.

# Transition Policy Area

## Vision

The Transition Policy Area is a visually distinct area, providing expansive open space and recreational opportunities, and accommodating development that promotes environmental protection, housing diversity, quality design and economic growth.

## Introduction

The Transition Policy Area (TPA) is a defined policy area intended to provide a visual and spatial transition between the suburban development in the eastern part of the County and rural development in the west. The inability to define “visual and spatial transition” has been an issue in recent years as the County evaluates a growing number of development proposals in the area. The Envision Plan defines “visual and spatial transition” as substantial open space dominating the view from roads, and a built environment that is small in scale and giving the area a rural character. The TPA extends over an area of 23,750<sup>1</sup> acres, constituting 7.1 percent of Loudoun County’s total area of 333,558 acres.

The TPA is predominantly residential; however, there are some industrial properties used for quarry activity and utility infrastructure.

In 2017, there were approximately 5,600 residential units, parks, schools and commercial development on 16,600 acres in the TPA and 6,170 acres available for development.

Watershed protection, which is a principal focus of current land use policy, extends over significant lengths of the Goose Creek and the Beaverdam Reservoir in the TPA. Conservation easements and proffers provide the 300-foot setback and larger areas. Loudoun Water owns land encircling Beaverdam Reservoir while the County and NOVA Parks own parkland adjacent to the Reservoir.

Between 1991 and 2001, the geographic area of what is now the TPA went through four iterations:

- a. In 1991, as three suburban development phases with ultimate development expected to occur by 1995.
- b. In 1993, the Dulles South Area Management Plan added Upper Broad Run to the Dulles South suburban area at densities between 3 and 6 units per acre and added the Upper and Lower Foley and Lower Bull Run areas at densities between 1 and 3 units per acre.
- c. In 1997, the Dulles South Plan reestablished a suburban phasing boundary west of Northstar Boulevard, designated Rural Policy Area until the County chose to expand the Suburban area.
- d. In 2001, the TPA became a policy area in the Revised General Plan to be a buffer between the Suburban and Rural Policy Areas. Six subareas of the TPA were established, each with density and open space requirements.

<sup>1</sup> Includes 937 acres of land designated Rural Policy Area in previous plans.

## Public Input

Throughout the Envision Loudoun comprehensive planning process, most participants indicated support for the current TPA policies and land use pattern. Some comments linked the TPA and the Rural Policy Area together and proposed no change in either policy area. Participants saw increased development in the TPA as a threat to the rural area. Specific areas were identified as potential locations for development including the areas adjacent to the Greenway interchange at Shreve Mill road and near Ryan Road. A significant number of comments expressed a need for a variety of amenities and services, in particular, more public parks and trails, and concerns about lack of fire and rescue facilities, medical services, or neighborhood retail; and the need for public utilities and transportation improvements.

## Trends and Influences

Communities and other subdivisions that did not exist in 2001, such as Red Cedar, Evergreen, and Green Mill Preserve, have created a relatively continuous area of low-density projects and open space along the western edge of the TPA. Of the 22,800 acres in the TPA, only 6,200 acres are available for development. However, some of the properties do not have good access to roadways and/or are significantly limited due to steep slopes and other environmental features.

### Growth Pressure

As the capacity to accommodate single-family detached housing decreases in the SPA, pressure mounts to accommodate that growth in the TPA. Notwithstanding the market trends toward higher density products and mixed-use environments, a continuing need for suburban-type residential units is expected. The TPA offers a more compact lot pattern and closer proximity to needed services, amenities, and targeted areas of compatible, higher density development.

Due to the industrial uses and approved projects in the Lower Sycolin subarea, good east/west access, and available infrastructure, the area along the Sycolin Road and Greenway corridor is conducive to employment uses. These uses help to balance the fiscal cost of residential development and provide for needed light industrial land that is limited in the Suburban Policy Area.

### Infrastructure

In 2005, the County decided to extend central utilities to the TPA. Central utilities attract additional development intensity.

### Transportation

The current road network offers limited capacity and few links to major thoroughfares. Most of the traffic from the TPA must use Route 50 to travel east. Traffic congestion is a significant problem. Continuing work on planned road improvements in the area such as Northstar Boulevard, Sycolin Road, Gum Spring Road and Braddock Road increases traffic capacity. Ryan Road, Creighton Road, and Shreveport Road offer easterly connections that move traffic without adding to volume on Route 50.



## **Amenities and Services**

Since 2005, the TPA has been a source of land for numerous schools and parks. Such facilities make the land around them more desirable for residential development. All of the development in the TPA has retained 50 to 80 percent of the property as open space, though most of it remains inaccessible to the public.

## **Proffer Legislation**

Virginia Code Section 15.2-2303.4 (E) (ii) and Loudoun County policy limit accepting capital facilities proffers as a tool in the TPA unless the County expands the Small Area Planning boundaries adopted by the County in 2016. The County may need other means of mitigating the fiscal impacts of new development. Refer also to Chapter 6, Fiscal Management and Public Facilities.

## **Design**

Much of the development in the TPA looks the same as development in the Suburban Policy Area. Previous rural and countryside village zoning districts, intended to provide a somewhat self-sustaining cluster of housing built around an internal commercial area and community green, have not created the desired mix of uses and housing variety. This failure to achieve housing diversity detracts from affordability, as well as, the appearance and desired character of the TPA.

## **Policies, Strategies, and Actions**

**Policy I** Ensure the Transition Policy Area provides a visual transition between the Suburban Policy Area and the Rural Policy Area, using compact development concepts, substantial open space, and low profile construction to minimize visual intrusion into the natural environment.

### **Strategy**

- 1.1 Accommodate residential and non-residential uses in locations identified on the Land Use Plan and consistent with the assigned Place Types that support:
  - a. clustering development to preserve the majority of the land in open space,
  - b. retaining views of the natural landscape,
  - c. integrating natural and heritage resources into the design of built space,
  - d. protecting and enhancing river and stream corridors, and
  - e. screening adjacent development and roadways with appropriate landscaping and transitions
- 1.2 Promote community design that provides more unique and innovative residential communities as opposed to typical single-family subdivision with large lots.

### **Action**

- A. Encourage a variety of housing within individual developments by permitting small and large lot single-family detached units, duplexes, semi-detached units,

accessory units, townhouses and other housing types that expand affordability opportunities and support the lifestyle preferences of a diverse community.

- B. Modify the rural and countryside village zoning district standards to accommodate Mixed-Use Commercial Centers and the Transition Neighborhood Three village development option to expand housing diversity and improve commercial viability.
- C. Require new development to connect to Loudoun Water's central water and wastewater systems and encourage existing development to connect to central water facilities as water lines.

## **Policy 2 Offer safe and accessible parks and recreation opportunities that provide diverse activities for all ages, interests, and abilities.**

### **Strategy**

- 2.1 Provide a network of protected open space that maintains natural and heritage resources and reinforces the TPA's unique character.

### **Action**

- A. Develop a Master Plan for parks, open space and trails in the Transition Policy Area that: 1) builds on and links to the current planned trails and park areas, and 2) places greater emphasis on quality, connected, usable, and accessible open space.
- B. Protect the drinking water resources of the Occoquan, Beaverdam, and Goose Creek Reservoirs with natural buffers, improved stormwater management, and other means.
- C. Retain 50% open space throughout the TPA, and seek to reserve publicly usable, accessible and interconnected open space.
- D. Establish programs and regulatory mechanisms to increase publicly accessible open space, consistent with County facilities plans, through easements, land dedications and purchase.
- E. Require Open Space Plans with individual development applications to illustrate proposed use, public accessibility, resource protection and connection with other open space.

## **Policy 3 Non-residential uses will define the Transition Policy Area as a unique planning area and include a range of uses that are compatible with desired development patterns and the rural landscape.**

### **Strategy**

- 3.1 Provide for strategic development of commercial, employment, and public uses in areas specified on the Place Type Map that are compatible with desired residential development patterns and the character of the Transition Policy Area.

### **Action**



A. Require Industrial uses to:

- i. Be located in locations consistent with the Place Type Map,
- ii. Be visually compatible within a rural environment,
- iii. Minimize the effects of noise, vibration, odor,
- iv. Have access to adequate infrastructure,
- v. Integrate visually into the natural environment, and
- vi. Enhance water quality protection when near key water supply reservoirs.

B. Continue to protect the extractive industry (Bull Run and Luck Stone quarries) by maintaining a quarry zoning overlay district.

C. Establish regulations that ensure new development does not hinder the operation of quarries.

## Design Guidelines

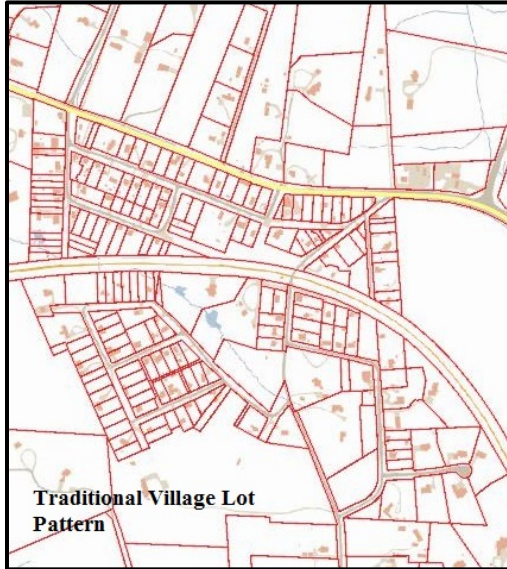
The Design Guidelines are to build upon our current high quality development in a manner that allows innovative design and new responses to the market. While the Design Guidelines are not regulatory requirements, the County's prefers that all future developments comply with these guidelines. The Design Guidelines do not supersede or otherwise limit the application of adopted zoning regulations, ordinances, building codes, or any other design standards or regulations administered by Loudoun County.

When using the guidelines make sure to analyze the impact a potential development may have on the landscape, considering not only appearance, but practical considerations such as proximity to utilities, community amenities, jobs, and housing to maximize the use of existing infrastructure and limit travel distances. Development should contribute to creating unique places within the Transition Policy Area by working with existing topography and site features, responding to the local context, and reinforcing the landscape's character, rather than simply attempting to place suburban design onto the rural landscape. Sustainability requires maximum consideration for using the landscape for benefits such as solar heat gain or shelter from wind. It is realistic and necessary to treat buildings as objects in the landscape and give due attention to their form. Bulky designs are to be avoided by breaking down the mass into smaller elements that follow natural contours.

1. Designate a minimum of 50 percent of any development as open space that integrates buildings and parking into the existing natural landscape and provides useable space, accessible to residents and/or the public:
  - a. Perimeter open space may be the predominant component of the 50 percent open space requirement.
  - b. Community greens, playgrounds and gathering spaces will be distributed within the development
  - c. Link open space within the development with pedestrian and bicycle networks to surrounding neighborhoods.

- d. Link the open space to natural and heritage resources, unique site features, and open space in other communities.
  - e. Locate athletic fields along collector roads and visually screen the fields from adjoining residences although trails and sidewalks should provide a connection with the neighborhood.
  - f. Locate low intensity parks that emphasize undisturbed open space in high-visibility areas or in conjunction with schools, churches, and neighborhood commercial centers where they can serve as a buffer for adjoining homes.
2. Open space within developments should create or enhance the following:
    - a. the 300-foot buffer and 200-foot transitional area along the Bull Run in the Upper Foley, Lower Foley and Lower Bull Run subareas;
    - b. the 300-foot buffer and 1,000-foot voluntary open space area along the Goose Creek, Goose Creek Reservoir, and Beaverdam Reservoir in the Lower Sycolin and Middle Goose subareas;
    - c. a contiguous network of green spaces to supplement the natural and heritage resources connecting communities and natural resource areas;
    - d. a public trail and park network to destinations throughout the area.
  3. Development should be located on areas of the site that afford the least disruption of natural views of the rural landscape.
  4. New development will protect the historic context of nearby archaeological and historic sites and along scenic byway corridors.
  5. All development should provide trails and sidewalks connecting to adjacent neighborhoods and other destinations within and outside the project.
  6. Residential Clusters proposed in Transition Neighborhoods should be small in scale and number of units, supporting typically 5 to 25 residential units, reflecting a traditional hamlet scale with multiple clusters separated by open space areas, and featuring:
    - a. No minimum lot size.
    - b. Predominantly single-family detached residential development.
    - c. Trails and pedestrian sidewalks in a publicly accessible network linking communities and amenities.
    - d. Tree-lined streets constructed at minimum required widths to merge into the open landscape and slow traffic.
  7. Housing diversity and affordability are to be components of larger and higher density developments such as Transition Neighborhoods 2 and 3 and Commercial Center place

types by including a mixture of housing types and accessory apartments and a range of lot sizes and configurations.



8. Include varying densities in villages with higher densities generally in close proximity to community green, civic use or small-scale retail uses.

9. Implement diversity in housing size, unit types, lot sizes, and lot pattern along each street frontage and in the same blocks to reflect traditional villages.

10. Include pedestrian features, landscaping, short blocks, few dead ends, and traffic calming features on village streets.

11. Buildings should be close to the street.

12. Address parking in villages through a combination of on street and off street choices designed and located to minimize their visual impact.

13. Develop employment uses at a scale that minimizes their intrusion into the rural and natural landscape and their impact on surrounding roads and communities by:

- a. Screening all outdoor storage and equipment parking areas from adjoining properties and roads;
- b. Minimizing the number of entrances from major collector or arterial roads;
- c. Ensuring adequate road and infrastructure capacity;
- d. Avoiding continuous plane building surfaces by using articulation, fenestration and façade treatments, especially when they are visible from public roads; and
- e. Separating heavy industry uses from residential areas by locating less-intensive uses adjacent to residential uses or using natural or manmade barriers between the uses.

# Rural Policy Area

## Vision

The Rural Policy Area is an enduring rural landscape that is characterized by a unique composite of natural and man-made environments, rural economy uses, working agricultural lands, open space, and a limited residential base, all of which provide a high quality of life.

## Introduction

The Rural Policy Area (RPA) occupies the western half of the County and is the largest of the County's policy areas. It encompasses approximately 230,000 acres, representing about 67 percent of the County's total land area. The RPA is comprised of a unique blend of pastoral landscapes, working farms, forested areas, mountains, and wildlife habitats. The RPA encompasses six of the County's seven incorporated Towns, 12 existing Villages, and numerous smaller crossroad communities. As of April 1, 2017, the population of the RPA is approximately 40,400 people, representing approximately 10 percent of the County's total population.

The RPA is divided into two areas—the Northern Rural and the Southern Rural. Each of these distinct geographic areas (see Rural Policy Area and Village Map) has different base residential densities in response to their dominant rural land use and development patterns. The Northern Rural area (geographically defined as north of Goose Creek and the North Fork of Goose Creek to the County border with Montgomery, Frederick, and Washington Counties, Maryland; Jefferson County, West Virginia; and Clarke County Virginia) is characterized by a mix of smaller lots that are interspersed with larger parcels that are still in agricultural use. The Northern Rural area, proximate to the Towns within the Route 7 Corridor, has the highest concentration of residential development and a more developed paved roadway network with easy access to commuter routes. Additionally, the Route 15 corridor, both north and south of the Town of Leesburg, has experienced substantial residential growth since the Board adopted the *Revised General Plan* in 2001. The Southern Rural area (defined generally as south of Goose Creek and the North Fork of Goose Creek to the County border with Clarke, Fauquier, and Prince William Counties, Virginia) is characterized by an existing large lot pattern and represents the center of Loudoun's prominent equine industry. The Southern Rural area contains a number of large working farms that are accessed by a network of mostly unpaved rural roads. The Southern Rural area contains Loudoun County's largest amount of permanently protected land that is held under voluntary conservation easements. Both the Northern Rural and Southern Rural areas are marked by a scattering of Villages and small crossroad communities, which provide limited retail and commercial services to rural residents and visitors.

The RPA is home to a centuries old farming community that shaped the physical landscape and the social and economic fabric of Loudoun. However, over the past 30 years, as portions of the County and the region have become more urbanized, western Loudoun has faced increased challenges related to demographic changes, land use, economics, and transportation improvements, which have facilitated and enabled the conversion of land for rural residential subdivisions at an increasing rate as residents seek an alternative to urban life. The adoption of

the *Revised General Plan* in 2001 and the accompanying down-zoning of the majority of the land in western Loudoun in 2003 and in 2006, marked a dramatic turn in the County's effort to limit residential development in the RPA and established an approach for land preservation tied to the creation of a viable rural economy and the clustering of homes to preserve the rural character of the land. This Plan carries this approach forward.

## Rural Residential

A variety of residential development options exist within the Rural Policy Area, including conventional subdivision, spin-off lots, and rural clusters which permit different densities. Among the existing subdivision options, rural clusters remain the preferred residential development pattern in the RPA because these designs better preserve the natural features and open character of the land by tightly grouping homes on smaller lots so that a majority of the land is available for rural economy uses, agriculture, and/or open space. The concentration of homes in a rural cluster also minimize the amount of roads, clearing and grading, and the overall footprint of development in comparison to a conventional by-right subdivision which require placement of homes on a uniform size lot dispersed over an entire property.

Between 2000 and 2016, 5,653 residential units have been built in the RPA. The “build out” analysis for the RPA, which reflects conditions as of July 1, 2016, indicates 91,000 acres of land is uncommitted to development projects, and this results in the potential for up to 11,643 residential units under current policy and entitlements. The acreage calculation includes parcels that are partially or fully developable and excludes floodplain, conservation easements, mountainside, and steep slope, which do not have development potential. The forecasted development from 2016 to 2040 in the RPA is 7,500 residential units based on current trends, which leaves approximately 4,000 residential units to be developed after 2040. The 2040 forecasts and the ultimate residential buildout for the RPA may be lower than projected above if property owners continue to retain and preserve large areas of land for agricultural, open space, and rural economy uses.

## Rural Economy

The County's land development approach for the RPA is to limit residential development so that land will remain available for the continued operation, expansion, and establishment of agricultural and rural economy uses that preserve the rural character of the landscape and support the County's environmental goals. Loudoun's rural economy has grown to become a collection of business uses that currently include crop and livestock production, forestry, horticulture and specialty farm products, farm markets and wayside stands, the equine industry, orchards, vineyards, farm wineries, cideries, and breweries, hospitality services such as farm-to-table restaurants, rural resorts, bed and breakfasts, country inns, banquet/event facilities, private camps and parks, and other similar uses which are dependent on the rural land base for its agricultural productivity, scenic quality, and rural character to derive income to sustain business activities. The importance of these business to the Loudoun County has led to the implementation of a business development plan for the County's rural economy that aims to double the growth of the County's rural economic sectors within the next decade.

The 2012 Federal Census of Agriculture identified 1,396 farms in Loudoun County (gross income of \$1,000 or more) with a total of approximately 135,000 acres of farmland in production. Over half of these farms (824) were less than fifty acres in size and a quarter of the farms (301) were between fifty and one-hundred and seventy-nine acres. These numbers are slightly down from 2007 when the County identified 1,427 farms with a total of 142,452 acres of farmland in production. This illustrates a number of changes: 1) a shift in the type of farming in the County as land and operational costs continue to rise, 2) the subdivision of larger farms into residential lots, and 3) the decline in the number of farmers. In response to market trends, many farmers in the County have shifted to the direct marketing of agricultural products to consumers through either on-farm sales and/or farmers markets to increase profitability. These specialty farms tend to be smaller in size than traditional farms that produce row crops or raise livestock. These farms include a number of pick-your-own farms which may have fruits, vegetables, flowers, Christmas trees, and other farm-grown products available to the public. A number of farms have also implemented Community Supported Agriculture (CSA) programs where people buy a subscription from a farmer to receive a weekly share of local seasonal produce, meats and other products (depending on the farmer's offerings).

The equine industry is a major component of the rural economy. Loudoun County leads the state in the number of horses, and the equine industry is the County's largest agricultural employer providing over 27,000 jobs associated with the care of these animals and the operation of barns and stables. The Virginia Tech Equine Center is located north of Leesburg, with Morven Park, Glenwood Park, and Oatlands providing regional venues for horse events. Other smaller stables are scattered throughout the County, which provide private lessons, boarding, and camps as well as host smaller events.

Loudoun County has the highest concentration of wineries in Virginia, with over 45 wineries and 738 acres in vineyards as of 2017. Loudoun County has been marketed as 'DC's Wine Country', though it also has the highest number of breweries in the state. The County has a total of 25 breweries, six of which are farm breweries located within the RPA. Black Hops Farm, located near Lucketts, is the site of the region's first hops processing center and Virginia's first dedicated malting operation. As of 2017, there are 10 hops yards in the County with 16 acres in production, and there are two growers cultivating 140 acres of malting grain for the production of beer and distilled spirits. Farm wineries, breweries and cideries that grow their own products maintain significant amounts of land in agricultural use which protects the rural character of the RPA.

The RPA is home to a number of hospitality and tourism businesses which provide thousands of jobs and contribute millions of dollars to the local economy through visitor spending on restaurants, retail goods, lodging, and the hosting of weddings and events. County-sponsored events such as the Spring and Fall Farm Tours, Stable Tours, Wine Trail, Ale Trail and Artisan Trail allow visitors to enjoy self-guided driving tours which support local growers, producers and artisans. Numerous community events such as the Bluemount, Lucketts and Waterford fairs draw thousands of resident and visitors to western Loudoun annually. Heritage tourism is also an important contributor to the County's economy, which include the Journey Through Hallowed Ground National Heritage Area and Scenic Byway, the Waterford National Historic Landmark

District, Balls Bluff Battlefield and National Cemetery, Aldie Mill as well as other historic sites, museums and battlefields. Like many of Loudoun's other rural business uses, these hospitality and tourism businesses rely on the natural, scenic, and rural character of the RPA to attract visitors.

## **Farmland Preservation and Protection**

To support the rural economy and ensure that agriculture continues as a long-term use in the RPA, the County will continue to develop and support voluntary participation in programs that provide assistance and reduced tax burdens to land owners. Such programs and measures as the Land Use Valuation program, the Agricultural and Forestal District Program, the Purchase of Development Rights, the Transfer of Development Rights, and public/private conservation easements will be used to encourage land-owners to use their land to expand the rural economy rather than to convert it to residential use. These programs also assist in the protection of the RPA's unique manmade and natural environment which directly benefit the rural economy.

While the County's Land Use Valuation Program and the Agricultural and Forestal District Program support keeping land in production or open space, they are voluntary programs which do not provide assurances that land will be preserved in perpetuity. The only means of preserving agricultural land and opens space permanently is through the establishment of conservation easements on individual properties which restrict residential and non-agricultural uses. Currently over 70,000 acres are preserved through conservation easement in the County, the vast majority of these easement are held by private land trusts. The County should commit to supporting efforts to increase the total acreage of land held in conservation easements as part of an overall land use strategy to further reduce density in the RPA and ensure that farmland and open space are available in perpetuity for future generations. The County may consider implementation of the Purchase of Developments Right program and/or public/private partnerships with existing land trusts to leverage efforts and funding to support the recordation of additional conservation easements.

## **Future of Rural Strategy**

Loudoun County and its citizens continue to recognize the importance of maintaining and preserving the farming and equine heritage, cultural and natural resources, open space, and scenic beauty of the RPA as a fundamental component of the County's identity, which contributes to the overall economic vitality of the County and quality of life of its residents. The County's current growth management approach, which is being carried forward in this Plan, has been successful in limiting residential growth and sustaining the rural economy. This approach has contributed to the County's economic success through attracting businesses, residents, and visitors while maintaining the character of the RPA. The strength of the agricultural sector and the rural economy is a critical component of supporting the economic development and fiscal policy goals of the County. In the future, development pressures and the incremental loss of productive agricultural land to residential development will require continued monitoring by the County to maintain the RPA's unique character.

## Community Input

Throughout the Envision Loudoun comprehensive planning process, participating residents indicated strong support for limiting residential development and maintaining the rural character of western Loudoun County. These residents also strongly support preserving land in western Loudoun County for agriculture, crop and livestock production, and equine activities. Other comments, while supportive of agribusiness, tourism, wineries, and breweries, stressed the importance of striking a balance between preserving the character of the RPA and promoting a vibrant rural economy.

## Policies, Strategies, and Actions

### Land Use & Development

The RPA's land use pattern builds upon natural, cultural, heritage, and agricultural resources in order to provide character-defining features of the rural landscape.

#### Strategy

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.

#### Actions

- Incentivize the consolidation of underutilized or undeveloped small lots into larger parcels for agricultural and rural economy uses.
- Use public funds to create public and private conservation easements in order to reduce the land that is available for residential development and to provide land owners with financial options to support working farms, rural economy uses, and/or stewardship of the land.

### Rural Residential

Limit residential development to protect the land resource for agricultural operations, rural economy uses, and open space uses; minimize traffic impacts; and reduce the demand for additional public facilities and services.

#### Strategy

Where residential development does occur in the RPA, it should be designed in a clustered pattern that preserves the rural character, works with the land form to preserve and protect natural features, and conserves land for agriculture, rural economy uses, passive recreation, and open space.

#### Action

- Establish subdivision regulations and design standards that improve the design of



clustered residential development.

## **Rural Economy**

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.

### Strategy

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.

### Actions

- Adopt zoning regulations and development standards for rural economy uses. Such regulations and standards will address traffic capacity limits, safe and adequate road access, number of employees, site design standards (i.e., land disturbance, buffering, use intensity, siting, and architectural features), and public health, safety, and welfare.
- Allow the establishment and/or expansion of existing commercial, industrial, and institutional uses by Special Exception if the use and/or expansion is designed to: 1) be small in scale and compatible with the rural character, 2) preserve ridgetops, natural tree lines, farmland, and open space, and 3) meet applicable zoning regulations and development standards.

### Strategy

Promote the retention and development of rural business uses that sustain and support the County's agricultural and equine industries.

### Actions

- Adopt zoning regulations and development standards that include new types of rural business and agricultural uses, permit flexibility for the sale of farm products, and promote rural tourism, hospitality uses, and similar kinds of appropriate low intensity rural business uses that are compatible with the character of the RPA.
- Develop zoning standards to permit a variety of residential unit types and accessory apartments for seasonal farm laborers and year round tenant housing to support the rural economy.
- Develop County parks with trail networks, cross country courses, and equestrian riding rings or other equestrian-related features.
- Develop a publicly accessible multi-use trail network (pedestrian, bicycle, and equestrian) to link private and public lands in the RPA in partnership with nonprofit entities, land owners, and developers of rural properties.

### Strategy

Promote and expand agricultural enterprises and the rural economy, and attract rural entrepreneurs to locate in Loudoun.

### Actions

- Promote rural business sectors and community events to support rural tourism, showcase the rural economy, and strengthen the economic vitality of rural businesses, villages, and towns.
- Develop a coordinated service approach to assist rural landowners in the review and development of proposals to maintain agricultural operations, preserve the agricultural potential of farmland, institute farm and rural business plans, and assist in filing applications, which support agriculture, agricultural activities, and the rural economy.
- Retain the Rural Economic Development Council (REDC) as an advocacy and advisory committee on initiatives, programs, and policies that affect the economic growth and development of rural Loudoun County.
- Support public education and job training in agriculture-based careers to ensure a stable agricultural work force.

### Strategy

Maintain the Land Use Assessment Program to provide property tax relief to retain and support agriculture, horticulture, forestry, and open space as critical components of the RPA.

### Actions

- Amend and update the Use Value Assessment program and other voluntary agricultural programs (such as Agricultural and Forestal Districts) to strengthen the rural economy, preserve the rural character, and maintain the viability of farming.
- Develop additional incentives to retain and encourage agricultural enterprises and support land preservation.

### Strategy

Promote and encourage the preservation, rehabilitation, and repurposing of farm buildings and structures to maintain infrastructure for future agricultural enterprises and rural economy uses. Where possible, rural business uses should locate in existing agricultural and historic structures.

### Action

- Adopt zoning regulations and development standards to facilitate the use of existing agricultural and historic structures.

### Strategy

Support and increase farming activities and maintain a resilient food network for local consumption.

### Action

- Promote community supported agriculture (CSA); the direct sale of farm products between farmers and local consumers including farmers markets, local restaurants and retailers; and the establishment of a permanent year-round indoor farmers market in the eastern portion of the County.

- Facilitate effective distribution and assist in the marketing of locally grown products.

### Strategy

Protect farming and farmers from nuisance complaints in accordance with the Virginia Code provisions of the Right to Farm Act.

### Actions

- Develop zoning regulations and design standards that protect the right to farm.
- Provide educational programs about farming practices and activities to reduce potential conflicts associated with the proximity of agriculture to nonagricultural uses.

## **Design Guidelines**

The Design Guidelines are to build upon our current high quality development in a manner that allows innovative design and new responses to the market. While the Design Guidelines are not regulatory requirements, the County's prefers that all future developments comply with these guidelines. The Design Guidelines do not supersede or otherwise limit the application of adopted zoning regulations, ordinances, building codes, or any other design standards or regulations administered by Loudoun County.

When using the guidelines make sure to analyze the impact a potential development may have on the landscape, considering not only appearance, but practical considerations such as proximity to roads, utilities, and community amenities to maximize the use of existing infrastructure and limit travel distances. Development should contribute to creating unique places within the Rural Policy Area by working with existing topography and site features, responding to the local context, and reinforcing the landscape's character, rather than simply attempting to place suburban design onto the rural landscape. Sustainability requires maximum consideration for using the landscape for benefits such as solar heat gain or shelter from wind. It is realistic and necessary to treat buildings as objects in the landscape and give due attention to their form. Bulky building designs are to be avoided by breaking down the mass into smaller elements that follow natural contours and reflect the historic pattern of development in the RPA.

1. Avoid locating development on ridge lines or hill tops to retain the rural character of the landscape and protect significant viewsheds.
2. Site development to preserve existing land forms and minimize significant alterations to the topography while incorporating natural features, trees, hedgerows and other vegetation into the design to provide visual buffers between parcels.
3. Locate development within the landscape to minimize their visibility from roadways and other properties.
4. Provide trail connections when feasible to link private and public lands in the RPA as part of a multi-use trail network.
5. Rural Cluster subdivisions are a land development design that compactly groups houses on smaller lots as small as a quarter acre in a traditional community pattern while preserving

large tracts of land for open space, agricultural production, and/or rural economy uses to preserve natural features and the rural character.

- a. Use existing topography, hedgerows, mature woodlands, and other site features to influence the location of the clusters to maintain the rural and scenic quality of the landscape.
  - b. Vary lot sizes and setbacks to provide a compact cluster of building lots and maximize open space.
  - c. Cluster development to retain large areas of agricultural soils for farming.
  - d. Encourage the use of communal water and wastewater systems to serve cluster developments to protect water resources.
6. Develop rural economy and rural business uses at a scale and intensity that minimizes their intrusion on the rural and natural landscape and their impact on surrounding roads and properties.

# Villages

## Vision

Villages are important historic settlements that possess significant heritage, cultural, social, and economic assets that contribute to the character of the Rural Policy Area.

## Introduction

The County recognizes the Villages as important features of the RPA that possess unique scenic and historic resources, act as gathering places for citizens, provide services to the surrounding community, and support rural tourism. There are 12 existing Villages (see Rural Policy Area and Villages Map) identified by the County located in the Rural Policy Area: Aldie, Aldie Mountain, Bluemont, Lincoln, Loudoun Heights, Lucketts, Neersville, Paeonian Springs, Philomont, St. Louis, Taylorstown, and Waterford. Many of the Villages were established during the 18<sup>th</sup> and 19<sup>th</sup> centuries, in areas located around historic mills, railroad depots, or major crossroads that later developed as commercial and mercantile business centers that served the surrounding farming communities.

The Villages have gradually developed over a number of years and feature a variety of building setbacks, types, and styles as well as streetscapes that reflect the historic growth and character of the individual villages. The Villages are dominated by residential dwellings with some commercial structures that have upper floor apartments and offices. Small scale, non-residential uses, such as country stores, restaurants, antique shops, and other retail establishments that meet local needs and support tourism, are located within the Villages. In addition, numerous civic uses, such as churches, post offices, community centers, fire and rescue stations, and schools, are also located within the Villages.

The County's land development approach for the Villages is to limit new residential, business, and commercial activities to uses that are compatible with the historic development patterns, community character, and visual identity of the individual villages. By encouraging compact, new residential and non-residential development within the Villages, these policies complement the County's efforts to preserve open space and maintain the character of the rural landscape. Although limited new development is anticipated in the Villages, new development should not pose a threat to public health or safety. Only three of the existing Villages—Aldie, St. Louis and Waterford—are currently served by public community wastewater systems, and Aldie is the only village that is served by a private water company. The remainder of the properties located within the Villages are currently served by individual water wells and septic sewage systems (i.e., conventional drainfields, alternative systems, etc.), which limit the potential scale and intensity of development. Additionally, a number of the Villages are bisected by major roadways that experience high volumes of commuter traffic and impact the quality of life of residents. With careful planning and growth management, the Villages will maintain their scenic and historic character, as well as their social and economic viability.

## Policies, Strategies, and Actions

New development and uses in Villages must be compatible with the historic development pattern, community character, visual identity, intensity, and scale of the individual villages and enhance the quality of life for residents.

### Strategy

Encourage the retention and development of a variety of appropriately scaled residential and commercial uses that enhance the attractiveness and vitality of the Villages.

### Actions

- Develop small area plans and master plans for the Villages to support community goals and address issues related to land use and zoning, economic development, natural and historic resources, community facilities and services, water and wastewater, and transportation to maintain the character of the villages.
- Retain existing Rural Commercial (RC) zoning in the Villages and consider amendments to better meet the needs of village residents. Develop criteria to evaluate existing Villages to determine if their current designation is warranted and amend the Comprehensive Plan and Zoning Ordinance as appropriate.
- Develop criteria for evaluating other crossroads communities in the RPA for designation as Villages and amend the Comprehensive Plan and Zoning Ordinance as appropriate.

### Strategy

The scale, size, massing, and design of new buildings will adopt building forms and architectural styles related to the individual character of the village. New buildings will be oriented on their site to maintain the existing street pattern, street design, and relationship to other buildings to reinforce the historic development pattern of the village.

### Actions

- Develop zoning regulations, design standards and guidelines to achieve compatible building and street design to ensure that quality development occurs within the Villages.
- Clearly differentiate entrances into the villages from surrounding areas through appropriate street design, landscaping, and building placement.

### Strategy

Preserve the character of the villages and their historic structures and sites through the rehabilitation and adaptive reuse of existing buildings.

### Action

- Establish and expand the County Historic Zoning Districts for the Villages.

### Strategy

Higher than existing residential densities within the Villages will be supported when the design of the project reinforces the character, development pattern, and identity of the village. Conventional, suburban forms are not appropriate in or contiguous to Villages.

#### Action

- Adopt zoning regulations and design standards to encourage traditional housing on smaller lots, allow accessory apartments attached to single-family residential units, and allow residential units above commercial/retail uses within the Villages to provide housing options. (Policy 5 & 8)

#### Strategy

Business and commercial uses in the villages should be small scale, compatible with existing development, meet local community needs and support rural tourism.

#### Action

- Adopt zoning regulations, design standards and performance criteria that are specific to the types of small-scale, community-related commercial uses that the County encourages within the Villages.

## **Design Guidelines**

**\*\*To be Added\*\***

# Towns and JLMAs

## Vision

The western Towns will continue to be hubs of economic and cultural activity in western Loudoun.

## Introduction

The seven incorporated Towns in Loudoun County offer a window to the County's past and are a key component of its unique character today. All have existed as independent incorporated entities for more than a century, first as agricultural business centers, providing markets for farm products and the necessary goods and services for rural residents. While still influenced by their agricultural tradition, the Towns play a larger economic and cultural role that includes retail and service-based businesses, educational opportunities, medical centers, and industrial centers.

The Joint Land Management Areas (JLMA), in place since 1991, intend to accommodate the outward expansion of the Towns. The JLMA have specific zoning regulations that offer a range of densities, design guidelines and utility requirements. While Round Hill, Purcellville and Hamilton have seen extensive development in the JLMA it has not always reflected the design and historic character of the Towns. Lovettsville, Middleburg and Hillsboro chose not to have a JLMA because of utility constraints, concerns about growth, or a desire to concentrate inside their existing limits. Leesburg's JLMA has developed in the manner recommended by Town and County plans and has a distinct suburban pattern.

### Community Input

Public comments received during the Round 1 and 2 Community Outreach and Engagement efforts during the Envision Loudoun process primarily addressed the larger rural area and generated few town-specific comments. Comments that did reference the Towns supported improvements to amenities and services such as bike ways and trails, grocery stores, gas stations, entertainment and performance arts venues, affordable housing, recreational facilities, teen centers, senior centers, libraries, parks, and playgrounds.

## Trends and Influences

### General

Loudoun County's longstanding goal is for the Towns to extend their boundaries to accommodate new development in the JLMA areas that reflects the character of the Towns through street layout, building diversity, and density; however, this has not come to fruition. While the Towns have extended utilities, most intend to limit annexation for fiscal reasons.

Most Towns support retaining and adding public facilities, and have expressing concern for the loss of existing schools and facilities. A number of comments spoke to the desire for trail connections between Towns, connecting the W&OD Trail to Franklin Park and Round Hill as well as a connection between the C&O Canal in Brunswick, Maryland, and the W&OD Trail. Round Hill is also exploring its proximity to the Appalachian Trail as an economic development



opportunity and considering connections between Franklin Park and the Town's park at Sleeter Lake.

## **Hamilton**

Hamilton's population has not increased over the last decade, though, the existing JLMA around Hamilton and the adjacent Rural Policy Area along the north side of its boundaries have developed with residential uses. Hamilton has extended utilities outside of its boundaries and has water facilities in the JLMA, but does not foresee expansion of the JLMA. The exiting school and school support facilities on the western edge of the JLMA serve to separate the community from Purcellville.

## **Hillsboro**

Hillsboro annexed adjacent properties previously split by the Hillsboro/County boundary; however, beyond these additions there are no plans to expand the boundaries. Large open space easements, along with sensitive environmental areas, create a natural greenbelt around Hillsboro. Heavy traffic on Route 9 affects the community, which continues to seek ways to mitigate these affects.

## **Leesburg**

Leesburg is unique by virtue of its geographic location and size, as well as its larger institutional role as the County seat. By its location, it functions and appears to be more of an urban extension of suburban eastern Loudoun, with higher intensity development and a significantly larger commercial sector than other towns. Between 2001 and 2016, Leesburg added 5.5 million square feet of retail, commercial, office, and institutional development and approximately 4,300 residential units. On the south, west, and north sides of Leesburg there is no JLMA; instead, policies support a half-mile wide greenbelt and a "hard edge" between the Rural Policy Area and the Town.

JLMA land uses reflect Leesburg's Comprehensive Plan and no major changes to land use are foreseen in the JLMA. Leesburg's focus is on transportation improvements in the bypass corridor and continued economic activity in the downtown area. Leesburg does provide utilities to the JLMA. Completion of Crosstrail Boulevard could significantly increase development interest in the JLMA east and south of Leesburg, but the loss of several tracts of land to residential development may limit additional industrial potential.

Residential development is planned in the JLMA area north of Route 7. The area is subject to Virginia Code Section 15.2-2303.4, which constrains the County's ability to accept capital facility proffers to reduce the fiscal impact of new residential development. Chapter 6: Fiscal Management and Public Facilities, details the means of mitigating the impact of new residential development.

## **Lovettsville**

Lovettsville continues to focus on development inside its existing boundaries and prefers a "hard edge" between its boundaries and the surrounding rural landscape. Lovettsville has made significant investments in streetscape improvements and trails. Commercial development has also occurred at the Town Center and along E. Broad Street. The amount of available land inside

Lovettsville's boundaries is significantly smaller than it was in 2001 but several large tracts are developer-owned. While utilities extend outside Lovettsville's boundaries for health and public facilities, there is no desire to expand, partially due to the responsibility Lovettsville would have to assume for maintenance of the local roads if its population exceeds 3,500 residents. Lovettsville supports continued cooperation on transportation and public facilities, with a strong interest in trail connections to a County system that connects the C&O Canal and W&OD trails.

### **Middleburg**

Middleburg prefers to maintain a "hard edge" between its boundaries and the surrounding rural landscape, rather than add a JLMA. Middleburg desires to retain policies that support ongoing projects and programs, such as streetscape improvements, and to continue cooperation with the County related to transportation and traffic calming. Issues of concern for Middleburg include retaining the rural character of Route 50, increased traffic, retention of school facilities, and the loss of community center space.

### **Purcellville**

Population growth projections for Purcellville indicate that the population could increase by approximately 5,000 people by 2040, which could equate to as many as 1,780 new homes in the area. Employment may increase by over 5,000 jobs during this time. This growth may increase the need for transportation improvements, such as the Route 690 interchange and the Route 7 Bypass/Route 287 intersection. Purcellville supports trail connections, particularly between the W&OD Trail and Franklin Park. As Purcellville considers potential future growth, issues of concern include limiting residential density and discouraging low-revenue uses, such as parking lots, storage, and warehousing.

### **Round Hill**

Growth potential within Round Hill's boundaries is very limited, with a projected buildout of only 20 additional residences. In contrast, the JLMA around Round Hill has experienced the addition of 1,200 new homes and approximately 3,000 residents over a 16-year period. Approximately 400 additional homes can be built in the JLMA. As development in the JLMA increases, Round Hill's ability to balance revenue and costs will be a significant consideration in annexing these residences into Round Hill's boundaries. The Town continues to seek commercial gateways at the east and west entrances to Town and is constrained downtown by the lack of space. Continued maintenance of the local roads by the Virginia Department of Transportation is also a growth consideration, should Round Hill wish to increase the size of its boundaries through annexation.

There is a desire to expand public-use facilities and provide the community with additional amenities, such as a daycare, senior center, and community center. Round Hill also has an opportunity to become an Appalachian Trail community by taking advantage of its proximity to Bear's Den and Blackburn trail stops.

## Policies, Strategies, and Actions

**Policy I** The County will support conservation of historical and cultural resources in and around the Towns to preserve the identity of each Town distinct from the surrounding rural area.

### **Strategy**

- 1.1 Encourage new development to locate within the Towns before moving into the JLMAs or surrounding area.

### **Action**

- A. Encourage the maintenance, improvement or adaptive re-use of existing housing stock in a manner supporting social and economic diversity within the community.
- B. Promote the commercial areas within the Towns as the preferred location of retail and service businesses, office development, and major civic uses.
- C. Work with the Towns to enhance their economic base and maintain viable commercial areas through marketing, capital investments, and business attraction.

### **Strategy**

- 1.2 Encourage community-design concepts with new development in the JLMA that extend the existing and planned development patterns of the Towns.

### **Action**

- A. Coordinate with the Towns on planning and development in areas surrounding the Towns to promote balanced fiscal growth by undertaking joint planning efforts in the JLMAs, referring to Town and County policies applicable to development applications, and offering technical support.
- B. Implement a greenbelt around the Towns and/or their JLMAs through conservation design efforts, preservation of natural resources and location of passive and active parks to help maintain the distinct character of each Town.
- C. Encourage annexation by the Towns when water and sewer extend into a JLMA.
- D. Support the Towns in negotiations with VDOT and other relevant agencies for safety improvements and traffic calming, particularly along Route 50, Route 7, Route 9, and Route 287 in proximity to the Towns, and other changes in roads and/or transportation services that are consistent with both the Town's and the County's development goals and priorities.
- E. Assess the effectiveness of the JLMA approach and associated zoning to protecting town character or maintaining a "hard edge" between the town and the rural area.

### **Strategy**

- 1.3 Continue to recognize the Towns as the preferred location of public facilities in western Loudoun County when land is available for development.

**Action**

- A. Encourage the continued use and enhancement of existing public facilities located in the Towns and JLMAs and seek to maintain existing community-based schools as an important social and economic component of the communities.
- B. Cooperate with the Town Councils of those communities providing local law enforcement to ensure a coordinated enforcement strategy within the Town JLMAs.
- C. Support development of sidewalks and recreational, multi-use, and equine trails connecting the Towns to each other, to regional trail networks such as the W&OD and C&O Canal, and to area destinations.

## **Design Guidelines**

1. Support the preservation and protection of historic, cultural, and environmental resources in and around the Town.
2. Support development of distinct “gateways” into each community and protect rural view sheds leading into the towns.
3. Protect scenic views along roads leading into the Towns through measures such as revised State Road Improvement Standards; scenic or conservation easements; the creation of historic corridor overlay zoning; and development setbacks.
4. Encourage a variety of housing types and commercial development that are compatible with the existing communities and extend in a contiguous, rational and convenient manner from the Towns.
5. Encourage residential communities that exhibit:
  - a. A variety of lot sizes and, where permitted, a variety of unit types;
  - b. A street network without cul-de-sacs and P-loop streets with numerous connections to Town streets;
  - c. An interconnected block pattern with compact lots, shallow front and side-yard setbacks, and block sizes of 300 to 600 feet;
  - d. Sidewalks along all streets, providing access to the town or neighborhood center, public buildings, parks, and other destinations;
  - e. A compatible mix of residential and non-residential uses such as home-occupation businesses, churches, and schools;
  - f. A hierarchy of parks, squares, or greens that provide a combination of natural and passive open spaces throughout the development; and;

- g. A central public focal point consisting of any combination of a park (village green); a public facility such as a church or community center; natural features; or neighborhood commercial uses.
- 6. Review proposed neighborhood streets and collector roads for their connection to existing streets and preservation of natural, historic, and cultural features.

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# Chapter 6 - Fiscal Management & Public Infrastructure

## Vision

County residents will benefit from high quality, efficient and environmentally sensitive infrastructure systems supporting County growth management goals and providing innovative services to the community.

## Goals

Well-designed places providing a full spectrum of housing and employment options linked to supporting commercial, entertainment, educational, agricultural, and recreation activity.

A community of diverse individuals united together to ensure that all residents enjoy a high quality of life through vibrant, fulfilling, and healthy active lifestyles, celebrating all that is unique to the County.

## What is New

As the County's population becomes more diversified and technology-driven, Loudoun 2040 supports a wider range of facilities, and infrastructure. Policies support new programs and facilities, such as libraries offering language programs, computer labs, design software access, and robotics programs, long range water supply plans using quarries as reservoirs and alternative means of addressing public health issues.. The Plan emphasizes useable open space and provides flexibility to build on existing open space assets. The eastern area of the County will continue to become more urbanized, particularly around the transit stations, and Loudoun 2040 encourages developing new and innovative designs for public infrastructure and facilities within an urban environment. Fiscal strategies support expanded consideration for the county-wide net fiscal impacts of individual projects, community-based facility standards and greater flexibility in meeting the capital facility needs.

## Introduction

Sustained growth since 2000 required Loudoun County meet a significant demand for new public facilities, such as Parks and Recreation, Fire and Rescue, and Schools. The County has maintained a reputation for quality facilities and services, and exceptional fiscal management. Loudoun County's success lies in establishing a close connection between land use and fiscal planning. Similarly, managing utilities, principally sewer and water, has had a direct influence in where new development occurs. Consistent policies and close collaboration with Loudoun Water has allowed the County to maintain an urban growth boundary, and to subsequently focus other investments in roads and public facilities in eastern Loudoun. Loudoun Water's strategy for a long-term water supply and its investment in high quality water and sewer treatment provide the County with a strong basis for growth decisions.

The fiscal management and operational priorities of the companies and authorities that are independent of the County, but operate key utilities serving Loudoun County, are not addressed

by this Plan. Nonetheless, the cooperative relationship between Loudoun Water, State Department of Health and others, and the County Board of Supervisors continues to ensure a close connection between infrastructure and land use planning.

## Topics

### Public Facilities

The County maintains a fiscal management strategy enables the County to anticipate and accommodate the impacts of increased demand for public services and facilities. This strategy is innovative for local government, involving the integration of land use planning, fiscal management, and facilities planning. At the Board's direction, key planning tools were developed over a period of years to help ensure that Loudoun County retains a high quality of life and an economic balance that allows an affordable tax rate.

The County's fiscal program requires the Board to adopt a ten-year Capital Needs Assessment (CNA) every two years after public hearing and recommendation by the Planning Commission, and the annual development and adoption of a six-year Capital Improvement Program (CIP) by the Board during annual budget deliberations. Careful forecasting of development, including its location, type, and timing, generates anticipated facility needs through the CNA while also projecting accurate per capita and per student cost forecasts that are translated into cost per residential unit. Projecting capital needs associated with new development establishes expected impacts and anticipated fair share contributions during the development process. The CNA describes the general location, character, and extent of public facilities needed over the 10-year period. The annual CIP funding plan and budget then aligns annual capital expenditures with County fiscal policy.

### Open Space Assets

Open space assets as defined in this chapter include greenways and trails and open space easements. These elements may be held in private or public ownership or a combination thereof. The County and individual property owners manage these elements through the regulation of protective buffers, donation of open-space easements, purchase-of-development rights, and performance standards. There are over 70,000 acres of land, equating to approximately 21 percent of the County, protected in private conservation easements and another 3,600 acres of land owned and managed by Homeowners Associations.

The Board of Supervisors established the Purchase-of-Development Rights (PDR) Program in 2000 as a tool to protect Loudoun County's open space and its cultural, natural, and agricultural resources; however, funding of the program was eliminated in 2004. Another tool available is the Transfer of Development Rights (TDR), in which development potential for a property targeted for preservation is applied to a property in an area of the County suitable for development. TDR is available during rezonings to gain higher density on properties suitable for development. Both PDR and TDR are voluntary programs in Virginia.

The Use Value Assessment program and County-designated Agricultural and Forestal Districts are tools used to protect rural land uses and prime agricultural soils by limiting subdivisions to lot sizes of greater than or equal to the base lot size in the AR-1 or AR-2 zoning districts (20 & 40 acres) and prohibiting cluster subdivisions. However, these tools do not protect the land in



perpetuity. The Use Value Assessment Program provides tax relief to landowners to protect farmland for future agricultural use and historic and scenic resource protection for the explicit purpose that the public benefits from its preservation.

## Utilities & Infrastructure



By 2040, Loudoun Water's customers may require up to 90 million gallons of drinking water every day. This represents a 40 million gallon per day increase from the customer demand in 2017.

The County assists existing communities to resolve water and sewer issues throughout the County in coordination with the Department of Health and Loudoun Water.

Loudoun Water's Potomac Water Supply Program is an innovative solution to County long-term water supply needs. It involves withdrawing river water when flows and quality are acceptable and storing the water in retired rock quarries, initially storing at least one billion gallons of water and ultimately more than 8 billion gallons of water in

quarries. The Trap Rock Water Treatment Facility draw from the quarries and ensure the highest quality drinking water. The plant is expandable and scalable to meet the future demand. Strategies and actions address the need for active water quality protection around the quarry reservoirs because of the close proximity of other development.

The County operates the County landfill and provides recycling opportunities for the citizens and businesses. Landfill operations are fee supported. The County also offers recycling drop-off centers, household hazardous waste collection events; collection of seven materials for recycling or diversion at the landfill; and educational programs.

Electrical and Communication services are provided under the purview of State and Federal agencies. The County does regulate the location of electrical substations but not the transmission lines to and from the substations. Both facilities have visual impacts. Similarly the County may review the location of cell towers and monopoles for impacts on surrounding properties but cannot prescribe locations and therefore cannot require broadband or communication service in underserved areas. The County does, however, work with the providers to encourage improved service and locations. Policies are included to provide consistent direction to the providers.

## Fiscal Planning and Budgeting

Since the 1990s, a management strategy has evolved that enables the County to anticipate and accommodate a consistently high volume of service and facility demand. The County's fiscal program requires the development of a ten-year Capital Needs Assessment (CNA) every two years to identify future demand for public facilities, and the development and adoption of a six-year



Capital Improvement Program (CIP) by the Board of Supervisors with its annual budget.

This strategy is innovative for local government and involves the full integration of land use planning, fiscal management and facilities planning. To provide funding for public facilities, careful forecasting of development, including its location, type and timing, generates anticipated facility needs. Projecting capital needs associated with new development establishes expected impacts on public facilities, as well as the anticipated fair share contributions to mitigate those impacts during the development process. The annual CIP funding plan and budget then aligns annual capital expenditures with County fiscal policy.

### **Community Input**

*Public comments were provided during the Envision Process Listening and Learning and Envision the Future public outreach efforts in November 2016 and June 2017 respectively. The Comments reflected some longstanding concerns such as the lack of broadband internet service in western Loudoun, the deficit in open space, parks and bikeways and trails, and the desire to have new facilities constructed in advance of new growth. Utilities such as roads, water and sewer, and waste management were noted principally from the perspective of timing and making sure capacity is available prior to new development. Schools continue to be a major concern.*

*There were a variety of suggestions regarding fiscal management, such as, seeking out additional revenue stream in order to maintain reasonable taxes, slowing the rate of development and timing growth to the availability of facilities. Others expressed a willingness to pay more taxes suggesting our taxes are still low, when compared with other locations. Participants expressed concern about the continued use of proffers that rely on population growth to finance infrastructure. Other participants saw slowing growth as the*

The Board of Supervisors established Loudoun County's Fiscal Impact Committee in 1992. This advisory committee reviews assumptions about future growth and capital facility needs. The committee provides recommendations to the Board on four documents that help coordinate land use and financial planning: (1) Long-range forecasts and demographic, economic, and financial information included in the Fiscal Impact Committee Guidelines; (2) Capital Facility Standards; (3) Capital Needs Assessment (CNA); and (4) Capital Intensity Factor.

## **Trends and Influences**

In addition to the impact of a growing community, the increased diversity of the population is generating expectations for a wider range of facilities. Less land is available for public facilities and County standards for facilities like libraries have to be more flexible and recognize the need to retain existing facilities particularly where they play an integral role in the character and activity of the community. State legislation has put additional constraints on local authority to accept capital facilities proffers, which could renew the need for alternative means of mitigating development impacts.

Urban development patterns along the Silver Line and in other mixed-use centers call for new public facility designs that match the new development pattern and minimize land requirements. The County's major long-term financial investment in public transit will rely on quickly realizing

high value development within the Silver Line corridor. Multi-story schools, shared space in mixed-use buildings and an overall more compact footprint are necessary with the urban walkable communities.

In recent years, the County has benefited from a more balanced development pattern of both residential and commercial uses that has led to affordable real property tax rates, and a more diversified revenue structure. The data center industry, which provides a high level of revenue to the County, appears poised for continued future growth as more companies opt for cloud IT services. Other employment sectors such as light or flex industrial, retail and medical services are experiencing growth. The County's rural economy is hampered by the lack of a comprehensive broadband network available to all residents and businesses.

As part of its strategic planning efforts on growth management, the County will be expanding discussion of net impacts, including capital needs and costs, of individual projects on Countywide infrastructure. The impact of a rezoning application on the local transportation network and public facilities, what the application is or is not doing to mitigate the impact and what facilities exist and/or are funded to serve the subject property and surrounding area will be considered during the development review process. Additionally, a fiscal impact analysis model is being developed to assist with evaluating future development.

## **Policies, Strategies, Actions**

### **Public Facilities**

#### **Policy 1: Provide public facilities to meet identified needs.**

##### Strategy

- 1.1 Use the Capital Needs Assessment Program (CNA) to plan and coordinate facility needs and location criteria to ensure adequate dispersal and timely availability of County facilities.

##### Actions

- A. Expedite the approval of public facilities by establishing performance standards that would eliminate the need for legislative review.
- B. Support the School Board acquisition of needed sites through the fiscal planning and land development processes.
- C. Co-locate public safety and other facilities whenever it will improve service efficiencies.
- D. Design school-related open space and athletic fields and make them available for joint use by Parks, Recreation and Community Services (PRCS) and other facilities such as libraries and community centers.
- E. Commission Permit reviews for facilities should evaluate the character and extent of the maximum development potential of the site in order to permit future expansion and colocation without requiring Commission approval under Code of Virginia Section 15.2-2232.

- F. Combine public open space and parks with public and civic buildings, community centers, town centers and other gathering places and include amenities such as seating areas, public art, playgrounds and gardens, etc.

#### Strategy

- 1.2 Support continued use of existing public facilities through ongoing capital asset replacement, renovation, and modernization, particularly where facilities play an important role in social and economic activity of the local community or are historically significant.

#### Actions

- A. Improve existing libraries through maintenance and modernization of facilities to meet current resource demands and customer needs including collaborative, hands-on learning space (Maker spaces) where people can create, invent, and learn through the use of software, hardware, devices, tools, supplies, etc., computer labs, large, multiple purpose rooms to meet the growing community demand for spaces to conduct business and host community events, hands-on STEM-related learning, state-of-the-art technology and ease of access, and foster intellectual curiosity, problem-solving, innovation, and community building.

#### Strategy

- 1.3 Strategically locate facilities where they can serve the community efficiently and effectively.

#### Actions

- A. Locate new facilities on sites that can accommodate future expansions.
- B. Locate Fire and Rescue and Sheriff facilities in accordance with adopted response time goals and at the most strategic point in a proposed service area.
- C. Locate libraries and other high traffic uses in highly visible, accessible locations such as mixed-use centers, towns, and villages and with adequate automobile and pedestrian access.
- D. Locate housing and other facilities for special population groups, in the Suburban and Transition Policy Areas, Towns, and JLMAs to provide ease of access to associated commercial services, jobs and amenities.
- E. Link new facilities to adjacent neighborhoods by sidewalks, greenways and trails.
- F. Design new public facilities to be functional and efficient, to complement the physical character of the adjacent community and to maximize the broader social and cultural role the facility can play in the community.
- G. Locate new Public facilities in western Loudoun in close proximity to the Towns and JLMAs when land is available and locations can meet response time and other service standards.

- H. Continue to make the Town of Leesburg the principal location of County Government offices and the County seat.
- I. Establish and maintain effective levels of public open space in all residential and mixed use communities.

### Strategy

- 1.5 Encourage partnerships that contribute toward significant, meaningful, shared public facilities.

### Actions

- A. Support and encourage partnerships that develop sustainable housing for special populations, including the elderly, the mentally and physically handicapped, low income persons, and the homeless.
- B. Support NOVA Parks and others in the acquisition of land and the development of facilities such as the Potomac Heritage Trail, extension of the W&OD Trail to Bluemont, and the Appalachian Trail, and the preservation of the Ball's Bluff Battlefield.
- C. Work with the U.S. Department of the Interior, the Conservation Management Institute, the Virginia Department of Historic Resources, NOVA Parks, and the incorporated Towns to define and recommend areas for open-space preservation and development of a trail network that links the County's natural, historic, and recreational resources.
- D. Coordinate recreation-planning efforts with the Towns to prevent duplication of services.
- E. Identify and leverage opportunities with the private sector to provide public facilities.

## **Open Space**

**Policy 2: Retain the County's unique combination of urban, suburban and rural communities by using open space to protect natural resources and habitat, provide opportunities for recreation, and to delineate our built environments.**

### Strategy

- 2.1 Contiguous linear parks, trails, and natural open space corridors will be used to improve public access to open space, encourage healthy lifestyles and link destinations throughout the County.

### Actions

- A. Prepare and implement a Trails Plan that identifies desired locations and connections of future trails including:
  - Utility and abandoned rights-of-way.
  - Designated Scenic Rivers and Roads.

- Natural and cultural assets.
- B. Ensure new developments incorporate identified trails and greenways into their projects during the development review process.
- C. Establish and maintain useable levels of public open space in all residential and mixed-use communities.
- D. Increase the number of access points to key trail systems from adjacent neighborhoods and destinations.
- E. Seek through public purchase, proffer, donation or third-party open-space easement, the preservation of greenways and the development of trails.
- F. Establish an Open Space Preservation Program, to the extent permitted by Virginia Code Section 15.2-2303, linking the loss of publicly accessible open space from low density residential land consumption to the provision of open space easements or funds towards the purchase of open space easements as follows:
  - i. In the Suburban Policy Area, residential neighborhoods or land bays proposing densities less than 4.0 dwelling units per acre should be associated with voluntary participation in the Open Space Preservation Program providing:
    - The equivalent of 50% public open space consisting of onsite open space required by development regulations, and additional on or off site open space, or
    - An equivalent cash contribution towards the Open Space Preservation Program.
  - ii. In the Urban Policy Area, residential neighborhoods or land bays proposing densities less than 12.0 or over 24 dwelling units per acre should be associated with voluntary participation in the Open Space Preservation Program providing:
    - The equivalent of 50% open space consisting of on-site open space required by Ordinance and additional on or offsite open space, or
    - An equivalent cash contribution towards the Open Space Preservation Program.
  - iii. Link modifications reducing onsite open space, buffer or landscaping requirements should be associated with the provision of an equivalent amount of open space or an equivalent cash contribution towards the Open Space Preservation Program.
- G. Institute a program whereby the County acquires conservation easements or provides other assistance such as a revolving loan program to assist owners in establishing conservation easements. The program should emphasize protecting the priority open space identified in this Chapter and not otherwise protected.

- H. Encourage protection of the following priority open space areas through conservation easements acquired by the County or others, participation in the Open Space Preservation Program, development clustering and other means:
- Key green infrastructure features not already protected from development by conservation easements or regulation,
  - Rural areas immediately adjacent to the Towns, JLMAs and Villages that help form greenbelts and gateway buffers,
  - Areas adjacent to the Potomac, Catocin, Bull Run, Goose Creek and Broad Run floodplains, to protect water quality,
  - Properties on the State or National Registers of Historic Places, and within local historic districts,
  - Corridors and sites identified for trails and parks provided they permit the construction of such facilities,
  - Other areas of local natural, historic or cultural significance including designated scenic rivers and roads.
- I. Amend the development regulations as needed to permit: a percentage of the open space required on an individual site to be met through off-site permanent open space that creates a more useable, desirable or environmentally significant open space conveniently accessible to the same community.
- J. Implement a local density transfer program as authorized by Virginia Code Sections 15.2-2316.1 and 15.2-2316.2 to protect open space.

## **Public Utilities**

### **Sewer and Water**

**Policy 3: The County will work with Loudoun Water, the Health Department and Town officials to ensure timely provision of central, municipal, shared or onsite sewer and water in accord with the land use policies of this Plan.**

#### Strategy

- 3.1 Implement strategies to resolve sewer and water issues in existing communities.

#### Actions

- A. Identify and implement appropriate solutions such as upgrading or replacing failing systems, and, where appropriate installing shared systems.
- i. Encourage communities or residences in the Suburban, Transition and Joint Land Management Areas to connect to a nearby central or municipal water or sewer system where there is a potential public health risk.
  - ii. Examine ways to assist in extending sewer lines into existing communities or residences once development has brought trunk sewers to the edges of these communities.

- iii. Provide incentives to those communities or residences required to hook to a nearby central or municipal water or sewer system where there is a potential public health risk.
- B. Pursue funding sources to rehabilitate homes that currently lack adequate sewer and water systems.
- C. Encourage clustering development away from water supply reservoirs and water supply sources.

#### Strategy

- 3.2 Define specific service areas for utility systems to protect the viability of County land use goals.

#### Actions

- A. Establish the geographic limits of utility service, the capacity of the service, and ensuring adequate environmental safeguards, with a commission permit application prior to locating a utility system outside existing service boundaries.
- B. Protect water and wastewater treatment system lines that cross land outside a water or sewer service area by permanent easements along the line prohibiting any connection outside the service area.

#### Strategy

- 3.3 Prohibit the use of any system that fails to provide safe, environmentally sound water supply and wastewater treatment.

#### Actions

- A. Permit pump-and-haul operations only as a last resort and temporary wastewater disposal method to address a proven, public health emergency.
- B. Evaluate development proposals to ensure availability of a safe and adequate potable water supply and sewage treatment capacity in accordance with the land use policies of this Plan.
- C. New central wastewater and water lines and facilities should be constructed in a manner that causes the least environmental risk and visual disruption.

### **Suburban & Transition Policy Areas – Central Sewer and Water**

#### Strategy

- 3.4 Loudoun Water will continue to be responsible for the provision of public water and sewer service in the Suburban and Transition Policy Areas.

#### Actions

- A. Collaborate with Loudoun Water to ensure safe and adequate long-term water supply and wastewater treatment systems to meet County development goals.

- B. Facilitate development and efficient operation of quarries as water supply reservoirs and protect reservoirs by establishing no-build buffers, watershed protection measures or equivalent protection.
- C. Collaborate with Loudoun Water to use the Beaverdam and Goose Creek water supply reservoirs for compatible public recreation.
- D. Support expansion of Loudoun Water's reclaimed water network.
- E. Implement a pollution prevention and mitigation program to protect and improve the County's surface water quality.

#### Strategy

- 3.5 Require all new development in the Transition and Suburban Policy Areas to connect to Loudoun Water's central water supply and wastewater treatment systems.

#### Actions

- A. Encourage existing residences and communities served by on-site or shared facilities to hook into central water or sewer facilities when such facilities become available.
- B. Encourage and assist existing communities or residences to hook to a nearby public water or sewer system if on-site water supply or waste treatment capability has deteriorated to a point where there is a potential public health risk.

### **Rural Policy Area – On site and Shared Systems**

#### Strategy

- 3.6 Protect the rural character of western Loudoun by linking development to the ability of the area to accommodate onsite or shared water and wastewater systems.

#### Actions

- A. Prohibit extension of central water and wastewater service into the Rural Policy Area.
- B. Support the Safe Drinking Water Act and institute a wellhead protection program to ensure adequate water quality.
- C. Discourage the use of groundwater for irrigation and other nonessential purposes, in the Limestone Overlay Zoning District.
- D. Recommend monitoring groundwater and surface water in the Limestone Overlay Zoning District and report any negative changes to the Board of Supervisors for appropriate action.
- E. Maintain oversight of siting, design, installation and maintenance of conventional, alternative and alternative discharging onsite sewage disposal systems.
- F. Implement an inspection/maintenance program for conventional onsite sewage disposal systems.

#### Strategy

- 3.7 Collaborate with the Loudoun Water and the Health Department to identify viable alternative wastewater treatment methods to septic and drain field-based systems,



including shared treatment plants and on-site treatment to support clustered residential development.

#### Actions

- A. Implement wastewater treatment and disposal standards for alternative systems that protect water quality.
- B. Allow Loudoun Water-approved shared water and wastewater systems in the Rural Policy Area:
  - To serve rural economy uses and residential clusters as defined in this Plan,
  - To solve potential public health problems, and
  - To serve public facilities.
- C. Assist in the construction of shared systems for existing rural communities facing a potential public health risk.
- D. Require Loudoun Water own and operate all shared water and wastewater systems with more than 15 connections.
- E. Support merging or connecting shared systems operated by Loudoun Water to improve efficiency and address potential public health threats.
- F. Require a Commission Permit, establishing a defined service area, prior to the construction of any shared water or wastewater system.

**Towns and Joint Land Management Areas – Municipal Water and Sewer**  
**Policy 4:** Town municipal systems will be the utility providers for the Towns and surrounding Joint Land Management Areas unless the Town, Loudoun Water, and the Health Department agree to an alternative provider.

#### Strategy

- 4.1 Serve all development in Joint Land Management Areas by municipal sewer and water.

#### Actions

- A. Investigate financial assistance to Towns to improve sewer and water systems to meet minimum health standards established by the state for the existing populations of the Towns.
- B. Work with the Towns to ensure that the expansion of public sewer and water into the Town JLMAs satisfies the goals and policies of the the County's adopted plans.
- C. Establish the JLMA boundary as the limit of utility extensions from the Towns and eliminate the need for a commission permit to extend or upgrade sewer and water lines into the Town JLMAs.
- D. Retain the option to use shared or alternative sewer and water facilities to serve Town and County owned and operated public facilities.

- E. Permit the extension of municipal (town) or shared water and wastewater service into the Rural Policy Area to serve public facilities or to address a potential public health threat.

## **Solid Waste Management**

**Policy 5:** Continue to implement an integrated solid waste management strategy that places priority on reduction, reuse, and recycling of solid waste above resource recovery, incineration, and disposal into landfills.

### Strategy

- 5.1 The County Solid Waste Management Plan will identify the type and level of service to be provided in the community.

### Actions

- A. Continue to ensure that the County always has an acceptable means of local waste disposal, through the County landfill operations, should other waste disposal alternatives fail or become ineffective.
- B. Continue to seek private sector support for the provision of current and future Solid Waste Management Services.
- C. Develop a hazardous waste education program and increase residential access to the safe disposal of hazardous waste to protect groundwater resources.

## **Electrical**

**Policy 6:** Support expanded electrical capacity through generation facilities that use clean burning and environmentally sound fuel sources including gas, wind and solar.

### Strategy

- 6.1 Encourage local electrical generation in appropriate locations throughout the County.

### Actions

- A. Establish zoning standards that permit electrical generation with minimal environmental and community impacts by individual users and commercially.
- B. Require the grouping and burying of utility lines and facilities to the extent permitted by law.
- C. Work with electrical providers to locate major transmission lines away from key travel corridors and residential communities and where possible to place such lines underground.
- D. Encourage use of stealth design techniques for electrical substations that are adjacent to major travel corridors and residential communities.

## **Communication**

**Policy 7:** The County supports the development of a high quality wired and wireless telecommunications network to serve businesses, residents and visitors.

### Strategy

- 7.1 The County's Strategic Land Use Plan for Telecommunication Facilities and other regulations and standards will be regularly updated to address emerging technologies, to create an environment attractive to businesses, and provide high quality services to meet the demands of the County.

### Actions

- A. Review and update the County's Telecommunications Strategic Plan to facilitate the expansion of fiber and broadband service throughout the County.
- B. Adopt zoning regulations and design standards requiring open access conduit to all development projects to facilitate future broadband extensions.
- C. Establish performance standards for wireless communication facilities to minimize the need for legislative action.
- D. Incorporate the capacity to locate broadband and wireless facilities into the design, approval and construction of all public facilities.

## **Fiscal Management**

**Policy 8: The County will link the goals of the Board of Supervisors' adopted Fiscal Policy and the County's Comprehensive Plan.**

### Strategy

- 8.1 Maintain a diversified and stable revenue structure by balancing, residential and non-residential development.

### Actions

- A. Seek further revenue diversification to increase fiscal stability and thereby, mitigate tax burdens on Loudoun County taxpayers.
- B. Direct the majority of public investments into currently developed communities, towns and nonresidential areas of the County where development is planned according to the Comprehensive Plan and give priority to the redevelopment and enhancement of existing infrastructure, capital facilities, and services.
- C. Where permitted, continue to seek private sector support for improvements or provision of current and future public facilities and sites including proposals of cash and in-kind assistance for public facilities in addition to the timely provision of dedicated sites.
- D. Seek authority from the state legislature to establish impact fees and a reasonable implementation process applicable in areas where rezonings are not anticipated.

### Strategy

- 8.2 Capital facility planning and budgeting will reflect anticipated needs based on forecasted development..

### Actions

- A. Update a series of financial and planning tools regularly to evaluate long term land use, fiscal and demographic issues, under the oversight of the Board of Supervisors and its advisory committee, the Fiscal Impact Committee.
- D. Develop long-range forecasts of residential and nonresidential development, population, households and employment.
- E. Develop demographic, economic and financial data that are used as inputs to demographic forecasts and for fiscal impact modeling.
- F. Develop and regularly update the Capital Intensity Factor – the dollar amount of the capital facilities impact measured by unit type or unit characteristics and geographic location that is calculated using County capital facility standards and demographic inputs. The Capital Intensity Factor (CIF) is used to assess the capital facilities impacts of new residential development and provides a guideline for proffer negotiations during residential rezonings.
  - i. The CIF will be calculated using the following formula:  

$$\text{CIF} = (\text{Household Size} \times \text{County Facility Cost Per Capita}) + (\text{Students Per Household} \times \text{School Facility Cost per Student})$$
- G. Develop and refine Capital Facility Standards – the type, acreage and size of future capital facilities, along with “triggers” based on population, population characteristics, or other community factors.
- H. Develop and refine the Capital Needs Assessment – the type and number of capital facilities needed over a ten-year planning period beginning at the end of the current six-year Capital Improvements Program .
- I. Ensure that the users or beneficiaries of that development will finance an equitable portion of public facility and infrastructure development costs that are directly attributable to a particular development project.
- J. Evaluate, consistent with the Va. Code Sec. 15.2-2283 and 15.2-2284, the adequacy of existing and planned public facilities and services when reviewing impacts of any legislative application for more intensive use or density. To fairly implement and apply this policy, the County will consider the following:
  - Existing facilities;
  - Facilities included in the Capital Improvement Program;
  - The ability of the County to finance facilities under debt ratios and limits established by its fiscal policies;
  - Capital Facilities Standards and the effect of existing and approved development, and the proposed development, on those standards;
  - Service levels of the existing transportation system; the effect of existing and approved development and the proposed development on those service levels and the effect of proposed roads which are funded for construction;

- Commitments to phase the proposed development to the availability of adequate services and facilities;
- The availability of non-profit or HOA facilities to provide equivalent public access and programming; and
- Other mechanisms or analyses as the County may employ that measure the adequacy of such services and facilities for various areas or that measure the County's ability to establish adequate services and facilities.

### Strategy

- 8.3 Until such time as the General Assembly grants authority for other options the County will consider landowner proposals of cash and in-kind assistance to mitigate capital facilities costs associated with new development.

### Actions

- A. Consider, subject to the limitations established by Virginia Code 15.2-2303.4, proposals of the timely dedication of land, cash, and in-kind assistance from a landowner through proffered conditions submitted in accord with Virginia Code Sections 15.2-2303 and 15.2-2297, as applicable, in the provision of public facilities identified in the Capital Improvement Program or the Capital Needs Assessment Document.

The County expects such proposals of public facility and utility assistance by developers would be in conjunction with any rezoning request seeking approval of densities above existing zoning.

- i. The County will seek to ensure that an equitable and a proportionate share of public capital facility and infrastructure development costs that are directly attributable to a particular development project will be financed by the users or beneficiaries.
- B. Apply all of the proffer policies and actions and guidelines set forth in this document only subject to and in compliance with the limitations established by Virginia Code Section 15.2-2303.4 as applicable. In its consideration and acceptance of all proffers, the County will apply the standards of Virginia Code Sections 15.2-2297, 15.2-2303, and 15.2-2303.4, as applicable, to evaluate the reasonableness of proffered conditions.

For those applications subject to Section 15.2-2303.4, the County shall accept only those proffers permitted or deemed reasonable under Virginia Code Section 15.2-2297 and not deemed unreasonable under Section 15.2-2303.4.

- i. Where and to the extent permitted by law, the County will structure residential proffer guidelines based upon the respective levels of public cost of capital facilities generated by the various types of dwelling units.

- C. To assist the County in an equitable and uniform evaluation of developer proffers and other proposals for densities above the specified base density for each planning policy area, which otherwise conform with the policies of this plan, the County anticipates developer assistance valued at 100 percent of capital facility costs.
- D. Through the Capital Needs Assessment, the County differentiate between conventional suburban housing and other types of housing such as age-restricted, accessory, and micro units and consider commitments to small unit sizes, or affordability in estimating the capital facility needs and Capital Intensity Factor.
- E. Review the Capital Needs Assessment policy subarea boundaries to ensure, to the extent feasible, they do not divide existing communities and consider service standards that provide flexibility to respond to demographics, land availability and other characteristics of specific communities.
- F. Consider providing credit for transportation proffers that exceed the anticipated transportation impact mitigation of the proposed development against the anticipated capital facilities proffers of the development.
- G. Consider partially crediting private facilities, which are not dedicated to the County but are for the use of a subdivision or community, toward capital facility proffers. The partial credit is dependent on the Board of Supervisor's adopted service standards, CNA and CIP identified facilities, and the estimated use or capacity of the facility.
- H. The County will extend the existing Small Area Plans to encompass Suburban, Transition and Leesburg JLMA communities and the three Silver Line Metro Stations.

**Policy 9: Use the following capital facilities proffer guidelines to evaluate proposed capital facility proffers.**

#### Strategies

- 9.1. Use the following definition of "Capital Facility Proffer" to evaluate proffers: A contribution consistent with county policies and service needs, in cash or in kind (land or improvement), that benefits county residents at large, which is agreed to as a condition of a rezoning.
  - i. To be considered a proffer based on this definition, the following criteria need to be met:
    - The facility proffered is dedicated to the County or to a local, state, federal or regional authority or otherwise satisfies a need identified in the Capital Facilities Standards (CFS), Capital Needs Assessment (CNA), and/or Capital Improvement Program (CIP).

- The measure of credit will be determined on a case-by-case basis and may not exceed what the County would expect to supply given the CFS and the population served at the date of official acceptance of the application or at the date of reactivation of an inactive application.
  - ii. The contribution has a quantifiable value.
  - iii. The value of land contributed for public use or use as a public facility site is recognized as a capital facility proffer. Land for County facilities should be conveyed to the County or its designee.
  - iv. The contribution would not be required under existing statutes or ordinances.
  - v. The proffer is irrevocable.
- 9.2. Seek annual adjustments for proffers involving cash contributions based on the Consumer Price Index (CPI).
- 9.3. Base density thresholds beyond which capital facilities proffers will be anticipated are specified by planning policy areas as follows:
  - Rural Policy Area: The planned density for the Rural Policy Area is implemented by the existing zoning pattern and zoning amendments are not anticipated. However, zoning map amendment applications within existing villages and other similar applications will include capital facility contributions for units above the density permitted by current zoning.
  - Transition Policy Area: Zoning map amendments may will be evaluated against a base density permitted by current zoning at the time of application.
  - Suburban and Urban Policy Areas: Capital facilities proffers will be evaluated against a base density of 1.0 dwelling unit per acre or the existing zoning, whichever is lower.
  - Joint Land Management Areas: Capital facilities proffers will be evaluated against a base density of 1.0 dwelling unit per acre or existing zoning, whichever is lower.
- 9.4. To evaluate proffers for public use sites, determine the per-acre value of unimproved land by a market appraisal of the site compared to properties with the same densities suggested by the Planned Land Use Designation. The appraisal shall be conducted by an appraiser agreed to by the County, and paid for by the developer, and the results provided to the County. For improved sites, consideration will be given as applicable to:
  - Site-preparation including clearing and grubbing, grading, erosion control, and related engineering and permitting costs.

- Project infrastructure such as stormwater management ponds, sanitary sewer lines and major off-site and on-site roadways serving the site.
- A proportional share of improvements directly related to providing access to the site (pedestrian underpasses, construction of adjacent streets, trails, and sidewalks).

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