GOOCHLAND SOUTHEASTERN INFRASTRUCTURE STUDY

COMMUNITY MEETING 2 PRESENTATION - SEPT. 10, 2024

ABOUT THE SOUTHEAST INFRASTRUCTURE STUDY

What This Is:

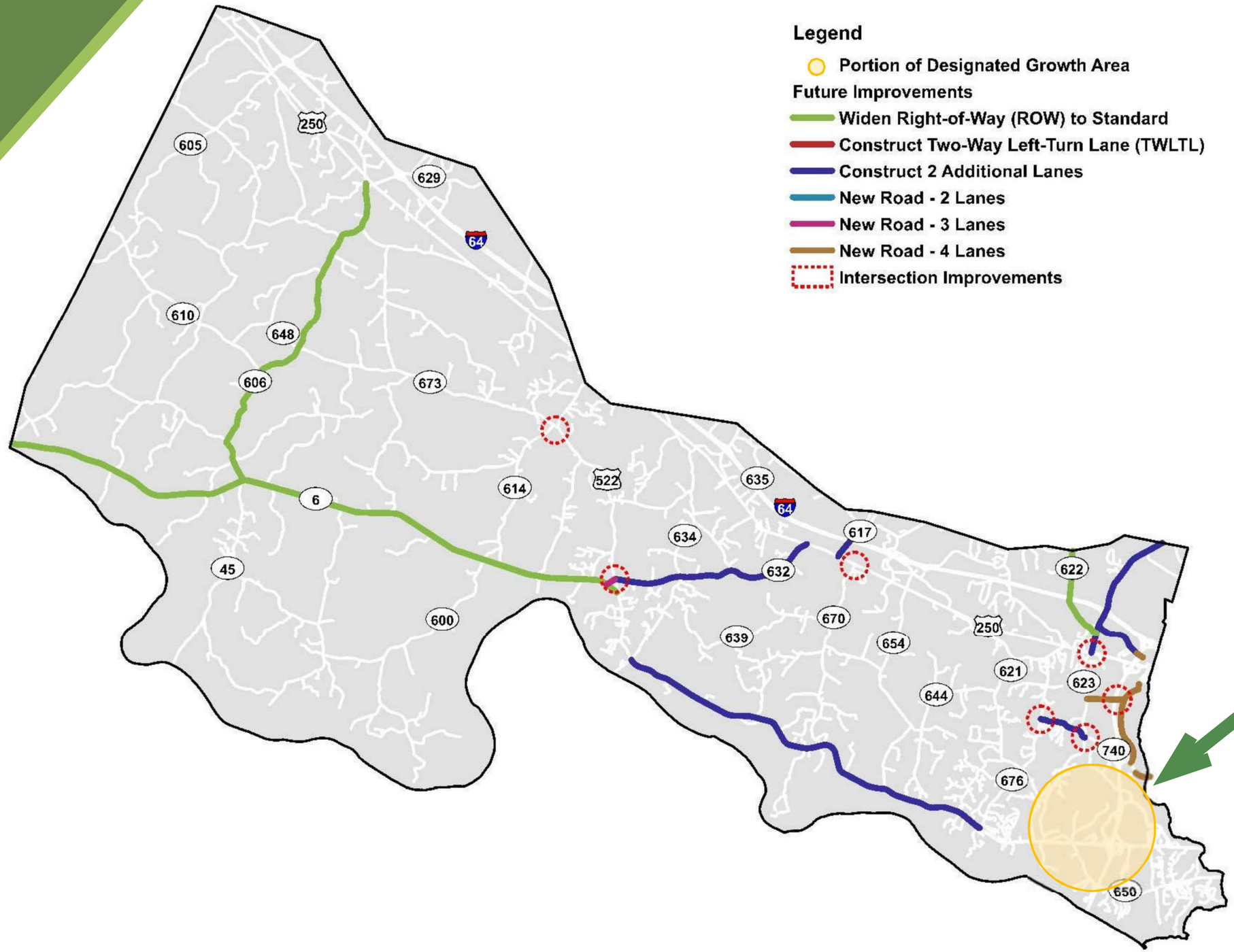
- Use local data and levels of service to better project infrastructure impacts of growth
- Forecast reasonable future development scenarios to evaluate infrastructure impacts (roads, water, sewer, tax base, etc.)
- Data-informed analysis using local knowledge and guidance
- A tool to support better infrastructure planning

What This Is Not:

- Not an update to the comprehensive plan approved in 2015
- Not intended to dictate land use policy
- Not a proposal for new regulations or taxes

HOW DID THIS STUDY COME ABOUT?

- Major Thoroughfare Plan (2018) designated this area for future analysis
- Previous land use planning effort identified the need for better infrastructure capacity analysis



Thoroughfare Plan left this area for future study

WHY IS THIS STUDY NEEDED?

- **Goochland County is growing**
  - Market is strong in Goochland; people and business want to locate here
  - 2nd fastest growing County in state since ‘20

COUNTY	% GROWTH SINCE 2020
New Kent	5.5%
Goochland	5.1%
Prince George	3.9%
King William	3.9%
Louisa	3.9%

WHAT ARE THE STUDY'S GOALS?

Address important considerations in the face of growth pressure:

- Direct growth to the designated growth areas
- Protect the County's finances
- Maintain County's services
- Protect the rural and natural parts of the County

WHAT ARE THE STUDY'S GOALS?

Better understand the impacts of growth on infrastructure planning

- Empirical, data driven foundation to guide Supervisors and staff when considering future land use and infrastructure decisions

WHAT ARE THE STUDY'S GOALS?

- Southeast portion of Goochland is already identified as a growth area in the comprehensive plan
  - Goal is to protect the rural area by directing growth to areas where infrastructure is planned

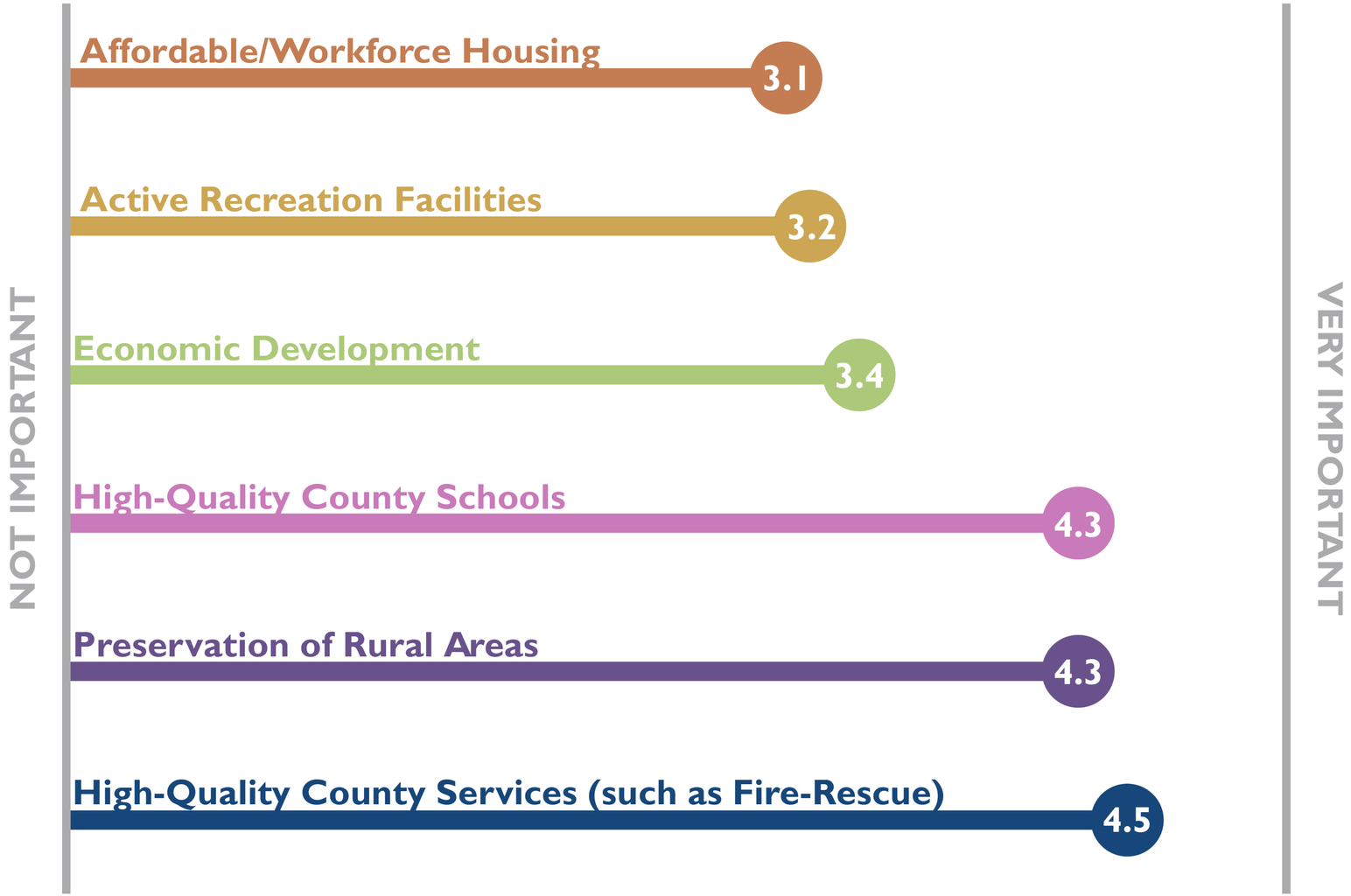
2035 COMPREHENSIVE PLAN GUIDING

- Promote balanced development and preservation of rural character
- Anticipate and prepare for population growth
- Guide development to village areas and designated growth areas
- Ensure new development does not exceed the County's ability to provide needed services and infrastructure
- Protect natural, scenic, and historic resources

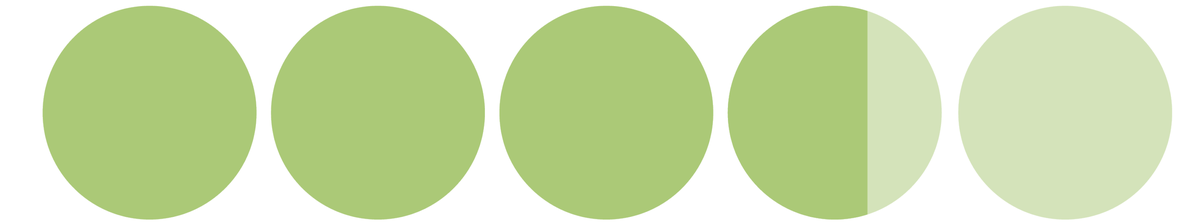
WHAT DID WE HEAR

COMMUNITY MEETING 1 HIGHLIGHTS

How important are the following?

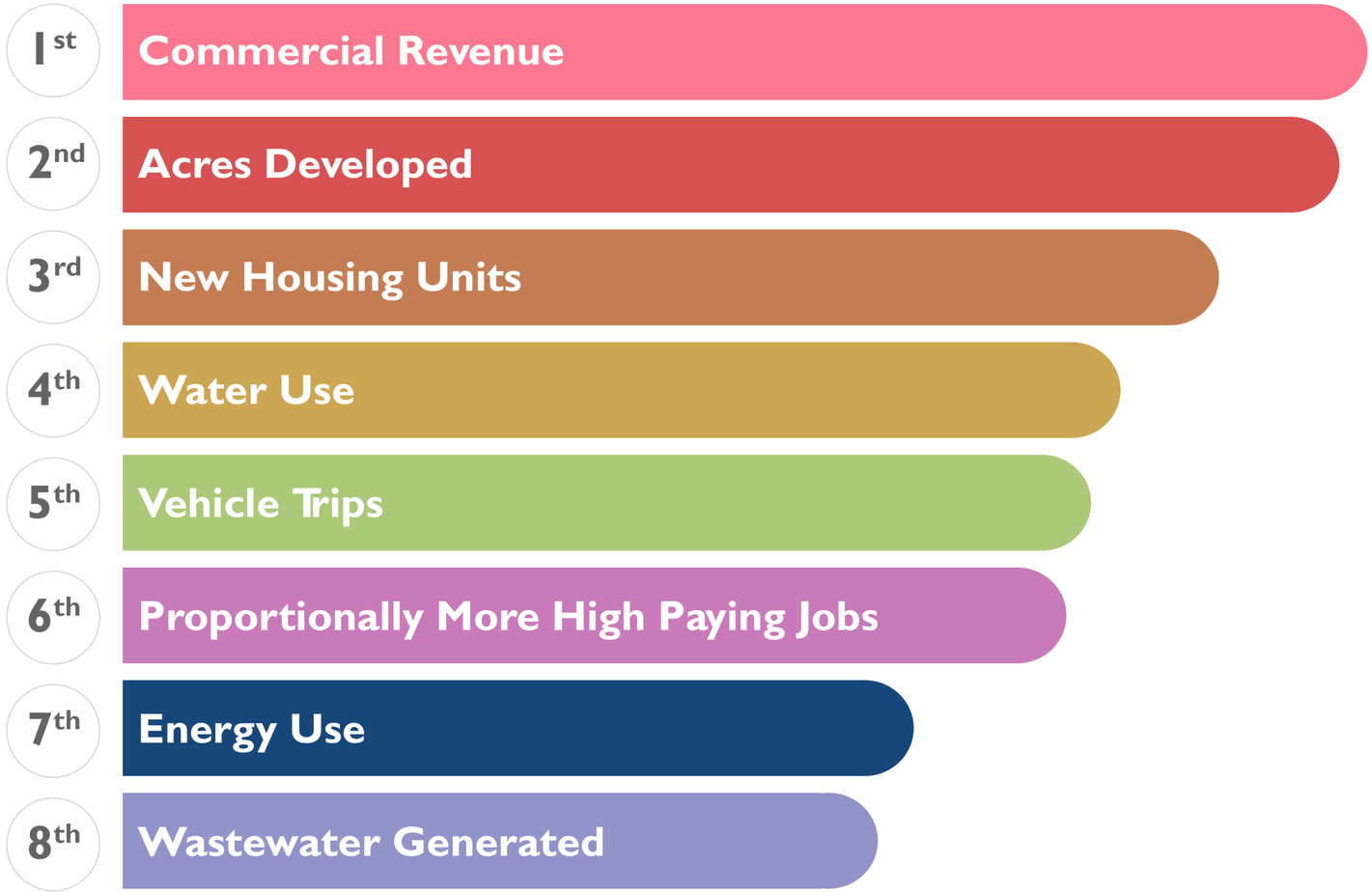


About 80% of the County's revenue comes from residential land use and 20% from commercial. How important is increasing the commercial share?

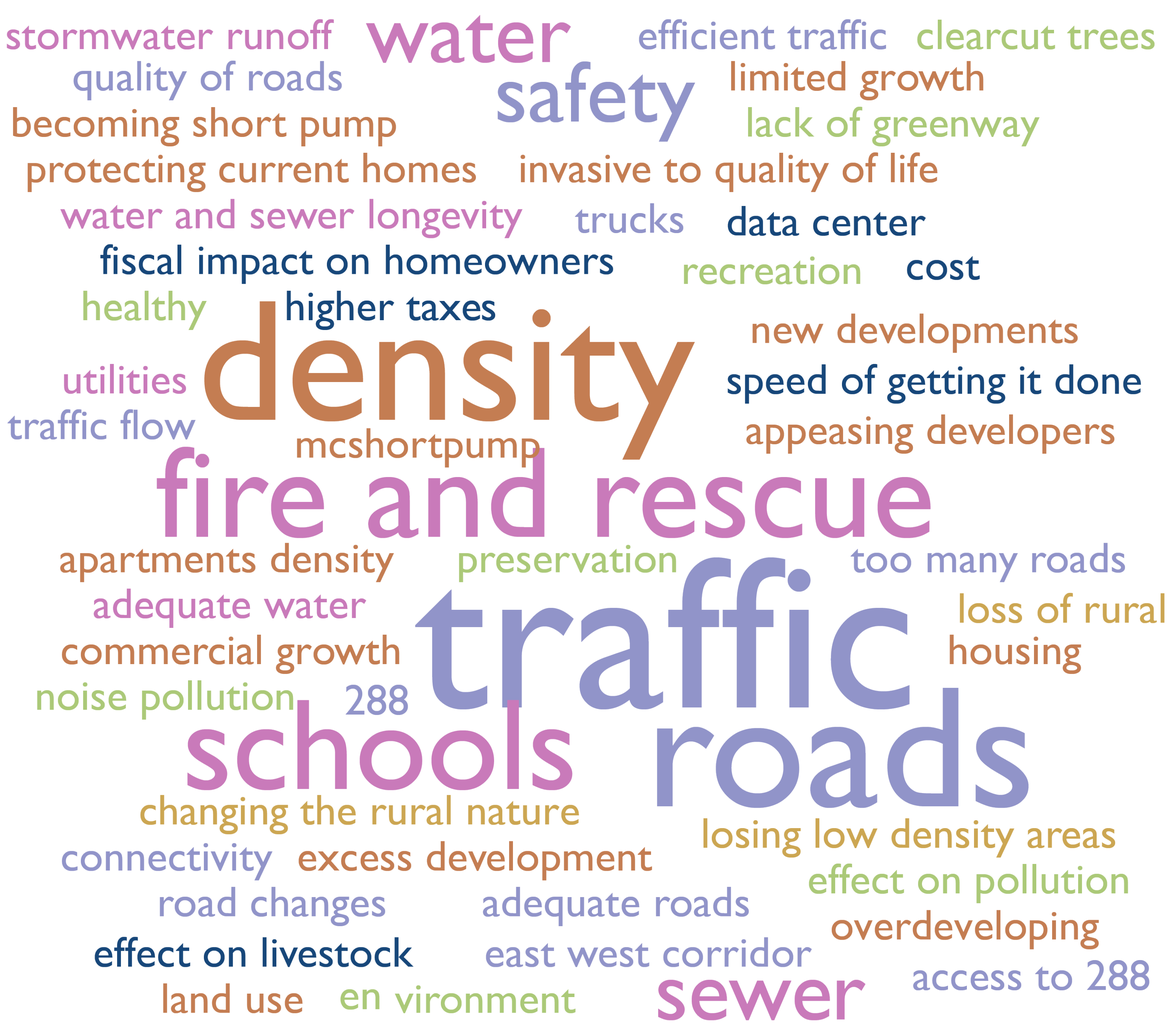


Average Score = 3.8

There are many ways this study can measure impacts of development in the study area. Sort the measures by order of importance.



What is the greatest concern you have for the study area?



APPROACH TO THE STUDY

PROCESS OVERVIEW

Estimate the capacity impacts of each scenario on:

PROCESS OVERVIEW

Study Did

- Project and analyze what different development scenarios would mean for this area (Estimated infrastructure impacts and costs)

Study Did Not

- Make any determination as to a ‘preferred’ scenario
- Make any plan or policy recommendations about share of county-wide growth that should be accommodated in SIS area

PROCESS OVERVIEW - DEVELOPMENT IMPACTS ESTIMATOR TOOL

- Scenario analysis tool to help the County estimate the **infrastructure** impacts of various types of future development

- Allows for adjustments to key development inputs and assumptions for SIS, in whole or in parts

- Available to support future planning efforts

PROCESS OVERVIEW – CAVEATS

Models cannot predict the future with absolute certainty, but help us inform long-term planning and strategic decision-making

Research and discussions helped develop reasonable scenarios for future development

PROCESS OVERVIEW - SCENARIOS

- Develop 3 different, yet plausible future development scenarios in the SIS area
- Assumes future development to undeveloped parcels; existing development assumed to carry over

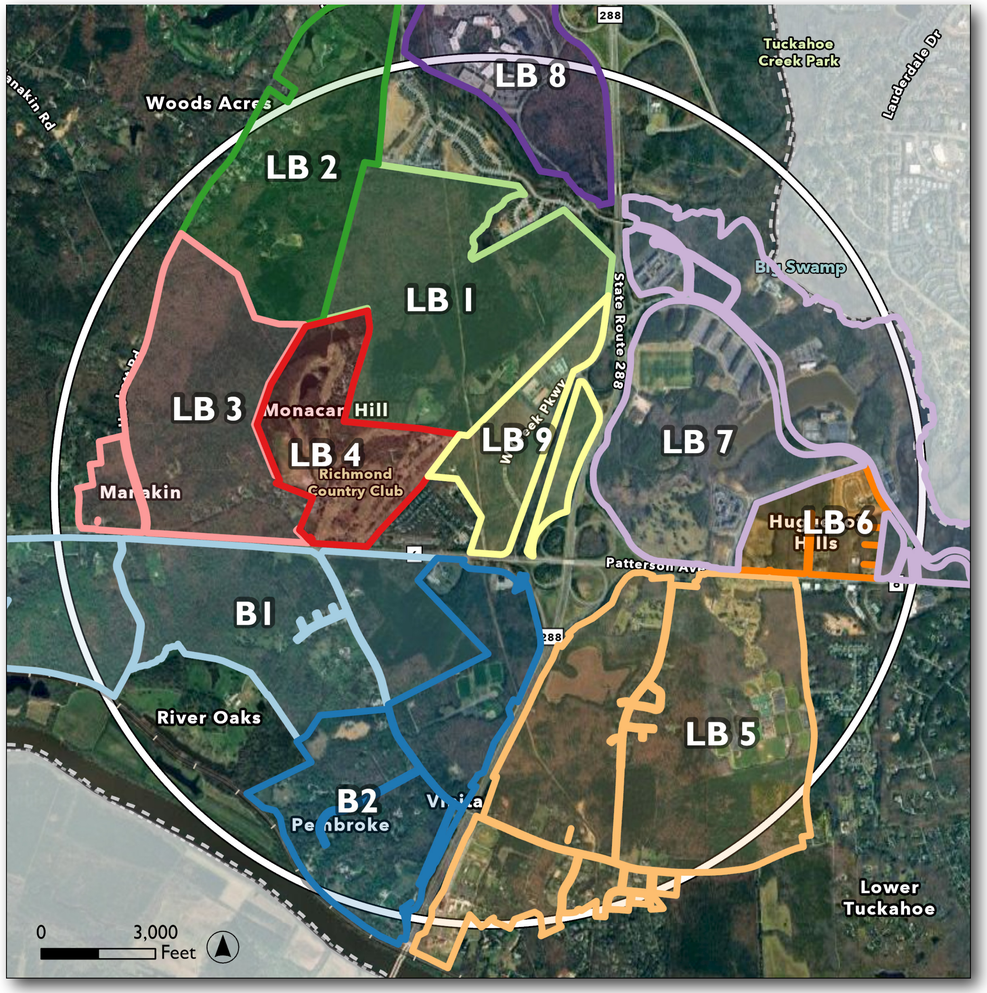
Comprehensive Plan & Existing Pattern
(current development types keep spreading)

Economic Development Lean
(flex office, light industry, some residential)

Mixed Use Lean
(flex office, retail, more residential)

PROCESS OVERVIEW – LAND USES

- Created “land bays” from similar parcels of land to avoid analyzing individual parcels
- Made assumptions on future land uses and densities that may occur within these land bays



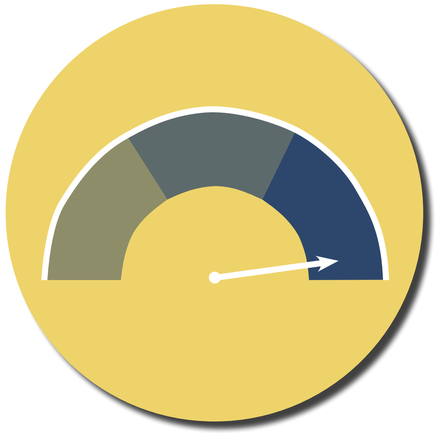
PROCESS OVERVIEW – LAND USES

- Informed by:
  1. Discussions with owners of large land tracts
  2. Review of existing plans, policies, and zoning
  3. Potential market trends
  4. Discussions between county staff and consultant team

PROCESS OVERVIEW – ASSUMPTIONS

Land use mix

- Types of residential (single family, townhomes, etc.) and commercial (office, retail, manufacturing, etc.)



Intensity

- Based on current development trends (typical intensities in the County or within the region) or other known comparables

PROCESS OVERVIEW – ASSUMPTIONS

Market trends

- Potential future uses in this area attempt to reflect current development realities (e.g. office market)

State and national forecasts

- Weldon Cooper + other estimates for future population consulted to inform reasonable pace of growth

PROCESS OVERVIEW – DATA INPUTS

Local data on:

- Existing development intensities
- Fire/rescue requirements
- Building and land values
- Land use policies
- Land use plans
- Utility plans

Local knowledge and intuition of:

Public, elected officials, appointed officials, and staff

National standards for infrastructure use including:

- ITE trip generation
- Energy consumption survey (water, sewer)

SOUTHEASTERN INFRASTRUCTURE STUDY SCENARIO EVALUATION TOOL

USER INPUTS - FUTURE DEVELOPMENT STYLE & BUILDOUT EXTENT

Scenario Concept

Economic Development

- Economic Development
- Mixed Use Development
- Comprehensive Plan
- Benchmark

Buildout Extent

Full (90% Buildout)

Scenario Definition

This scenario envisions a commercial and higher-intensity residential development pattern that emphasizes economic activity in the area

OUTPUT - NEW GROWTH

	Comm. SF	SF Units	MF Units	Trips	Students
Scenario Total	4,353,000	220	770	67,980	80

Water (GPD)	Sewer (GPD)	F&R Facility (SqFt)	Assessed Value
750,000	608,000	14,930	$ 608,586,000

CAPACITY IMPLICATIONS

Comm. SF	Single Family Units	Multi-Family Units	Trips	Schools
4.2x	**6%**	**20%**	**4**	**5**
existing comm. SF	20-year housing nee	20-year housing nee	new lanes	new classrooms

Water	Sewer	Fire & Rescue	Annual Tax Revenue
15%	**4%**	**100%**	**$ 12,030,000**
of capacity	of capacity	of min. facility size	

SOUTHEASTERN INFRASTRUCTURE STUDY SCENARIO EVALUATION TOOL

USER INPUTS - FUTURE DEVELOPMENT STYLE & BUILDOUT EXTENT

Scenario Concept

Mixed Use Development

Buildout Extent

Full (90% Buildout)

- Standard (50% Buildout)
- Slow (25% Buildout)
- Minimal (10% Buildout)
- Full (90% Buildout)

Scenario Definition

This scenario envisions a blend *…nt pattern*

OUTPUT - NEW GRO

	Comm. SF	SF Units	MF Units	Trips	Students
Scenario Total	2,514,000	660	2,130	93,690	250

Water (GPD)	Sewer (GPD)	F&R Facility (SqFt)	Assessed Value
977,000	636,000	17,140	$ 683,778,000

CAPACITY IMPLICATIONS

Comm. SF	Single Family Units	Multi-Family Units	Trips	Schools
2.4x	**17%**	**56%**	**5**	**14**
existing comm. SF	20-year housing nee	20-year housing nee	new lanes	new classrooms

Water	Sewer	Fire & Rescue	Annual Tax Revenue
20%	**4%**	**114%**	**$ 3,870,000**
of capacity	of capacity	of min. facility size	

SOUTHEASTERN INFRASTRUCTURE STUDY SCENARIO EVALUATION TOOL

USER INPUTS - FUTURE DEVELOPMENT STYLE & BUILDOUT EXTENT

Scenario Concept

Mixed Use Development

Buildout Extent

Slow (25% Buildout)

Scenario Definition

This scenario envisions a blend of residential and commercial development that emphasizes a more functionally diverse development pattern

OUTPUT - NEW GROWTH

	Comm. SF	SF Units	MF Units	Trips	Students
Scenario Total	698,000	180	590	26,030	70

Water (GPD)	Sewer (GPD)	F&R Facility (SqFt)	Assessed Value
271,000	177,000	4,760	$ 189,938,000

CAPACITY IMPLICATIONS

Comm. SF	Single Family Units	Multi-Family Units	Trips	Schools
0.7x	**5%**	**15%**	**2**	**4**
existing comm. SF	20-year housing nee	20-year housing nee	new lanes	new classrooms

Water	Sewer	Fire & Rescue	Annual Tax Revenue
5%	**1%**	**32%**	**$ 1,080,000**
of capacity	of capacity	of min. facility size	

FINDINGS

TRANSPORTATION

Metric	Comp. Plan Scenario *(90% Buildout)*	Mixed-Use Scenario *(90% Buildout)*	Econ. Dev. Scenario *(90% Buildout)*
Sq. Ft. Commercial Development	4.3m sf	2.5m sf *(see next pg)*	4.3m sf *(see next pg)*
New Single Family Homes	110 homes	660 homes	220 homes
New Multifamily Homes	0 homes	2,130 homes	770 homes
Average Daily Car Trips	28,300 trips	93,690 trips	67,980 trips
Additional Vehicles/Day Over Existing Capacity	8,300 vehicles	73,690 vehicles	47,980 vehicles
Additional Lanes Needed	2 lanes	6-8 lanes	4-6 lanes

FINDINGS

WATER & SEWER USE

Metric	Comp. Plan Scenario *(90% Buildout)*	Mixed-Use Scenario *(90% Buildout)*	Econ. Dev. Scenario *(90% Buildout)*
Sq. Ft. Commercial Development	4.3m sf	2.5m sf *(see next pg)*	4.3m sf *(see next pg)*
New Single Family Homes	110 homes	660 homes	220 homes
New Multifamily Homes	0 homes	2,130 homes	770 homes
Gallons/Day of Water	231,000 GPD	977,000 GPD	750,000 GPD
Gallons/Day of Sewer	218,000 GPD	636,000 GPD	608,000 GPD
Additional Water/Sewer Capacity Needed	*	*	*

FINDINGS

STUDENTS & CLASSROOM SPACE

Metric	Comp. Plan Scenario *(90% Buildout)*	Mixed-Use Scenario *(90% Buildout)*	Econ. Dev. Scenario *(90% Buildout)*
Sq. Ft. Commercial Development	4.3m sf	2.5m sf *(see next pg)*	4.3m sf *(see next pg)*
New Single Family Homes	110 homes	660 homes	220 homes
New Multifamily Homes	0 homes	2,130 homes	770 homes
New Students	40 students	250 students	80 students
New Classrooms Needed	3 classrooms	14 classrooms	5 classrooms

FINDINGS

FIRE & RESCUE FACILITY INFRASTRUCTURE

Metric	Comp. Plan Scenario *(90% Buildout)*	Mixed-Use Scenario *(90% Buildout)*	Econ. Dev. Scenario *(90% Buildout)*
Sq. Ft. Commercial Development	4.3m sf	2.5m sf *(see next pg)*	4.3m sf *(see next pg)*
New Single Family Homes	110 homes	660 homes	220 homes
New Multifamily Homes	0 homes	2,130 homes	770 homes
Sq. Ft. Fire & Rescue Facility Needs	11,410 sf	17,140 sf	14,930 sf
Additional Fire & Rescue Facility Needed	No New Facility Needed	One New Facility Needed	No New Facility Needed

FINDINGS

TAX BASE

Metric	Comp. Plan Scenario *(90% Buildout)*	Mixed-Use Scenario *(90% Buildout)*	Econ. Dev. Scenario *(90% Buildout)*
Sq. Ft. Commercial Development	4.3m sf	2.5m sf *(see next pg)*	4.3m sf *(see next pg)*
New Single Family Homes	110 homes	660 homes	220 homes
New Multifamily Homes	0 homes	2,130 homes	770 homes
Annual Tax Revenue	$6.3m	$3.9m	$12m

OPEN HOUSE

WE ARE LOOKING FOR YOUR FEEDBACK AND INSIGHTS

OPEN HOUSE

- **Stations:**
  - Scenarios
  - Development Impacts Estimator Tool
  - Leave Your Questions and Ideas