

## Capital Needs Assessment Overview

The Capital Needs Assessment (CNA) is part of an integrated approach to land use and fiscal planning. This approach uses the County's projected population growth and adopted service levels to identify the type and number of capital facilities that will be needed to serve the public over a ten-year planning period (beyond the end of the current Capital Improvements Program (CIP) timeframe) and maintain the County's desired levels of services.

The purpose of the Ten-Year Capital Needs Assessment (CNA) is to:

- Bridge the gap between the long-range planning documents (the 20-50 year Growth Scenarios and Assessments, the Comprehensive Plan, and the Fiscal Impact Model) and the short range planning documents (the Six-Year Capital Improvement Plan and the Two-Year Biennial Capital Budget);
- Provide a more complete understanding of future capital needs, their location, and their impact on the County;
- Define priorities necessary to achieve the Board of Supervisors' public facility goals and objectives; and
- Better plan for the future co-location of County/School capital facilities.

The CNA is developed in conjunction with the biennial review of the County's Capital Intensity Factors (CIF) and Capital Facility Standards (CFS) by the County's Fiscal Impact Committee (FIC). The CNA uses the adopted Capital Facility Standards to determine the types of public facilities and population thresholds by which new facilities are triggered for development.

Certain projects will be selected by the County for appropriation through the Capital Improvements Program (CIP) during the Biennial Budget process. Projects may also be changed, added, or eliminated during the annual review of the Twenty-Year Growth Scenarios and Assessments and periodic changes to the County's Fiscal Impact Model and Comprehensive Plan.

Because the CNA is a medium-range planning document, a detailed analysis of the availability of land and projected cost estimates of capital facilities are not provided. The final scope and design of a given facility will ultimately determine a project's cost for funding consideration. The actual costs of the capital facilities are determined in the County's annual six-year Capital Improvement Program budget.

## Fiscal Impact Committee

On June 1, 2004, the Board of Supervisors (BOS) directed the Fiscal Impact Committee to review the County's Proposed Capital Needs Assessment, to be followed by the Planning Commission's assessment of: 1.) the geographic appropriateness of the Proposed CNA's projects, 2.) the proposed projects' compatibility with the Revised General Plan and Area Management Plans, and 3.) the Proposed CNA as an implementation mechanism of the Comprehensive Plan.

The Board of Supervisors' appointed Fiscal Impact Committee (FIC) is comprised of one member of the Board of Supervisors who chairs the Committee, as well as representatives of the development community, community groups, and the citizens of Loudoun County. The Committee, supported by County and School staff, reviews the County's and School's Capital Facility Standards, on average, every two years and makes a recommendation to the Board of Supervisors on the set of capital facility standards the Board should adopt to guide its Capital Needs Assessment and Capital Improvement Program development.

Besides reviewing the County's Capital Facility Standards (CFS) and the Capital Needs Assessment (CNA), the Fiscal Impact Committee also reviews the County's Capital Intensity Factor (CIF), and provides annual forecasts of development activity and service costs projected out over a twenty-year period. The CIF is used to calculate the impact a residential rezoning has on the County's capital facility development costs. The adopted capital facility standards determine the facility cost per capita required to develop the CIF, which quantifies the value of proffered capital facility contributions.

The Members of the Fiscal Impact Committee that reviewed the CNA are:

Jim Burton , Loudoun County Board of Supervisors  
Sam Adamo, Ph.D. Loudoun County Public Schools  
Steven John DeLong  
Leonard S. "Hobie" Mitchel  
Edward Gorski  
Michael Capretti  
Charles E. Schonder, III  
Jack Winters

## Capital Facility Standards

The Capital Needs Assessment approach begins by reviewing the County's Comprehensive Plan, which includes the Revised General Plan, the Revised Countywide Transportation Plan, and other associated planning documents. The Revised General Plan establishes development potential by guiding residential and nonresidential uses for all land within the County. "The County will determine the need for new public facilities and will identify suitable sites based on the Revised General Plan, appropriate area plans, land use, and growth policies" (Revised General Plan, Chapter 3, General Public Facilities Policy 2). The Revised General Plan places an emphasis on the development of agency service plans and the adoption of capital facility standards as the mechanism to guide the County's capital facility development. As envisioned in the Revised General Plan, the service plans provide a 20-year planning horizon for capital resource requirements (Revised General Plan, Chapter 3, Strategic Management of Loudoun's Growth: The Planning Tools Table).

The Revised General Plan anticipates that the Board of Supervisors will adopt service plans and levels of service for various agencies that will establish the number and type of facilities the County will build (Revised General Plan, Chapter 3, Fiscal Planning and Budgeting text). The Capital Facilities Standards (CFS) set the policy for the type, size, and timing of capital facility development based upon the County's population. The Capital Facilities Standards are based on specific demographic factors (total population, age cohorts, per capita, etc.) that provide the County identifiable triggers to develop new public facilities. The County's Capital Facility Standards are used to develop the Capital Needs Assessment, which provides by geographical planning subareas the triggered capital facilities projected over a ten-year period beyond the end of the current six-year Capital Improvements Program timeframe. As such, the general location, character, and extent of these proposed capital facilities can be considered in substantial accord with the Comprehensive Plan.

# Executive Summary

## Adopted FY 2011 County Capital Facility Standards:

Capital Facility/ Apparatus	Building S.F.	Up To #Acres	Facility Standard
Fire Station	13,000	5.00	1: 25,000 population
Fire Station - West	13,000	5.00	1:10,000 population
1500-gpm Engine	N/A	N/A	1:10,000 population
1500-gpm Engine-West	N/A	N/A	1:10,000 population
ALS Ambulance	N/A	N/A	1:10,000 population
ALS Ambulance-West	N/A	N/A	1:10,000 population
Ladder Truck	N/A	N/A	1:25,000 population
Heavy Rescue Squad	N/A	N/A	1:50,000 population
Tanker -West	N/A	N/A	1:10,000 population
Brush Truck-West	N/A	N/A	1:10,000 population
Sheriff Substation	18,000	5.00	1: 75,000 population
Animal Shelter	18,000	5.00	0.079 s.f. per capita
Juvenile Probation Residence	8,800	2.00	1: 250,000 population
Recreation Center	83,000	15.00	1: 75,000 population
Regional Park	10,000	200	1:75,000 population
District Park	5,000	75	1:25,000 population
Community Park	N/A	30	1:10,000 population
Teen Center	20,000	5.00	1:10,000 population aged 12-14 years
Senior Center	15,000	5.00	1:10,000 population aged 55+ years
Respite Center	4,000	2.00	1:15,000 population aged 55+ years
Trails	N/A	N/A	1 mile:1,000 population
Community Center	10,000	6.00	1:42,000 population
Library	Up to 40,000	7.00	0.6 s.f. per capita
Juvenile Detention Center	40,000	6.00	1:Countywide

# Executive Summary

## Adopted FY 2011 County Capital Facility Standards (cont'd):

Capital Facility	Building S.F.	Up To #Acres	Facility Standard
Youth Shelter	8,000	2.00	1:140,000 population
Juvenile Assessment Center	4,000	2.00	1: up to 500,000 population
Health Clinic	10,050	N/A	0.5 sf:28,000 population
Adolescent Transitional Independent Living Residence	8,000	2.00	1:250,000 population
Emergency Homeless Shelter	9,000	2.00	1:250,000 population
Developmental Services Residential Facility	3,400	0.50	1 Home: 26,875 population
Mental Health Residential Facility	3,400	0.25	1 Home: 18,325 population
General Government Support Facilities	N/A	N/A	3 s.f. per capita
Recycling Drop-Off Centers	3,000 s.f. container pad, 6,050 s.f. parking/access area	0.25	1:40,000 residents per planning subarea, with one within 5 miles of every resident, with preference to co-locate with other Public Facilities
Special Waste Drop-Off Centers	600 s.f. pavilion, 1,600 s.f. container pad, 6,050 s.f. parking/access area	1.00	2 Centers: County
Park-and-Ride Lots	200 –700 spaces	4-13	1 space:90 residents
Transit Bus Maintenance Facility	28,000	10	1 Facility:247,500 population
Transit Buses	N/A	N/A	1 bus per 4,950 population

# Executive Summary

## Adopted FY 2011 School Capital Facility Standards:

Capital Facility	Building S.F.	Up To # Acres	Facility Standard
Elementary School – 1 Story	66,743	20	750 pupils
Elementary School – 1 Story	84,142	20	800 pupils
Elementary School – 1 Story	90,100	20	875 pupils
Elementary School – 2 Story	102,141	20	875 pupils
Middle School – 1 Story	160,048	35	1,184 pupils
Middle School – 1 Story	168,780	35	1,350 pupils
Middle School – 2 Story	177,740	35	1,350 pupils
High School – 2 Story	227,835	75	1,350 pupils
High School – 2 Story	251,915	75	1,600 pupils
High School – 2 Story	279,426	75	1,800 pupils

# Executive Summary

## Population Projections

The County's Capital Facility Standards provide a basis by which capital facilities are triggered for development based upon growth in the County's population. The most recent adopted Capital Facility Standards provide for the development of each type of capital facility on a per capita basis. In developing this version of the CNA, the latest population projections were used to determine the number and general location of facilities that should be developed to maintain the consistent delivery of County services to the public. The population projections were based upon COG 8.0 estimates and were developed prior to the release of the 2010 Census data.

The Loudoun County Public Schools' Department of Planning and Legislative Services developed the student population projections for the Schools' projects within the CNA. General population projections were used to develop the County Government's projects within the CNA.

The General Population projections used to develop this Capital Needs Assessment document are as follows:

### County Population Projections: 2017-2026

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>County</b>	332,768	340,722	348,692	357,663	365,801	374,188	382,267	389,776	397,099	401,980
<b>Ashburn</b>	96,158	98,658	101,254	103,696	106,548	108,631	110,462	111,915	112,176	113,852
<b>Dulles</b>	54,796	58,280	61,757	65,049	68,746	72,080	75,326	78,560	80,703	83,173
<b>Leesburg</b>	55,040	55,563	56,029	55,071	57,399	58,151	58,860	59,413	58,362	60,383
<b>Northwest</b>	11,090	11,292	11,495	11,755	11,977	12,320	12,787	13,253	13,851	14,218
<b>Potomac</b>	43,471	43,474	43,477	43,461	43,484	43,487	43,490	43,493	43,593	43,734
<b>Route 15 North</b>	5,226	5,366	5,506	5,978	5,864	6,144	6,425	6,736	7,379	7,358
<b>Route 15 South</b>	4,639	4,795	4,951	5,098	5,293	5,480	5,667	5,853	6,329	6,227
<b>Route 7 West</b>	22,659	23,142	23,624	24,856	24,940	25,680	26,419	27,156	28,536	28,615
<b>Southwest</b>	7,672	7,788	7,881	8,262	8,002	8,074	8,145	8,223	8,681	8,422

## Changes to the CNA

There are two major changes to the format of this version of the Capital Needs Assessment (CNA). First, the CNA is divided into sections by geographical Planning Subarea. Previously, the CNA was divided into sections by service delivery category (i.e., General Government, Transportation, Public Safety, etc.), as used in the Capital Improvements Program (CIP). Organizing the CNA by Planning Subarea helps provide clear, identifiable capital facility requirements and deficits for a geographical area. Identification of these requirements and deficits assists in the legislative land development process, which may involve proffered cash, in-kind, and land contributions from the development community to help offset public infrastructure impacts associated with residential growth. Further, analyzing capital needs from a geographical perspective allows the identification of areas where future facilities can be co-located.

The second major change to the CNA involves the planning timeframe. The CNA's planning timeframe (FY 17-26) is now the ten-year period beyond the end of the Adopted FY 11-16 CIP. The timeframe was altered to eliminate a four-year overlap that existed between previous CNA and CIP documents. By shifting the ten-year CNA timeframe beyond the term of the Adopted CIP, an additional four years of capital facility development can be projected in the CNA.

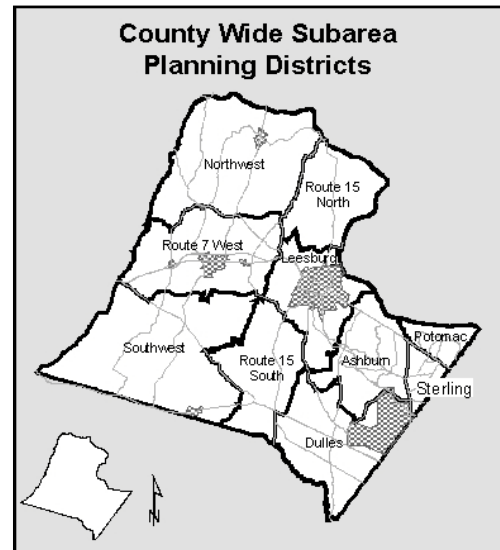


# Executive Summary

## Planning Subareas

The Loudoun County Comprehensive Plan (Revised General Plan) establishes four policy areas, Suburban, Rural, Transition, and Town Joint Land Management Areas, to guide land use decision-making in the County. However, in order to best address service delivery and to guide the placement of new capital facilities, ten geographical Planning Subareas have been defined and used by the County since 1995. They are:

Ashburn	Northwest
Dulles	Route 15 North
Leesburg	Route 15 South
Potomac	Route 7 West
Sterling	Southwest



These Planning Subareas allow analysis at the sub-County level and are used to forecast County long range demographic trends and needs. Therefore, while Planning Subarea boundaries are not completely coincident with the Policy Areas or the Loudoun County Public School Planning Districts, they provide a consistent and reliable framework for demographic and capital facility analysis.

Most CNA projects have been placed into specific Planning Subareas based on future projected population growth within those areas and should be considered consistent with the "location, character and extent" of the County's Comprehensive Plan. There are a few proposed projects that could be considered in more than one Planning Subarea. In these instances, the project has been listed within the Planning Subarea where it is most likely to be needed and/or developed. The project page also includes the names of the other Planning Subareas where the facility could be located and the project narrative draws attention to the fact that the project could be developed in multiple Planning Subareas.

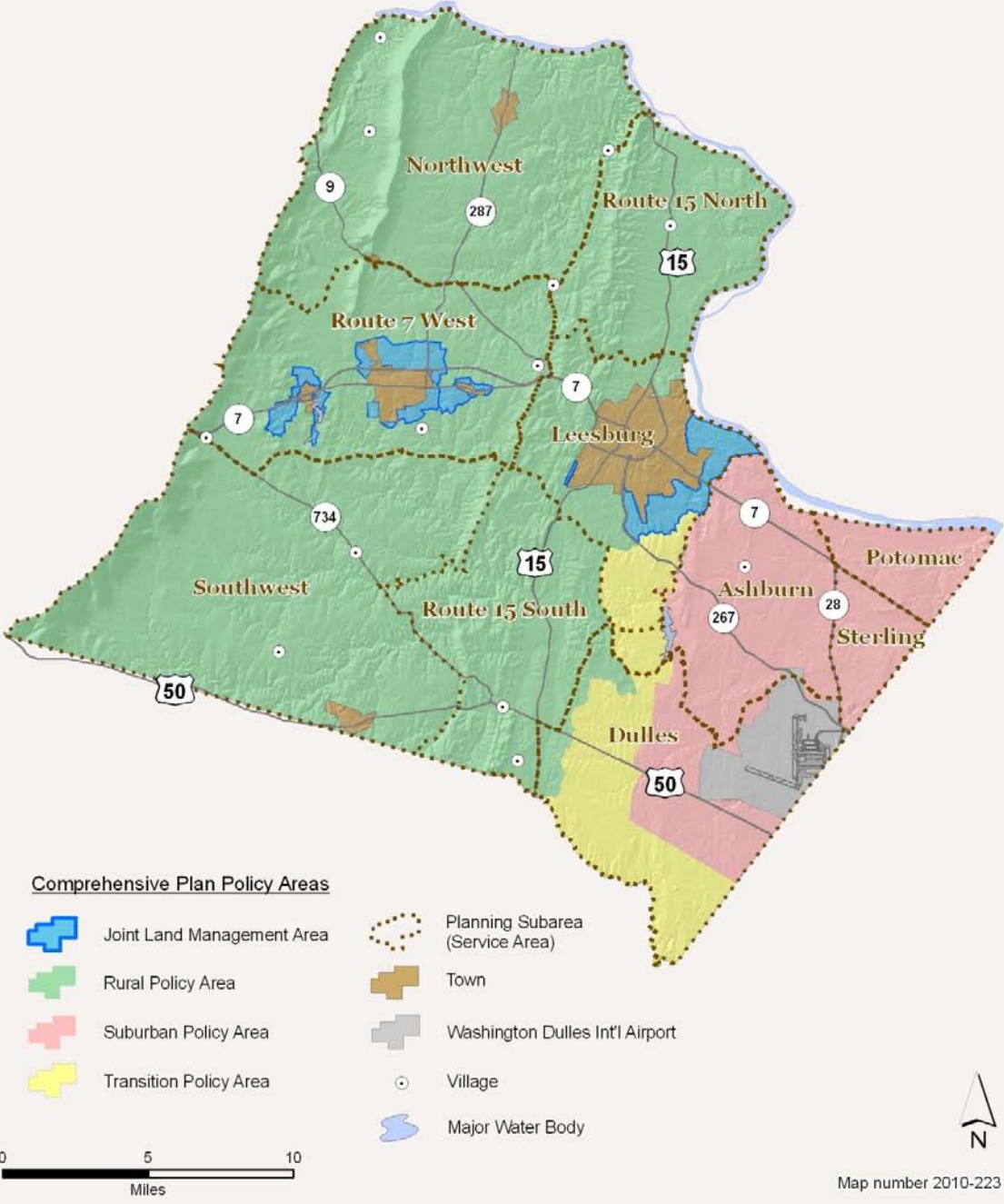
## Planning Subareas (Continued)

There are also some proposed facilities that have been placed in a “Countywide” section within the CNA given that they may be appropriate in any of the Planning Subareas. For the most part, these projects support General Government operations, such as Water and Wastewater Infrastructure projects, or are public school projects that, due to uncertainty with respect to student population projections beyond the ten-year planning period, have not yet been planned for a specific Planning Subarea. Further, review for “location, character and extent” conformity with the Comprehensive Plan will be necessary in these instances.

The following page presents a map that depicts the boundaries of the four policy areas established by the Loudoun County Comprehensive Plan and the County’s ten Planning Subareas.

# Executive Summary

## Policy Areas and Planning Subareas



## Co-Location of County Facilities

The Revised General Plan provides the County's overarching goals with respect to co-location stating:

"[t]he County encourages the co-location of County facilities where they are feasible and can function effectively as multi-purpose community facilities (e.g. community meeting space, shared parking, athletic fields, and integrated design)" (Revised General Plan, Chapter 3, General Public Facilities Policy 8).

This issue was a critical point of discussion during the Fiscal Impact Committee's (FIC) three-month review of the Capital Needs Assessment in the Fall of 2006. With the goal of providing a full range of services at the lowest public cost, the Committee was particularly interested with the ongoing potential for co-location of proposed facilities. The Committee's co-location discussions included examining what types of public facilities could benefit from locating on the same site due to shared parking and other site infrastructure costs, as well as co-location with other governmental and private sector entities.

Further, the Joint County and Schools Planning Team reviewed the County's co-location policy and recommended the following guidelines for facility co-location (see next page):

# Executive Summary

## Co-Location of County Facilities

<b>Facility</b>	<b>Co-Location Options</b>
Community Park	Mental Health Residence, Youth Shelter
District Park	Sheriff Substation, Fire/ Rescue Station
Regional Park	Library, General Government Office, Senior Center, Teen Center, Recreation Center, Youth Shelter, Recycling Drop-Off Center
Park-and- Ride Lot	Recycling Drop-Off Center, Vehicle Maintenance Facility
Human Service Facilities	Adolescent Facilities, Transitional Facilities
Fire & Rescue Station	Storage Facilities, Special Waste Drop-Off Center
Elementary School	Middle School, High School, Community Park, Library, Senior Center, Sheriff Substation
Middle School	Elementary School, High School, District Park, Recreation Center, Teen Center, Sheriff Substation
High School	Elementary School, Middle School, Regional Park, Recreation Center, Teen Center, Sheriff Substation

## Capital Needs Assessment Format

Each Planning Subarea section of the CNA document begins with a summary of planning and development issues, a map depicting all County-owned and leased, and School-owned and leased facilities in operation, a listing of the number and type of capital facilities already in operation, and a listing of the facilities that are planned to be developed in that Planning Subarea during the current, Adopted six-year CIP term (FY 2011-2016).

Individual project pages are then provided with detailed information regarding the number and types of facilities to be developed in each Planning Subarea as a result of projected future population increases. Each project page contains information regarding the project's name, photos of the facility type, a description of the project, an assessment of the project's conformance with the Comprehensive Plan policies, the CNA date when the facility is triggered for development, the required site acreage, and the facility's proposed square footage.

## Capital Needs Assessment Process Timeline

**June- July, 2009** – The Fiscal Impact Committee reviewed the County’s Proposed Capital Facility Standards.

**September 14, 2009** – The Fiscal Impact Committee voted 5-0-2 to send the Proposed Capital Facility Standards to the Finance/Government Services and Operations Committee for review with a recommendation for approval.

**January 21, 2010** – The Finance and Government Services and Operations Committee voted 4-1 to forward the recommended Capital Facility Standards to the Board of Supervisors for review and final approval.

**February 17, 2010** – The Board of Supervisors approved the Fiscal Impact Committee’s Recommended FY 2011 Capital Facility Standards.

**October 4, 2010** – The Fiscal Impact Committee begins review of the Proposed FY 2017- FY 2026 Capital Needs Assessment.

**October 26, 2010** - The Fiscal Impact Committee voted to forward the Proposed FY 2017 – FY 2026 Capital Needs Assessment to the Planning Commission for review with a recommendation for approval. The Proposed FY 2017 – FY 2026 Capital Needs Assessment is formally transmitted to the Planning Commission on November 3, 2010.

**February 9, 2011** – Planning Commission Briefing of CNA

**February 23, 2011** – Planning Commission Public Hearing regarding CNA

**April 13, 2011** – The Planning Commission voted to forward the Proposed FY 2017- FY 2026 Capital Needs Assessment (7-0-2) to the Board of Supervisors for review with a recommendation for approval, and formally transmitted the CNA to the Board of Supervisors.

**May 9, 2011** – The Board of Supervisors voted to approve the FY 2017- FY 2026 Capital Needs Assessment (8-0-1) at their Public Hearing.