

AREA PLAN OVERVIEW

INTRODUCTION

The Fairfax County Comprehensive Plan consists of the Policy Plan, the four Area Plans, and the Comprehensive Plan and Transportation Plan maps. The Policy Plan, adopted by the Board of Supervisors on August 6, 1990, replaced the Introduction/Countywide volume of the Plan. The objectives, policies, and guidelines contained in the Policy Plan guide planning and development review considerations toward implementing County goals. The goals address the future development pattern of Fairfax County, and protection of natural and cultural resources for present and future generations.

The Area Plans are key elements for implementing the Policy Plan's goals and objectives at the more detailed Planning District and Community Planning Sector levels (see Figure 1). The Comprehensive Plan Map illustrates planned land uses, transportation improvements and public facilities. Used together, these elements comprise a dynamic document which is used by the Board of Supervisors, the Planning Commission, County staff and the public to guide land use, transportation and public facility decision making.

DEVELOPMENT OF THE AREA PLANS

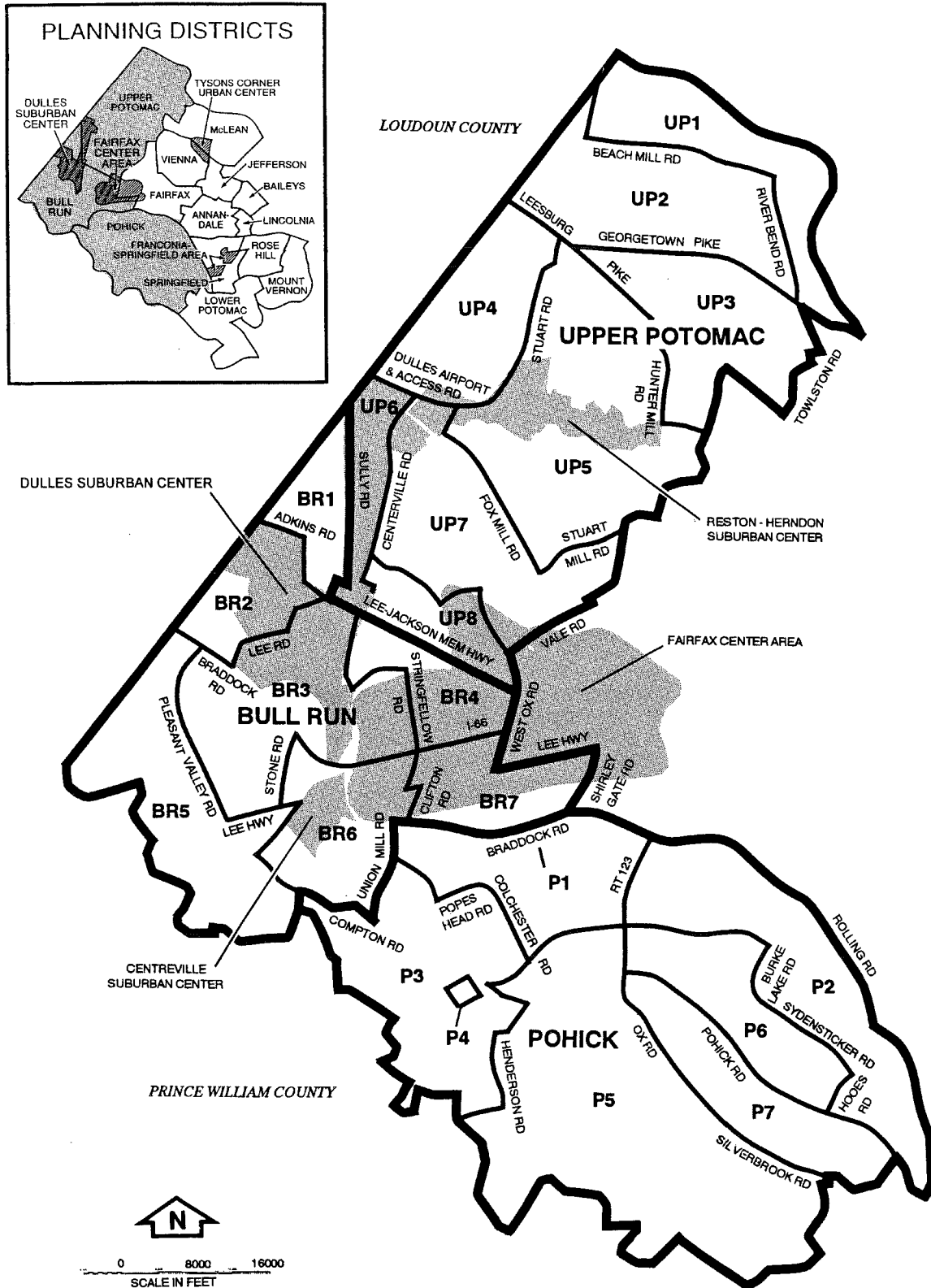
The Fairfax County Board of Supervisors designated 1988 as a Policy Review Year to review the adopted goals for the County formerly contained in the 1975 Comprehensive Plan. Based on the recommendations of the Goals Advisory Commission, the Board adopted new and revised goals for the County on October 24, 1988. The goals encompass a variety of issues, including housing, land use, transportation, public facilities and other areas and represent the broad ideals that the County should strive to achieve.

To ensure that the Comprehensive Plan includes policies, strategies and site-specific recommendations necessary to implement the revised goals, the Board directed the Planning Commission to initiate a major review of the Comprehensive Plan. The Fairfax Planning Horizons process was established as a two-phased effort aimed at achieving the following:

- Phase I: A Policy Plan for the County; and
- Phase II: Revised Area Plans that reflect the objectives of the new Policy Plan.

On August 6, 1990, the Board of Supervisors adopted the countywide objectives and policies contained in Part I of the Policy Plan for Fairfax County. This is the first volume of the five-volume Comprehensive Plan.

Phase II focused on the four Area Plan volumes of the Comprehensive Plan. The individual Planning District and Community Sector Plans which make up the Area Plans contain site-specific guidance that implement the policies adopted in Phase I. The Area Plans also seek to implement the Concept for Future Development for Fairfax County, which is described below.



**AREA III
PLANNING DISTRICTS AND SECTORS**

FIGURE 1

CONCEPT FOR FUTURE DEVELOPMENT

On August 6, 1990, the Board of Supervisors adopted the countywide objectives and policies of the Policy Plan for Fairfax County to replace the Introduction/Countywide volume of the Comprehensive Plan. At the same time, the Board adopted, in concept, the Concept for Future Development and the Land Classification System, to be used as guidance during the review of the Area Plans.

The Concept for Future Development is comprised of three elements: the Concept Map which shows the general location and character of future land uses; the Land Classification System which divides the County into eight broad categories that describe the desired future character for each area; and the Land Classification System Guidelines that give explicit direction for each land category in terms of land use, transportation, environment, public facilities, and parks and recreation.

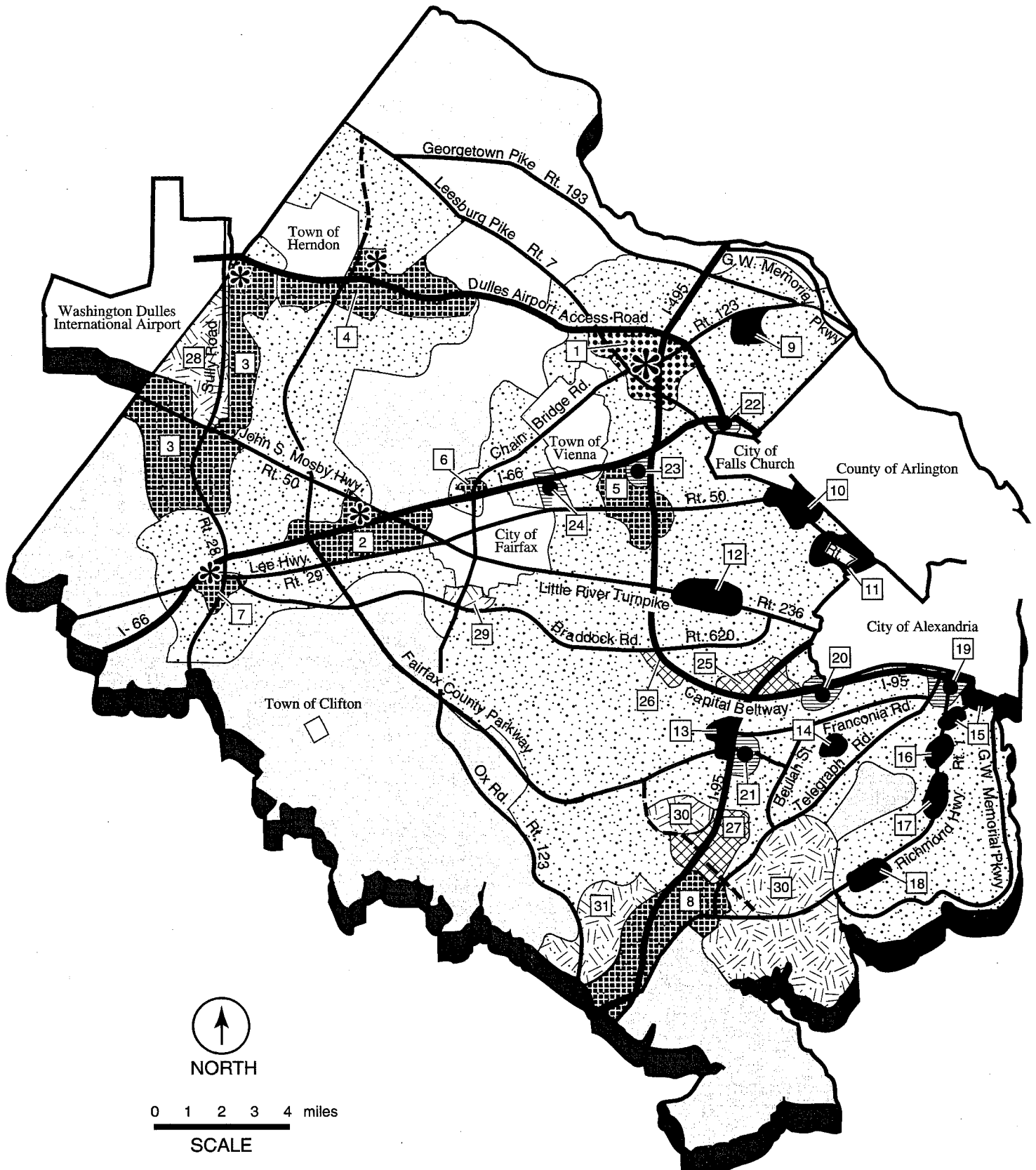
The Concept Map shows the general character of the County with respect to the types of appropriate land uses that should be encouraged. The Land Classification System, when graphically illustrated by the Concept Map, represents a clear future policy direction for Fairfax County.

The Concept Map's policy direction indicates that almost all employment growth should occur within designated Development Centers, Transit Station Areas, and Industrial Areas. When combined, these centers and areas encompass less than 10 percent of the County's land area. With the exception of the Industrial Areas, some degree of mixed-use development is encouraged for each of these employment areas. This emphasis on mixed-use development is designed to introduce a substantial residential component into these employment areas. Mixed-use development is generally defined as three or more uses designed to be functionally, economically and aesthetically integrated. The boundaries shown for these non-residential/mixed-use areas coincide with the current boundaries of commercial, industrial, and mixed-use areas as generally defined by existing non-residential zoning and/or the non-residential/mixed-use boundaries traditionally identified in the Area Plans.

Within some of these employment and mixed-use oriented centers and areas, limited portions have been designated as "core" or "transit development" areas. Medium to high density development intensities within these core and transit development areas may be planned to take advantage of transportation and other functional opportunities. Lower intensities are encouraged outside the "core" and "transit development" areas in the remaining portions of these employment and mixed-use centers. Transitions are planned between core and non-core areas. These transitions are created through the tapering down of development intensity and building heights, changes in use, and through landscaping, screening and buffering treatments.

The remainder of the County is composed of Suburban Neighborhoods and Low Density Residential Areas. In general, non-residential development is not encouraged within the Low Density Residential Areas; when appropriate, neighborhood-serving commercial services are encouraged within the Suburban Neighborhoods. The Concept Map is included on Figure 2. A full explanation of the Concept for Future Development is contained in the document Concept for Future Development and Land Classification System, August 6, 1990.

In summary, the Concept for Future Development sets forth a vision and direction for guiding Fairfax County's future growth and development. This Concept for Future Development generally describes the types and intensity of land uses that are appropriate throughout the County. It has been used in conjunction with the countywide objectives and policies contained in the adopted Policy Plan to provide a foundation and framework for the Area Planning process.



CONCEPT MAP FOR FUTURE DEVELOPMENT

CONCEPT MAP FOR FUTURE DEVELOPMENT

LOCATIONS OF MIXED-USE CENTERS

Urban Center

1. Tysons Corner Urban Center

Suburban Centers

2. Fairfax Center
3. Dulles (Route 28 Corridor)
4. Reston-Herndon
5. Merrifield
6. Flint Hill
7. Centreville
8. Lorton-South Route 1

Community Business Centers

9. McLean
10. Seven Corners
11. Baileys Crossroads
12. Annandale
13. Springfield (West)
14. Kingstowne
15. North Gateway and Penn Daw
16. Beacon/Groveton
17. Hybla Valley/Gum Springs
18. Woodlawn

Transit Station Areas

19. Huntington Metro Station
20. Van Dorn Metro Station
21. Franconia/Springfield Metro Station
22. West Falls Church Metro Station
23. Dunn Loring Metro Station
24. Vienna Metro Station

LOCATIONS OF LARGE INSTITUTIONAL AND INDUSTRIAL AREAS

Industrial Areas

25. Beltway South
26. Ravensworth
27. I-95 Corridor

Large Institutional Land Areas

28. Washington Dulles International Airport
29. George Mason University
30. Fort Belvoir (Main Post and Engineer Proving Ground)
31. District of Columbia Correctional Facility

LEGEND



Suburban Neighborhoods
(Residential density ranges defined
in Area Plans; 0.15-0.25 FAR*
for neighborhood-serving
non-residential use)



Low Density Residential Areas
(Residential density of
0.1 to 0.5 du/ac **, specific
density ranges in Area Plan;
Non-residential use intensity
0.05 to 0.1 FAR)



Tysons Corner Urban Center
Core (1.0-1.65 FAR;
35-60 du/ac)
Non-Core (0.25-1.0 FAR;
8-45 du/ac)



Suburban Centers
Core (0.3-0.8 FAR;
15-35 du/ac)
Non-Core (0.15-0.30 FAR;
5-25 du/ac)



Community Business Centers
(0.20-0.50 FAR; 5-25 du/ac;
if a core is designated,
intensities of up to 0.70
FAR may be allowed)



Transit Station Areas
(0.30-1.00 FAR;
8-45 du/ac)



Industrial Areas
(0.25-0.50 FAR for
Industrial Uses)



Large Institutional Land Areas

* FAR - floor area ratio
** du/ac - dwelling units per acre

SUMMARY: LAND CLASSIFICATION SYSTEM

Suburban Neighborhood:

- are the County's stable residential neighborhoods which are to be protected and enhanced by assuring compatible relationships between uses;
- contain a wide range of housing types, as well as supporting neighborhood-serving commercial uses, public facilities, and institutional uses; and
- have a variety of residential densities with the lowest category being 0.5 to 1.0 DU/AC and the greatest 16 to 20 DU/AC, depending upon location, and maximum allowable non-residential intensities of 0.15 to 0.25 FAR; Special Exception and Special Permit Uses may be appropriate at higher intensities provided that such intensities are determined to be compatible with the surrounding area.

Low Density Residential Areas:

- include ecologically significant areas;
- will achieve environmental protection primarily by restricting growth to large lot residential development;
- have allowable residential densities of 0.1 to 0.2 DU/AC or 0.2 to 0.5 DU/AC depending upon location;
- have maximum allowable non-residential intensities of 0.05 FAR to 0.10 FAR, depending on location; Special Exception and Special Permit uses may be appropriate at a higher intensities provided that such intensities are determined to be compatible with the surrounding area.

Tysons Corner Urban Center:

- contains a mixture of high intensity office, retail, and residential uses in a pedestrian-oriented, urban environment;
- consists of one or more core areas of highest intensity uses and peripheral areas of somewhat lessening intensities;
- has potential intensity for a core of 0.50 to 1.5 FAR, with intensities above 1.0 FAR limited to commercial/residential mixed-use projects;
- has potential intensities of 0.25 to 1.0 FAR in the non-core areas (with intensities above 0.70 FAR generally limited to commercial/residential mixed use projects);
- areas adjacent to single-family neighborhoods should be generally from 0.25 to 0.50 FAR;
- has potential residential densities of 35 to 60 DU/AC for a core area and densities of 8 to 45 DU/AC for the non-core areas (areas adjacent to single-family neighborhoods should be generally from 8 to 25 DU/AC);
- requires TSM programs which encourage the use of transit, carpools, and vanpools;
- makes planning provisions for transit alternatives.

Suburban Centers:

- encourage a complementary mixture of office, retail, and residential uses in a cohesive, low to moderate-intensity setting;
- contain core areas with a relatively greater intensity and more urban characteristics;
- have potential intensities of 0.30 to 0.80 FAR for cores and 0.15 to 0.30 FAR for non-core areas;
- have potential residential density ranges of 15 to 35 DU/AC for cores and 5 to 25 DU/AC for non-core areas;
- employ TSM programs to minimize traffic congestion.

Community Business Centers:

- include retail, office, cultural and residential uses in a community-scale, pedestrian-oriented setting;
- represent community focal points and include cultural, recreational, and institutional uses;
- have potential intensities of up to 0.70 for designated cores and of 0.20 to 0.50 FAR for non-core areas, and residential densities of 5 to 25 DU/AC (higher residential density may be allowed as part of mixed-use projects within designated cores).

Transit Station Areas:

- TSA boundaries are strongly influenced by the area's access characteristics and the relationship of the station to surrounding stable neighborhoods.
- are intended to optimize the development opportunities associated with rapid rail stations while maintaining the stability of existing, nearby land uses;
- allow a mixture of residential, office, and retail uses in accord with existing Metro Area Plans and future Transit Station Areas Plans; and provide opportunities for joint public-private development within these areas; and
- have potential intensity ranges of 0.30 to 1.0 FAR and potential residential density ranges of 8 to 45 DU/AC.

Industrial Areas:

- are intended primarily to provide suitable locations for industrially-related uses;
- generally limit future office uses to those which are accessory to the area's industrial uses;
- have potential intensity for industrial uses of 0.25 to 0.50 FAR;
- have potential intensity for offices uses of 0.15 to 0.25 FAR where such areas are specified in the Area Plan;
- consider replanning portions of Industrial Areas to Area Plan residential use designations only when a residential use will be compatible with adjacent existing and future uses.

Large Institutional land Areas:

- include publicly owned – state or federal – holdings;
- are not subject to the normal County review processes; and
- should encourage state and federal agencies to develop or redevelop their holdings only when plans are coordinated with the County.

PURPOSE OF THE AREA PLANS

The four Area Plans contain detailed recommendations for land use, transportation, housing, the environment, heritage resources, public facilities and parks and recreation. These recommendations refine the guidance provided in the Policy Plan and were developed within the framework of the Concept for Future Development.

Each Area Plan is subdivided into Planning Districts, which, in turn, are subdivided into Community Planning Sectors, the smallest geographical components of the Plan. The Community Planning Sector text provides details on existing development and planned land use. For purposes of development review and other land use related decisions it is emphasized that the planning guidance for each Planning District is contained in the Area Plan text; on the Area Plan map; in the Policy Plan; and in the land use guidelines contained in the Concept for Future Development and Land Classification System.

The primary planning objectives in all Area Plans are to:

- Realize the objectives and policies of the Policy Plan in planning and development decisions;
- Utilize the Concept for Future Development as a guide to land use planning decisions when Plan amendments are considered, and as guidance for non-residential development intensity in situations where there is no guidance in the Area Plans and;
- Employ site-specific guidance to review and formulate recommendations for development requests in furtherance of the public health, safety and welfare as provided in the Code of Virginia.

GENERAL PLANNING AREA RECOMMENDATIONS

Land Use

The Policy Plan contains countywide objectives for land use. These are organized under four broad categories: land use pattern; land use intensity; pace of development; and land use compatibility. The Policy Plan also contains detailed appendices which include locational guidelines for multifamily residential development, shopping centers, child care facilities and guidelines for other land use related issues such as neighborhood redevelopment. These objectives, policies and guidelines are to be used in conjunction with all of the land use recommendations contained in the Area Plans and, therefore, generally are not repeated in the Area Plans.

The Area Plans and the Plan map in concert with the Policy Plan provide site-specific land use recommendations. The Area Plan text provides detailed recommendations for areas within Planning Districts and Community Planning Sectors. Sector locator maps, included in the Area Plans, show the general locations referred to in the detailed recommendations. When the Area Plan text does not reference a specific location, the Plan map shows the recommended land use. The Plan text and map complement one another; however, in the event of a discrepancy between the specific recommendation of the text and the map, the text takes precedence.

For some parcels of land, the Area Plan recommendation provides a baseline level of density or intensity and an option for more intense development or alternative use if certain conditions are

met. Where such an option is provided, all of the specific conditions must be met before the option's baseline level of development may be considered. It is not the intent of the Plan to allow an intermediate level of development based upon fulfillment of some of the specified conditions unless an intermediate level of development is specifically provided for. Further, fulfillment of the Plan conditions related to the option does not supercede requirements of the Criteria for Assignment of Appropriate Residential Development Density or the Criteria for Assignment of Appropriate Non-residential Development Intensity outlined in the Policy Plan.

Transportation

The Policy Plan contains countywide objectives for transportation, a Transportation Plan map, and appendices outlining functional classification systems for transit systems and roadways, as well as roadway right-of-way requirements.

Highways and Highway Improvements Affecting Each Planning District

The arterial and major collector roads affecting each of the Planning Districts are shown on the respective district-wide maps. When examining these maps, the following points should be recognized:

- Most Plan elements represent expressions of need and County policy with regard to these needs. Specific and explicit guidance is incorporated in the adopted Policy Plan requiring additional analyses of individual recommendations as a prerequisite for construction (see Transportation Objective 1 Policy b).
- With few exceptions, detailed engineering design has not been accomplished, and final alignments and design features have not been established. Specific design features, such as the location of medians and turning lanes, and specific interchange configurations are determined in the design and design public hearing processes, and are not addressed in the Area Plans.
- As with design issues, many operational issues such as signalization and signage, parking, and cut-through traffic are addressed through other existing processes, and as such are not addressed in the Area Plans.

The corridor-level studies should emphasize consideration of environmental limitations, community stability and the cumulative effect of other transportation network improvements in the area. In allocating and accommodating existing and forecast travel demand generated within the area served by the transportation corridor under study, they may identify alternate and preferred routes and/or modes of travel within the area generally served by the transportation corridor under study and recommend improvements to the transportation network over and above or that differ from those identified on the adopted countywide Transportation Plan map.

Arterial roads, even if not specifically designated for widening on the adopted countywide Transportation Plan map, should be subject to corridor studies when and if severe transportation deficiencies are identified within the area served by these roads. If widening of any such roads beyond the lanes indicated on the Plan map is recommended as a result of such studies, a Plan amendment would be required.

Right-of-Way Requirements

In an effort to preserve land for roadway improvements, to decrease delays in land acquisition, and to obtain land before land values are associated with developed properties, requirements are set forth regarding right-of-way limits for roadways as shown on Table 1. This table represents a modification of the right-of-way limits shown in Appendix 2 of the Transportation element of the Policy Plan.

The rights-of-way specified therein should be obtained through the development approval process (e.g. rezoning, special exception, site plan, etc.) as applications are submitted to the County. The provision of these rights-of-way will allow for future road improvements to be constructed with adequate ancillary features such as turning lanes, trails, and buffering, while minimizing impacts on properties which are subsequently developed. It should be stressed, however, that the ultimate roadway designs will recognize available right-of-way to the extent possible; the intent of these requirements is not to impose a rigid right-of-way swath through areas or mature neighborhoods, but rather to secure additional right-of-way needed for road improvements as development or redevelopment occurs.

Freeways

Right-of-way needs along freeway facilities can be variable and extensive. The right-of-way may need to accommodate HOV treatments and rail transit as well as roadway configurations which are difficult to standardize such as collector-distributor systems. The right-of-way requirements for freeway facilities should be based upon the associated studies for each improvement. These studies could include the detailed corridor analyses, which are referred to in Transportation Objective 1, for the Shirley Highway, I-66 and Dulles Airport Access Road Corridors as well as other environmental impact studies, feasibility studies and design efforts.

Arterials

The right-of-way requirements for arterial roadways based upon the number of lanes and the type of edge treatment provided are detailed in Transportation Appendix 2 of the Policy Plan. The number of lanes refers to the designation on the Transportation Plan. Edge treatment is also more fully discussed in the Policy Plan Transportation Appendix. It is anticipated that curb-and-gutter sections will be provided throughout the County, except in some Low Density Residential Areas and in Suburban Neighborhoods, where shoulder sections may be considered as an option on an individual roadway basis.

Collectors and Locals

The rights-of-way for collector and local streets should be determined by the application of the Public Facilities Manual or other appropriate ordinances, unless proffers or other specific development conditions have been established for the affected road.

Interchanges

Interchange locations have been identified on the Transportation Plan map and are also shown as Plan elements on the district-wide map. The provision of an interchange has both land use and transportation planning implications. In terms of land use, caution must be exercised in reviewing development proposals in the immediate interchange area due to

TABLE 1

**Right-of-Way Requirements (in Feet) for Roads
Shown on Transportation Plan Where No Plans Exist ^{1,6}**

Lanes	Edge Treatment	
	Curb-and-Gutter	Shoulder
2 lane	--	90
4 lane	112	158
6 lane	136	182
8 lane	160	206

Add XX feet of right-of-way for each of the following special circumstances:

	<u>XX</u>
Tandem Left Turn Lanes at Major ² Intersections on All Legs	12
Right Turn Lanes at Major ² Intersections on All Approaches	12
Enhanced Median Treatments ³	4
Service Drives ⁴	92
Parking Lanes ⁵	9

Add 15 feet in ancillary easements.

Add supplemental right-of-way with transitions to avoid special features (e.g., historic properties, parks, cemeteries, wetlands, landfills, sewage and water treatment facilities, existing buildings, etc.) and/or to improve horizontal alignment. Add 40 feet radius at intersections dedicated to the chord of the radius curve.

¹ Where design plans consistent with the Comprehensive Plan and providing all anticipated future turn lane requirements are developed to a sufficient level of detail and approval, right-of-way and easement dedication requirements should be based upon them.

² Within 500 feet of intersections of arterial roads with collectors or with other arterials unless specifically determined by a traffic study to not be needed.

³ Commercial revitalization areas or other special areas where landscaping or special design features are desired.

⁴ Primary Highways, except where waived.

⁵ On side(s) of road where residences front on the road or service drive. Does not apply to shoulder sections.

⁶ Where a substitute trail is to be provided in easements within the development site, the right-of-way requirements can be reduced in an amount to be determined by VDOT and DEM; however, adequate right-of-way must be retained to meet VDOT clear zone requirements.

right-of-way implications. In terms of transportation planning, care must be taken to accommodate revised access patterns in the immediate area, since the interchange ramps cause grade changes and weaving/merging traffic conflicts. Because of these interchange features, access to properties in close proximity to the intersection is often affected by interchange construction.

The amount of land needed for interchanges, and the extent to which access must be re-oriented, varies with the actual design of the interchange. Many planned interchanges have not been designed and their specific configurations are unknown. In these instances, every effort should be made to accommodate the potential access modifications associated with a future design. Toward this end, typical dimensions of potential ramps and acceleration/deceleration lanes have been established based on typical interchange design.

The interchanges shown on the sector maps identify the roadway segments of the intersecting streets where access must be restricted to accommodate these potential designs based on the typical dimensions. The restriction of access as used herein is intended to guide the manner in which access is provided to parcels in close proximity to the interchange. Any development or redevelopment of property affected by such access restrictions should recognize the need to re-orient access in anticipation of the future interchange. The design of such sites should be consistent with and oriented to the provision of alternate access. Such access may take the form of an alternative street or street system (e.g., reverse frontage), the provision of service drives or similar parallel frontage roads, or some combination thereof. In those instances where interchange designs have been approved or are in active stages of development, the maps contained in this section do not show these restricted access segments. Where an interchange project is in an active design stage, or where such designs have been approved, access in the intersection area should be planned to be consistent with such designs.

Transit and High Occupancy Vehicle (HOV) Facilities

Several major public transportation features are incorporated into the countywide Transportation Plan. In general, these features may be grouped either as corridor recommendations, or as specific supporting facility recommendations. They are shown on the district-wide and sector maps. These recommendations are briefly summarized below.

Corridor Recommendations

The countywide Transportation element of the Plan recognizes the need for significant public transportation improvements in many specific corridors. The Plan also recognizes, however, that the final determination of the most appropriate mode of public transportation should be based on a detailed corridor-level analysis of the various possible alternatives. Thus, the Transportation Plan identifies several "Enhanced Public Transportation Corridors" on the map, and incorporates a policy requiring the detailed analysis of alternative transportation modes within those specific corridors (see Transportation Objective 2, Policy b).

Similarly, the countywide Plan identifies several potential High Occupancy Vehicle (HOV) facilities, and indicates that the ultimate determination of HOV feasibility and performance should occur after more detailed corridor-level studies are completed.

Supporting Facility Recommendations

Regardless of the mode of public transportation chosen in a specific corridor, supporting facilities such as commuter park-and-ride lots must be identified and located. Such sites could serve as parking areas for HOV or express bus collection, or as rail stations, or perhaps for both functions as public transportation ridership increases over time. The Plan locates these sites in order that actions can be taken to preserve their availability, since the supply of potential sites is rapidly decreasing as the County continues to develop.

The countywide Transportation Plan identifies approximate locations for these facilities. The District Plans provide an opportunity to apply this countywide guidance to specific areas, so that properties affected by such recommendations can be appropriately developed, preserved, or protected in the development approval process. In some cases, the District Plans might contain alternative sites for these facilities in order to preserve flexibility until a final determination of site location is made.

The countywide Transportation Plan map contains several different symbols representing different types of supporting facilities. These are briefly discussed below:

- T = Transit Transfer Center (no parking). These facilities consist primarily of bus loading areas and passenger waiting areas at locations where multiple transit routes and/or modes may be reasonably expected. They have good access both to nearby arterials and freeways in order to minimize transit travel times. They could be free-standing, individual facilities or could easily be integrated with the design of a building. No automobile parking lots would be provided at these locations, consistent with their intended function as transfer centers.
- R = Rail Station. A rail station as defined on the countywide Plan map represents a location where a rail rapid transit station could be located, assuming the selection of rail as the preferred mode in the corridor (see previous discussion). For similar reasons, it should not be assumed that such stations would be extensions of the WMATA Metro system, as other rail modes may also be considered. Rail stations may or may not be accompanied by automobile parking areas, depending on the nature of the area. The rail station symbol is accompanied by the Commuter Parking (P) symbol for those sites where such parking appears to be possible.
- P = Commuter Parking Lot. Commuter parking lots are shown on the countywide Plan Map along major highway corridors where sufficient land area having access to the highway may be available. These lots could function either as traditional commuter park-and-ride lots associated with HOV and/or express bus service, or as parking for a rail station as appropriate. The size of such lots may vary; however, these lots should generally be no smaller than 500 spaces in order to maximize their efficiency as transit collection and staging areas. These facilities must have good access to nearby arterials and freeways in order to be effective.
- C = Commuter Rail Station. Commuter Rail Stations are identified along the Norfolk Southern and RF & P rail lines where commuter rail service is planned. Commuter rail station parking areas are generally surface lots accommodating between 200 and 800 vehicles.

Service Drives

Service drives are required by the County's Zoning Ordinance along Primary Highways. The requirement supports the County's transportation objective to maximize the efficiency of roadway facilities. Primary Highways are arterials which primarily accommodate through travel movements. However, direct access to and from these highways occurs frequently. In general, the provision of many access points reduces the efficiency and capacity of an arterial road. This reduction is caused by the interruptions in smooth traffic flow due to turning movements into and out of the driveway entrances. Service drives provide for the separation of the access and travel functions along roadways. When correctly planned and built, their use allows the adjacent parallel roadway to operate more efficiently, with increased capacity and improved safety. At the same time, access to adjacent properties is provided and oriented to controlled access points. Service drives also allow for purely local interparcel trips to be made without disrupting the through traffic on the adjacent arterial. On the sector maps, which describe the transportation recommendations, the required application of service drives along Primary Highways is noted.

It is recognized that service drives are not without disadvantages. Operational problems are created where the service drive intersects side streets because of inadequate intersection separation. Moreover, service drives are often incomplete along a given road segment, and numerous entrances often exist between the service drive and the arterial. Both of these situations reduce the effectiveness of the service drives.

For these reasons, service drives should be minimized and alternatives to service drives should be provided whenever possible. The Zoning Ordinance allows for service drives to be waived if alternative interparcel access is available, or if other compelling circumstances are present, and such waivers are often granted. However, service drives are utilized extensively in many of the older commercial highway corridors in the County, such as Route 7 between Seven Corners and Baileys Crossroads, Route 236 through Annandale, and Route 1 between Alexandria and Fort Belvoir. The system of service drives in these commercial areas is characterized by incomplete connections which return the local traffic to the arterial mainline. The segments which are built are not necessarily in the State highway system and therefore do not meet the State's standards for construction and maintenance. Large potholes, parked vehicles, and barricades exist on many of these privately maintained service drives. It is important to complete the service drives along the Primary Highways and upgrade the substandard segments so they can be incorporated into the State's maintenance program.

Cases occur where the widening of the primary highway eliminates the service drives which preceded the widening. The Plan should anticipate these situations by providing for alternatives to the service drive, such as consolidation of entrances and provision of interparcel access through travelways, or by other means. This feature is addressed by Objective 9b of the Transportation element of the Policy Plan. Where other alternative measures may be available, they are identified in the Area Plans.

Site Access

In many instances, the Area Plans identify the primary orientation of access to a specific site or group of sites. Such recommendations are shown by arrow symbols on the sector and/or sub-sector maps. The purpose of these recommendations is to identify the primary access orientation of the area(s) in question. The symbols indicate the direction and approximate location of the primary access point(s) to the site. Where such access is identified in the Area

Plans, the specific details of providing this access may be resolved at the rezoning or site plan stage of development review. Where such access orientation recommendations exist, the absence of an arrow symbol in a specific direction or to a specific road should be construed as a recommendation that access not be provided in that direction, or that any such access be secondary in nature.

Level of Service

Application of transportation levels of service is intended to be a mechanism for timing development in this Plan. For areas where the appropriate level of service (LOS) is not specified in the Area Plan, it is anticipated that a minimum LOS will be determined through future analyses. These analyses should be performed in a subsequent phase of the Planning Horizons process. The Planning Commission in conjunction with the staff should determine the best way to proceed with an appropriate process for analysis and recommended amendments to the Plan. Lower levels of service may be assigned to development centers and cores, where the Plan proposes that growth will be concentrated. Higher levels of service may be recommended in outlying areas, where the spread of development is inimical to an efficient transportation system. Applicants for new development should be required to demonstrate that their proposals will meet the level of service designated for their area. Upon adoption by the Board, these sector-specific levels of service for transportation should be inserted into the Area Plans.

In the interim, development applications will be reviewed based on the "non-degradation" and "offsetting impact" policies discussed below:

"Non-degradation" Policy: The "non-degradation" policy requires applicants to ensure that the transportation system affected by the application performs no worse after the project is developed than it would otherwise. This approach is primarily a performance based approach which requires applicants to provide improvements or other guarantees to maintain certain performance levels. These levels would be measured by levels of service or critical movement volumes or other measures as deemed appropriate by the Office of Transportation.

"Offsetting Impact" Policy: The "offsetting impact" policy requires applicants to contribute to transportation improvements. The contributions would be proportional to the traffic generated by the project and the amount of transportation capacity required to accommodate that traffic, presumably based on lane-miles. However, this policy would not ensure that the localized performance of the transportation system would be maintained. Instead, it recognizes that in some instances, it may be impossible for performance to be maintained or for one individual applicant to provide the transportation improvements which may be needed.

In general, the "non-degradation" policy would be pursued in reviewing development applications, with the "offsetting impact" policy employed in those instances where the "non-degradation" policy is not appropriate.

Housing

The Housing element of the Policy Plan contains objectives for promoting affordable housing, conserving stable neighborhoods, encouraging rehabilitation and increasing the supply of housing available to special populations.

Each Planning District within the Area Plans includes a chart which designates existing and proposed sites for assisted housing. Each district plan also includes recommendations for the preservation and conservation of stable residential areas and identifies areas where new housing development, including multi-family housing, may be appropriate. In general, higher density housing is planned to be located within or in proximity to mixed-use centers as envisioned in the Concept for Future Development.

Environment

The Environmental element of the Policy Plan provides guidance for achieving a balance between the need to protect the environment and planning for the orderly development and redevelopment of the County. This element contains objectives for preserving and improving air and water quality; minimizing noise and light pollution; minimizing exposure to environmental hazards including unstable soils, flood impact areas and pipeline and electrical transmission lines; preserving environmental resources; and protecting and enhancing the Environmental Quality Corridor (EQC) System.

Environmental objectives and policies of the Policy Plan apply throughout Fairfax County, in conjunction with the environmental policies contained in the Area Plans. Therefore, the Area Plans contain only limited additional guidance.

Text addressing areas with specialized environmental concerns, including the Difficult Run Watershed, the Occoquan Basin and the Dulles Airport Noise Impact Area is presented below. Text concerning the Difficult Run watershed is also presented in the Area II Plan.

Difficult Run Watershed

The Difficult Run Environmental Quality Corridor has been classified as a critical environmental area by the State of Virginia. Floodplains and shallow bedrock depth on valley slopes constrain development. The area contains soils with relatively good bearing capacity but the potential for severe erodibility.

Part of the Difficult Run watershed was the subject of an environmental and land use study, the Difficult Run Headwaters Land Use Study, April 1978, prepared by the Office of Comprehensive Planning. The study area was analyzed for its ability to accept various residential densities and simultaneously maintain high-quality environmental standards. The primary environmental objectives for this area are designed to protect this fragile environment from the impacts of urbanization such as increased stormwater runoff, increased nonpoint source pollution loadings, stream channel enlargement, loss of high-quality wildlife habitats, increased number of septic fields and possible soil and groundwater contamination from septic effluent.

A detailed environmental inventory identified geologic, topographic, hydrologic, vegetative, soil, wildlife, air quality, noise and open space factors. This information was used to prepare a land use design that would minimize the impacts of development in a region that is not planned for sanitary sewer service and serves as a green space between Fairfax, Vienna, Chantilly and Reston.

An Environmental Quality Corridor (EQC) was outlined using a U.S. Forest Services water quality filter strip equation, areas of steep slopes, U.S. Geological Survey designated 100-year floodplain and existing parkland. The result is an environmentally sensitive plan with

land use boundaries determined by the environmental carrying capacity of the land. The environmental factors, together with other factors such as existing and committed development in the area and site and road design controls, are reflected on the Plan map for this area.

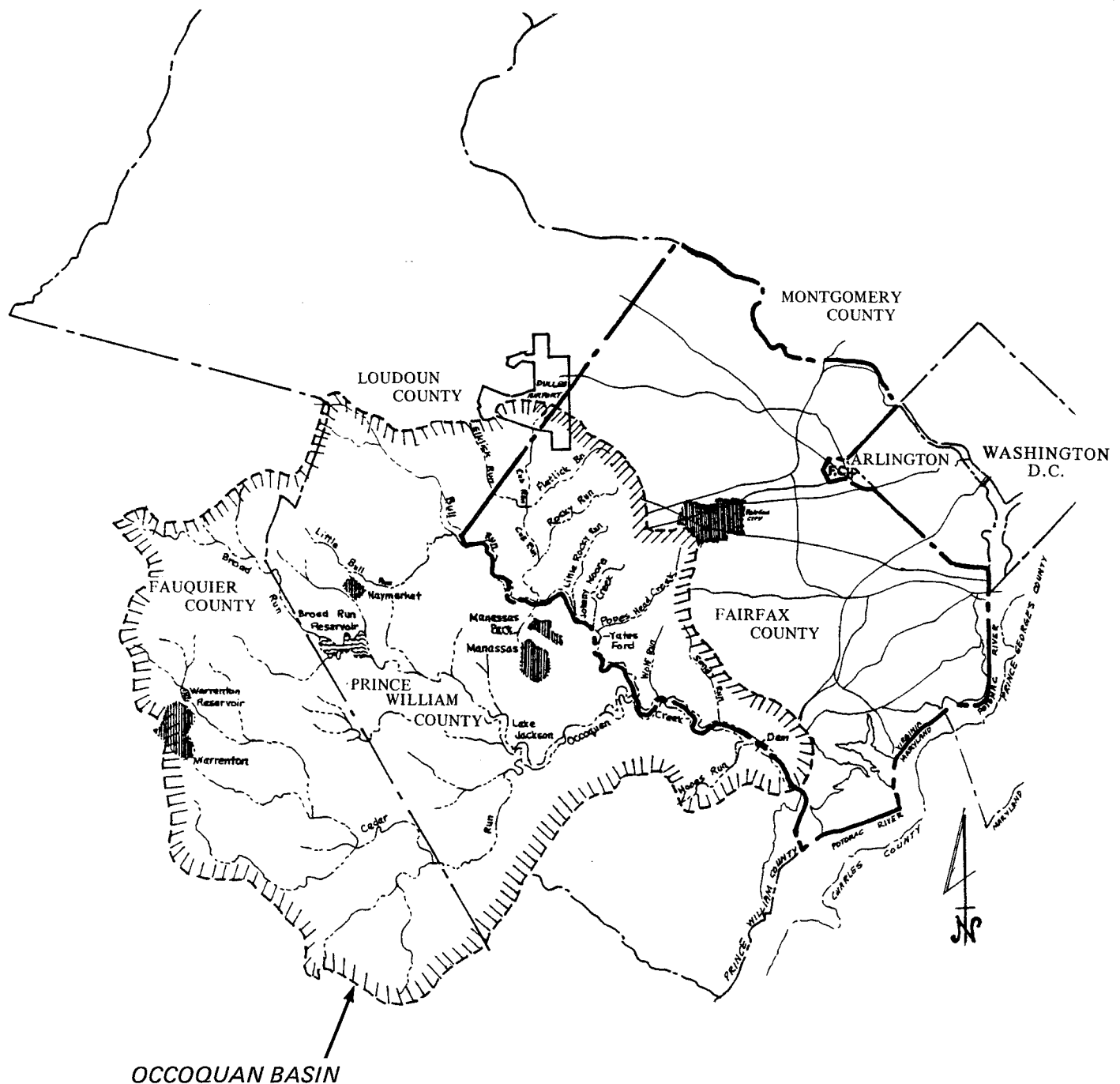
Areas with long narrow ridge lines, thin overburden, highly erodible soils, steep topography, high quality vegetation and poor access are planned for very low density (less than one unit per five acres) uses. One unit per two to five acres is proposed for areas adjacent to streams where topography is relatively steep, overburden moderately thick (10-50 feet) and soils moderately erodible. Areas on plateaus or ridge lines where thick overburden (50 feet or more), gently sloping topography, good septic suitability soils, mixed vegetation and varied access points are capable of accommodating somewhat higher density development are planned for .5-1 dwelling unit per acre.

Factors other than environmental considerations were also evaluated before arriving at the land use recommendations shown on the Plan map. Since adoption of the Plan recommendations, there has been some development which limits the options for planning this sensitive headwaters areas only for very low densities. Existing and committed development is used in Plan recommendations in many areas of the Difficult Run headwaters to obtain compatible densities. New development should also be compatible with the established development pattern in its vicinity with similar lot sizes, provided these lot sizes would not be detrimental to environmental amenities.

Owners of large tracts are encouraged to plan and develop these tracts as an entity. Also, owners of small parcels adjacent to large parcels should consolidate them with the larger tracts in order to create a more integrated development. Such development could produce more imaginative designs, preserve a variety of habitats, and provide recreational facilities and a variety of architectural styles.

Protection of the Occoquan Basin and the Public Water Supply

The Occoquan Reservoir is an 11 billion gallon impoundment that forms the southern boundary of Fairfax County (See Figure 3). It is owned by the Fairfax County Water Authority and is a principal source of the drinking water supply for 800,000 Northern Virginians. In 1982, in recognition of the impacts of nonpoint source pollution on the Occoquan Reservoir, the Board of Supervisors implemented the recommendations of the Occoquan Basin Study in order to protect the public water supply. A water quality goal of no further increase in nonpoint source pollution from the Fairfax County portion of the Occoquan Watershed was adopted. To meet this goal and to ensure compatible infill development in the watershed area, 40,000 acres of land south and southwest of Fairfax City and west of Cub Run were planned and zoned to allow residential densities not to exceed an average of one dwelling unit per five acres. In addition, the entire watershed area was placed in an overlay zoning district (the Water Supply Protection Overlay District) which requires that new development reduce projected runoff by one-half compared to the runoff levels that would be expected without any mitigation. This requirement was implemented through an amendment to the Public Facilities Manual which established stormwater management Best Management Practice (BMP) design standards for development within the overlay district. The use of BMPs in areas planned for urban and suburban intensities and low density residential development in the remainder of the watershed remain primary ways to achieve the water quality goal established by the Board.



FAIRFAX COUNTY AND THE OCCOQUAN BASIN

FIGURE 3

Land Use Planning within the Dulles Airport Noise Impact Area

Due to the location of runways, the type and frequency of various aircraft using the airport, as well as airport operating procedures, portions of Fairfax County in the vicinity of Dulles Airport are either currently, or are projected to be, subjected to levels of aircraft noise which may be incompatible with residential development and other noise sensitive land uses.

Considerable research has been done to determine to what extent there is a direct relationship between periods of exposure to certain levels of noise (particularly aircraft noise) and identifiable, adverse physiological effects on people. The effects of noise have been researched and while complete causal relationships have not been definitively established for nonauditory effects, empirical observation has documented that noise can affect exposed individuals indirectly by disturbing the general environment in which they live. Based upon scientific consensus, the Environmental Protection Agency has determined that the point at which overall human perception of aircraft noise becomes a problem is around the 65 dBA Ldn level. For this reason, the Board of Supervisors has selected the 65 dBA Ldn contour as a boundary within which new residential development is not recommended. A zoning overlay district (the Airport Noise Impact Overlay District) has been established to require noise mitigation for those noise sensitive uses that are established in the impacted area.

Fairfax County has delineated the boundaries of the Airport Noise Impact Overlay District based on the 1983 Metropolitan Washington Airports-Federal Aviation Administration (MWA-FAA) study to update noise exposure contours and noise compatibility plans for Dulles Airport. This study is a continuation of the Dulles Master Plan update process and was undertaken to satisfy the requirements of the Aviation Safety and Noise Abatement Act of 1979. There are several reasons for the selection of the noise exposure contours developed under this study:

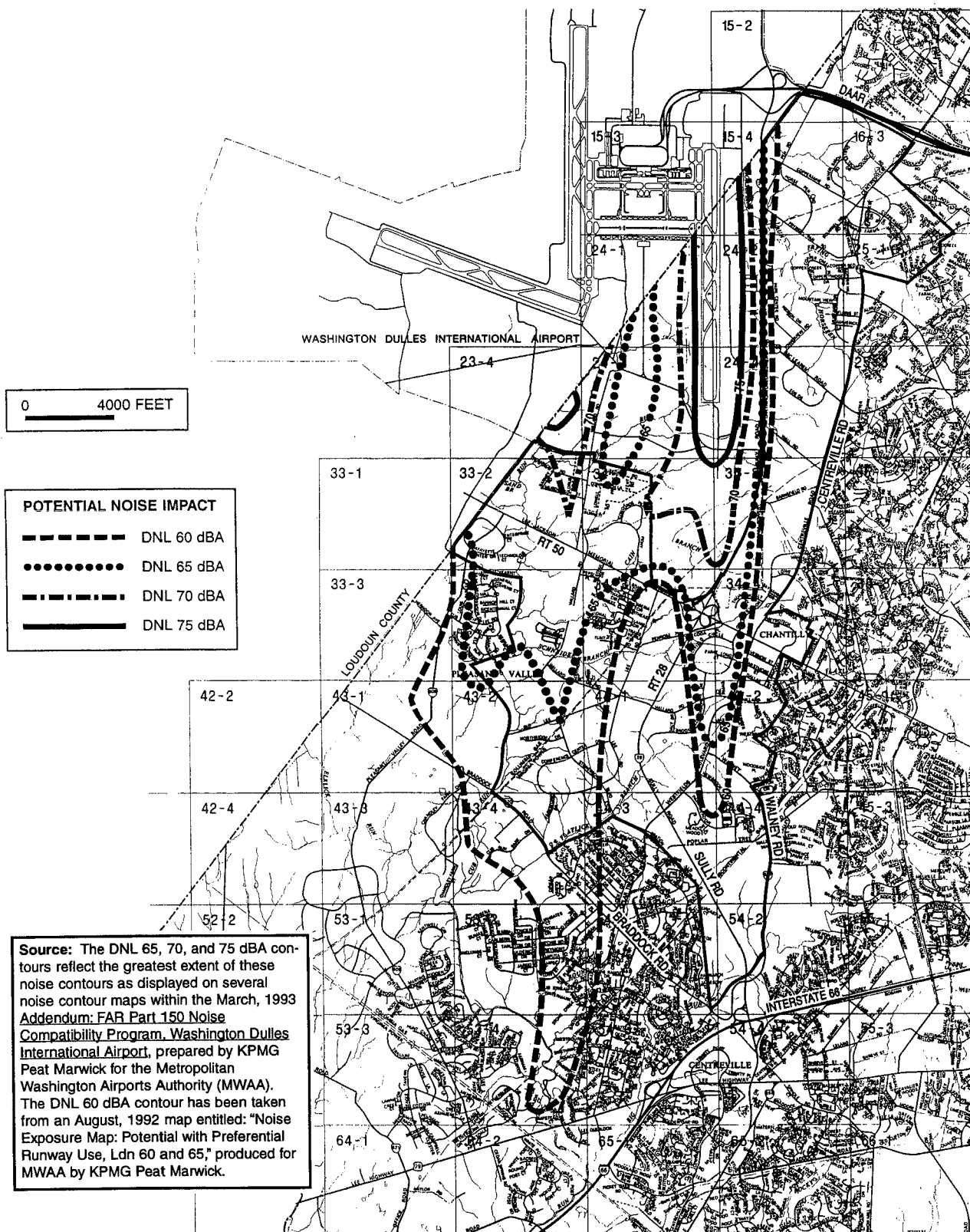
1. MWA-FAA in August 1983, in a letter to the County, confirmed that the "potential," post-2000 noise impact contours which are based on the ultimate capacity of Dulles Airport, developed under the 1983 update study, represent the latest, best available and most appropriate noise impact assessment contours for land use planning purposes.
2. The baseline noise contours used in the 1983 update study appear to be the most accurate contours available and are based on actual flight track data and noise monitoring. Thus, the 1983 study builds its forecasts and plans upon the most accurate representation of the current situation, thereby reducing the degree of possible distortion in its longer-range noise exposure forecast planning.
3. The planned improvements, as set forth in the 1983 study, most realistically reflect the Metropolitan Washington Airports' goals for Dulles Airport expansion. This permits a full examination of the implications of Dulles Airport expansion as envisioned by its proprietor and does not prematurely place the County in the position of implicitly recommending the curtailment of the Dulles Airport expansion.
4. The 1983 update study represents the most current study exclusively prepared for the purpose of examining aviation activity forecasts, existing facilities and airport needs through the year 2000 and beyond. This timeframe represents the longest planning period considered in the development of the set of contours presented. Land use planning considerations based on the set of contours developed under this study will

provide for the highest level of protection of the public health, safety and welfare based upon the most current, best available information.

Recognizing that the objective of the County is to minimize to the fullest extent the potential for adverse aircraft noise impacts upon its citizens, the County has selected the ultimate "potential" noise contours which reflect the post-year 2000 Dulles Airport activity level. As new appropriate noise contours become available, this information will be brought before the Board of Supervisors so that appropriate modifications can be made, if necessary, to the Comprehensive Plan to reflect the most recent and most appropriate delineation of the Dulles Airport Noise Impact Area to which land use compatibility policies will be applied.

Figure 4 illustrates the ultimate "potential" noise impact forecast contours for Dulles International Airport, and related to these contours are the land use compatibility guidelines set forth in Table 2. This table establishes the basis for land use decisions within the designated Dulles Airport Noise Impact Area.

The basis for the land use compatibility guidelines outlined in Table 2 can be found in existing federal regulations. The Department of Housing and Urban Development (HUD) in Noise Abatement and Control Standards (Circular 1390.2, August 4, 1971), and the Federal Interagency Committee on Urban Noise in Guidelines for Considering Noise in Land Use Planning and Control (1980) have published noise compatibility guidelines to encourage land utilization patterns for housing and other municipal needs in noise-impacted areas. These standards are intended to separate uncontrollable noise sources from residential and other noise-sensitive areas. The Department of Housing and Urban Development criteria for residential compatibility are presented on Table 3.



DULLES AIRPORT NOISE IMPACT AREA

FIGURE 4

TABLE 2
Land Use Compatibility Guidelines
Within The Dulles Airport Noise Impact Area

<u>Activities and/or Land Uses</u>	<u>Greater than 75 dBA Ldn</u>	<u>70-75 dBA Ldn</u>	<u>65-70 dBA Ldn</u>	<u>Less than 65 dBA Ldn</u>
Residential ¹	Not Allowed	Not Normally Permitted	Conditionally Permitted	Permitted
Residential ² , Educational, and Institutional ³	Not Allowed	Not Normally Permitted	Conditionally Permitted	Permitted
Auditoriums, Concert Halls	Not Allowed	Not Allowed	Not Allowed	Permitted
Offices, Personal, Business and Profes- sional Services, Retail Commercial Uses, Movie Theaters, Restaurants ⁴	Conditionally Permitted	Conditionally Permitted	Permitted	Permitted
Transient Lodging (Hotels, Motels)	Not Allowed	Conditionally Permitted	Conditionally Permitted	Permitted
Sports Arenas, Outdoor Spectator Sports	Not Allowed	Not Allowed	Permitted	Permitted
Playgrounds, Neighborhood Parks	Not Allowed	Not Allowed	Permitted	Permitted
Golf Courses, Driving Ranges, Water Recreation, Cemeteries ⁵	Permitted	Permitted	Permitted	Permitted
Commercial Wholesale and Selected Retail, Industrial/Manufacturing, Transportation Communication and Utilities ⁶	Permitted	Permitted	Permitted	Permitted
Animal-related services ⁷	Not Allowed	Permitted	Permitted	Permitted
Agricultural	Permitted	Permitted	Permitted	Permitted

NOTE: "PERMITTED" PRESUMES COMPLIANCE WITH THE DENSITY RANGE AND OTHER STIPULATIONS SPECIFIED IN THE ADOPTED COMPREHENSIVE PLAN

Footnotes to Activities and/or Land Uses:

¹ Single-family detached, duplex, mobile home parks.

² Townhouses, triplex and quadplex units, apartment houses, other multifamily dwellings, rooming houses, boarding houses, old persons homes, sorority and fraternity houses, dormitories, boarding schools, convalescent homes.

³ School classrooms, libraries, churches, hospitals.

⁴ Professional and financial offices, banks, savings and loan associations, mortgage bankers, insurance offices, real estate offices, architects, engineers, attorneys-at-law, decorators, medical and dental clinics and labs, funeral homes and mortuaries, retail stores, clothing stores, department stores, food and dairy markets, cafes, restaurants (enclosed and drive-in), cafeterias, barber shops, beauty shops, new and used car sales, country clubs.

⁵ Swimming pools, shooting ranges, miniature golf courses.

⁶ Auto salvage and wrecking yards, industrial metal and waste salvage yards, manufacturing facilities, gasoline service stations, ambulance services, automotive repair garages, public storage garages, taxi dispatch offices, automobile washing stations, lumber yards, warehousing, motor freight terminals, railway passenger and freight stations, airport services.

⁷ Animal grooming services, dog kennels, veterinarians and veterinarian hospitals.

TABLE 3
HUD Development Criteria for Residential Compatibility

<u>Rating</u>	<u>Recommendation of HUD</u>
Less than 65 dBA Ldn	Acceptable
65 dBA Ldn to 75 dBA Ldn	Discretionary
Greater than 75 dBA Ldn	Unacceptable

Correspondence with the Department of Housing and Urban Development indicates their belief that residential development in the 65 to 70 dBA Ldn area "should not occur as a general rule, and only if other less exposed sites are not available and mitigation measures will be undertaken. In aircraft noise situations attenuation that can be used does not provide for protection of outdoor living areas." As a result the Department of Housing and Urban Development does not endorse development in the 65-70 dBA Ldn portion of the discretionary range "unless sites with less noise exposure are not available."

Allowable Height of Structures in the Vicinity of Dulles Airport

The Federal Aviation Administration (FAA) has established criteria for formal notice to FAA of certain proposed construction or alterations of structures near airports. It also has established standards in what are commonly known as the FAA Part 77 regulations, for determining what may be obstructions in navigable airspace. Once an obstruction has been identified, the FAA will undertake an aeronautical study to determine whether the structure will have a substantial adverse effect on the safe and efficient utilization of the airspace--i.e., whether the structure would be deemed a hazard to air navigation.

It is the policy of the Board of Supervisors not to permit the erection of structures which have been determined by FAA to pose a hazard to air navigation. It is further the policy of the Board of Supervisors to carefully evaluate all proposed structures which, if constructed, would constitute an obstruction (as defined by an application of FAA Part 77 obstruction standards to Dulles International Airport's facility configuration, technical characteristics, and surrounding terrain).

In order to implement these policies, the public is advised to undertake official notification of the FAA Regional Office of the proposed construction of any structure meeting any of the following criteria:

1. The construction or alteration will be more than 200 feet in height above ground level at its site;

2. The construction will be in an instrument approach area, available information indicates it might exceed an obstruction hazard standard, and the FAA makes a specific request for notice; or
3. The construction penetrates an imaginary surface that extends outward and upward from the nearest point of the runway at a 100:1 slope, for a distance of 20,000 feet.

In order to further implement the policies of the Board of Supervisors, the County will utilize FAA's obstruction standards, as applied to Dulles Airport and contiguous land, as guidance in making its own determinations as to the allowable height of structures. The three relevant obstruction standards are (i.e., an obstruction will be found if it is higher than any of the following):

1. A height of 500 feet above ground level at the site;
2. Two hundred feet above ground level or the "established airport elevation" (312 feet), whichever is higher, within three nautical miles of the "established reference point" (near the bottom of the westerly north-south runway, 19R-1L), with that height increasing 100 feet for each additional mile from the reference point up to a maximum of 500 feet; or
3. An imaginary surface, 1,000 feet wide, extending from the end of the runway, at a slope of 50:1, for 10,000 horizontal feet, and at 40:1 for an additional 40,000 horizontal feet, with its outermost edge being 16,000 feet wide.

It should be noted that the standards presented here are simplified from FAA's Part 77 regulations. There are "imaginary" or geometric surfaces described in the regulations that apply in the analysis for the potential for obstruction, and the piercing of any of these surfaces by a structure will cause a finding that such is an obstruction. Whether an actual hazard is created will still remain within the purview of the FAA.

Heritage Resources

The Heritage Resources element of the Comprehensive Plan provides guidance in achieving a balance between physical and economic growth and preservation of the County's resources. Objectives and policies focus on three general issues: identification of the resource base; protecting and preserving significant heritage resources; and community involvement.

The Area Plans identify specific heritage resources including architectural, historic and archaeological resources. Each District Plan contains a chart of the resources derived from the County's Inventory of Historic Sites. In some sectors, historic overlay districts are identified and special land use guidelines related to these districts are cited under the Recommendations section.

Public Facilities

The Public Facilities element of the Policy Plan provides guidance for an effective and efficient public facilities system. Public facilities are defined as those facilities required to support governmental services and functions or public utility companies. The Policy Plan contains countywide objectives for establishing a facility network which is responsive to the County's ability to pay, community expectations, the public health, safety and general welfare and neighborhood and land use impacts. Additional objectives relate to education, libraries, public safety and utilities and services.

In the Area Plans, existing public facilities are identified on a chart for each Planning District. Where a need for additional public facilities has been identified, these facilities are also included within the District Plan overview. Site-specific recommendations are included within the Community Planning Sector recommendations.

Parks and Recreation

The Parks and Recreation element of the Policy Plan contains countywide objectives for the provision of a high quality, diverse park and recreation system. As defined by service areas, the County should plan, develop and maintain four primary types of parks: Neighborhood, Community, District and Countywide. These are augmented by regional, State and Federal parks. The parks classification system and standards for establishment of parks and recreation facilities is contained in the Parks and Recreation Appendices of the Policy Plan.

The Area Plans identify existing and proposed parks within the Parks Classification System. A summary chart of existing public parks is included in the overview for each Planning District. Specific recommendations related to existing and proposed parks are contained in each Community Planning Sector.

Trails

Fairfax County has a comprehensive countywide trails system which supports pedestrian, bicycle and equestrian usage and provides both transportation and recreational benefits. The overall trail system is planned to ultimately connect major activity centers and key destination points and to establish desirable recreational corridors. The countywide trails map and the equestrian hiking trail system component of the Trails Plan are shown on pages 54 and 55 of the Policy Plan.

The trails system is being constructed primarily through site plan requirements associated with development activity, as part of new road improvement projects, or with County funds. This process dictates that the ultimate network be constructed segment-by-segment and that the public be aware of trail requirements and planned routes. Within the Area Plans, maps showing these specific requirements are included in each Community Planning Sector.

HOW TO USE THE PLAN

FINDING A SPECIFIC PROPERTY IN THE PLAN TEXT

The Comprehensive Plan for Fairfax County is divided into four planning areas. See Figure 5 for the countywide map showing these four planning areas. Each planning area is divided into Planning Districts and each Planning District is subdivided into Community Planning Sectors. A map depicting each district and its sectors is found at the beginning of each Area Plan overview. In addition, sector level locator maps which correspond to land use recommendations in the text are located within the Community Planning Sectors.

In order to locate that portion of the Comprehensive Plan which pertains to a specific property, it is necessary to:

1. Determine the planning area in which the property is located.
 - a. This may be accomplished by looking at Figure 5. The four planning areas are cited in Roman numerals. The heavy dotted line forms the planning district boundaries, with the planning districts indicated by name.
 - b. Identify the planning area or areas in which the property is located.

Note: Due to the nature of the planning area boundaries, it may be necessary to refer to more than one area map to determine in which planning area the property is located.

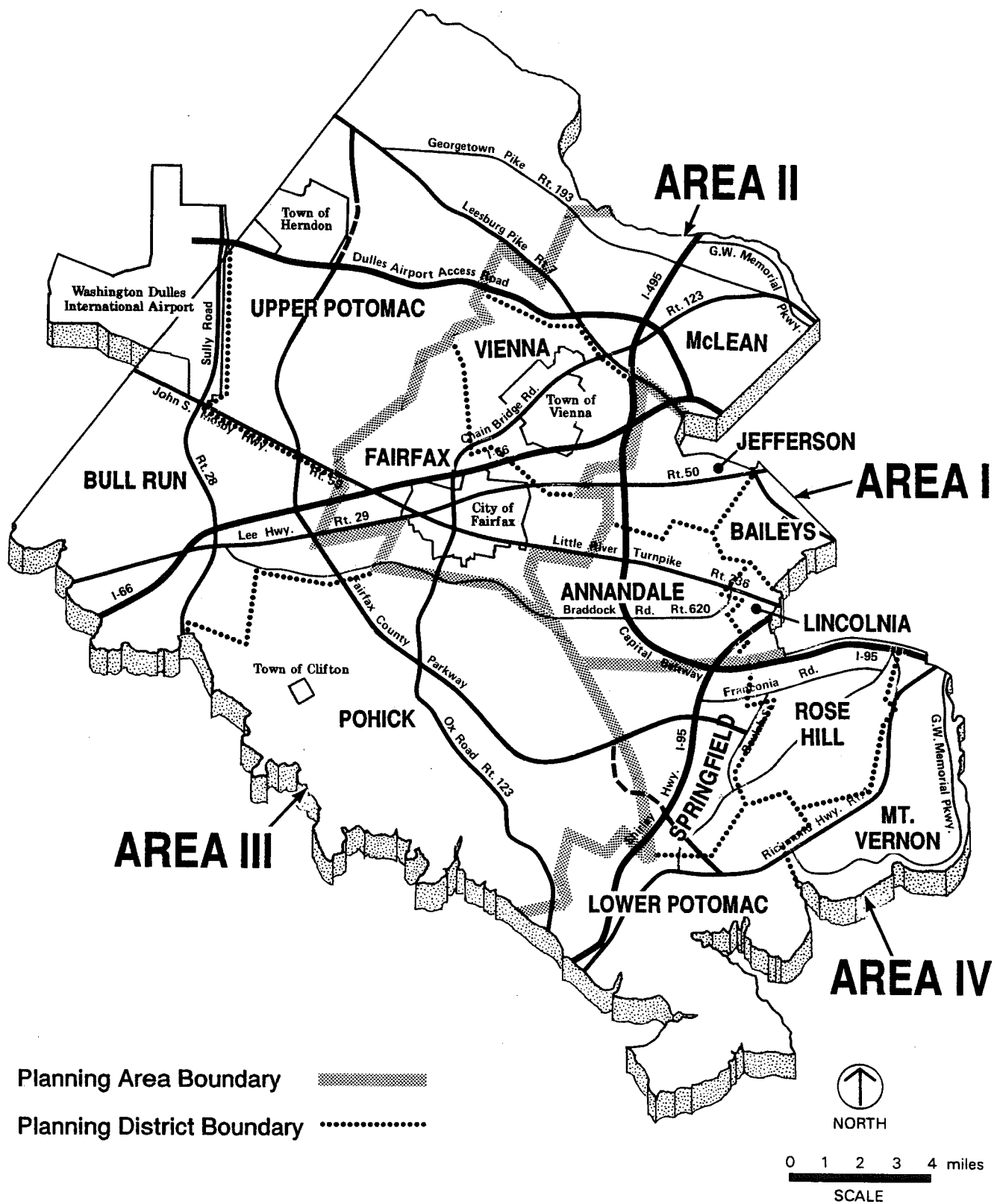
2. Find the planning district in which the property is located.
3. Determine in which community planning sector the specific property is located by referring to the district map. Once the appropriate sector is known, turn to that sector in the text.
4. If the property is located within that portion of the sector map that is shaded, this indicates that it is part of a special area to which you are referred.
5. The information in the community planning sector is organized into two sections:
 - a. Character: a brief description of existing land use; and
 - b. Recommendations: guidance for the future development of the sector. Specific uses, ranges of residential density or land use intensity, as well as possible alternative or optional uses, are presented for certain tracts of land within the sector.
6. If no recommendation is stated in either the sector or the appropriate special area of the text for the property in question, then consult the Plan map.

FINDING A SPECIFIC PROPERTY ON THE PLAN MAP

The Comprehensive Plan includes color-coded maps for each of the four planning areas. The colors correspond to particular land use categories as noted in the legend on the Plan map. Properties can be easily located on this map by using street references or the tax map grid square system. The tax map grids are shown as an overlay on the Plan map and relate to the countywide grid location system. Grids are denoted by a hyphenated number, such as 42-4.

PLAN MAP AND TEXT RELATIONSHIP

The Plan text and Comprehensive Plan map complement one another. Often the Plan text gives detailed recommendations which are illustrated generally on the Plan map. In the event of a discrepancy between the specific recommendations of the text and the Plan map, the text takes precedence.



PLANNING AREAS AND DISTRICTS

FIGURE 5

