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III

Vol. 13

UTILITY OF CARETS PRODUCTS TO LOCAL PLANNERS: AN EVALUATION

By
Stuart W. Bendelow
Franklin F. Goodyear

Metropolitan Washington Council of Governments

FINAL REPORT—VOLUME 13
CENTRAL ATLANTIC REGIONAL ECOLOGICAL TEST SITE (CARETS) PROJECT

SPONSORED BY
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Goddard Space Flight Center
Greenbelt, Maryland 20771
and
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Reston, Virginia 22092
1975

UTILITY OF CARETS DATA TO LOCAL PLANNERS: AN EVALUATION

By Stuart W. Bendelow and Franklin F. Goodyear
Metropolitan Washington Council of Governments

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16. Abstract

The Metropolitan Washington Council of Governments (MWCOG) in cooperation with and under contract to the U.S. Geological Survey, conducted an evaluation of the utility of remote-sensor derived land use data produced by the USGS Central Atlantic Regional Ecological Test Site (CARETS) project. Investigators invited representatives of Washington, D.C. metropolitan area planning agencies to a workshop, introduced them to the CARETS products, and asked them to evaluate the products. In follow-up interviews, planners from 12 participating agencies reported general support for the full spectrum of CARETS products but gave more positive responses towards products with which they had some familiarity. Planners considered some products of limited utility because of (1) insufficient detail, (2) too small a scale, or (3) lack of technical capability to incorporate the information and products into the current planning process. Some planners expressed doubt about the application of CARETS products in most day-to-day planning activities, which involve specific rezoning requests or site development plans requiring highly localized data. The greatest potential of the CARETS products was in the identification of broad development patterns at the county or regional level. An appendix documents the results of an inventory of local government decisions relating to land use.

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Volume 1. CENTRAL ATLANTIC REGIONAL ECOLOGICAL TEST SITE: A PROTOTYPE REGIONAL ENVIRONMENTAL INFORMATION SYSTEM by Robert H. Alexander

2. NORFOLK AND ENVIRONS: A LAND USE PERSPECTIVE by Robert H. Alexander, Peter J. Buzzanell, Katherine A. Fitzpatrick, Harry F. Lins, Jr., and Herbert K. McGinty III

3. TOWARD A NATIONAL LAND USE INFORMATION SYSTEM by Edward A. Ackerman and Robert H. Alexander

4. GEOGRAPHIC INFORMATION SYSTEM DEVELOPMENTS ASSOCIATED WITH THE CARETS PROJECT by Robin G. Fegeas, Katherine A. Fitzpatrick Cheryl A. Hallam, and William B. Mitchell

5. INTERPRETATION, COMPILATION AND FIELD VERIFICATION PROCEDURES IN THE CARETS PROJECT by Robert H. Alexander, Peter W. DeForth, Katherine A. Fitzpatrick, Harry F. Lins, Jr., and Herbert K. McGinty III

6. COST-ACCURACY-CONSISTENCY COMPARISONS OF LAND USE MAPS MADE FROM HIGH-ALTITUDE AIRCRAFT PHOTOGRAPHY AND ERTS IMAGERY by Katherine A. Fitzpatrick

7. LAND USE INFORMATION AND AIR QUALITY PLANNING: AN EXAMPLE OF ENVIRONMENTAL ANALYSIS USING A PILOT NATIONAL LAND USE INFORMATION SYSTEM by Wallace E. Reed and John E. Lewis

8. REMOTELY-SENSED LAND USE INFORMATION APPLIED TO IMPROVED ESTIMATES OF STREAMFLOW CHARACTERISTICS by Edward J. Pluhowski

9. SHORE ZONE LAND USE AND LAND COVER: CENTRAL ATLANTIC REGIONAL ECOLOGICAL TEST SITE by R. Dolan, B. P. Hayden, C. L. Vincent

10. ENVIRONMENTAL PROBLEMS IN THE COASTAL AND WETLANDS ECOSYSTEMS OF VIRGINIA BEACH, VIRGINIA by Peter J. Buzzanell and Herbert K. McGinty III

11. POTENTIAL USEFULNESS OF CARETS DATA FOR ENVIRONMENTAL IMPACT ASSESSMENT by Peter J. Buzzanell

12. USER EVALUATION OF EXPERIMENTAL LAND USE MAPS AND RELATED PRODUCTS FROM THE CENTRAL ATLANTIC TEST SITE by Herbert K. McGinty III

13. UTILITY OF CARETS PRODUCTS TO LOCAL PLANNERS: AN EVALUATION by Stuart W. Bendelow and Franklin F. Goodyear (Metropolitan Washington Council of Governments)

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UTILITY OF CARETS DATA TO LOCAL PLANNERS: AN EVALUATION

By Stuart Bendelow and Franklin Goodyear

Abstract

The Metropolitan Washington Council of Governments (MWCOG) in cooperation with and under contract to the U.S. Geological Survey, conducted an evaluation of the utility of remote-sensor derived land use data produced by the USGS Central Atlantic Regional Ecological Test Site (CARETS) project. Investigators invited representatives of Washington, D.C. metropolitan area planning agencies to a workshop, introduced them to the CARETS products, and asked them to evaluate the products. In follow-up interviews, planners from 12 participating agencies reported general support for the full spectrum of CARETS products but gave more positive responses towards products with which they had some familiarity. Planners considered some products of limited utility because of (1) insufficient detail, (2) too small a scale, or (3) lack of technical capability to incorporate the information and products into the current planning process. Some planners expressed doubt about the application of CARETS products in most day-to-day planning activities, which involve specific rezoning requests or site development plans requiring highly localized data. The greatest potential of the CARETS products was in the identification of broad development patterns at the county or regional level. An appendix documents the results of an inventory of local government decisions relating to land use change.

INTRODUCTION

The Central Atlantic Regional Ecological Test Site (CARETS) project has been a research effort to test the applicability of remote-sensor derived data as input into an environmental information system for a 74,712-km^2 (28,864-mi^2) region surrounding the Chesapeake and Delaware Bays. It has been funded cooperatively by the National Aeronautics and Space Administration and the U.S. Geological Survey (USGS), agencies jointly seeking improved applications of space technology to the solution of environmental problems.

One of the four experiment modules into which investigators organized the CARETS experiment is the user interaction and evaluation module. This module has had the function of gaining the input of users of land use and land cover data into the product design, familiarizing potential users with the range of CARETS products available or potentially available, and obtaining user evaluation of selected land use data products.

As part of its user evaluation task, the USGS contracted with the Metropolitan Washington Council of Governments (MWCOG) to conduct an investigation into the utility of CARETS products to metropolitan Washington, D.C. area local planners and planning agencies. The investigation involved the evaluation by regional, county and municipal planners of those CARETS products presented to them in cooperation with CARETS research. This paper summarizes that user evaluation. The MWCOG also compiled an inventory of local land use related planning decisions made over a 6-month period. The land use decision inventory is included as an appendix to help explain why local planners reacted the way they did to the CARETS products.

PURPOSE OF PROJECT

The purpose of this project has been to evaluate the present and potential applications of CARETS end products to local and regional planning efforts in the Washington metropolitan area (figure 1). The materials under evaluation included imagery acquired from the Earth Resources Technology Satellite (ERTS, later renamed LANDSAT) color-infrared high-altitude photography and end products prepared from these and related materials available to the U.S. Geological Survey (USGS). Researchers sought the reaction of local professional planners regarding how or if each of these products might be employed now or in the foreseeable future in planning programs. Conversely, obstacles or hindrances to their use were surveyed.

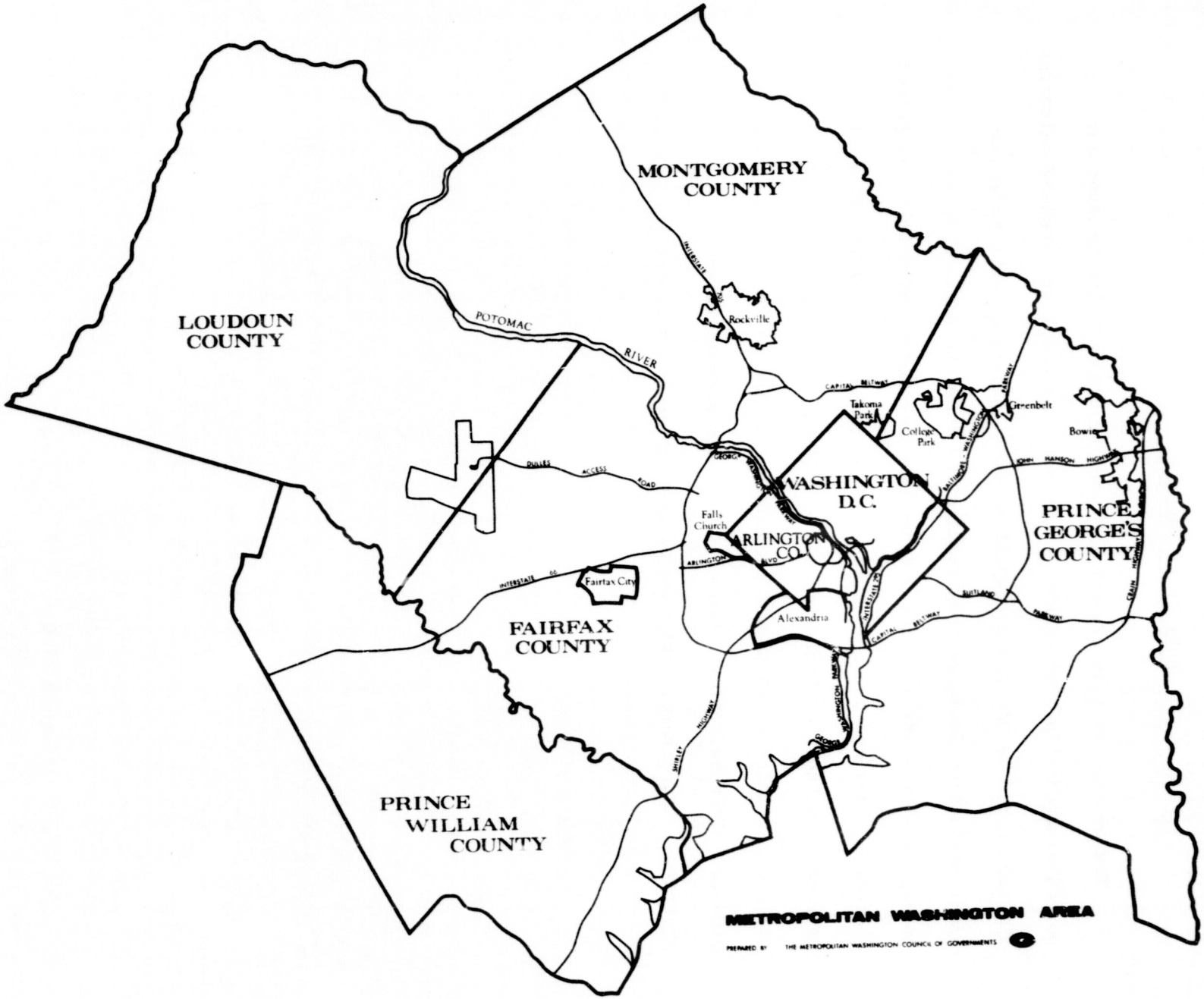
MONTGOMERY COUNTY
LOUDOUN COUNTY
POTOMAC RIVER
Rockville
Takoma Park
College Park
Greenbelt
Bowie
WASHINGTON D.C.
PRINCE GEORGE'S COUNTY
Falls Church
ARLINGTON CO.
Fairfax City
Alexandria
FAIRFAX COUNTY
PRINCE WILLIAM COUNTY
METROPOLITAN WASHINGTON AREA
PREPARED BY THE METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS

Figure 1

EVALUATION PROCESS

MWCOG and USGS researchers organized the local planning agency evaluation into three stages:

1) introduction of CARETS experimental products to professional urban planners in the Washington metropolitan area, accompanied by an explanation of the sources, characteristics and technical properties of CARETS and other USGS data, and their current application in land use analysis;

2) individual assessment of CARETS end products by local planning staff; and

3) assembly, review, and analysis of local planning agency evaluations.

This report discusses these stages in turn and then summarizes the results of the evaluation.

STAGE I - INTRODUCTION OF CARETS PRODUCTS

On March 20, 1974, MWCOG and USGS sponsored a workshop at the USGS headquarters office in Reston, Virginia. Directors of all area planning agencies were sent letters of invitation that requested their attendance at the workshop. During the day-long session CARETS and MWCOG representatives explained the objectives of the USGS/MWCOG project, introduced the full package of end products, and outlined the user evaluation process. Following this general orientation, CARETS staff members made in-depth presentations on the technical characteristics, properties, and potential uses of each CARETS product. Finally, CARETS investigators held a wrap-up session to answer questions and re-emphasize the evaluation process. This workshop set forth the basic objectives of the evaluation that were to be undertaken over

the following several months. Those attending this workshop are listed in appendix A.

During the workshop each participant was asked for initial reactions to the data products presented. These comments were instructive in formulating the final evaluation questionnaires.

At the end of the workshop, each agency received samples of CARETS data products for further staff inspection. Expensive products, such as high-altitude color-infrared photography, were given only to each sub-regional planning agency.

On April 18, 1974, CARETS and MWCOG representatives made a second presentation of the CARETS products at the MWCOG offices in Washington, D.C. This presentation provided an opportunity for additional personnel and those unable to attend the March workshop to become acquainted with the products to be evaluated. Investigators then sent letters and evaluation forms to each planning agency requesting evaluations of the USGS materials.

STAGE II - PLANNING AGENCY REVIEW MEETINGS

During May and June 1974, investigators conducted individual evaluation and review meetings with each local planning agency. Professional planning members of the local agency's staff, a representative of USGS staff, and a representative of MWCOG attended these meetings. Investigators conducted a total of 12 review meetings involving over 35 professional staff members. The objectives of these review meetings were treeefold:

1) to insure the reviewing parties had a thorough understanding of the CARETS products and to answer any technical questions regarding the scanning and delivery system used in their preparation;

2) to complete the evaluation and insure uniformity in individual agency responses; and

3) to obtain general impressions from those professional planners and other staff members regarding the overall potential applicability of ERTS and related products to local/regional land use planning and decision making.

STAGE III - PRODUCT EVALUATION SUMMARY AND ANALYSIS

Tabulation of evaluation questionnaire responses indicates the general reaction local planning agencies had to CARETS end products. Table 1 summarizes these responses. Tabulations of the responses to each evaluation question appear in appendix B.

GENERAL COMMENTS

Each reviewing agency voiced positive support for the total spectrum of CARETS products. Agencies responded most affirmatively to the products with which they had some familiarity. Several data products received unanimous or near unanimous support. The high-altitude color-infrared photography, orthophotoquads, Level II land use data, geologic maps, data listings, and computer plots of land use received the strongest support. The planners deemed other products in their present form less useful in supporting current planning functions.

Though most agencies felt the usefulness of the data products warrented the expenditure of local monies for acquisition, several expressed particular

Table 1--Responses of Washington Area Local Planners to CARETS Data Products

	High-Altitude Aircraft Photography	ERTS Imagery	Photomosaic	Level II Land Use and Land use change maps 1970, 1970-72	ERTS Derived Land Use Maps 1972	Cultural Feature Overlay	Census Tract and County Boundary Overlay	Drainage Basin Overlay	Surficial Geology Overlay	Computer Plots of Land Use	Area Summaries	Orthophotoquad
National Capital Planning Commission	X		X	X		X			X	X	X	X
MNCPPC Bi-County	X		X	X					X	X	X	X
MNCPPC PG County	X		X						X	X	X	X
Montgomery County	X		X	X			X		X	X	X	X
Prince William	X			X			X		X			X
Arlington	X											X
Loudoun	X		X	X				X		X	X	X
SVPDC	X		X	X		X	X		X	X	X	X
Fairfax County	X			X					X	X	X	X
Montgomery County	X	X		X		X		X	X	X	X	X
Maryland	X	X	X	X								X
MWCOG	X		X	X	X				X	X	X	X

X = Useful in support of agency functions

interest in some sort of cost-sharing arrangement. Such an arrangement might take the form of joint purchasing, or an arrangement whereby a regional agency would procure the original data product and make its subsequent analysis available to participating agencies. In this manner, costs of procurement and data refinement might be minimized among local agencies.

A few agencies felt that supplemental funding would be needed to obtain certain of the CARETS products, especially high-cost products, like high-altitude aircraft color-infrared photography and computer data listings.

LIMITS ON UTILIZATION

Two responses predominated in identifying the limitations of the data products to local and regional planning purposes: (1) absence of sufficient detail and (2) lack of local staff capable of utilizing the products. Agencies accustomed to working with engineering maps of 1:12,000 scale found the smaller scale CARETS products too broad or too general for current local use. Small jurisdictions, those covering less than 104 km^2, found difficulty in using maps with a scale of 1:24,000 or smaller. The primary users of these materials appear to be large-county planning agencies, regional planning bodies, and State agencies.

The small scale (1:100,000) of the majority of CARETS products did not permit sufficient differentiation of land uses. The absence of detailed land use information, particularly urban land use types, limited the usefulness of these end products. One notable exception to this was the high-altitude color-infrared photography (1:120,000), which could be enlarged on existing equipment to provide detailed land use information. This flexibility of enlargement combined with its relatively easy interpretation, made the high-altitude photography the most sought after product in the CARETS package.

Several agencies indicated that they did not have sufficient expertise to make adequate use of current CARETS products or those that might become available in the future. Some planners emphasized their lack of expertise for using satellite imagery, computer graphics, or specialized land characteristics such as geologic features. Several users recommended the establishment of a training program to familiarize local users with available USGS products and their applications.

ACQUISITION OF PRODUCTS

Although several agencies expressed a willingness to purchase some CARETS products on their own, most preferred a shared program of both costs and materials. The pooling of local agency funds to obtain one set of end products that can be shared by each participating agency had the most appeal. A designated agency could obtain the products from the appropriate sources, file them for use by others with appropriate technical documentation, and provide technical assistance to other agencies in making use of the end products. The cost of the end products and their generalized nature supported this approach. A few agencies expressed the need for additional funding in order to make use of these products.

DATA CHARACTERISTICS

Currency of the data products is of particular importance to local agencies. Most agencies felt that although the CARETS products are current enough to be useful the time interval between data collection and application remains too long. Next year's plans should be based on last year's data and not on information 2 or 3 years old. The potential of ERTS or similar

systems to generate current land use information rapidly stimulated considerable interest among the reviewing agencies. Realization of that potential remains to be achieved.

The planners reported some errors in the evaluated materials, occurring primarily where interpretative land use classification was attempted. Many of the errors were the result of the broad classification systems used and the small scale of the products. Overall, the planners did not believe the errors to be so severe as to make the products unusable. Although a higher level of accuracy might be preferred, determining a requirement for that accuracy is difficult until further integration of State, regional, and local land use information occurs.

DATA APPLICATIONS

Many planners expressed doubt about the direct application of most CARETS products in their present state, since most day-to-day planning activities involve specific rezoning requests or site development plans. This conclusion was confirmed by a land use decision inventory compiled by MWCOG for the region (appendix C). Planners did, however, express interest in utilizing them as general background information in relation to local source materials. CARETS elements could provide a broader perspective to local plans and programs and assist in establishing linkages between different planning elements. Considerable value also exists in their use as products for educational display and public information purposes.

SUMMARY AND CONCLUSIONS

In general, this evaluation reflects the present attitudes of urban planners toward aerial photography, remote-sensing imagery, and USGS

materials. Those products with which some working relationship had been established received the greatest response and support. New and unfamiliar products, whose applications had yet to be fully established, were viewed with interest but a lesser degree of enthusiasm. All of the reviewing agencies had experience with ground level, land use information systems. Only a few, however, had experience with aircraft photography; only two had attempted to make use of satellite information. In part this lack of experience resulted from established planning practice. I also resulted from the nature and scale of most local planning activities in the region. This lack of working experience with the products under evaluation coupled with a relatively short review schedule and limited instruction in the use of the materials contributed to the low level of response to certain products.

Many of the planning agencies had sizable professional staffs, and many of the individuals involved in the review received little or no instruction on the materials or techniques. Any background information was obtained almost exclusively from the few materials distributed by the USGS. A greater understanding of the CARETS products would have resulted from an extended instruction or training program making direct use of the products under review.

During the period of local agency review some of the CARETS products were unavailable. Surface geology maps were not available for user evaluation nor were data summaries or computer plots. Orthophotoquads and orthophotoquad land-use overlays were unavailable for most of the study area. High-altitude aircraft color-infrared photography was present only in transparency form and was of little use without specialized equipment, which many local planning agencies do not possess. Evaluation of a product without some experience in its use is difficult; evaluation without examination is more difficult.

Investigators also had some difficulty in reaching the real decision makers within each planning agency and obtaining an accurate cross section of views from personnel performing different functions within the agency. In some cases, researchers interviewed technicians who understood the data and how they were obtained but were not aware of the full possibilities for their use by other planners. On the other hand, many planners did not have the technical knowledge to evaluate fully certain data resources.

These factors impeded the establishment of a clear bridge between local land use information and the CARETS products but did not reduce the desire of local agencies to explore the applications of these new technologies. In its evaluation, each agency expressed a strong desire to establish interrelationships among ground-level, air, and satellite information systems. Planning agencies in the Washington area have excellent ground-level land use information that has been laboriously assembled over a period of years. The use of air and satellite systems to update and supplement this information base represents a major breakthrough in the collection of information. The Washington area is fortunate in that a considerable amount of new aerial reconnaissance has been conducted by a variety of local, State and Federal agencies. The extensive resources of NASA, the USGS and the Defense Mapping Agency are in close proximity. Furthermore, the recent application of General Electric Company's Interactive Multispectral Image Analysis System (IMAGE 100) in the Patuxent River Basin provides a working example of how alternative land use information systems can be interrelated.

Throughout these evaluations, each reviewing agency expressed considerable interest in the potential application of CARETS products to local planning programs. This application can be made only with additional effort from both local planning agencies and the product-generating organizations.

Part of this effort should involve training of local staff personnel to use and integrate air and satellite systems with existing ground information. Another part requires the further refinement of air and satellite end products to interrelate more effectively with other ongoing reporting systems.

Appendix A

List of Participants at the USGS Workshop of March 20, 1974

ATTENDEES, WORKSHOP FOR MWCOG PLANNING DIRECTORS

NORTHERN VIRGINIA PLANNING DISTRICT COMMISSION

Ralphe Basile
Abdul Zahid

PRINCE WILI IAM COUNTY

Anthony Archer

VIENNA

James Grant

METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS

Frank Goodyear
Stuart Bendelow
Krishna Murthy

ARLINGTON COUNTY

Robert Wheeler
John Gessaman

GENERAL ELECTRIC

William Dallam

FAIRFAX CC'JNTY

Philip Leber

FALLS CHURCH

Nick Moscatiello

LOUDOUN COUNTY

Mark Kavanaugh

MARYLAND DEPARTMENT OF STATE PLANNING

John Garber

MARYLAND NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Loretta Rohr
John Stewart
Frank Jaklitsch
Thomas Murphy

MONTGOMERY COUNTY

Oswaldo Ocando

NATIONAL CAPITAL PLANNING COMMISSION

Jerry Shiplett
George Oberlander
Martin Rody

WASHINGTON CENTER FOR METROPOLITAN STUDIES

Elyen Sudlow

EROS PROGRAM

Bill Fischer

CHARLES COUNTY

James Redmond

D.C.

Kirkwood White

Appendix B

CARETS User Evaluation Questionnaires, Containing User Response Summaries

CARETS USER EVALUATION QUESTIONNAIRES

Agency Name:_____

Address:_____

Contact Person:_____

Phone Number:_____

Date:_____

Two CARETS user evaluation forms are enclosed. Examine these questionnaires carefully, but please do not fill them in until you are interviewed by a representative of the CARETS user evaluation program. In Form #3, CARETS Anticipated Data Utility form, a list of potential but not necessarily available CARETS/USGS data products is presented, and the user is asked to indicate the usefulness of these products. In Form #4, CARETS Data Utility Evaluation, a more in depth evaluation of the major CARETS data products is requested. Your cooperation in aiding in this evaluation is very much appreciated.

Summary of Evaluation Questionnaire Responses

Number of Agencies Responding

DATA PRODUCTS	Useful in support of Agency functions		Useful but only if provided by Federal Government	USEFUL ENOUGH TO INVEST OWN RESOURCES			IS NOT USEFUL			
	YES	NO		Willing to obtain on cost sharing basis	Need additional funds to obtain	Have resources to develop in-house	Not detailed enough	No capability	Too interpreted	Other (specify)
High-altitude color-infrared Photography 1:120,000	11			6	3		1			
ERTS Imagery	1	6					5	1		
Photomosaic with UTM grid, 1970 Black and white 1:100,000	6	4		2	1		4			
Land use map 1:100,000, 1970 Level II, Aircraft data 1972	9	1		2	1		2			
1970-72 land use change 1:100,000 Level II aircraft data	9	1		2	1		3			
Major drainage basins overlay 1:100,000	4	6		2	1		4			
Census tract overlay in SMSA's county boundaries, outside SMSA 1:100,000	4	5		2			2	1		
1972 land use 1:250,000 derived from ERTS Level I		9		1			6			
Cultural and locational feature, overlay 1:100,000	4	5		2			4			
Generalized geologic maps, map units comprised of slope surficial materials and engineering characteristics 1:100,000	8	2		3		1	2	2		
Orthophotoquad 1:24,000 1:50,000	11			2	1	1	2			
Land use overlay to orthophotoquads 1:24,000 1:50,000	7	3		2	1	1	3	1		
ERTS gridded image 1:500,000	2	4		1			4	1		
ERTS location and county boundary overlay 1:250,000		9		1			5	2		
Computer plots of land use	9	1		2	3		2			
Computer Data listings and land use area summaries	9	1		2	3		2			
Total	94	57		32	15	3	51	8		

Number of Agencies Responding

DATA CHARACTERISTICS	Land use 1:100,000	Land use change 1:100,000	ERTS land use 1:250,000	Photomosaic 1:100,000	High-altitude color infrared Photography	ERTS Imagery	Other (specify)	Other (specify)	Total Number of User Agencies Responding
Currency of Data:									
Adequate		2	1	2	6	2			13
Somewhat out-of-date but still useful	9	7	4	5	5	2			32
Out-of-date and not useful	2	1	1	1		1			6

How often would this data need to be updated for your project/application?
Annually-6, Biannually-1

Accuracy of Data:									
No errors detected			1	2	5	2			10
Some errors, but data still useful	9	6	2						17
Too many errors to be useful	1	2	2	1		2			18

What level of accuracy would you consider necessary for your project/application?
90-95% accuracy desired, more detail in urban areas.

Utility of Classification Scheme:									
Satisfactory	8	5	3	2	3	3			24
Incompatible with other data but still useful	2	2							4
Incompatible and not useful	1	1	1	1		1			5

What changes would be required to make this data more useful to you for this project/application?

Increase scale to permit greater detail in land use classification.

Number of Agencies Responding

DATA UTILIZATION	Land use 1:100,000	Land use change 1:100,000	ERTS land use 1:250,000	Photomosaic 1:100,000	High-altitude color infrared Photography	ERTS Imagery	Other (specify)	Total Number of User Agencies Responding
What analysis was or will be performed on data:								
Measurement	1			1	4			6
Summarization	7	4		1	1			14
Correlation	4	5	1	2	7			20
Modelling	1	1						2
Projections	3	2	1					7
Other:								
What was or will be the main use of the data:								
Analysis	6	8	2	4	6	1		27
Display	5	5	4	4	4	3		25

DATA USEFULNESS

Data was or will be used for the following purposes:								
General background information	7	7	3	4	4	2		27
Specific study/analysis	5	8		1	5			19
Specific recommendations to decision making authority	1				3			4
Educational purposes	3	3	3	3	3	2		17
Public relations purposes	3	2	2	4	6	2		9
Information supplied to another person or agency	2	1			3	1		7

COST CONSIDERATIONS

Out of your total current or upcoming year's budget for land-use data collection, please estimate the percentage or total amount you would allocate for each type of data product for your area	1-2%							

Please estimate the percentage or absolute amount of your total operating budget devoted to land-use data collection, including procurement of aerial photography.
Less than 5%

Appendix C

Land Use Decision Inventory

I Summary and Highlights

II Inventory of Land Use Related Decisions and the Elements of Staff Analysis Requiring Employment of Land Use Data, April-October, 1973

III General Synopsis and Itemized Listing of Available Rezoning Statistics for Fiscal Years 71-74 by Jurisdiction

IV Individuals and Jurisdictions Contacted in Preparing this Project

I Summary and Highlights

The purpose of this project has been to compile an inventory of land use related decisions executed within the jurisdictions of the Washington metropolitan area, during the period of April to October 1973. This listing is a major aspect of a research program to evaluate the products produced from Earth Resources Technology Satellite (ERTS, later renamed LANDSAT) space acquired data and related data products. The listing is intended to portray the range of decisions made by local agencies, which to an extent are based on land use information.

The scope of this project required the review of the minutes from local planning and zoning authorities in order to extract issue areas related to land use and to investigate the elements of the staff analysis for each issue.

Examining the planning authorities' minutes affirmed an obvious assumption that the more urbanized areas within the region (Alexandria, D. C., and Rockville) are engaged in redevelopment; while the developing suburban counties (Montgomery, Prince George's, and Fairfax) are generally addressing the impact of development in relation to transportation, environmental quality, and site acquisition and development. The jurisdictions on the urban fringe of the metropolitan area (Prince William and Loudoun) are primarily involved in comprehensive planning and the issue of growth.

In addition to this general consideration, the investigation of the minutes indicated that the predominant types of decisions addressed by all planning authorities were rezonings and site plan reviews. Although these decisions varied in scope and problem area, each case was reviewed by the staff from the prespectives of the following impact areas:

I Public facilities:

- Sanitary sewer
- Highway needs
- Water supply
- Fire protection
- Library and school services

II Environmental considerations

- Vegetation
- Soil
- Drainage
- Population

III Compliance with the comprehensive plan

Part II of appendix C includes the inventory of land use related decisions and the elements of staff analysis requiring employment of land use data.

Because of the similarity of rezoning and site plan review decisions throughout the region, such decisions have been omitted from these matrices. In addition, Falls Church, which exclusively addressed these issues during the study period, has also been excluded. The remaining topics addressed by the planning commissions or boards can be broadly categorized into the following issues:

A. Site selection--i.e., location of schools, landfill sites, and highway right-of-way

B. Analysis of impact--i.e., level of service, protection of flood plains and the relationship to the master plan.

Part III of appendix C includes a general synopsis and the itemized listing of available rezoning statistics for fiscal years 1971-74 by jurisdiction. Because of the incompatibility of municipal data collection this summary is general in scope, dealing with applications filed and those acted upon. An actual cross tabulation is not possible because of the operational definitions utilized by the various jurisdictions. For example, Arlington County presents statistics for rezoning applications approved by the county board; whereas other jurisdictions exhibit figures on an acted-upon basis for different levels of responsibility but do not prepare statistics on applications actually approved or denied.

Part IV of appendix C includes a listing of individuals and jurisdictions contacted in preparing this project.

II Inventory of Land-Use Related Decisions and the Elements of Staff Analysis Requiring Employment of Land-Use Data

Jurisdiction: Arlington County

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
Nursing home site selection	Planning Commission	(a) Water/sewer service (b) Impact of adjacent area* (c) Physical plan and design (d) Physical setting	Planning Dept.
Tree policy relative to Lyon Park Neighborhood Conservation Plan	Planning Commission	(a) Street upgrading (b) Impact of trees located in the right-of-way (c) Storm drainage problems without curbs and gutters	Planning Dept.
Inventory of open space	Planning Commission	(a) Need for open space (b) Site location*	Planning Dept.
Rosslyn-Ballston Corridor Plan	Planning Commission	(a) Holding capacity (b) Impact of adjoining neighborhoods (c) Impact on housing stock (d) Land use patterns*	Planning Dept.
Jefferson Davis Corridor Plan	Planning Commission	(a) Holding capacity (b) Impact of adjoining neighborhoods (c) Impact on housing stock (d) Land use patterns*	Planning Dept.
Jurisdiction: Fairfax County			
Highway Corridor District (special zone to restrict car washes, drive-in restaurants and gas stations)	Planning Commission	(a) Identify the abutting* land use of major transportation corridors	Office of Comprehensive Planning and Zoning Administration

* Denotes those elements of staff analysis that require extensive use of land use data.

Jurisdiction: Fairfax County (continued)

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
Dulles Area Economic and Land Use Study	Planning Commission	(a) Reevaluate county plans* in order that recommended land uses are compatible with anticipated aircraft noise impact (b) Recommend alternative methods* for controlling land use in noise impacted areas (c) Assess the potential for aircraft* oriented and industrial development in the study area (d) Consider issues relevant to the study area such as (1) location of outer beltway (2) sewer capacity and policy (3) environmental factors	Office of Comprehensive Planning
Metro Station location	Planning Commission	(a) Traffic flow (b) Impact to the area* (c) Screening & buffering (d) Noise (e) Bicycle & pedestrian access (f) Drainage	Office of Comprehensive Planning
Transfer of property from Fairfax County Park Authority to the Fairfax County Library Board	County Park Authority and Planning Commission	Public Benefit	County Park Authority
Acquisition of land by the Northern Virginia Regional Park Authority	Northern Va. Park Authority and Planning Commission	(a) Site location* (b) Adjacent land use*	Northern Va. Park Authority

*Denotes those elements of staff analysis that require extensive use of land use data.

Jurisdiction: Fairfax County (continued)

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
Removal of park property from the Public Facilities Plan	County Park Authority and Planning Commission	Acquisition cost	County Park Authority
Study of probable transit impact in Fairfax County	Planning Commission	(a) Analysis of the land use* in the vicinity of planned stations including transportation characteristics associated with such uses (b) Patterns of employment and commuting to such employment which would be established or altered by transit (c) Land use compatibilities and* incompatibilities (d) Transit area planning recommendations (e) Transit area development recommendations	Office of Comprehensive Planning

Jurisdiction: Loudoun County

Investigate the feasibility of establishing recreational vehicle courts	Planning Commission	Zoning ordinance compliance*	Planning Department
School site approval	Planning Commission and School Board	(a) Master plan compliance* (b) Accessibility (c) Capital improvements program	School Board
Proposed subdivision ordinance	Planning Commission	(a) Clarify definitions (b) Improve readability of the articles	Planning Department

*Denotes those elements of staff analysis that require extensive use of land use data.

Jurisdiction: Loudoun County (continued)

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
Growth Plan	Planning Commission	Guides for Development (a) Projected increase in housing and school population (b) Rates for fiscal calculations on expenditures (c) Rates for fiscal calculations on revenues (d) Framework for development* promoting conditions of quality, variety, and timing in the social, economic and physical environments	Planning Department
Jurisdiction: Prince William County			
Proposed policy for the allocation of sewage capacities	Planning Commission	Allocation system for sewage* treatment capacities by use	Planning Department
Proposed revision of the adopted regional industrial complex and Manassas planning area	Planning Commission	(a) Evaluation of industrial land* within the area (b) Impact to traffic routes (c) Social impact	Planning Department
Proposed park acquisition	Planning Commission	(a) Acquisition cost (b) Ingress and egress (c) Recreational use*	Planning Department
Manassas Planning Study-Manassas Municipal Airport	Planning Commission	Reviewed consultants report	Planning Department

*Denotes those elements of staff analysis that require extensive use of land use data.

Jurisdiction: Montgomery County

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
Configuration of Elm St. Urban Park	Planning Board	Sale of homes to Park and Planning Commission	M-NCPPC Staff[1]
Request by Montgomery College for the planning staff to identify possible sites	Planning Board	Site selection*	M-NCPPC Staff
Seneca Creek Watershed Study	Planning Board	(a) Proposed lake site (b) Impact on historic site	M-NCPPC Staff
DOD Military Housing Plan	Planning Board	(a) Approval on a site by site basis should be developed (b) Lessen pressure of housing in private sector (c) Public facilities impact*	M-NCPPC Staff
County-wide mechanical hobby shop	Planning Board	Site selection*	M-NCPPC Staff
Site for composting sludge from Blue Plains Sewage Treatment Plant	Planning Board	(a) Site selection* (b) Truck haul route	M-NCPPC Staff
Alternatives to point of discharge and advanced waste water treatment site	Planning Board	(a) Location* (b) Cost comparisions (c) Land disposal as an alternative method	M-NCPPC Staff
Gaithersburg-Western Arterial Alignment and Traffic Study	Planning Board	(a) Access* (b) Traffic volume (c) Up grading to freeway standards	M-NCPPC Staff

1/ Maryland-National Capital Park and Planning Commission

*Denotes those elements of staff analysis that require extensive use of land use data.

Jurisdiction: Montgomery County (continued)

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
East West Highway Environmental Impact Study	Planning Board	(a) Need to improve the highway (b) Impact to adjacent trees (c) Storm water runoff	M-NCPPC Staff
Sanitary landfill site selection	Planning Board	(a) Duration of the use of the site (b) Cost (c) Feasibility of rail haul (d) Traffic impact (e) Relationship of the PEPCO site to the landfill site	M-NCPPC Staff
Northgate Park-School (Elimination of the Northgate School from the Master Plan)	Planning Board	(a) Population figures (b) Land use*	M-NCPPC Staff
Down County College sites	Planning Board	(a) Accessibility to site (b) Traffic generation	M-NCPPC Staff
Germantown Community College site	Planning Board	(a) Accessibility* (b) Public transportation (c) Pedestrian relationship (d) Cost factors (e) Transportation analysis	M-NCPPC Staff
Bikeway system	Planning Board	(a) Improvement of the bike trails (b) Parking facilities (c) Elimination of on-street parking	M-NCPPC Staff
Resolution authorizing purchase of 32+ acres for outer beltway and Rockville Freeway	Planning Board	(a) Acquisition cost (b) Public benefit	M-NCPPC Staff

*Denotes those elements of staff analysis that require extensive use of land use data.

Jurisdiction: Montgomery County (continued)

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
Resolution authorizing purchase of 89+ acres for Northwest Branch Park Unit 5	Planning Board	Acquisition cost	M-NCPPC Staff
Expansion of Suburban Hospital	Planning Board	(a) Parking requirement (b) Hospitals within the county (c) Need for new hospital facilities (d) Location of hospital* (e) What type of services required (f) Land use and traffic impact*	M-NCPPC Staff
Bethesda bus parking and maintenance sub-center in Cabin John Regional Park	Planning Board	(a) Traffic volume (b) Aesthetics (c) Land use of surrounding area*	M-NCPPC Staff
Protection of land dedicated for park use	Planning Board	Inspection program of the land dedicated but still held by the developers	Legal Counsel
Potomac bridle trails	Planning Board	Maintenance and liability responsibilities pertaining to an easement for bridle paths	M-NCPPC Staff
Resolution authorizing purchase of Little Bennett Regional Park, Watts Branch Park, Cabin John Park	Planning Board	Acquisition cost	M-NCPPC Staff
Proposed expansion of PEPCO power generating facility at Dickerson	Planning Board	(a) Evaluation of mechanical draft wet-dry cooling towers in place of natural draft towers (1) Consumptive water loss (2) Visual impact (3) Fogging problems (b) Monitoring storm runoff (c) Evaluation of thermal plume	M-NCPPC Staff

*Denotes those elements of staff analysis requiring extensive use of land use data.

Jurisdiction: Montgomery County (continued)

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
Olney Master Plan Amendment	Planning Board	(a) Land use* (b) Street changes	M-NCPPC Staff
Friendship Heights Transit Station Concourse	Planning Board	(a) Rotunda size (b) Creation of a mural within the rotunda	M-NCPPC Staff
Additional parking lot in Bethesda	Planning Board	(a) Lighting (b) Landscaping (c) Screening (d) Storm water retention	M-NCPPC Staff
Park acqusition, Good Hope Local Park, Seneca Community	Planning Board	Acqusition cost	M-NCPPC Staff

Jurisdiction: Prince George's County (M-NCPPC)

Ten-year Solid Waste Management Plan (county Task Force)	Planning Board	(a) Location of landfill sites* (b) Erosion and sedimentation (c) Use of digested sludge as topping for the landfill site (d) Establishment of water quality sampling stations at the outfall of each site.	M-NCPPC Staff
Park Development Program Fiscal year 74-80	Planning Board	(a) Fiscal Year 74-80 Capital improvements program (b) Operating cost	M-NCPPC Staff
Park Acquisition Program Fiscal year 74-80	Planning Board	Public Benefit	M-NCPPC Staff

*Denotes those elements of staff analysis that require extensive use of land use data.

Jurisdiction: Prince Geroge's County (M-NCPPC)

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
Potomac River Waterfront Park and WSSC Sewage Pump Station	Planning Board	(a) Overflow into the Potomac (b) Replacement of the lost park acreage	M-NCPPC Staff
Department of Defense Housing Plan	Planning Board	Staff review indicated- (a) inequitable regional distribution of military housing* (b) proposed development not consistent with envisioned staging policy proposals (c) adverse economic impact on the county (d) lack of provisions for adequate housing of all military personnel by grade	M-NCPPC Staff
Amended Urban Renewal Plan for Colman Manor	Planning Board	Discrepancies between the approved master plan and the urban renewal plan*	M-NCPPC Staff
Corps of Engineers Western Branch Flood Plain Study	Planning Board	Presentation by OCE- (a) Delimit the study area (b) Outline the flood plain problem (c) Utilization of the flood plain (d) Description of past and prospective floods*	M-NCPPC Staff
Moratorium on the Consideration of Special Exception for Gasoline Filling Stations	Planning Board	(a) Legality of the moratorium (b) Establishment of a policy not in favor of special exceptions	Legal Counsel

*Denotes those elements of staff analysis that require extensive use of land use data.

Jurisdiction: Prince George's County (continued)

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
Public Transportation Study	Planning Board	(a) Funding (b) Duration of the study (c) Amount of auto ownership in the study area (d) Amount of circumferential travel demand* (e) Parking cost	M-NCPPC Staff
Western Prince George's Transportation Alternative Study	Planning Board	(a) Highway site selection* (b) Development potential of highways and transit (c) Improvement of transit service	M-NCPPC Staff
District VI Report (Recreation Department)	Planning Board	(a) Number of tennis courts (b) Need for day-use facility i.e., community center (c) Bus service between existing facilities*	M-NCPPC Staff
Request for possible land exchange-Marlboro Meadows/ Hylton Property	Planning Board	(a) Protection of historical sites* (b) Land acquisition* (c) Amount of recreational facilities*	M-NCPPC Staff
Mini-bike Program	Planning Board	(a) Noise impact (b) Legal ramifications of liability	M-NCPPC Staff
College Park/Route 1 Revised Plan	Planning Board	(a) Designation of open space* (b) Traffic circulation (c) Physical features aesthetics* (d) Noise/glare impact (e) Impact on the flood plain*	M-NCPPC Staff

*Denotes those elements of staff analysis that require extensive use of land use data.

Jurisdiction: Prince George's County (continued)

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
Interim Treatment Plant Program	Planning Board	Recommended the use of interim treatment plants only on a case basis and not on a county-wide program*	M-NCPPC Staff
Accokeek Library Site Purchase	Planning Board	(a) Traffic flow* (b) Feasibility of maintaining the library in a school building (c) Feasibility of limiting curb cuts	M-NCPPC Staff
Renaming of Forest Heights Park to Clifford Armhold Park	Planning Board	Compliance with existing policy	M-NCPPC Staff
Edmonston Park and Recreation Facilities Study	Planning Board	(a) Level of recreation service in the area (b) Land acquisition* (c) Amount of recreational facilities	M-NCPPC Staff
Urban Nature Project	Planning Board	(a) Impact of Prince George's Town Center on park area* (b) Site selection of an ecological center*	M-NCPPC Staff

Jurisdiction: District of Columbia

Interagency Task Force on Friendship Heights	Zoning Commission	Resolve the differences between the ITF Plan and the Montgomery County Planning Board Draft Sector Plan*	Zoning Department
New Italian Chancery and Embassy	Zoning Commission	(a) Parking (b) Vehicular access* (c) Public easement (d) Site plan	Zoning Department

*Denotes those elements of staff analysis that require extensive use of land use data.

Jurisdiction: District of Columbia (continued)

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
New Chancery and Embassy for Czechoslovakia, Hungary, Indonesia and Poland	Zoning Commission	(a) Parking (b) Vehicular access* (c) Public easement (d) Site plan	Zoning Department

Jurisdiction: City of Alexandria

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
Vacate a portion of city-owned land previously acquired for public street purposes	Planning Commission	Recording of the replacement right-of-way	Public Works Dept.
Consideration of a plat of consolidation and street dedication	Planning Commission	(a) Dedication of emergency vehicle and public utility easements (b) Minimum street width (c) Storm sewer easements	Fire Department
Princess Payne Redevelopment Project (traffic and parking studies)	Planning Commission	(a) Traffic volume (b) Number of parking spaces	Traffic Department
Bikeway system for Alexandria	Planning Commission	(a) Location* (b) Routing (c) Parking facilities (d) Access to security locks (e) Accessibliity to recreational and cultural resources* (f) Interconnection with regional system	Planning and Community Development Department

*Denotes those elements of staff analysis that require extensive use of land use data.

Jurisdiction: City of Alexandria (continued)

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
Acquisition of park land at Rynex Drive and North Luthan St.	Planning Commission	(a) Location (b) Land use* (c) Vegetation (d) Slope (e) Runoff (f) Erosion (g) Flood potential	Planning and Community Development Dept.
Proposed amendment to the zoning code (parking regulations)	Planning Commission	(a) Reduce off street parking requirements for property accessible to rapid transit stations under certain circumstances (b) Consider a maximum off street parking ordinace for property near and accessible to rapid transit stations (c) Consider excluding parking* structures from floor area ratios under certain circumstances (d) Consider discretionary treatment regarding the parking requirement under the C-O use permit	Planning and Community Development Dept.
Scope of proposed traffic study of Eisenhower Ave.		Nature and intensity of future land uses	Planning and Community Development Dept.
Scope of a proposed study of access and development in regard to the Cameron Run Valley	Planning Commission	(a) Highway access* (b) Potential limits on the amount* timing and type of development (c) Impact on surrounding area* (d) Determine the nature, cost and timing of public facilities and open space	Planning and Community Development Dept.

*Denotes those elements of staff analysis that require extensive use of land use data.

Jurisdiction: City of Fairfax

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
Proposed Amendment to the 1968 Comprehensive Development Plan	Planning Commission	(a) Land use and traffic* patterns in center city and in other parts of the Development Plan (b) Redesignation of route type within the Development Plan	Planning Department
Bikeways System Comprehensive Plan	Planning Commission	(a) Cost estimates (b) Engineering feasibility (c) Design standards* (d) Accessibility	Planning Dept. and Public Works Dept.
West End Neighborhood Planning Advisory Board Traffic Report	Planning Commission	Staff analysis indicated- (a) the importance of establishing the relationship between the overall Master Plan and a Detailed Neighborhood Plan* (b) conceptual framework used by the advisory board is in need of clarification	Planning Department
Rockville Metro Station	Planning Commission	(a) Accessibility* (b) Congestion on main streets (c) Unwarranted use of residential* streets by through traffic (d) Parking demand	Planning Department
Location of the Metro S and I yard	Planning Commission	(a) Land use conflict with the surrounding land zoned commercial* (b) Negative aesthetic impact (c) Loss of prime taxable land	Planning Department

*Denotes those elements of staff analysis that require extensive use of land use data.

Jurisdiction: City of Rockville

Issue Area	Agency Involved	Elements of Staff Analysis	Staff Responsibility
Request to change the name of North Washington St.	Planning Commission	(a) Insure that street names are continuous throughout their entire length (b) Compliance with the 18 space limitation of street signs (c) Continuity with the county system	Planning Department
Montgomery County School Bus Storage Depot Relocation Proposal	Board of Education and Planning Commission	(a) Location* (b) Accessibility (c) Size (d) Impact on adjacent residential areas*	Board of Education and Planning Dept.
Parking Reduction Request Twinbrook Library	Planning Commission	Overlapping peak needs and common patrons due to the location at a shopping center*	Planning Dept.
Access to the Jewish Memorial Cemetery	Planning Commission	(a) Flood plain dedication* (b) Impoundment of Cabin John Creek for a public lake (c) Water and sewage services (d) Right-of-way dedication	Planning and Public Works Dept.
Hungerford/Stoneridge Area Plan	Planning Commission	Consultants report on the impact of impending urbanization within this area. Analysis encompassed- (a) land use and zoning patterns* (b) traffic circulation (c) public facilities (d) physiography and environment	Planning Department

*Denotes those elements of staff analysis that require extensive use of land use data.

III General Synopsis and Itemized Listings of Available Rezoning Statistics for Fiscal Years 71-74 by Jurisdiction

Jurisdiction	Rezoning Applications Filed		Applications Acted Upon		Total Number of Acres Rezoned	
	FY 72	FY 73	FY 72	FY 73	FY 72	FY 73
ARLINGTON COUNTY	15	12	7(1)	3(1)	N.A.	N.A.
FAIRFAX COUNTY	164	165	81(2)	155(2)	699	N.A.
LOUDOUN COUNTY	5	18	(a)	7(2)	(a)	864
PRINCE WILLIAM COUNTY	35	36	32(3b)	N.A.(b)	2,615	598
MONTGOMERY COUNTY	107	58	81(4)	52(4)	7,207	7,321
PRINCE GEORGES COUNTY	157	152	N.A.	N.A.	N.A.	N.A.
DISTRICT OF COLUMBIA	N.A.	N.A.	25(5)	36(5)	N.A.	N.A.
CITY OF ALEXANDRIA	19	15	N.A.	N.A.	N.A.	N.A.
CITY OF FALLS CHURCH	N.A.	N.A	2(6)	2(6)	N.A.	N.A.
CITY OF FAIRFAX	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
CITY OF ROCKVILLE	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

Notes:

(1) Approved by the County Board

(2) Acted on by the Board of Supervisors

(3) Acted on by the Planning Commission

(4) Acted on by the Hearing Examiner

(5) Acted on by the Zoning Commission

(6) Approved by the City Council

(a) Rezoning moratorium in effect

(b) Residential rezoning moratorium in effect

N.A. Not Applicable

ARLINGTON COUNTY	FY 72	FY 73
Rezoning request recieved	15	12
Approval recommended by the commission	9	1
Not recommended by the commission	5	9
Approved by the County Board	7	3
Not approved by the County Board	7	7
Withdrawn	5	1
Pending	2	3
Site plans approved	6	7
Site plans requested	2	4
Site plans withdrawn	1	2
Site plans pending	5	2
Site plan amendment approval	30	21
Site plan amendment rejected	6	3

FAIRFAX COUNTY

REZONING STATISTICS	FY 71	FY 72	FY 73
Rezoning applications filed	133	164	165
Acted on by Board of Supervisors	134	81	155
Pending at the end of year	184	239	N.A.
Acres regional total	2,392	699	N.A.
Single-family residential	1,025	389	-
Multi-family residential	7	15	-
Commercial	128	63	-
Industrial	406	14	-
Planned Developments	826	218	-
DESIGN REVIEW STATISTICS			
Preliminary plats approved	170	218	235
Final plats approved	475	450	404
Area of approved lots (acres)	2,131	3,050	3,887
Subdivision plans approved	75	96	92
Subdivision revisions approved	264	340	349
Site plans for apartments, commercial and industrial developments approved	166	235	199
Revision to approved site plan approved	270	363	847

LOUDOUN COUNTY

REZONING STATISTICS	FY 71	FY 72	FY 73
Rezoning applications filed	9	5	18
Acted on by the board	4	0	7
Pending	1	3	12
Acres rezoned	103	0	864
DESIGN REVIEW STATISTICS			
Preliminary plats approved	12	19	4
Final plats approved	12	20	8
Resubdivision approved	2	2	1
Site plans approved	-	-	2
Area of approved lots (acres)	289	494	230

PRINCE WILLIAM COUNTY	FY 72[1]	FY 73[2]
Number of applications	35	36
Total number of acres	2,615	598
Action taken by the Planning Commission	32	-

1/ A residential rezoning moratorium was enacted as of Feburary 1972. Applications were received but held in abeyance pending expiration of the moratorium.

2/ The residential moratorium remained in effect until May 1973. No applications were scheduled for consideration until the end of FY 73.

MONTGOMERY COUNTY

REZONING STATISTICS	FY 1971-72	FY 1972-73
Number of applications	107	58
Number of cases heard	81	52
Total number of acres	7,207	7,321

PRINCE GEORGE'S COUNTY	FY 72	FY 73
Rezoning applications filed	157	152

DISTRICT OF COLUMBIA

ZONING STATISTICS	FY 72	FY 73	Estimated FY 74
Appeals received by the Board of Zoning Adjustment	518	602	600
Actions by the Zoning Commission	25	36	50
Cases heard and decided by the board (average per month)	20	41	30
Cases heard and decided by the commission (average per month)	2	3	4

CITY OF ALEXANDRIA

	Actual FY 1971-72	Estimated FY 1972-73	Estimated FY 1973-74
Rezoning requests	19	15	12
Subdivisions	34	29	35
Special use permits	31	41	43
Zoning appeals	42	43	45

CITY OF FALLS CHURCH	FY 72	FY 73
Rezoning (map) amendments		
Recommended approval	2	2
Recommended denial	3	N.A.
Resubdivision		
Final plat approval	3	3
Preliminary plat approval	3	1
Site plans approved	14	12
Site plans denied	1	0
Site plans preliminary consideration	1	1
Site plans deferred	1	2

IV Individuals and Jursidictions Contacted in Preparing this Project

ARLINGTON COUNTY -	Mr. Robert Wheeler, Director of Planning	558-2336
	Mr. James Synder, Planner, Dept. of Zoning	558-2711
FAIRFAX COUNTY -	Mrs. Mary Holbein, Planner, Office of Comprehensive Planning	691-2641
	Mr. Michael Knolton, Asst. Zoning Administrator	691-2385
LOUDOUN COUNTY -	Mr. James Power, Planner, Dept. of Planning	777-2660
PRINCE WILLIAM COUNTY -	Mrs. Virginia Young, Asst. Director of Planning	221-1101
MONTGOMERY COUNTY (M-NCPPC) -	Mr. Dale Price, Planner, Dept. of Planning	589-1486
PRINCE GEORGE'S COUNTY (M-NCPPC) -	Mr. Jerry Allison, Planner, Dept. of Planning	277-1241
DISTRICT OF COLUMBIA -	Mr. Paul Rusinko, Planner, Dept. of Zoning	629-4421
CITY OF ALEXANDRIA-	Mr. Peter Crable, Planner, Dept. of Planning	750-6291
CITY OF FALLS CHURCH -	Mr. David Talbott, Director of Planning	532-0800
CITY OF FAIRFAX -	Mr. Lemmuel Johnson, Acting Planning Director	273-7900
CITY OF ROCKVILLE -	Mr. Robert Mitchell, Planner, Dept. of Planning	424-8000

Jurisdictions not contacted:

city of Bowie
city of College Park
city of Greenbelt
city of Takoma Park