The Park Site Selection Process in Virginia

by

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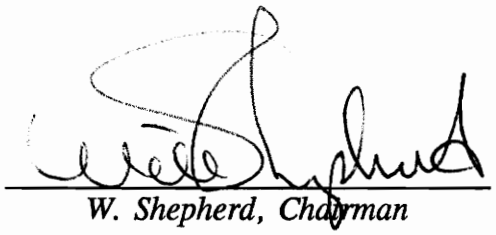

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(ABSTRACT)

This research examines the park site selection process in Virginia. This task was accomplished through personal interviews with parks and recreation professionals involved in the park site selection process. This information was augmented with an investigation into the site planning literature on capability/feasibility studies. The research focused on how parks and recreation departments determined recreation need, identified potential sites and evaluated those potential sites, hoping to find a common site selection process.

The research identified a common site selection process in the literature but not in the field. Although a common site selection process was not identified, several common elements were identified for the site identification and evaluation portions of the processes. From the findings and the literature review, a site selection process has been outlined in the recommendations section of this paper.

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ACKNOWLEDGMENTS

The process of writing a graduate thesis is by no means an easy task. And though my name is on the cover it doesn't mean that I accomplished this task without assistance. These acknowledgments are my opportunity to recognize the people who made it all possible.

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INTRODUCTION

"To the end that the people have clean air, pure water, and the use and enjoyment for recreation of adequate public lands, waters, and other natural resources, it shall be the policy of the Commonwealth to conserve, develop, and utilize its natural resources, its public land, and its historical sites and buildings. Further, it shall be the Commonwealth's policy to protect its atmosphere, lands and waters from pollution, impairment, or destruction for the benefit, enjoyment, and general welfare of the people of the Commonwealth."

The objective of ARTICLE XI-Section 1, Constitution of Virginia, is to ensure that present and future Virginians will have the opportunity to enjoy the Commonwealth's natural resources. The article also indicates Virginia's commitment to providing recreational resources for the public. But what is the role of local government in providing recreation services? The 1989 Virginia Outdoors Plan defines the local responsibility as follows: "Local units of government have a duty to provide playgrounds, playfields, neighborhood parks, recreation centers, city parks, trails, and other close-to-home recreation areas and facilities in order to meet the daily leisure needs of their populations." Providing these recreational opportunities is a complex problem.

How are Parks and Recreation departments in Virginia dealing with the problems of providing recreational opportunities, and how can I help them?

The President's Commission on Americans Outdoors found that ninety percent of Americans seek enjoyment from our natural and recreational resources. This demand for recreation has grown faster than the population in the last quarter century. This trend is evident throughout the country, as well as in Virginia. While this demand for recreation has grown, it has also changed; these changes in turn have changed the nature of recreation demand. The 1989 Virginia Outdoors Plan reports that the greatest demands are for close-to-home recreation areas and facilities. And in Virginia 60 percent of all outdoor recreation demand is for activities within 30 minutes of home. This trend in Virginia is an indication of a national trend of urbanization; soon 80 percent of the population will reside in towns and cities. And these people are now recreating closer to their homes, usually within an hour from home. These changes in recreation demand put more emphasis on the locality's role in providing recreation services and facilities.

Providing recreation services has become a complex issue. The increasingly urbanized population requires developable land to meet the housing and service needs of the population. The need for developable resources, a finite resource, increases land prices, which in turn increase the costs to provide recreation facilities. This trend may be why the '89 Outdoors Plan lists park and natural areas acquisition as a priority one issue. This comes at a time when recreation and municipal budgets are tight. To compound the problem, many of our older parks require renovation and

many recreationists are asking for more site amenities, all in an era of cost cutting, requiring parks and recreation departments to do more with less.

In 1965 Virginia prepared its first State Comprehensive Outdoor Recreation Plan; the plan has been updated six times since then. The current plan, The 1989 Virginia Outdoors Plan, has established several statewide goals. Two of these goals are important to this study.

- To identify those resources which have special recreational, historical, cultural, natural, and scientific significance and take necessary steps to protect and conserve them.

- To insure, for this and future generations of Virginians, an adequate supply of outdoor recreational opportunities.

One method to achieve these goals is sound land use planning. The patterns of the past have to be changed; recreation can no longer be an afterthought. Recreation areas need to be identified now and protected for tomorrow. Municipalities need to provide complete systems of outdoor recreation and open space areas, with special emphasis on providing recreational systems in urban areas (the 1989 Virginia Outdoors Plan) and on providing playgrounds, neighborhood parks, city parks, and other close-to-home recreational opportunities in an attempt to meet the daily recreational needs of the public.

How do parks and recreation departments in Virginia attempt to meet these goals? What processes do these departments use to select park sites? Are there

commonalities in the park-site selection processes used by departments? Are there common site selection elements? These are the questions I hope to answer with this research. To accomplish this task, I must first determine if there is a standard site-selection process in the site planning literature. By doing so, I can establish a standard by which to judge the data I collect.

Research in the area of park site selection is limited; therefore this study will be considered exploratory, relying on research in similar areas for background information and examples of site selection processes. The study itself will consist of a literature review of capability/feasibility studies and site selection processes, as well as in-depth interviews with parks and recreation professionals in Virginia. It is hoped that, by understanding the processes behind park site selection, this process can be better understood and hopefully improved.

The research questions:

1. To examine the site selection process in the literature and compare some of the various site selection methods used by planners and designers.
2. To examine and identify the site selection processes used by parks and recreation departments in Virginia.

   Specifically to identify how departments

   a. Determine recreation need

   b. Identify potential recreation sites

c. Evaluate potential sites

d. Select a final site

3. To compare the processes identified in the literature and the processes identified in the parks and recreation departments in Virginia, and to identify any similarities or differences between them.

4. To compare departments against one another to see if there are any commonalities or differences, making sure to compare a variety of localities.

5. To identify any common patterns, processes, or elements of the site selection process that exist in the parks and recreation departments surveyed.

6. To use these common patterns, processes, and elements in conjunction with the patterns in the site selection literature to develop site selection guidelines.

LITERATURE REVIEW

THE HISTORIC BACKGROUND OF PARK PLANNING

In 1857 when Olmstead was named Superintendent of Workers for Central Park, the site could hardly be considered park-like. Central Park was a desolate site with poor rocky soil mixed with marshes, swamps, unsightly vegetation, and squatters' shanties. But these conditions were typical in the early parks movement. Political, economic, and demographic considerations were the deciding factors when it came to selecting park sites. Factors such as cross-ventilation, view, access, circulation, aesthetics, and topography were considered, but they were ultimately second to the political and economic considerations. Thus sites selected were simply those for which there was no competition at all, those unusable for any other purpose. Chicago's South Park system and Louisiana's Central Park were swamps, Golden Gate was a shifting sand dune, the Back Bay in Boston was too steep for construction, and Morningside Park in New York was too rocky for farming (Cranz, 1982).

To truly understand the effect these considerations had on site selection, let us examine the process followed for Central Park. The choice of it over Jones' Woods was due mainly to economic considerations. This passage from *The Politics of Park Design* by Galen Cranz (1982) best describes the selection process and reveals how economic constraints affected the selection process.

Jones' Woods was a wooded waterfront site of 153.5 acres on the east side of Manhattan near the tenements, while the Central Park area was a treeless, rocky site miles from the city. The legislature first authorized funds to buy Jones' Woods, but the decision was hotly contested.

Jones' Woods was closer to New York's population, had river-front and trees, and would offer immediate returns. The opposition included the horticulturalist Andrew Jackson Downing, who challenged the feasibility of using this land for park purposes because it could be used for commercial docking and because a shore site was healthful and pleasurable without a planned park on it. The Central Park areas was proposed as an alternative that would offer cross-ventilation, access from two sides, and easier conversion to a park than Jones' Woods, which had too many trees for open space. A tract of land as large as Central Park could better accommodate population growth. The cost considerations of purchasing the land also worked in the favor of the Central Park location. Although as a parcel Jones' Woods cost less, the per acre price of Central Park was lower. The planners could not ignore that in the long run Central Park was to have taxable property on all four sides, although some of the land around the arsenal and reservoir was already public property, while Jones' Woods could not have property owners along the riverside.

The committee assigned to study the issue of a public park in New York concluded that both sites should be purchased, but the act authorizing the purchase of Jones' Woods site was repealed in 1854. In retrospect, the argument that Jones' Woods did not offer enough space might seem farsighted, but the charges and countercharges in the New York State Senate minority and majority reports for 1853 suggest that it was financial interests, especially commercial docking operations, that won the day.

Economic and political considerations did not always outweigh other considerations. For example, in Chicago all park sites were located near the commuter train and mass transit routes, assuring accessibility to the parks, but Chicago was the exception, not the rule (Cranz, 1982).

THE SITE SELECTION PROCESS

Parks and recreation planning has been traditionally identified with resource and facilities planning. The major emphasis has been on open space preservation and the development of these spaces for outdoor recreation (Gold, 1980). The emphasis in park planning literature is a reflection of this emphasis. *Recreation Planning and Design* (Gold, 1980) has chapters dealing with comprehensive planning, determining recreation need, inventorying resources, and formulating goals. *Planning Parks for People* (Hultsman et al., 1987) and *A Site Design Process* (Fogg, 1986) are both excellent resources for evaluating existing sites through site inventory and analysis; however, these resources do not give clear concise descriptions and examples of the site selection process.

To investigate the process of selecting sites, research in other disciplines needs to be examined, specifically research in regional planning and landscape architecture. In the literature the site selection process is considered a land capability or suitability analysis. Hopkins (1977) states that there are two necessary components of any method of land suitability analysis: 1) a procedure for identifying parcels of land that are homogeneous and 2) a procedure for rating parcels with respect to the suitability for each land use. Anderson (1987) states that there are two types of capability/ suitability studies (C/S studies): 1) studies used to determine which parts of a large geographic area are best suited for a particular land use and 2) studies used to compare the attributes of a limited number of sites to see which are best, which are

acceptable, and which should be removed from further consideration. As indicated, Hopkins considers C/S studies to be made up of two components used in conjunction; Anderson, on the other hand, views Hopkins' two components as two separate processes and types of studies.

Before examining the processes, it is important to note Anderson's warning, "It should be strongly emphasized that most C/S studies do *not* provide evidence that those parcels of land that receive a good score are *well suited* for specific land use. What they indicate is that the parcels that rank high in the review process are *not clearly unsuited* for a particular land use." (1987, page 2)

C/S studies come in many different varieties, ranging from the complex to the simple. Regardless of the complexity or simplicity of the study, three factors are important for a good C/S study: 1) workable techniques for analyzing information, 2) knowledge of which factors are important in evaluating sites, and 3) data on the important factors (Anderson, 1987). This literature review will focus on workable techniques for analyzing information. In some instances the other factors are discussed in conjunction with the analysis techniques, but the main concern in the literature review is to understand and evaluate the available processes.

To evaluate the available processes, the main items of consideration will be how workable the analysis techniques are for the parks and recreation professional. The two interrelated characteristics of a C/S study will be considered: first, C/S studies require that many subjective decisions be made; second, the processes are so

simple that it is easy to identify where those subjective decisions were made. The processes will be examined for this ease of locating subjective decision-making steps, as well as the ease of use and technical skill required to use the process. It is important to note that a simple process is as valuable as a complex one. Appropriate techniques, good judgment, and good data can produce a good C/S study quickly and simply (Anderson, 1987).

The first site selection process examined is the Internalized Process. This process is described by Steinitz in *Defensible Processes for Regional Landscape Design* (1979). Simply described, a client asks you to find a site, and you find a site based on intuition and experience. These two elements come from years of experience in planning and design, and/or years of experience of working and living in the same geographical area. As a process it is very hard to learn and harder to defend, but it works and it is a legitimate process.

In evaluating this process, it is evident that the subjective decision-making steps cannot be identified. In addition, it is not an easy process to use, unless you have considerable experience and/or have lived in the geographic area for a long time. In this case the process is an easy one but still requires the technical expertise of years of experience.

Lynch and Hack (1984) offer a different approach to site selection. The first step of their process is the identification of desirable features or objectives. They consider this first step part of the client's responsibility and do not address it. The

site identification process is a reductive search accomplished through a simple screening process. Essentially, the screens represent threshold levels or minimum acceptable criteria. For example, sites in which 40% of the site exceeds a slope of 20% are considered unusable; thus, they are eliminated from the search. This process can be demonstrated graphically using a series of map overlays where each overlay represents a different criterion or factor. After the screening process is completed, all potential sites are personally reconnoitered to eliminate unacceptable ones—a pre-evaluation step.

Sites that remain after the pre-evaluation are analyzed in-depth with a close examination of the desirable features established in the previous stage. This list of features is examined in more detail, and each feature can become a set of factors or conditions deemed desirable in that feature. These factors are arranged comparatively, and preliminary site layouts are developed for all sites. The combination of this information—knowing the site's constraints and development potentials—allows for an informed decision on which site best meets the needs of the prescribed use. Lynch and Hack offer a list of potential factors but state that the most important factors are determined by the agency looking for the site.

The site identification process Lynch and Hack use is a pass-fail screen, a term coined by Anderson (1987). The pass-fail screen as explained by Anderson is a simple screening process: 1) minimum criteria are set; 2) sites are evaluated by the criteria. If the site meets the criteria, it passes and is considered a potential site. If

the site does not meet the criteria, it fails and is no longer considered. The evaluation stage of the Lynch/Hack process is vague, making it difficult to relate it specifically to any one process.

The site identification part of the Lynch/Hack process is a pass/fail screen. Anderson evaluates this process as pros and cons: Pros: easy to understand, can be completed quickly, and is useful in screening out areas that should be given no further consideration. Cons: all factors are given equal importance, no distinctions are made in quality of the passed or failed sites, and there are no means of examining the interrelationships between the factors. This process has three valuable aspects: first, it is easy to identify the subjective decision-making steps; second, it is easy to use; third, it doesn't require a lot of technical skill. The pass/fail screen is simplistic and limited, but as a tool to screen out undesirable sites it does a good job.

Simonds' *Landscape Architecture* (1983) sets aside an entire chapter on site selection. The first part of the chapter outlines a simple three-step site identification process: 1) List the features that are considered necessary or useful for the proposed use. 2) Reconnoiter and scout out the area for likely locations. Starting points: aerial photographs, USGS maps, road maps, transportation maps, Planning Commission data, zoning maps, Chamber of Commerce information, plat books, and municipal plans. 3) With the above information sources as a guide, visit the most likely sites. With the site visit acting as pre-evaluation screening, these sites can then be evaluated.

Simonds' site evaluation process can be considered a graduated screen or ordinal combination. In the first step the important criteria are established and listed as factors. The next step is to visit all potential sites and photograph them (second site visit). The photographs offer a quick reference to the sites, once back in the office. The third step is to develop a matrix using the established criteria to cross reference the sites and the factors. Next, each site is evaluated using the matrix, and it receives a rating of severe limitations, moderate constraints, condition good, or condition excellent, for each factor. The relative worth of the sites can be determined by examining how the site fared, based on all of the factors. These ratings can be replaced by numerical values, which would give a numerical score for each site. Either way, from this information an informed decision can be made.

As stated, the second part of Simonds' process is a graduated screen. Anderson lists its pros as "it is easy to understand," and its cons as 1) all factors have equal importance, and 2) there are no means to examine the relationships between factors. For this paper's purposes, it rates well as a process. The graduated screen is easy to understand, and the subjective decision-making steps are easily identified. The process does require some technical skill, mainly knowledge of which factors are important in evaluating the sites and of how those factors constrain the site. The graduated screen has the capability to be an in-depth evaluation tool and a valuable asset requiring only moderate technical skill.

The next process is Ian McHarg's version of ordinal combination (graduated screening). One of the premises behind this method is to identify areas unsuitable for development and then identify which areas are least likely to cause damage to the environment. As in most processes, the first step is to identify the use for the potential site. After the use is determined, factors deemed important are identified. Each factor is broken down into factor types; for example, the factor "slope" could be broken down into slopes of 0-5%, 5-15%, etc. Each factor type is assigned a rating determined by its potential effect on development; for example, a slope of 0-5% could be assigned a rating of "few limitations." The next step is to develop an overlay map for each factor, indicating the factor types. These maps are considered suitability maps. The final step is to overlay all of the factor suitability maps, creating a composite suitability map. This procedure eliminates undesirable areas and identifies areas with few limitations. These areas with few limitations can be considered potential sites and evaluated using this same process, either graphically or with a matrix as demonstrated by Simonds.

McHarg's process is designed with an emphasis on determining which parts of a large geographical area are most suited to a particular land use or, simply put, site identification. Even though it is the same process in name as used by Simonds, it is applied differently. McHarg's process examines large geographic regions using graphic techniques to eliminate environmentally sensitive land. This process requires more technical skill than does Simonds' process, namely environmental analysis and

graphic skills; therefore, McHarg's process is rated separately. McHarg's process has a lot of potential if one has the technical skill required to undertake it. For the purposes of this paper, it does not rate well. Even though subjective decision-making steps are easily located, the technical skill required to complete the process reduces the ease of use and limits the process's usefulness to the average parks and recreation professional.

The final site identification technique to be discussed was developed by Phillip Lewis, and is referred to as the Environmental Corridor. The process is a regional overlay mapping technique. Its intent is to identify a pattern of natural and cultural resources for one landscape type. This pattern will identify sites most desirable to be set aside for recreational purposes in that landscape type. Once the pattern is established, it can be overlayed or applied to other areas with the same landscape type. Lewis's work focused primarily on statewide river corridors; however, the technique can be applied to smaller areas. The technique is somewhat complex and to some extent a variation of the graduated screen. The best way to describe this technique is to examine it step by step.

1. Identify uses to be planned for and establish use criteria.
2. Select case study area.
3. Identify major resources that meet the established use criteria, for example: significant topography, surface water, wetlands, and visual contrast and diversity.

4. Inventory resources and locate them on overlay maps individually.
5. Construct a combined composite overlay map of all major resources to show one combined pattern.
6. Inventory and locate all additional resources on overlay maps. These additional resources are natural and cultural resources identified by regional state and local officials: for example, game commissioners, extension agents, etc.
7. Categorize these additional resources into like groups, each becoming a pattern on an overlay map.
8. Prepare a combined additional resources overlay map.
9. Combine and compare major and additional resource composite maps.
10. Apply this combination, which is now a pattern of resources, to the larger area.
11. Use the process as an evaluation tool by establishing point values for each resource. Thus, sites with high point totals would be identified as the most desirable sites to purchase.

This description of the process is taken from *Three Approaches to Environmental Resource Analysis* by Belknap and Furtado (Harvard University, 1967). The process is a little more complex than McHarg's graduated screen, but the method is similar. Consideration of cultural and historical resources, collected from area resource professionals, as a criterion is one difference in the process. Another

difference is that Lewis's process seeks to identify a landscape type that is generally suitable for a specific use, whereas McHarg seeks to eliminate environmentally sensitive land from consideration. As with McHarg's process, Lewis's process requires technical skill and time to undertake. The technical skill required to complete the process reduces its ease of use and limits the process's usefulness to the average parks and recreation professional, just as McHarg's process does. The process is considered roughly equal in value to McHarg's process.

The element prevalent throughout all of the methods and techniques for site evaluation is the establishing of good criteria; however, no author has discussed how good criteria are established. To obtain insight on how good criteria are established, we must examine an article titled "School Site Selection" by Schrader (1963).

Schrader describes a process to establish appropriate criteria for school site selection. The first step of his process is to take the educational policies of the school district and transform them into goals. These policies or goals represent the long range or ethereal goals of the school board. For the context of this research these policies could be considered the goals of the parks and recreation department. From these broad goals the programming needs can be developed. In the second step of the process the uses, activities, and opportunities sought from the site are determined. This step enables the planner to determine the basic elements needed in a potential site, such as size, location, accessibility, topography, etc. By following this

procedure in a careful and deliberate manner, the director can determine appropriate criteria for the site.

One more source on site identification needs to be examined before we move on. The source is "The Search for New Urban Spaces" by C. Ray Smith (1981). This article is not an example of a site selection process; however, it offers insight on where to look for open space within our cities.

Smith offers an innovative answer to the complaint that there is no available land in today's cities. His answer is to re-examine our urban areas, looking for opportunities of adaptive re-use. Streets, for example, represent 25-30 percent of our urban areas; by closing streets to weekend traffic, we can create a temporary urban pedestrian thoroughfare. Old industrial and military sites as well as public and utility right-of-ways offer a wide range of possibilities. Not to be forgotten are the edges of the cities, along the waterways, canals, and reservoirs. The most innovative of all might be the reclamation of our rundown or abandoned neighborhoods.

OVERVIEW OF EXAMINED PROCESSES

In overviewing the processes examined in this literature review, it is apparent that three basic types of processes are evident: Internalized, Pass-Fail Screen, and Graduate Screen/Ordinal Combination. Each process has its merits and shortcomings as well as a best use. The internalized process may work extremely well for a long-term parks and recreation professional who has lived and worked in the same region

all of his life. But it is difficult to justify one's selection. The pass-fail screen is a great process to quickly and simply eliminate undesirable sites; however, it makes no distinctions in the quality of a passed or failed site. The graduated screen can be a simple evaluation matrix or a complex regional screening process; however, the more complex the process, the more technical skill required to complete the process. Thus, the limiting factor is the technical skill of the user. Each process has its place, purpose, and value, and all have applications in park site selection.

METHODS

The goal of this research project was to understand the process or processes used by parks and recreation departments in Virginia to select park sites. Because no major studies on the park site selection process had been identified, this research was exploratory. It examines the models, methods, and approaches utilized by planners and designers to aid in park site selection. The research used a hybrid of methods, combining elements of a diagnostic study and of field research. For a thorough understanding of the process, it was also necessary to examine the processes in action.

KEY TASKS

- Understanding of the site selection process as illustrated in the literature
- Identification of the survey population
- Development of the questionnaire
- Collection of data
- Tabulation and analysis of data
- Conclusions and recommendations

RESEARCH BACKGROUND

My interest in outdoor recreation and park planning comes from my educational and work experiences. I graduated with a Bachelor of Science degree in Parks and Recreation in 1984 with an emphasis in recreation resource management. I

wanted to transfer that outdoor recreation background into my graduate work in landscape architecture. I achieved this goal with course work and graduate research along with several years of work experience in park planning and design for a local government agency. Through those experiences I became interested in park planning. I recognized the need to expand the body of knowledge in park planning, especially in the area of park site selection.

This deficiency in knowledge about planning came to my attention while I was studying the comprehensive recreation planning process. I was exploring research topics in park planning through a survey aimed at parks and recreation departments in Virginia. The mail questionnaire asked basic park planning questions about comprehensive recreation planning, capital improvement planning, and facility inventories. To follow up the questionnaire and to gain more insight on those topics, I visited several respondents. Through this research I began to notice the deficiencies in park planning at the local level.

From the information and insight I gained from the initial study and after a careful literature search, with the help of my thesis committee I was able to narrow the topic to only one aspect of park planning, the park site-selection process. Essentially, I wanted to examine the processes a parks and recreation department would utilize to: determine recreation need, identify potential recreation sites, evaluate those sites, and select a final site. By examining the park-site selection processes, I hoped to develop an understanding of those processes. In addition, I

wanted to identify any similarities in process and if possible identify any common park-site selection processes.

IDENTIFICATION OF THE SURVEY POPULATION

I used several criteria to identify and limit the target population.

First, I limited the study area to departments in Virginia. Limiting the study to one state provided similarity in governmental structure and form of administration, and reduced any bias due to differences in state laws and administrative regulations. Also, by surveying only in Virginia, I reduced the amount of time spent in travel.

Second, it was important to obtain a cross section of departments, from various geographic regions, from both rural and urban communities, and from both large and small communities.

A third consideration was the use of annual budgets, an indicator of departmental resources and local governmental support for recreation.

The final consideration was whether or not the department was currently or had recently been involved in an acquisition of parkland. I consulted with Gary Huff and Derral Jones, who have a good working knowledge of recreation in Virginia and of what is currently happening in development and acquisition around the state. With their help I developed a list of potential departments to be interviewed. The survey size was limited to 28 departments, or 23% of the 120 parks and recreation departments in Virginia.

DEVELOPMENT OF THE QUESTIONNAIRE

To determine which type of survey would best serve the needs of the study, I read *Inquiry by Design* (Zeisel, 1984) and *Mail and Telephone Surveys, The Total Design Method* (Dillman, 1978). Using that information I decided that a personal interview using an open-ended questionnaire format would be the best method to obtain the needed data and would be more conducive to the free exchange of information. Although personal interviews are labor intensive, I rationalized that the survey size would be relatively small (twenty-eight [28] interviews), and with careful planning I could keep costs to a minimum.

To better understand the open-ended questionnaire format, I studied several other sources, including Shepherds' (1986) "The Effect of Turnaround Migration on the Rural Landscape," Patton's (1980) "Field Research Method," and Zeisel's (1984) description of the diagnostic study. Using these sources, I was able to define more precisely the type of research to be conducted, the style of questionnaire to be utilized, and the data analysis techniques to be used. For the actual construction of the questionnaire, I drew upon notes from course work in "Research Applications to Educational Problems" (K.T. Hereford, EdAE #5310) and in "Computer Analysis in Education" (L. McCluskey, EdAE #5350). In addition, I used *Mail and Telephone Surveys, the Total Design Method* (Dillman, 1978).

The questionnaire was designed to do two things: first, it was to gain insight on the level and type of recreation planning occurring in the state and, second, it was

to identify the site selection process(es), if any, being used by recreation departments in Virginia.

The first section, "determining recreation need," contained two types of questions. The first type were background questions. These questions were designed to obtain background information such as: "Does the department have a comprehensive plan and does the plan contain a parks and recreation section?" These questions enabled me to understand and identify the status of planning and of recreation planning in the locality, as such information might be an important determinant in the structure and function of park planning in the local jurisdiction. The second type of questions were research questions. These were designed to extract the bulk of the information needed for the research. There were three major research questions in the "determining recreation need" section. The first sought to determine the acquisition methods being used by departments.

The next two questions were tiered. Both of the second-part questions were supplemental questions. The first asked if the recreation section of the comprehensive plan was used to determine the need for additional parkland, and, if not, how the need for additional parkland was determined. The reason for this question was to determine if there was any relationship between the comprehensive plan and the park-site selection process. In addition, responses to the question indicated whether or not departments used the comprehensive plan to determine need. If the plan wasn't used to determine need, the second part of the question (supplemental question) sought to

identify what information was being used to determine recreation need. The second tiered question asked if the plan was used to determine the recreational activities of the proposed site, and, if not, how were recreational activities determined? This question sought to identify any ties between the comprehensive plan and the determination of recreation facilities. The second part of the question (supplemental question) was designed to identify any other process used by the department to determine recreation facilities.

The second section, "The site selection process," contained three types of questions: background, research, and retrospect. The background and research questions were similar to those in the first section. The background questions queried as to the number of sites identified and evaluated and whether or not the sites were pre-selected. The research questions sought to identify the processes behind site identification and evaluation. These were open-ended questions that were structured to allow the respondents to elaborate on their processes for selecting sites. The retrospect questions were designed to take advantage of hindsight. Respondents were asked what they felt was the final deciding factor in choosing one site over another, what information was the most helpful in the site-selection process, and what would they do differently next time they went through the site-selection process.

The draft questionnaire was submitted to the technical advisors for review and comment. They suggested some sequence and terminology changes. After I made these recommended changes, the questionnaire was pretested.

THE PRETEST

The pretest was conducted locally to keep the process short and less expensive. Blacksburg, Danville, and Pulaski were chosen to pretest the questionnaire. Pulaski was the only locality that didn't meet the criteria established for the target population, but this choice was deliberate. It was an attempt to test the target population criteria and it was successful in that it confirmed the reasoning behind the criteria used to determine the target population. The information gathered from Pulaski was limited because the acquisition process was ten years old and no staff member had any hands-on knowledge of the process.

Some other valuable information came out of the pretest. Some organizational and outlining changes were made to ease the interview process. And a major change was made in the site selection section. Originally the section had been broken down into site identification, pre-evaluation screening, and site evaluation. The pretested departments didn't separate the pre-evaluation and site evaluation stages of the process. Therefore, the section was restructured so that the two questions were combined. However, as it turned out, the concept of a pre-evaluation stage was valid; in later interviews I discovered that some departments do separate the process into pre-evaluation and site evaluation.

DATA COLLECTION

At this point I organized the list of potential interview subjects into clusters of day trips; that is, the number of people and places I could visit in one day. This list was then used to schedule trips over the course of the summer of 1989. The standard procedure for securing an interview was to call the potential subject ten (10) to eleven (11) days in advance of the proposed interview date. During the phone conversation I informed the potential subject that I was a graduate student at Virginia Tech and explained the purpose of the study. A majority of the directors called were willing to participate in the interview, and an interview date was set. To ensure that the meeting would be held, I sent a follow-up letter to confirm the date and time of the interview.

The actual interviews were informal and all interviews were recorded, with permission, to ease data collection and to ensure that all responses were recorded accurately. In most cases an exchange of information occurred. While asking questions I was also answering questions about the subject matter and the findings. On average, interviews lasted twenty-five (25) to forty-five (45) minutes, and after most interviews an unstructured discussion occurred off the record. The interviews were transcribed into the format of the questionnaire to ease the data analysis process.

TABULATION AND DATA ANALYSIS

The size of the survey limited the type of data analysis techniques that could be used. Most statistical analysis techniques require a survey size of seventy-five (75) or greater to work properly and to provide valid interpretations of the data. With a survey limited in size to fewer than thirty (30) respondents, most of these methods would not have been valid. Several questions could be interpreted by using averages, medians, and ranges. The rest of the data was more complex. To evaluate these questions, responses were first clustered into like groups. For example, lay of the land, terrain, and topography were all classified as topography. Responses were then tallied, and responses that had been given by a significant number of respondents (at least five) were noted. The data could then be shown to indicate prevailing tendencies or majorities, any number larger than half the total.

It is important to remember that the purpose of diagnostic studies is to deepen the understanding of the subject, provide suggestive evidence, and offer insight into the structure and dynamics of a whole situation (Zeisel, 1984). A good diagnostic study should raise many new questions, as it is a preliminary examination of a subject. Diagnostic studies and field research are considered exploratory in nature, and the generation of statistical evidence is not expected to be an outcome of this type of research.

SURVEY RESULTS AND ANALYSIS

The sample population consisted of twenty-eight (28) respondents. The geographic distribution of respondents as determined by the Virginia Recreation and Parks Society is as follows: South-Western Virginia, 8 respondents; Central Virginia, 7 respondents; Northern Virginia, 6 respondents; Western Virginia, 5 respondents; Eastern Virginia, 1 respondent. Originally 4 respondents from Eastern Virginia were sought; however, only one department could meet with me during my planned trip. See Table 1 for list of respondents and Figure 1 for geographic distribution.

Respondents were also distributed by type of government: 11 respondents were cities, 11 respondents were counties, 4 respondents were towns, and 2 respondents were regional park authorities. Table 2 indicates the population and recreation budget by government type. The figures are from "A Study of Parks and Recreation Departments in Virginia" for fiscal years 1986-1987, Department of Conservation and Historic Resources.

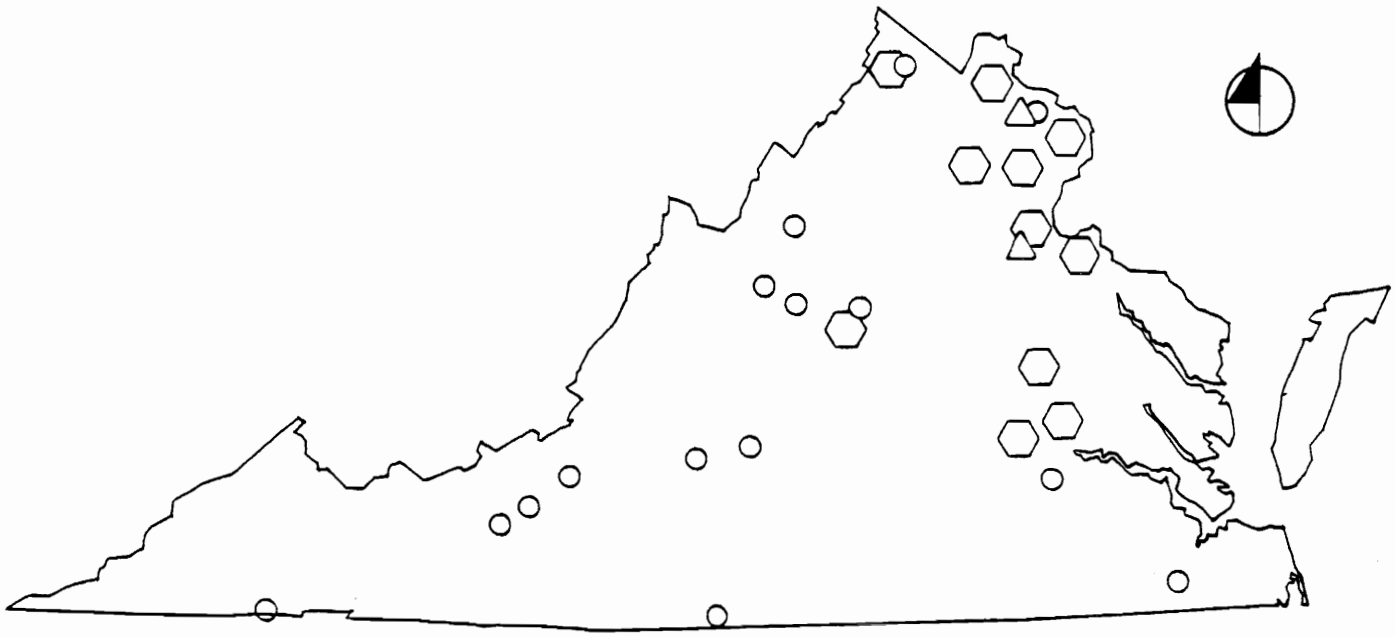
People representing a wide range of localities were interviewed. There is an adequate geographic distribution, with the exception of Eastern Virginia. The survey population distribution of cities, counties, and towns is proportional to their distribution in Virginia. A wide range in populations and annual budgets exists in the overall survey population as well as in government types. This diverse mix of

respondents ensures that valid data interpretations on the state of parks and recreation planning in Virginia can be made.

TABLE 1. LIST OF RESPONDENTS

Ablemarle County	Patrick Mullaney
City of Bedford	Cindy Curtis
Town of Blacksburg	Bill Winfrey
City of Bristol	Robert Childress
City of Charlottesville	Eugene German
Chesterfield County	Pete Stith
Town of Christiansburg	Arthur Price
City of Colonial Heights	Sean Gleason
City of Danville	John Gilstrap
Fairfax County Park Authority	Dick Jones
Faquier County	Larry Miller
Frederick County	James Doran
Fredericksburg - Stafford Park Authority	Ray Grizzle
Hanover County	Donald Seay
City of Harrisonburg	Cecil Gilkerson
Henrico County	Charles Schroll
Town of Herndon,	Arthur Anselene
King George County,	Eldon James
Loudoun County,	James Stup
City of Lynchburg,	Charles Ripley
Northern Virginia Regional Park Authority	Darrel Winslow
Prince William County Park Authority	Thomas Iurino
Town of Pulaski	David Hart
City of Radford	Bob Dowless
Stafford County	Bill Ross
City of Staunton	Larry Mahaw
City of Suffolk	Anita Williams
City of Waynesboro	David Van Covern

Geographic Distribution of Respondents



○ CITIES & TOWNS
⬡ COUNTIES
△ REGIONAL PARK AUTHORITY

TABLE 2. POPULATION AND RECREATION BUDGET BY GOVERNMENT TYPE

	Population Distribution	Department Budget
Cities	Range: 6,430 to 69,610 Median: 24,850	Range: $439,281 to $2,773,646 Median: $882,783
Counties	Range: 12,410 to 694,860 Median: 65,050	Range: $699,233 to $45,255,480 Median: $2,237,388.5
Towns	Range: 9,430 to 30,380 Median: 14,475	Range: $198,030 to $1,482,325 Median: $532,236
Park Authorities	Range: 71,780 to 1,056,700 Median: 564,240	Range: $362,567 to $12,805,734 Median: $6,584,150
Overall	Range: 6,430 to 1,056,700	Range: $198,030 to $45,255,480

RESULTS BY SURVEY QUESTION

The responses are examined on a question-by-question basis. All questionnaire responses are listed after each question along with a summary of the responses. An overall assessment of the data is discussed in the next chapter.

Throughout the survey there are discrepancies between the number of responses and the total survey population. These discrepancies are due to nonresponses and situations where responses were not appropriate to the question.

DETERMINING RECREATION NEED

1. The first question, *"What is the name of the facility?"* was asked so that during the interview the park could be referred to by name.

2. *What is the size of the facility?*

   1-2, 1-2, 2, 3, 10.5, 11, 27, 44, 58, 70-100, 101, 111, 115-135, 130-180, 150, 153, 160, 162, 200+, 200+, 230, 330, 525. All responses are in acres.

   - Average size of parcel: 123.71 acres
   - Median size of parcel: 111 acres

There are two reasons for the several responses that give a range in size: first, the respondent was [or may have been] giving the potential size of an unpurchased site, or, second, the respondent was [may have been] giving an estimate of size. Overall the range in size is large: one (1) acre to 525 acres.

3. *How was the park acquired?*

Purchasing options utilized by respondents:

5 purchased outright

5 purchased in combination with a donation or proffer

1 lease purchase

1 bought option on site, then purchased site

1 purchase, with option to buy remainder of the site at a later date

1 purchased at public auction

1 joint purchase with another locality

Other methods of acquisition:

3 municipal owned

2 donation

1 condemnation

Methods under consideration:

- Hoping for donation
- Purchase, grants, proffers, donation all as possibilities
- Purchase, purchase and donation, reduce price to name facility, and a five (5) year payment plan all as possibilities

The question produced an impressive list of possible funding methods. This list of funding methods indicates that departments have become creative and are aware of the funding options available to them. The only listing of methods I have come

across that rivals this list is in *Leisure Resources: Its Comprehensive Planning* by Joseph Bannon (1976), which lists sixteen (16) different methods of acquisition. It is also important to note that only one department condemned land. This fact may indicate reluctance to condemn land for recreation purposes.

4. *Does your locality have a comprehensive land use plan?*

23 a. yes

2 b. no (if no, proceed to supplementary questions)

The basis for determining recreation need comes from the comprehensive plan and, as the data indicate, the majority of respondents had comprehensive plans. These figures are consistent with those of the Virginia Department of Housing and Community Development. The department stated that ninety-three (93) of ninety-five (95) counties had comprehensive plans, forty-one (41) of forty-one (41) cities had plans, 158 of 189 towns had plans, for a total of 292 of 325 governing bodies in Virginia having comprehensive plans. But such results are expected, because Virginia law (Code of Virginia, section * 15.1-446.1) states "The local commission shall prepare and recommend a comprehensive plan for the development of the territory within its jurisdiction."

5. *Who prepared the plan?*

15 developed-in-house

3 consultants

3 developed-in-house using consultants

1 New River Planning District Commission

1 originally by consultants but updated in-house

1 don't know

The majority of localities that had plans, had developed those plans in-house. The term "in-house" denotes work done within the governing body. This trend may indicate that governing bodies prefer to rely on in-house resources when creating the comprehensive plan. This action in turn would allow greater control over the scope and content of the comprehensive plan.

6. *Does your comprehensive plan contain a section on parks?*

22 a. yes

1 b. no (if no, proceed to supplemental questions)

The majority of departments polled had a recreation plan. This fact was expected. The comprehensive plan-enabling legislation indicates that the plan shall show the long-range recommendations for the development of the locality. The legislation recommends that the plan may include the designation of a system of community services to include parks, forests, playgrounds, community centers, and the like. This designation can be considered the parks section of the comprehensive plan.

7. *What input did your department have in the preparation of that section of the plan?*

8	prepared within the department
5	had input
3	great deal of input
2	minimum input
2	no input
1	plan is being developed by a team of consultants

The majority of parks and recreation departments had input into the development of the parks section of their comprehensive plan, but fewer than half the respondents had prepared the plan in-house. Considering that the parks section is only one element of the comprehensive plan and not an independent plan, its preparation may be included in the overall process of preparing the comprehensive plan. If so, the parks and recreation department would have input into the process of developing the parks section of the plan, but they would not develop the plan within the parks and recreation department.

8. *Was the parks section of the plan used to determine the need?*

10	a. yes
14	b. no (go to supplemental questions)

0 c. in part

2 no response

It is important to note that the majority of the respondents did not use the comprehensive plan to determine the need for additional parkland. These results raise some serious questions about the use of the comprehensive plan in the park-site selection process. These questions will be discussed in the next chapter.

9. *Was the plan used to determine recreation activities: i.e., determine the types of fields and activities to occur and their number?*

5 a. yes

18 b. no (go to supplemental questions)

1 in process

2 no answer given

The same pattern of responses is indicated as in the last question. It raises similar questions about the use of the comprehensive plan and its role, if any, in the park-site selection process. Hopefully, the responses to the supplemental questions will begin to answer these questions.

SUPPLEMENTAL QUESTIONS

8a. *How did your department determine that it had need for additional parkland?*

5	no recreation facility in that part of the locality
3	need was based on current use levels
3	political/public pressure to provide a facility
2	a requirement of annexation
1	state facility assessment study indicated need for facilities
1	programming needs required a facility

It is interesting to note that eight (8) of the responses deal with a deficit of facilities, either over-used facilities or a lack of facilities. One locality even stated that the park had been an unwritten need for fifteen (15) years. Parks and recreation departments can show there are needs; however, these deficiencies are not indicated in the comprehensive plan. The question is, why aren't these deficiencies indicated in the plan?

9a. *How did your department determine what types of facilities were needed?*

The following are common elements used by the departments. A department could have used one or more of the elements. Elements used by only one department are not listed.

7	public meetings and hearing
4	public survey
3	park size/type concept
3	master plan process
2	committees
2	consultants
2	current use levels
2	state standards
2	public pressure

A wide variety of responses was given; however, public involvement is the major underlying pattern. The top two responses, public meetings and surveys, rely entirely on it. Most of the other major responses utilize public input as part of their process. Public meetings and hearings as a method was stated by seven (7) departments. Surveys, the second method, were used by four (4) departments. The master plan process and park size/type concept were both used by three (3) departments, and two (2) departments used at least one of the following methods: committees, consultants, current use levels, state standards, and public pressure.

THE SITE SELECTION PROCESS

10. *Once you had come to the decision that you needed additional parkland and you had determined what type and size of facilities you needed, did you identify some possible sites?*

17	a. yes
5	b. no
2	the site was available
1	town already owned the parcel
1	park location was dictated by the public

The majority (17) of respondents stated that they had identified potential sites for new park land; the significance of such identification is that the departments then had to evaluate the sites, and had to have some method or criteria for their final choice. The next questions dealt with this evaluation process.

11. *What were the first sources of information you consulted or the first steps you took in identifying possible sites?*

The following comments indicate the range in responses generated by this question.

• *Response #1* - We identify sites using these information sources: tax maps, driving around, knowledge of the locality, consulting with local realtors, park authority advisors' recommendations, and property owners who called when they heard that the county was looking for sites.

In addition, our comprehensive plan has identified the following criteria for park site selection: developable land over 25 acres, sites adjacent to park land, sites adjacent to schools, and environmentally sensitive land.

- *Response #2* - Our park site was to be part of a new government center. The criteria for that facility were a site located in the center of the county and a site in excess of 200 acres.
- *Response #3* - There was tremendous public pressure for a park, and a site owned by one of the board members was available.
- *Response #4* - The general area for the park was determined by the comprehensive plan. The department then developed an area map, based on tax maps. On this map all land uses, rezonings, and undeveloped tracts were identified. All undeveloped tracts were considered potential sites. The comprehensive plan has established criteria for park sites. Sites must meet one of the following criteria: access to the Chickahominy River, close proximity to existing facilities, or close proximity to masses of residential development.
- *Response #5* - Staff used zoning, development, and town maps to identify sites. The sites had also been identified in a previous study.
- *Response #6* - The service plan identified a need for a 200-acre site in the west central portion of the locality. With a region defined, staff consulted with local realtors and used personal knowledge of the area to identify sites. And property owners approached us when they heard we were looking for park sites.

• *Response #7* - Most of our park sites come from proffers. But our last site was found by accident.

• *Response #8* - We hired a consultant to identify drainage areas that would support a 20-acre lake in the southern portion of the county. That information was then overlayed onto tax maps to identify parcels and property owners.

• *Response #9* - Staff went to commissioner of revenue office to identify large parcels and parcels held in reserve for farming. Staff also consulted with the engineering department because they have a day-to-day knowledge of what is available in the locality.

• *Response #10* - Identified vacant parcels by using tax maps and driving around.

• *Response #11* - Staff consulted with the planning department to identify potential and available sites. Property owners contacted us when they heard that we were looking for a site.

• *Response #12* - It was a town-owned parcel and our department had maintained it.

• *Response #13* - The department has developed the following criteria for park sites: adjacent to other park sites, along the river, accessible to the river and the road. All potential sites have been identified.

• *Response #14* - Staff has a good knowledge of the county and by driving around can identify potential sites. Staff also worked with the school board to identify abandoned school sites. They have also found that keeping in touch with the community and current events is beneficial in identifying potential new sites.

• *Response #15* - Staff identifies population and growth areas and evaluates current holdings versus current needs. The director knows the locality and has identified all potential sites.

• *Response #16* - The identified need was for tennis courts. Programming required that they be close to the high school. This gave us three (3) potential sites.

• *Response #17* - The general site area was identified through an annexation process.

• *Response #18* - Criteria established by the parks and recreation commission were used to identify potential sites. The criteria were: size; the site needed to be big enough for a regulation-size softball field; the site had to be obtainable, have a good location and, finally, a reasonable cost. Staff consulted with the assessor's office and identified all vacant sites in the locality. Sites were then field checked.

• *Response #19* - Staff identified potential sites by examining a list of county-owned property.

• *Response #20* - Staff looked at all the vacant school sites in the locality.

• *Response #21* - Staff identified streets that could handle the increased traffic and identified all areas close to the schools. First thing the department did was to check for town-owned land in that area. Then they used aerial photos to identify other sites in the area.

• *Response #22* - Staff looked at aerial photos, maps, and topography maps, and made site visits to identify sites. They were looking for sites with water-based recreation opportunity, road access, and good accessibility.

• *Response #23* - The parcel was the biggest piece of land that the town owned.

The following are the major sources of information typically used in site identification. A department could have used one or more sources of information.

10	location criteria
9	knowing the locality and driving around
9	intragovernmental information sources
5	tax maps
5	size criteria

In these responses we see the importance of selection criteria emerge. Ten (10) departments used location criteria and another five (5) used size criteria to help them identify potential sites. Two (2) other elements were used by a majority of departments: driving around/knowing the locality, and intragovernmental information sources. Both elements were used by nine (9) departments. It seems that field work can't be replaced and that some things can only be seen in the field. Intragovernmental information sources represent the information found within the governing organization. Many departments stated that they consulted with the assessor's or real estate office to identify tracts of land; others consulted with the planning or engineering departments, both of which have a hands-on knowledge of local development and land exchange. In addition, the school board provided other departments valuable information on school closing and vacant school sites. The last

source of information to be used by several departments is tax maps. Five (5) departments stated that they used tax maps as a reference to identify sites. Tax maps offer departments a good base reference to identify property lines, boundaries, and property owners as well as the ability to look over vast regions of the locality at a glance. It is also the only hard copy information being used by localities.

12. *How many possible sites did you identify?*

2, 3, 3, 3, 3, 5-6, 6-8, 8-10, 10, 12-30, 15, 20, 33

- Average 11 sites
- Median 7 sites

As indicated, the average response was eleven (11) sites; however, the range was large, from two (2) sites to thirty-three (33) sites. This large range is reflected in the median number of sites identified, seven (7). The indication is that most departments do identify a handful of sites.

13. *Once you had identified possible sites, what information and process did you use to analyze and evaluate sites for further consideration?*

The following comments indicate the range in responses generated by this question.

• *Response #1* - zoning - from which cost can be estimated, access to service area, topography, soils, road frontage (mandatory road improvements), easements, flora, stream valleys and steep slopes, cost, and impact on neighborhood.

Three strong points: needs, cost, type of land and "remember, politics can sneak into the process at any point."

- *Response #2* - had consultant do a preliminary site plan to make sure site could be used for our purposes.
- *Response #3* - location, ability to be developed, and size.
- *Response #4* - topography, soils, vegetation, lay of land, hydrology, utilities, access, land use, adjacent properties, aesthetics, and potential for multi-use. A matrix was used to rate and score sites.
- *Response #5* - sites were adjacent; we bought both sites.
- *Response #6* - roads, access, soils - for proposed use and septic systems, aesthetic value, and was it environmentally sensitive. Sites were rated with a point system; price eliminated a lot of sites. Department had a no-condemnation policy.
- *Response #7* - topography, floodplain, site visit, knowledge of the area, access, and surrounding land use. Staff consulted with an engineer to make sure site was usable.
- *Response #8* - terrain, size of lake, drainage area, possible sources of pollution, cost of dam, and a site visit. Big factors - location, access, type of roads to the site, service radius, and size of dam. Staff dealt only with willing property owners and had a no-condemnation policy.
- *Response #9* - water-based opportunity, access, terrain - grading cost, aesthetics, borings for rock, and effect of development on neighboring areas. Site had to have multi-use potential.

- *Response #10* - available and usable (terrain).
- *Response #11* - terrain, size, location, distance from center of town, transportation to the site, surrounding neighborhood, didn't want a conflict with residential neighborhoods, adjacent to other parkland and existing utilities.
- *Response #12* - topography and multi-use potential. Staff considered what they want versus what the seller has to offer.
- *Response #13* - site visit, neighborhood demographics, and laid the site out mentally.
- *Response #14* - everything, soils, VCU students doing preliminary layouts, site visit, knowing the site, and citizen input.
- *Response #15* - topography, it had good wells, access, and it fit well into the system.
- *Response #16* - cost analysis.
- *Response #17* - site had to be in annexed area and close to population center in that annexed area.
- *Response #18* - were they vacant, do they meet the size requirement, not in a residential area, cost of development, location again, access, could we protect the site, easy to get to, ability to play night games, and availability.
- *Response #19* - central location, size, topography, and a concept plan.
- *Response #20* - cost analysis.

• *Response #21* - street access, usable land, shape of lot, amount of rock, expense to develop, lay of land, traffic patterns - vehicular and pedestrian, future road plans for the area.

• *Response #22* - minimum size, topography, lay of land, cost to develop, water, and accessibility. Site were rated via a point system.

• *Response #23* - topography.

The following are the major sources of information typically used in site evaluation. A department could have used one or more sources of information.

13	topography
12	access and roads
10	ability of the site to be developed and site potential
8	cost to develop
6	surrounding land uses

The above list represents a handful of significant evaluation factors used by parks and recreation departments. Topography (13) was used by more departments than any other evaluation factor. Access and roads (12) follow topography closely. Developability and development cost were both cited by nine (9) departments as evaluation tools, indicating importance of cost. Finally, surrounding land (6) was indicated as a significant factor. The initial indication is that there are common factors in site evaluation rather than a common process.

14. *How many sites were selected for further consideration?*

6, 3, 5 to 2, 2 to 3, 2, 2, 6, 2 to 3

- Average 3.4 sites
- Median 2.75 sites

This question was designed to determine how many sites survived the evaluation process and were considered finalists. The responses were closely clustered, with a range of two (2) to six (6) sites, an average of 3.4 sites, and a median of 2.75 sites. The results indicate that the field of potential sites is narrowed down to a very small group. This information raises some questions about the elimination process; are good sites being overlooked to conserve time and money?

15. *What were the final deciding factors in the selection and acquisition of the park?*

8	location
7	cost
2	municipality owned the land
2	we had money available for the project
1	size of parcel
1	access
1	development cost
1	the site was available

1 development time factor

1 ease in procurement

1 combination of factors

1 land scarcity in Northern Virginia

1 staff sold the project to county

1 site had water-based recreation opportunity

The responses to "What were the final deciding factors in selection and acquisition of a site?" were broken down into common elements. A respondent could have more than one final deciding factor. The results indicate that two elements were most prevalent. Location was cited as one of the deciding factors by eight (8) departments and cost was second, cited by seven (7) departments. Only three (3) departments cited location and cost together as elements. A variety of other responses was given; however, only two other responses were cited by more than one department. The results may indicate that there are key elements in the site selection process. These elements will be discussed in the next chapter.

16. *What information was the most helpful?*

2 combination of factors

Individual responses:

the site was available and keeping up with local gov't scene

criteria and state standards

access and personal impression of site

topography and its effect on grading cost

being informed, networking with other departments

public pressure

site visit

information that I couldn't collect myself

nothing

multi-use potential of a site

access

the reason you need the site and the availability of utilities

availability and driving around

topography and access to water

the project was our first park

community support for the project

criteria (field size)

maps and site visit

The responses show no pattern. No single element was cited by more than two (2) departments. This wide range of factors may indicate an absence of direction and method.

17. *What will you do differently next time?*

4 nothing

Individual responses:

look for sites now and keep close ties to planning department to identify growth areas

network trails through developments

buy land now, look at lease/purchase and holding options

involve public in process sooner

look at thing sooner

master plan first

avoid joint projects

do more land exploration

look for grant money

settle water (utility) issue up front

look at existing facilities in area, service areas, economic feasibility and need

use consultants sooner, don't rely on in-house help

if possible develop park all at once and be more informed on technical aspects

go through process you allude to (textbook site selection process)

do a needs assessment and check environmental factors

The results were similar to those of the previous question, showing no solid pattern; however, the responses seem to indicate an underlying pattern. Seven (7) departments had responses that reflected the need to have more information and to look at information sooner, indicating an overall need for a more complete selection process. As one respondent answered, "Just once I'd like to go through the process you allude to."

DATA ASSESSMENT

With a study of this type the results tend to provide suggestive evidence, relying on prevailing tendencies and majority responses to draw conclusions. The previous section examined the responses to the questions on a point-by-point basis. This section will examine the data on an overall, more comprehensive basis. This section will identify patterns in the data and will start the process of formulating conclusions about the data.

THE FIRST SECTION OF THE QEUSTIONNAIRE

In the first section of the questionnaire there are two major points of interest and significance.

The first point of interest deals with methods of park acquisition. The majority of departments polled purchased their site, at least in part. Many of the departments indicated that they used a combination of methods to acquire the site. Typical methods utilized by departments were proffers, donations, lease purchases, real estate holding options, grants, and payment plans. It is important to note the innovative acquisition methods being used by departments. The use of a purchased option on the land is one of those innovative methods. Essentially it enables a department to hold land until a later date. This action enables the department to do one of two things: the department can analyze the site to ensure it will meet the

specific needs of the department, or the department can purchase part of the site and reserve the remaining portion of the site for procurement at a later date.

Another innovative method of acquiring sites is the use of a payment plan. This method allows the department to make equal payments over several years to purchase a site. The department can then fund the project through a capital improvements program, thus spreading the cost out over several years and reducing the initial capital expenditure. Both of these methods are innovative because they indicate a movement toward using private sector techniques in the public sector. Budget constraints and the lack of federal monies may be the causes behind the use of more innovative procurement techniques.

The rest of the questions in the first section are interrelated. Together they make up the final point of interest in the first section of the questionnaire. These questions examined how departments determined recreation needs and activities. Questions four (4) and six (6) asked if the locality had a comprehensive plan and if the plan had a parks and recreation section. All but two (2) localities had comprehensive plans and of the twenty-three (23) respondents that had plans twenty-two (22) had parks and recreation sections in their plans. These results are consistent with the state's figures as indicated in the point-by-point assessment. What can be drawn from these responses is that most departments had established the background information for determining recreation needs and activities. Not only did the majority of departments have plans; they also prepared those plans in-house. From this

information we know departments had park plans and they had input in the development of those plans.

This information leads us to the next set of questions. Was the parks section of the plan used to determine the need for additional parkland? If not, what information was used to determine recreation need? The responses to the first part of this question were surprising. Fourteen of the departments did not use the comprehensive plan to determine need, raising a serious question: why aren't parks and recreation departments using the parks section of their comprehensive plan? Several of the interviewees indicated that the park was an unwritten need, or that there was no facility in that part of the municipality. To try to answer these concerns, we examine the second part of the question.

If the plan was not used to determine recreation need, what information was used to determine need? A majority of the responses center around a deficit of facilities such as: need indicators, use levels, and park-deficient neighborhoods. These are items that should be identified in the plan, but the plan wasn't used to determine need in these cases. Also remember that a majority of the departments had input in the development of their plan. This information raises more questions than it answers. It indicates a need to re-examine the comprehensive planning process and determine why the plan is not being used when the common elements of a plan are being used to determine need. The cause may be that current plans are not complete, or they only indicate broad goals and objectives, or they aren't realistic, i.e. they

sound good but are not practical. Perhaps comprehensive plans need to be upgraded or made more specific and realistic so that they can be a guide to future development.

The final set of questions important in determining recreation need were, "Was the plan used to determine the recreation activities/facilities of the site? i.e. ... baseball fields, tennis courts, etc. ... and if the plan was not used to determine this, what information was used to determine the recreational activities/facilities of the site?" The majority of departments did not use the comprehensive plan to determine the recreational activities/facilities of the site. The responses follow the same pattern set in the previous question, with one difference. An even larger number of departments (18) did not use the plan.

This information leads us to the second portion of the question: "What was used to determine recreational activities/facilities of the site?" Public involvement was the overriding method used by departments. Public meetings and public surveys topped the list. Several other methods used public involvement in one way or another, as indicated. Committees and public pressure are both representative of citizen and public concern. The master plan process contains a large element of public involvement, as evident in *How Are Parks Designed?* by the Fairfax County Park Authority. The publication is a short outline of the park master plan process. Step two of the outline states, "The second step in the master planning process is the distribution of questionnaires to residents surrounding the park. The responses, along with interested groups, give an idea of the desired development of the park."

The park size/type concept can also fit into this category of public involvement. The park size/type concept recommends general activities for parks based on size and type of park; for example, a neighborhood park should be between six and twenty acres, and it should have a one-mile service radius. Typically it should contain open play areas, court games, shelters, nature areas, picnic areas, and wooded areas. An important aspect of the park size/type concept is public meetings held to receive input from citizens for the purpose of tailoring each park to the needs of the community. Altogether, public input as an element is indicated in twenty-one (21) of twenty-seven (27) responses for determining recreation activities. As in the previous question, the comprehensive plan doesn't play a large role in this process; however, in the determination of recreation activities it may be more appropriate to use public input. The comprehensive plan may need to serve only in the secondary role of need justification and as an evaluation stage to make sure no facilities are overlooked.

THE SECOND SECTION OF THE QUESTIONNAIRE

The second section of the questionnaire was entitled "The Site Selection Process." It was designed to gain insight into the process departments used to identify and evaluate park sites. Unlike the first section, most of the questions are best examined at two levels: first, on a question-by-question basis looking at the overall pattern of responses and identifying commonalities and differences; second, on a case-by-case basis; examining individual case studies to ascertain details of the site-

selection process and to compare those details with site-selection processes in the literature review. Both methods are important and valuable in assessing the data.

In this section three of these case studies will be presented. They will represent different parts of the spectrum, the complex to the simple. These processes will be compared both to processes in the literature review and to the rest of the responses.

Let's begin our inquiry with an examination of the site-selection process of an urban county, population 205,000. The examination of the site-selection process will include the entire process from the determination of recreation need to final site selection. It is important to note that the county has a park planning staff.

The need for additional parkland was identified in the recreation section of the comprehensive plan. This section identified areas lacking facilities or in need of additional facilities based on population growth. From this information the planners began their site-selection process. The plan sets broad geographic parameters to confine the search area; a map was made of this area using tax maps as a base. The next step in the selection process was to identify all land uses in the defined search area. All undeveloped sites were then checked to see if there were any rezoning or development plans. At this point all undeveloped sites were screened based on set criteria that had been established in the comprehensive plan. The sites all met one of the following criteria: along the river, adjacent to county property, or adjacent to large masses of residential development. In addition, all sites met a minimum size

requirement. Before the sites were evaluated, they were pre-screened and only the best of several similar sites were evaluated. This process reduced costs by reducing the number of sites to be examined.

Sites that met these criteria were evaluated based on the following: topography, soils, vegetation, hydrology, utilities, access, land use plan, surrounding land uses, aesthetics, and potential for multi-use. The evaluation was done using a matrix format. This format allowed for a side-by-side comparison and a numerical value if desired. In the end cost and size were the final deciding factors. This site-selection process is an example of a graduated screen or ordinal combination. It is a complex process requiring staff skill and time to conduct properly. The county's site selection process is a best-case scenario.

The second case study to be examined is a small city, population 30,000. The need for additional parkland was determined by the courts during an annexation process. This annexation process also determined the geographic parameter of the site-selection area. The sites to be evaluated were identified by the director based on his knowledge of the area. It is important to note that the director is a life-long resident of the locality and has spent 30+ years with the parks and recreation department.

Sites were evaluated based on the following: topography, access, utilities, and how the site fit into the overall park system. The evaluation process was conducted solely in the director's head; it is an example of an internalized process (a process in

which only the solution is shown, and there is no indication of how the solution was derived). As mentioned in the literature review, this process requires years of experience to use successfully, and solutions arrived at through this process are very difficult to defend since there is no external process to back-up decisions made; however, in the right situation it is a very viable process. Availability was the final deciding factor in the selection process.

The third and final selection process to be examined also comes from a small city, population 20,000. The site-selection process was conducted by the director and the parks and recreation staff. Need for additional parkland was determined by a vocal special interest group, as was the type of facilities the park should contain.

The sites were identified using tax maps and by driving around the locality. Sites were evaluated based on two criteria: availability and topography. Only three sites were identified; all three were acquired. The process used is a simple pass-fail screen; sites had to be: 1) available and 2) have useable topography. It is a simple yet effective process that relies heavily on the selected evaluation criteria. The real problem in this site-selection process occurred while determining recreation need. Need for additional parkland was not based on real need; furthermore, the requested facility did not meet the needs of the community in the area of the parks. The facilities basically provided playgrounds for grandchildren and did not address the needs of the predominantly elderly neighborhood.

As different as these three processes seem, they all contain the same elements: all of the processes locate potential sites, and they all evaluate those sites. In locating sites all three must first define a search area, whether it be defined by criteria set in the comprehensive plan or set by the court during an annexation process or be as broad as the city limits; all three had to define a search area. Once the search area was defined, all three identified potential sites. Their approaches are very different: one is systematic, the second is based on knowledge of the area and experience, and the third is based on only two criteria and on driving around the locality. Even though they are different, a few common threads exist: tax maps, driving around, and availability.

To evaluate sites, all three had to establish some criteria that determined what site best met their needs. There is, however, a big difference in the complexity and number of criteria used to evaluate sites. The first case study used a long, complex list of factors to evaluate the identified sites, whereas the second case study used an internalized process; therefore, how sites ere evaluated and what criteria were important is a mystery. And the third case study used only two criteria, availability and topography.

Once the respondents established the criteria to evaluate sites, each had to evaluate the identified sites to select the site best suited for their purposes. Once again, it is a matter of complexity. One used a graduated screen to compare sites, one used knowledge of the area and past experience to evaluate sites, and one

acquired all three identified sites because all met their criteria (available, and useable topography).

All three case studies, no matter their complexity, have several steps that must be taken in order for a site to be selected. All must set search parameters, locate sites, establish criteria to evaluate sites, and evaluate identified sites. The methods to complete these steps are different, a pattern that is also evident in the rest of respondents. Nine respondents used some variation of the graduated screen, four some variant of the pass-fail screen, and the rest are some combination of those and the internalized process. What becomes important and interesting is how these steps were taken and the commonalities of the individual steps. To examine these things, it is best to examine the survey results step by step.

IDENTIFYING SITES

Every respondent set some sort of search parameter; most set them broadly, usually encompassing the whole city or county. But in ten (10) incidents search parameters or location criteria were established to reduce the search area. These search parameters were used in one of two ways: 1) Several departments had established criteria in their park plans, such as sites along the local river, or sites adjacent to existing county facilities, or sites near large masses of residential development. If the site did not meet the specified conditions, it was not considered. 2) Criteria were also used when a deficit of facilities had been identified. For

example, the southern portion of the locality did not have a major sports complex; thus the search was confined to the southern portion of the locality.

Respondents commonly listed two (2) ways to locate or identify sites. The first of these is "knowing the location/driving around." As the survey indicates, field work seems irreplaceable. The second way to locate sites is through intragovernmental information sources. This information source represents all of the information that is available within the governmental structure. Several respondents relied on their planning departments to assess availability and development status of sites, while others relied on their real estate or assessor's office to identify parcels in tax debt or in use-value assessment. In many cases the information from these sources was the most up-to-date information available, especially when identifying property owners or the development status of potential sites.

Tax maps were also cited as a source of information. These maps are the only hard-copy information used by a significant number of departments. Tax maps can be considered a good base reference that supplies a considerable amount of information; and they can also be considered an intragovernmental information source.

There were two elements that were not used by a majority of departments but were innovative enough to deserve special notice. Two (2) departments stated that they used realtors to assist them in locating sites. This method allowed departments to take a more private-sector or market approach to identifying sites. Another method was to identify large tracts that were held in reserve for farming under use-value

assessment procedures. Land in use-value assessment has been reserved for farming or open space to receive a lower tax rate. These lands have no development plans and should be relatively large. Both of these methods indicate a more creative, private-sector type of method for finding available land.

EVALUATING SITES

Once potential sites had been identified, some method for evaluating them had to be developed. In broad terms this was a two-step process: 1) The criteria that were used to evaluate sites had to be determined; 2) These criteria were then used to evaluate sites.

Nowhere else in the survey was the variety of responses as great as it was in the evaluation criteria section. Some departments used only two criteria to evaluate sites, whereas other departments used a myriad of criteria addressing a wide range of concerns from soils to accessibility to traffic flows. But a close look at the results reveals that there are four (4) common evaluation criteria: topography, accessibility, ability of the site to be developed, and cost. It is interesting to note that the latter relies on the others to be determined. The only other criterion that stood out, but not by a significant number, was surrounding land use. When these data are compared with the case studies and the literature review, there are several similarities. Case study #1 used all five (5) of the criteria plus many more; case study #2, though internationalized, used topography and access as evaluation criteria; and case study #3

used topography as one of its criteria. All five (5) criteria were listed in the literature in one source or the other; however, it was also noted that each process would and should have somewhat different criteria based on the requirements of the project.

The method to evaluate sites was not always clear-cut and easily identified; many departments use a combination of methods. Some departments combined the graduated screen with the pass-fail screen, while others used the internalized process with elements of the pass-fail screen and the graduated screen. There are, however, similarities and commonalities in the responses.

The graduated screen as a method was evident in nine (9) cases. But the complexity and list of factors, as well as the number of factors, differ greatly from case to case. Even so, a significant number of respondents used this type of process to evaluate sites. Several of the processes were as complex as case study #1, some respondents rated sites numerically, and others used a matrix to compare sites. It is important to note that a re-examination of respondents' geographic location, demographic breakdown, community size, and local economic conditions revealed no commonalities between these factors and the complexity of the process.

The pass-fail screen was also evident in several responses; it was used in two different ways: 1) as the sole evaluation tool, as in case study #3: if site didn't meet the criteria it was not selected; 2) as a pre-evaluation screen, as in case study #1. Location criteria in the identification process are essentially a pre-evaluation screen. Sites that do not meet the location criteria requirements are not considered for further

evaluation. Together the two uses of the pass-fail screen represent fourteen (14) responses.

Respondents who didn't clearly use either of the above processes fall into the last category, internalized process and combination of methods. Case study #2 was clearly an internalized process, but it was not always so clear. Many of the respondents used elements of the internalized process in conjunction with elements of the pass-fail screen and the graduated screen. In many of these cases it just wasn't clear to me what process or combination of processes were being used. These respondents make up half of the survey population.

FINAL DECIDING FACTORS

When asked what were the final deciding factors in choosing a site, two responses stood out: location and cost; however, neither response was a majority response. And no other responses were cited by more than two departments. There is a realtor's joke that may best explain location: "What are the three most important things to remember in real estate? ... location, location, and location." That says a lot. Eight (8) departments felt it was a final deciding factor in the selection of a park site.

The final two questions in this section did not reveal new insight. When subjects were asked, "What information was the most helpful in the site selection process?" no one thing was cited by more than two (2) departments. This pattern

may indicate that what is most helpful is purely personal. Along with this question the subjects were asked what they would do differently the next time they went through the site-selection process. The responses were similar to the previous question in that there was no common element. A minor underlying pattern was indicated: seven (7) respondents expressed a desire to have more information. The lack of a pattern of responses to both questions is an indicator. This evidence suggests that there is not a well defined, practical, and appropriate site-selection process available to all parks and recreation departments in Virginia.

CONCLUSIONS

SITE ACQUISITION

There was no consensus method of acquisition, and only five sites were purchased outright. The most important information to come from these responses was the innovative acquisition methods being used by departments. Departments are using a wide variety of different methods to acquire sites. The most prevalent of these is land acquired through proffered conditions or conditional zoning. A proffered condition is a condition offered voluntarily by a petitioner. This petitioner offers this condition as part of a rezoning proposal in an effort to mitigate any problems that may occur because of the proposed development. In many of the urbanized parts of Virginia proffered conditions have been replaced by conditional zoning. Conditional zoning allows the locality to determine what impact the proposed development will have on the locality and what conditions need to be met to mitigate the effects of the development. All of the departments that utilized proffers and conditional zoning used them in conjunction with a land purchase, so that part of the site was purchased and part of it was proffered/donated. Combining a purchase with a proffered condition allows a department either to reduce the site's purchase price or to buy a larger site.

Two other methods merit discussion. The first is the use of a payment plan. For example, breaking down the cost of the site over five years by making five equal

yearly payments. The use of a payment plan is a new option to parks and recreation departments. It allows departments to reduce the initial capital expenditure and facilitates the use of a capital improvements plan to pay for the site; however, it may not be easy to get the governing body's support for the duration of the payment schedule. This support could become difficult, especially if there is a turnover in the public officials. To ensure the support and commitment to the project, it may be advantageous to bring key public officials on board early on in the project. These difficulties should not, however, eliminate the payment plan as an option. The use of a payment plan may make a project more palatable to the locality, allowing the sites' expense to be budgeted and spread out over several years instead of being paid in one lump sum.

The second method worth noting is the use of purchased options on the land. These options were used in two ways by the departments surveyed. One respondent obtained an option on a site considered to be a finalist in the site selection process. The option was obtained before the site was purchased, so that the department had time to evaluate the site in depth to ensure that it was able to meet their needs without the worry of the site's being sold. Another respondent could afford to purchase only part of the selected site. To protect the rest of the site from being sold, the department obtained an option on that part of the site. Essentially the option gave the department the right of first refusal of that portion of the site and reserved it until the money was available to purchase the site.

These innovative acquisition methods are not new. They are typical of private sector acquisition methods. Only when they are used in the public sector do they seem innovative and new. Overall, they indicate a pattern of public sector organizations using private sector methods. High land prices may be the cause, especially in northern Virginia, forcing departments to find new ways to fund park acquisition.

DETERMINING RECREATION NEED

The most important issue in the first half of the questionnaire was identifying how parks and recreation departments determined recreation and facility needs. In theory, the comprehensive plan in conjunction with the parks section of that plan should be the main deciding factor in determining recreation and facility needs. The results indicated that an overwhelming majority had both comprehensive plans and park sections in those plans, a result that was expected because the state requires all localities to have a comprehensive plan. In addition, the state also recommends that plans contain a section on parks and recreation or open space.

However, at this point the data took an unexpected twist. The majority of departments did not use the comprehensive plan to determine the need for the new park. A larger majority did not use the plan to determine the recreational activities/facilities of the site. These results raised several questions, some still unanswered. The supplemental questions addressed some of these questions. The

responses to the supplemental questions indicated how departments determined recreation and facility needs. But they also raised some new questions. The majority of the responses to question 8a, "How was recreation need determined?", centered around a deficit of facilities, either no park in that portion of the locality or current use levels that exceeded current capacity. These are valid reasons to establish need. These are also items that should typically be included in a comprehensive plan. This pattern raises an important unanswered question, "Why isn't this information on determining need included in the comprehensive plan?"

The responses to the second question are just as interesting. When departments were asked how they determined what facilities/activities were needed on the site, the majority response referred to public involvement. Whether through community meetings, committees, or a master plan process, public involvement was the overriding factor. This method may be the most appropriate way to determine the activities/facilities of a site. The comprehensive plan may act only as a starting point and an evaluator to give the department some estimate of size and required facilities. The plan may also serve as an evaluation tool, a system of checks and balances used in conjunction with public input to determine park facility requirements.

The results of this section merit further investigation. Research needs to be done into the process of developing comprehensive plans and into the type of information included in the park section of the plan. This research is needed because there is a problem here, in that the majority of respondents did not use the

comprehensive plan to determine recreation need. Why? What does this pattern say abut the state of recreation planning in Virginia? On the one hand departments are not using the plan to determine need; on the other, they are using typical plan information to determine need. The purpose of the comprehensive plan is to guide future development; it should plan for expansions of public services to coincide with expansions of population. In this research the plan was not used to guide the future development of recreation resources in the majority of cases. The reasons for this pattern need to be examined, as well as the relationship between public involvement and the comprehensive plan when determining recreational need and programs.

SITE SELECTION

The first park site selection process in the United States identified Jones' Woods and Central Park as New York City's first planned parks. Jones' Woods never became a park; it was deemed too valuable because it was a waterfront site. Central Park, on the other hand, was remote, rocky, filled with squatters, and cheaper per acre, and it had taxable property on three sides. Central Park's condition as a site was typical for park sites during the parks movement. Political, economic, and demographic factors were the usual determinants when selecting park sites. Factors such as cross-ventilation, view, access, circulation, aesthetics, and topography were considered only as secondary factors. But, even today, park sites have the tendency to be the unwanted, undesirable, and economically unattractive sites. The survey

indicated that cost was the final deciding factor in seven (7) processes, and location and cost were the final deciding factors in twelve (12) site selection processes. And throughout my research I was warned that political pressure could sneak into the process at any time; I found one blatant case of this pressure in my research. But political pressure is not always easy to identify. It can be the acquisition of an environmentally sensitive parcel to appease concerned citizens or the desire to keep up with a neighboring community's level of service, or just public pressure to provide additional services. Consider the responses to the supplemental question, "How did your department determine the need for additional parkland?" Three (3) departments stated political/public pressure to provide additional facilities. Five (5) departments stated that certain areas in the community lacked facilities. I would feel safe in assuming that there was some political pressure to correct that type of park deficiency. It is hard to say how much impact political pressure has on the site selection process. To truly understand its impact, in-depth case studies of ongoing site selection processes would have to be conducted. This type of study would allow the researcher to follow the process from the determination of need through the public meetings and site selection process to the actual site acquisition. That type of research might shed some light onto how much political pressure exists in a park site selection process.

An examination of the overall site selection process in the literature showed that there are two important factors to any selection process: 1) identifying criteria

that define the qualities that are desirable in a site and 2) having the ability to make an informed decision.

Identifying criteria that define the site is the most important step of any site selection process; it should also be the first step of any site selection process. Simonds (1983) stated that as advisors we should already know what criteria are important for any use. But in the real world of parks and recreation departments in Virginia, only ten (10) departments listed criteria as part of their site identification process and those criteria were limited to location and size. Anderson (1987) reminds us that the selection process is only as good as the criteria chosen to evaluate sites. Furthermore, without the establishment of good criteria, how can we accomplish the goal of any capability/suitability study, the ability to make an informed decision? This information puzzled me when I was examining site selection processes; all of the authors stated the importance of establishing good criteria, but only one author explained how to accomplish this task. Schrader (1963), in explaining how to select school sites, explained a simple and forward process to identify the important criteria to select a school site. His process is universal enough to be used in almost any setting. In the parks and recreation field this process could be as follows: 1) identify the overall goals of the department in providing recreation services; 2) identify the objectives of the project; and 3) determine the recreation program for the proposed site. These three steps will give a department the base information they need to determine: 1) what the size and location requirements for the site are, and 2) what

criteria are important for site evaluation. By using this type of process to establish criteria and important factors, one can meet the first requirement of a good capability/suitability study, establishing good criteria. Then one can make an informed decision, the second important part and goal of any capability/suitability study.

SITE IDENTIFICATION

The goal of any site identification process is to identify all potential sites. One of the first steps in accomplishing this goal is setting search area parameters. Essentially the search area parameters define or reduce the area that will be searched for potential sites. How departments determined their search parameters was varied but the key element was the same, location criteria. Ten (10) respondents specifically stated that they used location criteria in the site identification process. These responses break down into two (2) groups: 1) those who listed several criteria and sites had to meet one of the criteria to be considered, for example, along the river, adjacent to existing municipal property, or adjacent to areas of residential development. 2) Those who defined the search area based on recreation need, for example, south-central portion of the county has recreation demands that exceed the facilities in that portion of the county. Therefore, with the need defined, the search area is also defined, south-central portion of the county is chosen. (Some departments used both methods.) As for the rest of the localities surveyed, their search areas were

defined in a much broader sense, the municipality's boundary. Regardless, all localities set search parameters. Interestingly enough this area is not really addressed in the literature. The reason may be that search parameters are set locally and are considered objectives to be given to the planners, as Lynch (1984) indicated.

There are some benefits in having a more defined search parameter, the main one being that the planner is able to concentrate his efforts in a smaller area. This in turn reduces the time required to conduct the search, and this reduction in time can be considered a reduction in cost (since time is money). The reduced search area also allows the planner to search more intensively, since he has less area to consider and search. Hopefully, having a defined area will provide better sites or find sites that might otherwise be overlooked.

As for common elements within the location criteria, there really aren't any. Why? Because these elements are site specific, depending on the desired nature of site, local need, and local conditions.

Once the search area is defined, the process of identifying sites can begin. From the literature we know that the goal of the identification process is to locate all potential sites; however, the literature stops short of explaining how to accomplish this goal. The survey indicated two (2) major methods of identifying sites. Driving around/knowing the locality and intragovernmental sources were both cited by the same number of respondents, sometimes by the same respondent. Driving around enables the planner to "get a feel" for the site and its relationship to the surrounding

area, but site boundaries and topography aren't easily identified by driving around, and not all sites are accessible or visible from the road. Intragovernmental information sources can give a planner the type of information not available from driving around. In addition, these information sources can give a planner insight on availability, assessed value, zoning, topography, tax status, and myriad of other things, all of which are easily available to anyone. What is an appropriate or complete process is not clear-cut, but there are some common elements that should enable a department to identify all potential sites: 1) Determine where the facility is needed most, i.e. northwest portion of the city. 2) Set some general location criteria that should apply to all your recreation sites, i.e. sites adjacent to residential development or sites along the river. These criteria are dependent on the local conditions and should be part of the comprehensive plan. 3) From these two items a search area is identified. 4) Locate all potential sites within the search area by driving around and using the property information available locally. A good starting point is tax maps, because they indicate property boundaries and zoning designations. And, by combining these two sources, it should be easy to identify all potential sites. At the same time some of the base information for the site evaluation is being collected.

SITE EVALUATION

The evaluation stage is where the goal of a C/S study is realized, the ability to make an informed decision. It need not be a complex task, but it is a task that relies on the factors used to evaluate sites. Much care must be taken in identifying evaluation factors, for they must reflect the programs set for the site. Doing so allows for good decisions to be made and helps avoid biased decisions. By being thorough and by using appropriate criteria to evaluate sites, parks and recreation departments can demonstrate the merits of the chosen site as well as defend their choice based on the process that evaluated the chosen site against the other potential sites. This process allows the department to build its credibility, accountability, and responsibility to the lawmakers and the public by demonstrating their thorough and deliberate process to evaluate sites.

The evaluation stage is divided into two (2) major parts: 1) establishment of criteria by which the sites will be evaluated; and 2) the evaluation process by which the established criteria are used to compare and evaluate sites.

The first part of the evaluation stage is broadly addressed in the literature. Most authors give long lists of potential site evaluation criteria, but they also state that you would never use all of the listed criteria in a given selection process. The authors indicate that each site selection process is unique and, although some criteria may be the same, the importance of certain criteria may change with each selection process. Regretfully, most authors don't state how to select the right criteria or how

to determine the importance of certain criteria for a site evaluation process. Schrader (1963) is the exception; in describing a process to select school sites he explains how school planners can determine what factors are most important in the selection process. Through the identification of goals that the site is to meet and through the determination of a program for the site, the planner can determine which evaluation factors are most important in determining the site's ability to meet the prescribed needs. But, since recreation sites are all similar in nature, are there some common evaluation criteria that would apply to any park site selection process?

The survey didn't specifically ask how the departments selected evaluation criteria, but it did ask, "What criteria were used to evaluate the sites?" The survey identified four (4) common elements used in evaluating sites: 1) topography, 2) accessibility, 3) ability of the site to be developed, and 4) cost of the site to be developed. It is interesting to note that all four are interrelated, and that the fourth relies on the others to be determined. The question is, "Are these four criteria common evaluation criteria that could or should be used in any site selection process?" This question raises an even bigger question, what are the qualities of a good recreation site? These questions can't truly answered based on the collected data. It is important to stress that even if they were considered common evaluation criteria they would **not** be an all-inclusive list, just a start. A process similar to Schrader's needs to be followed to truly determine what criteria will be important in evaluating sites.

The second part of the evaluation stage is the process in which the established criteria are used to evaluate potential sites. In the literature review three basic types of evaluation method were identified: internalized, pass/fail screen, and graduated screen. All three of these methods exist in some form in the survey responses.

Case study number two was a classic example of an internalized process. The director of the department who conducted the site selection process, including the site evaluation stage, had a lifelong knowledge of the area as well as thirty-plus years as the Parks and Recreation director of the community. That combination of experience made him well suited to conduct an internalized site evaluation process; however, without that vast amount of experience, and sometimes with it, it is difficult to substantiate the decisions made in the site selection process. As to how many department used this type of process exclusively, it is hard to estimate. I would, however, venture that many departments conducted portions of their site selection and evaluation processes internally.

The second method of evaluation identified in the literature and used by survey respondents was the pass/fail screen. This method was used in two ways: 1) a pre-evaluation screen and 2) an evaluation tool. Using the pass/fail screen as a pre-evaluation screen, a department would screen out sites based on predetermined criteria; these could be a minimum acreage, location criteria, or some other set criteria. Using the pass/fail screen as an evaluation tool, departments would judge sites on whether they did or did not meet the established criteria. All sites not

meeting the criteria were no longer considered; all sites meeting the criteria were considered acceptable sites. No distinction was made between sites meeting the criteria. And in at least two cases, the departments acquired all sites meeting the criteria. At least five other departments used the pass/fail screen as an evaluation tool, and many others used the pass/fail screen in some capacity as a pre-evaluation screen.

The final evaluation method identified in the literature and the survey responses was the graduated screen. The level of complexity of this method can and does change from author to author and from respondent to respondent. But all have some basic elements in common. First, all sites are rated based on how well they meet established criteria, i.e. poor, fair, good. Second, from these ratings an overall value for each site is determined. Finally, from these ratings and overall values a department has the ability to make an informed decision. The differences in process come with the different levels of complexity and the different criteria used to evaluate sites. The differences in complexity are best illustrated by departments that took the process a step further and used numerical values to represent, poor, fair, and good, and thus generated a numerical value for each site. Overall, nine departments used some form of the graduated screen to evaluate sites.

As with the identification stage of the site selection process, there are no clear-cut evaluation processes best suited for every parks and recreation department; however, there are some common evaluation elements that will enable any department

to evaluate sites and make informed decisions about sites. 1) Identify goals and objectives the site is to meet and determine the activity program for the site. 2) With the above in mind, establish criteria that will enable you to evaluate whether or not the site meets the goals, objectives, and program for the site. The survey identified the following: topography, access, ability of the site to be developed, and cost of the site to be developed. 3) Compare and contrast the sites in view of how well they meet the established criteria. An easy format for organizing and presenting this information is a matrix (see Figure 2). This format allows one to graphically cross reference sites and site attributes. Matrices are easy to construct and explain; additionally, this format may be helpful in explaining the evaluation process in community meetings and public hearings. Using a matrix requires that one establish levels of acceptability and judgments on how well sites meet the established site attributes. The following example explains this process. If it is determined that the site should be close to a major access route, how close sites are to major access routes then determines the site rating. One half mile from a major access is considered the best condition, 1 mile from a major access is fair, 1 1/2 miles from a major access is poor, over 2 miles from a major access is unacceptable. This information is then presented in the matrix (see Figure 3). This process can become

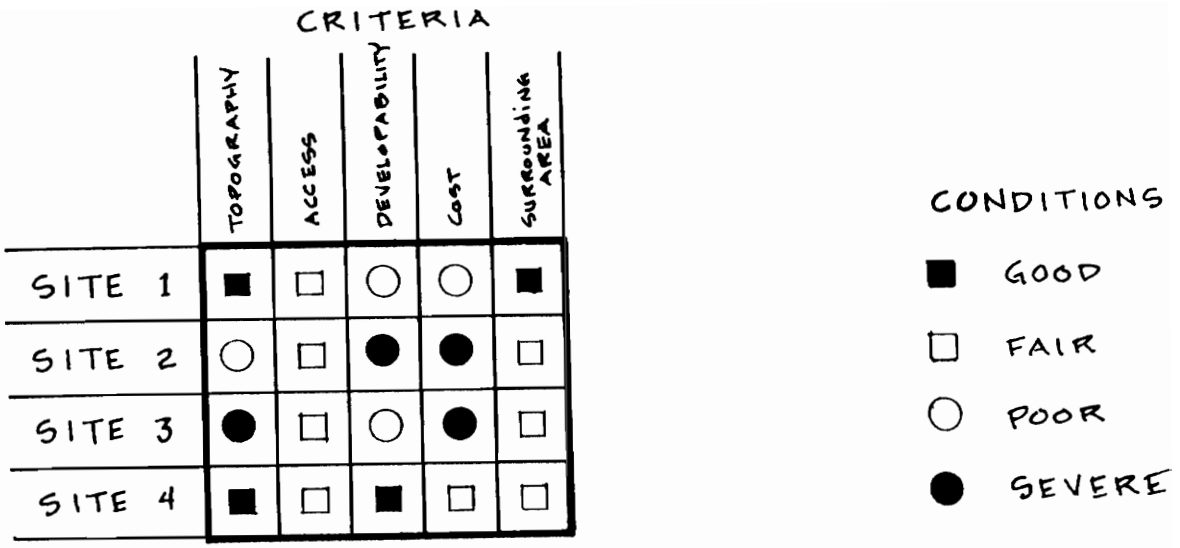


FIGURE 2. SAMPLE SITE CRITERIA MATRIX.

more complex, by adding values to site ratings and by weighing site attributes by importance. 4) Select a site based on the information gained in the previous step.

At this point it is important to remember the goals of any site selection process: to identify all possible sites, and to be able to make an informed decision. It also seems appropriate to reiterate Anderson's warning, "It should be strongly emphasized that most C/S studies do not provide evidence that those parcels of land that receive a good score are well suited for specific land use. What they indicate is that the parcels that rank high in the review process are not clearly unsuited for a

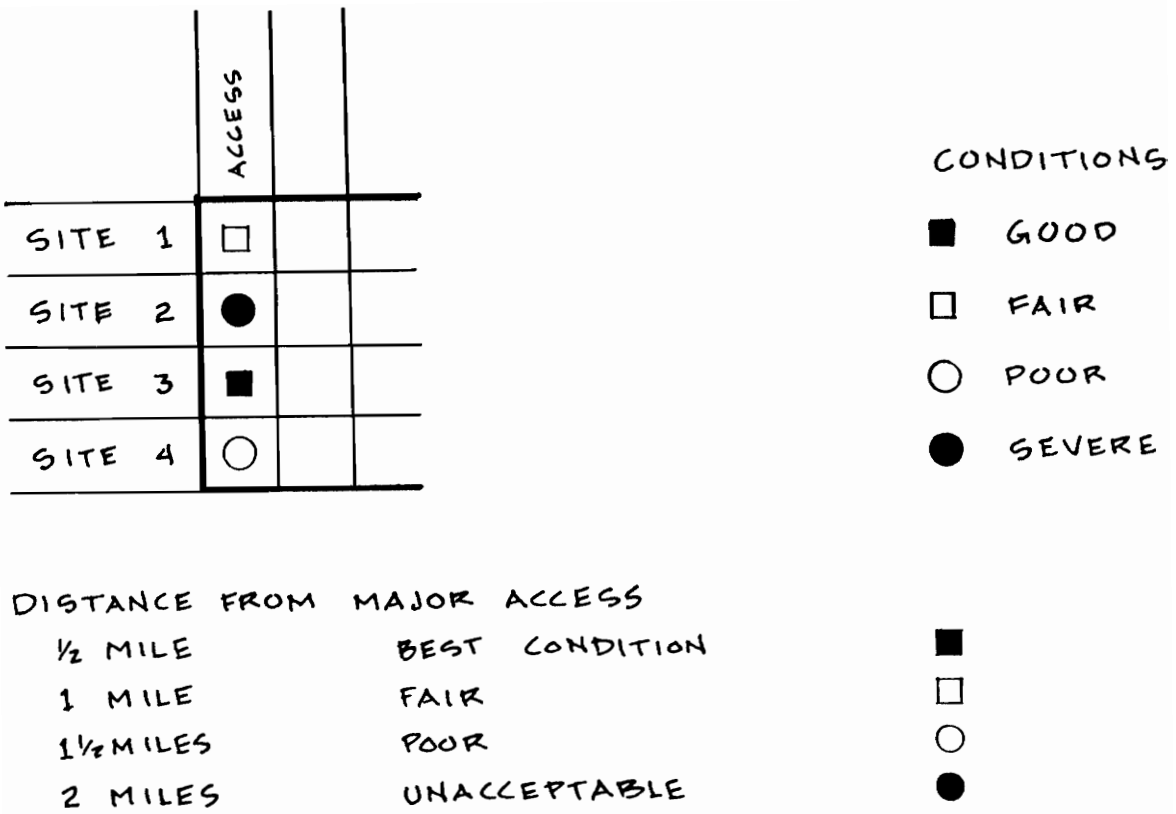


FIGURE 3. SAMPLE MATRIX FOR ASSESSMENT OF ACCESS.

particular land use." The process of site selection need not be complex; it requires only accurate and sound information and a clear analysis of the goals of the department.

FINAL STATEMENT

In looking back over this project there are several important points I would like to reiterate. First, it is important to remember that the purpose of this study was to deepen the understanding of the park site selection process in Virginia, as well as to offer insight into the site identification and evaluation process. The study was expected to raise new questions through the process of examining the site selection process.

Second, I would like to reiterate some of the important questions the study raised. Why did only half of the respondents use the comprehensive plan to determine recreation need? What is the best way to determine what recreation facilities a site should have? Are there some basic site criteria that apply to all recreation sites? What are the characteristics of a good recreation site? And finally, what is the minimum amount of information that a department needs to make an informed decision? All of these questions merit further investigation.

Finally, for me the process of completing this thesis has been a great learning experience. I feel that I have a better understanding of park site selection and how

local government functions and makes decisions. I only hope others who read this thesis will gain some of the same insights.

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