

## Appendix IV - GRASP® History and Methodology

### **GRASP® (Geo-Referenced Amenities Standards Program) *Composite-Values Level of Service Analysis Methodology***

Analysis of the existing parks, open space, trails, and recreation systems are often conducted in order to try and determine how the systems are serving the public. A Level of Service (LOS) has been typically defined in parks and recreation master plans as the capacity of the various components and facilities that make up the system to meet the needs of the public. This is often expressed in terms of the size or quantity of a given facility per unit of population.

#### **Brief History of Level of Service Analysis**

In order to help standardize parks and recreation planning, universities, agencies and parks and recreation professionals have long been looking for ways to benchmark and provide “national standards” for how much acreage, how many ballfields, pools, playgrounds, etc., a community *should* have. In 1906 the fledgling “Playground Association of America” called for playground space equal to 30 square feet per child. In the 1970’s and early 1980’s, the first detailed published works on these topics began emerging (Gold, 1973, Lancaster, 1983). In time “rule of thumb” ratios emerged with 10 acres of parklands per thousand population becoming the most widely accepted norm. Other normative guides also have been cited as “traditional standards,” but have been less widely accepted. In 1983, Roger Lancaster compiled a book called, “Recreation, Park and Open Space Standards and Guidelines,” that was published by the National Park and Recreation Association (NRPA). In this publication, Mr. Lancaster centered on a recommendation “that a park system, at minimum, be composed of a core system of parklands, with a total of 6.25 to 10.5 acres of developed open space per 1,000 population (Lancaster, 1983, p. 56). The guidelines went further to make recommendations regarding an appropriate mix of park types, sizes, service areas, and acreages, and standards regarding the number of available recreational facilities per thousand population. While the book was published by NRPA and the table of standards became widely known as “the NRPA standards,” **these standards were never formally adopted for use by NRPA.**

Since that time, various publications have updated and expanded upon possible “standards,” several of which have been published by NRPA. Many of these publications did benchmarking and other normative research to try and determine what an “average LOS” should be. It is important to note that NRPA and the prestigious American Academy for Park and Recreation Administration, as organizations, have focused in recent years on accreditation standards for agencies, which are less directed towards outputs, outcomes and performance, and more on planning, organizational structure, and management processes. **In essence, the popularly referred to “NRPA standards” for LOS, as such, do not exist.** The following table gives some of the more commonly used capacity “standards” today.

## Commonly Referenced LOS Capacity “Standards”

| Activity/<br>Facility         | Recommended<br>Space<br>Requirements                                  | Service<br>Radius and<br>Location Notes   | Number of<br>Units per<br>Population   |
|-------------------------------|---|---|--|
| <b>Baseball</b><br>Official   | 3.0 to 3.85 acre<br>minimum   | ¼ to ½ mile<br>Unlighted part of neighborhood complex; lighted<br>fields part of community complex  | 1 per 5,000;<br>lighted 1 per 30,000   |
| Little League                 | 1.2 acre minimum  |   |  |
| <b>Basketball</b><br>Youth    | 2,400 – 3,036 vs.   | ¼ to ½ mile<br>Usually in school, recreation center or church<br>facility; safe walking or bike access; outdoor courts<br>in neighborhood and community parks, plus active<br>recreation areas in other park settings                                       | 1 per 5,000  |
| High school                   | 5,040 – 7,280 s.f.  |   |  |
| <b>Football</b>               | Minimum 1.5 acres   | 15 – 30 minute travel time<br>Usually part of sports complex in community park or<br>adjacent to school   | 1 per 20,000   |
| <b>Soccer</b>                 | 1.7 to 2.1 acres  | 1 to 2 miles<br>Youth soccer on smaller fields adjacent to larger<br>soccer fields or neighborhood parks  | 1 per 10,000   |
| <b>Softball</b>               | 1.5 to 2.0 acres  | ¼ to ½ mile<br>May also be used for youth baseball  | 1 per 5,000 (if also used for<br>youth baseball)                                     |
| <b>Swimming<br/>Pools</b>     | Varies on size of<br>pool & amenities;<br>usually ½ to 2-acre<br>site | 15 – 30 minutes travel time<br><br>Pools for general community use should be planned<br>for teaching, competitive & recreational purposes<br>with enough depth (3.4m) to accommodate 1m to<br>3m diving boards; located in community park or<br>school site | 1 per 20,000 (pools should<br>accommodate 3% to 5% of<br>total population at a time) |
| <b>Tennis</b>                 | Minimum of 7,200<br>s.f. single court<br>area (2 acres per<br>complex | ¼ to ½ mile<br>Best in groups of 2 to 4 courts; located in<br>neighborhood community park or near school site   | 1 court per 2,000  |
| <b>Volleyball</b>             | Minimum 4,000 s.f.  | ½ to 1 mile<br>Usually in school, recreation center or church<br>facility; safe walking or bike access; outdoor courts<br>in neighborhood and community parks, plus active<br>recreation areas in other park settings                                       | 1 court per 5,000  |
| <b>Total land<br/>Acreage</b> |   | Various types of parks - mini, neighborhood,<br>community, regional, conservation, etc.   | 10 acres per 1,000   |

### Sources:

David N. Ammons, *Municipal Benchmarks - Assessing Local Performance and Establishing Community Standards*, 2<sup>nd</sup> Ed., 2002

Roger A. Lancaster (Ed.), *Recreation, Park and Open Space Standards and Guidelines* (Alexandria, VA: National Recreation and Park Association, 1983), pp. 56-57.

James D. Mertes and James R. Hall, *Park, Recreation, Open Space and Greenways Guidelines*, (Alexandria, VA: National Recreation and Park Association, 1996), pp. 94-103.

In conducting planning work, it is key to realize that the above standards can be valuable when referenced as “norms” for capacity, but not necessarily as the target standards for which a community should strive. Each community is different and there are many varying factors which are not addressed by the standards above. For example:

- Does “developed acreage” include golf courses”? What about indoor and passive facilities?
- What are the standards for skateparks? Ice Arenas? Public Art? Etc.?
- What if it’s an urban land-locked community? What if it’s a small town surrounded by open Federal lands?
- What about quality and condition? What if there’s a bunch of ballfields, but they haven’t been maintained in the last ten years?
- And many other questions....

### **GRASP<sup>®</sup>**

In order to address these and other relevant questions, a new methodology for determining Level of Service was developed. It is called a **composite-values methodology** and has been applied in communities across the nation in recent years to provide a better way of measuring and portraying the service provided by parks and recreation systems. Primary research and development on this methodology was funded jointly by GreenPlay, LLC, a management consulting firm for parks, open space and related agencies, Design Concepts, a landscape architecture and planning firm, and Geowest, a spatial information management firm. The trademarked name for the composite-values methodology process that these three firms use is called **GRASP<sup>®</sup> (Geo-Referenced Amenities Standards Program)**. For this methodology, capacity is only part of the LOS equation. Other factors are brought into consideration, including *quality, condition, location, comfort, convenience, and ambience*.

To do this, parks, trails, recreation, and open space are looked at as part of an overall infrastructure for a community made up of various components, such as playgrounds, multi-purpose fields, passive areas, etc. The ways in which the characteristics listed above affect the amount of service provided by the components of the system are explained in the following text.

**Quality** – The service provided by anything, whether it is a playground, soccer field, or swimming pool is determined in part by its quality. A playground with a variety of features, such as climbers, slides, and swings provides a higher degree of service than one with nothing but an old teeter-totter and some “monkey-bars.”

**Condition** – The condition of a component within the park system also affects the amount of service it provides. A playground in disrepair with unsafe equipment does not offer the same service as one in good condition. Similarly, a soccer field with a smooth surface of well-maintained grass certainly offers a higher degree of service than one that is full of weeds, ruts, and other hazards.

**Location** – To be served by something, you need to be able to get to it. The typical park playground is of more service to people who live within easy reach of it than it is to someone living all the way across town. Therefore, service is dependent upon proximity and access.

**Comfort** – The service provided by a component, such as a playground, is increased by having amenities such as shade, seating, and a restroom nearby. Comfort enhances the experience of using a component.

**Convenience** – Convenience encourages people to use a component, which increased the amount of service that it offers. Easy access and the availability of trash receptacles, bike rack, or nearby parking are examples of conveniences that enhance the service provided by a component.

**Ambience** – Simple observation will prove that people are drawn to places that “feel” good. This includes a sense of safety and security, as well as pleasant surroundings, attractive views, and a sense of place. A well-designed park is preferable to poorly-designed one, and this enhances the degree of service provided by the components within it.

In this methodology, the geographic location of the component is also recorded. Capacity is still part of the LOS analysis (described below) and the quantity of each component is recorded as well.

The methodology uses comfort, convenience, and ambience as characteristics that are part of the context and setting of a component. They are not characteristics of the component itself, but when they exist in proximity to a component they enhance the value of the component.

By combining and analyzing the composite values of each component, it is possible to measure the service provided by a parks and recreation system from a variety of perspectives and for any given location. Typically this begins with a decision on “**relevant components**” for the analysis, collection of an accurate inventory of those components, analysis and then the results are presented in a series of maps and tables that make up the **GRASP**<sup>®</sup> analysis of the study area.

### **Making Justifiable Decisions**

All of the data generated from the GRASP<sup>®</sup> evaluation is compiled into an electronic database that is then available and owned by the agency for use in a variety of ways. The database can help keep track of facilities and programs, and can be used to schedule services, maintenance, and the replacement of components. In addition to determining LOS, it can be used to project long-term capital and life-cycle costing needs. All portions of the information are in standard available software and can be produced in a variety of ways for future planning or sharing with the public.

It is important to note that the GRASP<sup>®</sup> methodology provides not only accurate LOS and facility inventory information, but also works with and integrates with other tools to help agencies make decisions. It is relatively easy to maintain, updatable, and creates easily understood graphic depictions of issues. Combined with a needs assessment, public and staff involvement, program and financial assessment, GRASP<sup>™</sup> allows an agency to defensibly make recommendations on priorities for ongoing resource allocations along with capital and operational funding.