

# Physical Resource Planning

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Physical resource planning is a process focusing on natural resources. The planning process conforms to the vision and mission statement of the controlling agency. Natural resources planning stretches across a continuum that has strict preservation at one end and complete modification at the other. As an example, a wetland can be allowed to follow natural succession or can be mitigated. Mitigated wetlands would be lands traded and developed to replace existing wetlands scheduled for a change of land use.

The majority of park and recreation managers will find themselves playing a role in the physical resource planning process. The substance of this role varies with the nature and extent of the work to be done and the importance of the specific project and the planning decisions to their organizations. The manager, staff, and community boards may be involved collectively with various portions of the planning process. It is crucial that the manager understands the entire planning process, the various roles of planning participants, and the appropriate planning chronology, in order to enhance the likelihood of bringing successful projects to fruition.

The planning process is just as important to, and relevant for, small and large public agencies and is equally applicable to the varied and unique for-profit commercial recreation sector as well. Regardless of the uniqueness of each park and recreation organization, the majority of managers will most likely encounter planning situations and experiences that routinely are clustered in four areas of focus. This chapter therefore addresses these four areas:

**Property.** For appropriate physical resources planning, a manager must be knowledgeable about property rights and modes of acquisition.

**Feasibility studies.** Feasibility studies are essential before building special facilities, such as golf courses, swimming pools, sport complexes, and zoos. They also are critical for selecting alternative locations and sites for park development. The chapter provides a content outline.

**Physical resources planning processes.** The chapter dealing with planning for strategic management sets forth the basics of planning, including the comprehensive system plan, which has two aspects—the recreation program plan and the physical resources plan, the focus of this chapter. The process is described in 12 steps. It is a generic process generally applicable to all types of physical resource planning.

A professional park planner or design consultant should be employed. It is essential that the land manager or superintendent be part of the team from the onset, through, and into the operation of the development. It is essential that a manager not only understand the nature and importance of each step, but also be able to facilitate each step.

**Area and site planning.** There should be a site master plan for each area and facility. The elements of such a plan are presented briefly. A natural resource management plan should accompany a master plan and a site plan. Basic guidelines are provided.

After the area master plan shows the relationship of the entire development for an area, the site plans will then be completed. These two plans can be completed in coordination with the natural resource management plan.

The main difference between the area and site master plan is scale and level of detail. The area plan is more general, showing the relationship between the proposal site elements and may not be to scale. The master plan shows a specific layout of site elements, such as restrooms, parking, sport facilities, picnic areas, trails, etc. to a specific scale. A planning hierarchy is:

- Comprehensive Master Plan,
- Site Master Plan,
- Strategic Management Plan,
- Operational Plans,
- Recreation Program Plan,
- and Activity Plans.

This chapter will concentrate on the Area and Site Master Plans.

Physical resource planning is a major field of competence. Many park and recreation curricula teach a course or courses in planning. This chapter provides a limited overview of some basics for the manager.

## Property

A manager needs to be generally knowledgeable about the legal basics of land and facilities acquisition, disposal, and encroachment. There are many alternative development scenarios. Legal counsel should help a specific organization determine what is possible and best. A review of all transactions by a qualified attorney is extremely important to protect the interests of all the involved parties. It is the attorney's responsibility to provide guidance and counsel throughout the process, so the manager and organization will comply with all laws. It is not, however, the role of the attorney to make administrative decisions. Once an organization has determined a need, formulated a plan, and decided a course of action, legal counsel should be involved throughout the strategic implementation to advise on all legal issues involved. This section gives only a general overview of the extensive and complex field of property law.

Further, any acquisition or disposal of property should be based upon a long-range (five to ten year) comprehensive plan (See Chapter 7, Planning for Strategic Management). Such plans are mandatory to receive grants from most states. Private funding sources usually also require such plans. Also, there should be written policies and procedures for acquiring and disposing of lands and buildings for parks, recreation, conservation, and historical-cultural purposes, as well as to deter encroachment. Property descriptions, rights of way, easements, and liens can affect the development or disposal of property. Before purchase, development, or acceptance of a property, the property rights such as water, mineral, and air rights should be determined and understood.

## Legal Authority

The manager must understand what rights the organization has under various modes of acquisition. Such understanding is the basis for capital planning and for acquiring the physical resources needed to facilitate programs and services.

Organizations have full contractual rights to acquire real property. However, in addition, public agencies can acquire rights by eminent domain, dedication of lands, and tax tradeoffs. These acquisition methods are described later in the chapter. All three sectors (public, nonprofit, and for-profit) have the right

to receive gifts and bequests of land and buildings. The authority for public entities to acquire and hold real estate originates in the state enabling acts and is delegated to local governments and implemented through local charters and ordinances. It should be noted that only the public governing authority (see Chapter 3, Legal Authority and Jurisdiction) can hold title to property; the title is not held by the park and recreation agency unless it is the governing authority, such as in a park district or metropolitan authority. For both the nonprofit and private for-profit sectors, the title is held by the corporate entity. For example, the title to the property for a church camp would be held by the parent corporate church organization, not the camp board; the camp board would hold title only if it were incorporated separately as its own entity. Similarly, for all sectors, *the right to contract is with the governing authority*. The governing authority may delegate authority to execute certain types of operational contracts, but it retains overall approval.

## Rights in Real Property

Basically there are only two types of rights in real property, that held in *fee simple absolute* and that which is *less than fee simple*. It is not always necessary to own a piece of land or a building to have an excellent park and recreation program or service. Then, there also are water rights, which differ from real property rights.

### *Fee Simple Absolute*

Fee simple absolute is when the owner (whether public, nonprofit, or private for-profit) has complete control of the property. This control includes the right to exclude others, to sell or contract away one or more rights, and to make any use of the property not restricted by law. Fee simple acquisition is most appropriate when the organization is prepared to take full management control of the land. It allows the maximum flexibility and provides meaningful continuity and control in planning.

A fee simple title can be acquired by purchase, gift or bequest, dedication, exchange or transfer, or eminent domain. However, the property comes with a past and this past should have prior assessment and may need prompt management control. For example, there may be depreciative behaviors, such as partying, or dumping of household trash, construction or industrial waste, or long-term hidden problems as toxic materials on site. A piece of property, regardless of the owner, or how it was acquired, is subject to certain restrictive laws, whether imposed by state statutes and regulations or by local zoning requirements or health and safety ordinances (for example, see gifts under modes of acquisition).

The owner of a fee simple absolute title may contract away certain rights or may come under certain covenants, easements, or use requirements. For example, there may be an “in-holding” on a large natural area, which might be desirable to add to park acreage. That is, a family may have their house on the property and are willing to give the property or sell it at a reasonable price if they are permitted to retain a *life estate*. A life estate permits the person or family to live in their house until they die or choose to move off, at which time the home goes to the agency. Or, there may be an easement on the property, a right to travel over the property for a particular use, such as a trail or utility access. Easements “run” with the title. The donor or granting organization may put certain use restrictions on the property, and if the property is no longer used for that purpose, then it reverts to the donor or heirs or the grantor foundation or organization.

There may be stipulated deeds and zoning ordinances restricting use. A family purchased a piece of property from a development corporation “subject to the easements and rights recorded,” which included that the area was for single family, residential dwellings. The family later wished to open a bed and breakfast operation, which was governed by a city ordinance, specifically home business. The legal question became whether bed and breakfasts come within the single family, residential definition as a “home business” or whether it was a small commercial motel. Although a fee simple absolute title was held, it was still subject to recorded restrictions and current ordinances. If the restrictions or ordinances are broken a fine, stoppage of operation, or other legal ramifications could occur.

### Less Than Fee Simple

Use of property under less than fee simple title situations should be based on a contract—an easement, a lease, a use permit, a cooperative agreement. There are many types of such contracts and the conditions can vary extensively, from use only for a specific activity at a designated time (such as a camping permit in a national forest), to full use and required maintenance responsibilities (such as a community sports program conducted by a private association on public property—school athletic fields or city sport fields in the park). There may be cooperative agreements, for example, a school allows use of their sport fields during the summer in exchange for the community sport league association providing the maintenance during that period. Or, an easement may be contracted, giving permission for a trail to go over property or for access to a water area for fishing. A trend is preserving from private development a property that has a conservation easement. This may limit how and what can be developed on the property. The

conservation easement should be reviewed carefully before plans for the property are developed.

### Water Rights

Water is a public physical resource, that is, owned by the public in general, and, as such, rights are different from those of real property. A manager should know what rights the agency, association, or enterprise has related to providing water-based recreation. Landowners bordering a waterway are considered riparian owners and have special rights to the *use* of the water itself, including, for example, diversion of the water for irrigation; but, the public good takes precedence over private rights. However, if the waterway is considered navigable (historically, can a log be floated down it?), the public has certain rights to the use of the *water surface for activities such as canoeing, tubing, and fishing*. The state usually controls this use, from fishing to building docks into the waterway.

The state also controls the quality of the water, that is, pollution regulations—everything from polluted run-off from the adjacent fields to motor boat pollution. The local county health department determines whether the water is clean enough for swimming. The field of water law is extensive and specialized and legal advice should be sought when managing water property. Riparian rights in the western United States and eastern United States differ; however, public use of water surface is similar throughout the United States. When doing physical resources planning, the manager must be aware of the use rights and the restrictive controls related to water.

### Modes of Acquisition

Acquisition is used broadly to mean “acquire for use.” There are many modes of acquisition and the manager must understand the potential of the various modes, what the particular needs of the organization are, and what is within the policies and procedures for acquisition. Nine modes are briefly described (see Exhibit 11.1).

**Exhibit 11.1**  
**Modes of Acquisition**

Fee simple absolute:	Less than fee simple:
Purchase	Easements
Gifts & bequests	Leases
Dedication	Use permits
Exchange or transfer	Joint use or cooperative agreements
Eminent Domain or Condemnation	

## **Purchase**

One may purchase property at fair market value or at a bargain sale. To purchase at *fair market value*, the buyer and the seller agree on a price. Negotiation may be wide ranging and a variety of devices may be used to make the sale more palatable to either party. Buyers may purchase an *option to buy*, that is, the right to purchase the property with no other competition until a mutually agreed upon date. This provides an opportunity for the buyer to raise money (secure grants, get donations, receive legislative support, etc.) for the acquisition and to obtain zoning or conditional use permits and applicable licenses. If the option to purchase is not exercised by the expiration date, the seller is free to put the property on the open market. One also may obtain a *right of first refusal* agreement. This is most frequently done when one is leasing property. If the owner does wish to sell, the lessee is given an opportunity for purchase before it goes on the market.

Sellers can use retention and life estates to facilitate their needs. A *retention* allows the seller to continue to occupy for a set period of time the property after selling. Usually there are restrictions on the use that the sellers can make of the site. However, this eases the transition from seller to buyer for the seller, as he or she maintains residence on the site and may be able to continue the current use (e.g., agriculture). Further, it benefits the buyer, especially if the buyer is a park and recreation organization that is not immediately ready to assume full management of the property. For example, an organization purchases a farm to become a new county park in a rapidly growing suburban area. If the county does not have immediate management plans, the farm helps maintain the rural character of the landscape that attracted many to the area. Further, the farmer's continued presence and economic need to produce income from agricultural production will have him or her deterring trespass and depreciative uses of the site. (See Compendium 11-1 for National Park Service Land Purchase and Retention Policy.)

While a retention is a set period, a *life estate* is for the remaining life of the seller. It is particularly used for older people who have lived many years in a forest or on other natural area. It is bad community relations to take title by eminent domain and evict a person who has lived a long time in a house, so a good alternative is a life estate with the buyer obtaining fee simple title. The seller may be able to take a tax deduction. The person holding the life estate cannot do anything detrimental to the property's value.

When sellers reduce the price of a property below fair market value because of the tax advantages they may receive, it is called a *bargain sale*. The difference between the fair market value, as determined by an independent appraiser and the bargain sale price, is a

donation by the seller to the buyer. Hence, a bargain sale to a governmental unit purchasing park land is a donation to that governmental unit and also can be taken as a tax deduction. Similarly, such sales at less than fair market value to nonprofit associations can be considered charitable contributions for tax purposes.

Another way organizations can acquire land is through *transfer*, whereby one organization purchases land and then transfers it to another. The first organization may have purchased land desirable for a park or natural preserve because there was threat of development and the second organization needed more time to obtain funds. The Nature Conservancy is a land holding agency. The Trust for Public Land also buys property with ecological value and holds it until it can be transferred to a public entity. Property also may be obtained through *tax sales*.

## **Gifts and Bequests**

A donation is a gift of property from the owner to the public agency or nonprofit association. Donors may have a number of motivations for making such a gift. (See Chapter 19, on gifts.) A gift of property can be a great asset to an organization; however, there should be policies and procedures about accepting gifts of property. For example, when should a gift of property be named after the donor, which often is expected by the donor or the heirs? How does the gift fit into the comprehensive plan of the organization, and especially the physical resources plan? Can the gift be maintained without undue burden on the financial resources of the organization, and can it be effectively utilized in programming or services or are there stipulations regarding specific use and development of the property that restrict the flexibility of the organization? Does the gift have any "hidden" liabilities, such as environmental hazards or extensive development costs that may make the future plans for the property prohibitive? (See Compendium 11-2 for Honolulu policy and procedures for property gifts and 11-3 for Portland property naming rights.)

Particularly when the property is acquired by gift, there may be a tradeoff. For example, a camp was offered a piece of adjacent property, but there was a "string attached." The potential donor had been legally ordered to clean up a hazardous waste disposal site, which cost considerable money, more money than the donor wished to spend. The camp, as the new owner, would be required to do the clean up. While the camp may receive the property as a gift, it was not a free gift. *A park and recreation organization does not have to accept all gifts offered.*

It is important to have a policy and procedures for acquisition of property. The owner may not be able to maintain the property, and thus the owner offers it

to a public agency or nonprofit association to receive a tax write-off—but, can the receiving organization afford to maintain it? If not, a second look should be taken at accepting the property. Some public agencies and nonprofit associations try to have an endowment accompany a gift of property (see Chapter 19, Financial Management), particularly when maintenance may be a problem, but also to offer better programming on the property. Often a governmental agency or private foundation that provides grants to acquire property will require a development and operation plan to assure that the new acquisition can be properly supported. The manager must be able to project not only programming and use of the property, but also costs.

A gift also can be made through establishing a *trust*. A trust is a fiduciary relationship in which one person (trustee) holds the title to property (the trust estate or trust property) for the benefit of another (the beneficiary). However, a trust has restrictions, that is, the uses of the property are specified, and there are trustees who manage the trust. On the other hand, a trust may provide stable funding for development and use of the property.

### **Dedication**

Mandatory dedication is a controversial practice that requires land developers to dedicate part of their development to public park purposes. The rationale is that because the development decreases open space, it increases pressure on the remaining open space and the use of existing public park and recreation resources. Dedication can provide for park acquisition and development at the beginning stages of population growth adjacent to the dedicated park. This theoretically makes such development more economically feasible than if it were purchased from the developed private sector and converted to park and recreation purposes. It also assumes that costs for such dedication will be passed on to the consumers who purchase or lease dwellings in the new development and will have greatest access to the site's resources and facilities.

The courts have been divided on whether such mandatory dedication is permissible. On the one hand it has been construed as a "taking," the loss of an asset for a public purpose without fair compensation. On the other hand, under "police power" authority, it has been argued that it is done for a legitimate public purpose and benefits the general welfare of the community.

State legislation does permit most municipalities to pass local ordinances or resolutions requiring the sub-divider to donate or dedicate lands or funds for park and open space. Typically a percentage of the land of the proposed development must be deeded to the municipality and, in some instances, funds may be required rather than land.

Advantages of dedication:

- does not require numerous approvals of money by governing bodies;
- eliminates lengthy and costly price negotiations;
- involves the developer and makes him or her more committed to the community park system; and
- allows integration of parks into subdivision developments before platting.

Disadvantages of dedication:

- sub-divider becomes park planner, not the professional staff;
- typically, sub-divider dedicates inferior tracts or parcels of land;
- too many small parcels of land because the dedication is usually a percentage of the subdivision;
- usually municipalities require the donation of only land and not funds for development;
- poor design by sub-divider results in costly repairs and maintenance;
- cost of housing increases for the consumer;
- sub-divider sees the process as just another regulatory hurdle;
- confusion develops over responsibility for maintaining the condition of the site; and
- park department receives little parcels spread around the city making maintenance more difficult and not necessarily providing the type of parkland the city needs, like flat land large enough for a sports complex.

*Note:* If cash can be accepted as an alternative to land donation, and that option is exercised at the discretion of the park and recreation manager, several of the undesirable factors become moot. (See Compendium 11-4 for California Parkland Dedication Regulations and Compendium 19-8 for Salisbury's Recreational Open Space Ordinance.) Mandatory dedication is usually done as part of zoning at the local level. Zoning regulates the land uses of a defined geographic area based on a plan (see The Planning Process, Step 5, below).

### **Exchange or Transfer**

On occasion, park and/or recreation lands may need to be reallocated. This reallocation may involve a rezoning or trading of one parcel for another. This realignment may be in response to consolidating park areas, the removal of private land "in-holdings", or as a result of utility, transportation, or other public service needs (see Disposal of Lands and Buildings, below).

The exchange of property is a transaction between owners; each receives land in exchange for other prop-

erty in their ownership. This technique is often used to exchange lands between governmental agencies. It is also valuable for large land holding concerns, such as forest products companies or utilities when working with governmental units. There also can be an exchange between private enterprise and a governmental agency. For example, a developer wants to take over a small golf course for commercial development and proposes that in exchange it would provide land for a large golf course elsewhere.

In many instances, transfers are made between governmental units. In Michigan, a number of smaller state park and recreation areas that were not providing resources of state-level significance, were transferred to local units of government for a nominal sum (e.g., \$1). In such instances, it is often stipulated that the property remain public park land. State statutes and local ordinances may require voters to approve removing any "dedicated park land" from their respective system through the formal voting process before any exchange, transfer, or sale is permitted.

### ***Eminent Domain or Condemnation***

Under eminent domain, the government can acquire private property from an *unwilling* seller. However, the U.S. Constitution, Amendment V, requires that "private property [shall not] be taken for public use without just compensation." Compensation is determined by certified independent appraisers, and its fairness may be judged by a jury of the owner's peers in court. This technique has been used to acquire land for schools, including athletic facilities, and park land. The government asserts that its acquisition and the subsequent use of the property are of greater public benefit than the continued private ownership of the land. Because there is high regard for private property rights, eminent domain is used only as a last resort to obtain property. The manager and agency should use caution and adequately research all pertinent local, state, and federal housing regulations that may (1) protect specific property and homeowners' rights and (2) define the agency's full responsibility in eminent domain activities beyond monetary remuneration. For appropriate physical resources planning, a manager must be knowledgeable about property rights and modes of acquisition and disposal.

### ***Easements***

Easements give the right to use the land of another for a specific purpose, which otherwise would be unlawful. Easements confer a property interest that runs with the title. Easements can be in perpetuity (forever) or for a set period of time. Easements are different from a license, which confers a personal privilege to do some act on the land. Easements relate to the land; licenses to

an activity. There are many types of easements, including rights of way, affirmative and negative easements, prescriptive easements, and the acquisition of title by adverse possession.

A right-of-way is a type of easement given by a landowner to a utility company to erect and maintain power lines. Often these are used for recreational purposes.

An affirmative easement allows a certain use of a property, such as a public beach easement or an access easement, e.g., going over property to a waterway for fishing or launching a boat. Trailways often rely on easements to provide corridors through private lands. These may be seasonal, as is the case with cross country skiing or snowmobile trails.

A negative easement restricts the use in a certain manner. For example, a scenic easement may restrict construction of buildings that block a particular view, or another type of negative easement may restrict alteration of wetlands, dunes, or other natural features.

Rights in land may be encouraged for specific recreational activities through the use of tax breaks. For example, in Michigan, the Commercial Forest Act of 1925 as amended provides for tax breaks on enrolled industrial forestland if they are freely open for the purpose of hunting or fishing. Public utilities in exchange for tax advantages also often will open land and shoreline areas near hydroelectric generating facilities that can be used safely by the public.

Conservation easements are established on property to limit the potential for development. It is important to understand what can be developed on the property prior to considering potential users on any property. Each conservation easement places limitations differently on what is allowed on each property.

### ***Leases***

Leases are one of the most common ways to acquire use of land or buildings for a specific period of time. For example, a private for-profit enterprise may lease a building in which it houses its fitness center or a business, such as an outdoor sports store. A nonprofit association may lease office space in a building that houses other associations or businesses, or a building in which to conduct its program, such as a center for seniors. Rights in land also may be leased for a set period. For example, summer resident camps may lease land from the Forest Service to conduct programs. The lease may provide for occupancy, the right to exclude others, placement of structures, etc. However, some long-term (the maximum lease is usually 25 years) lease arrangements for land have been complicated by allowing the leasing entity possessory interest in permanent structures built on the leased land. This situation has caused significant problems for the National Park

Service (NPS) due to the difficulty and expense in reacquiring such possessory interests from unsatisfactory concessionaires with structures on NPS lands. Of more concern regarding the maximum 25-year lease is that an organization may not be able to get funding (mortgage) to build facilities because of the relatively short time period. In some states a long-term lease (25 years minimum) is necessary to include the property in their 5-year plan and participate in their “matching funds” grants. Ski resorts sometimes can get a long term lease of government land. The long term lease is important to protect the investments in development prospects.

Another option is to lease property and facilities for a nominal sum (\$1) to another entity. In this instance, the acquiring entity receives the property and facilities for a set period of time and for a specific use. Restrictions are often placed in the lease to ensure operation in a manner desired by the organization granting the lease.

There is another aspect to leasing for commercial recreation and private enterprise. Many sports arenas and stadiums are being built by a municipal authority under their funding authority and then leased to a professional sport corporation or other commercial enterprise.

### ***Use Permits***

Use permits may be for an indefinite length of time, such as for an electrical transmission line transversing an undeveloped natural area or for a single purpose such as camping in the national forest. Use permits are subject to revocation.

### ***Joint Use and Cooperative Agreements***

Another mode of acquisition is joint use and cooperative agreements. For example, many community recreation programs operate during the summer on the athletic facilities available at the community’s schools. They may agree to provide a certain level of maintenance services or money to pay for such services in return for the use of the facility. (See Chapter 6, Partnerships.)

Another alternative may be to require the construction of designated capital improvements, such as a new ball diamond or soccer field. The municipal agency may have access to construction equipment and personnel through a department of public works, while the schools may have the vacant land on which to put this facility and the custodial staff during the school year to maintain it.

Another opportunity that presents itself in such situations is to trade some parkland for capital improvements on others. For example, the use of sand, gravel and clay in the construction of expressways is substantial. In flatter regions of the country with few natural lakes, the construction of a lake through excavation may

provide an outstanding recreational resource while meeting the needs of the transportation department. Positive relationships with powerful partners can provide benefits in terms of better signage about parks on major roadways, visual protection of scenic vistas from transportation corridors, etc.

## **Disposal of Lands and Buildings**

The government does not often contemplate the disposal of land resources. Nevertheless, as populations shift, the environment is altered, and development occurs, disposal may be appropriate. The organization may dispose of some or all of its land rights.

From time to time, demographic shifts may change the need for recreation services in certain geographic districts. Need for other public interests such as interstate highways, may make it necessary to dispose of parklands. In such cases, negotiations should ensure that the public recreational benefits are not diminished. In many communities, the park and recreation department receives cash and land to provide similar facilities in another location within the community service area. Such disposal should be in accord with the comprehensive plan. Written procedures provide safeguards for the public interest when it becomes necessary to dispose of park and recreation lands. (See Compendium 11-4 for Canada Federal Land Acquisition and Disposal Policy.)

Many jurisdictions require a referendum before the local government may sell park, cemetery, riverfront, or waterfront property. Such legislative requirements safeguard the community interests from short-term political decisions based on expediency while allowing negotiation of long-term benefits.

Again, it is important to be cognizant that in some jurisdictions, public park and recreation agencies are required to submit any disposal of any special use or dedicated lands to a vote of the constituency. This process may be especially important if the jurisdiction has a policy or procedure in place that requires mandatory dedication of lands as part of a subdivision approval process. While this may safeguard local park interests, it may also be a process ruled by the emotion of the few who feel they have a lot to lose versus the many who stand to have the proceeds better invested in meeting recreational needs more efficiently. Hence, it is desirable for the agency to have clear policies and procedures for continuing to meet constituent park and recreation needs. If land resources are viewed more as assets in a portfolio to meet recreational needs and safeguard the environment, rather than as sacred ground, opportunities can abound.

Organizations need to focus on the benefits of a potential disposal of land when informing the public

about such actions. The benefits may include lands received in exchange, use of funds received for needed capital improvements, etc. While there will be unwilling sellers in every jurisdiction, it is imperative, if the decision is made to go forward with a sale authorization vote, to marshal the supportive forces, persuade those who are undecided, and get supporters to the polls.

### ***Encroachment***

There should be policies and procedures to protect park and recreation lands and facilities from encroachment (see Compendium 11-6 for York PA Encroachment Policy). Encroachment occurs when a changing land use, from within or adjacent to it, is restrictive in nature on the current land use. A wetland will cease to function if water in the adjacent watershed becomes polluted, or the building expansion does not leave enough land to meet its circulation needs.

Often good planning requires the acquisition of lands for park and recreation purposes well in advance of the community's need for full development of programs and facilities. During this interim period, particularly, there will be encroachment pressures for both public and private purposes. Vigilance and determination are needed to preserve and protect the long-term public interest in these lands. If lands held in reserve are used and publicized for "extensive use, trails, primitive camping, wetlands, etc.," the community will recognize them as recreation and will help resist encroachment.

As states develop major roadways, they may find it easier to build roads through parks than to remove commercial districts. Park and recreation agencies should be demanding in these instances, asking for new property in exchange for old at a mitigation rate that provides more acreage than that which was lost to construction. State departments of transportation have substantial real estate departments and are aware of the wide range of properties. Further, transportation budgets receive sizeable supplements from the federal government. This provides a unique, one-time opportunity to go after sizeable and previously unattainable parcels.

The ever-increasing urbanization of lands surrounding parks and other protected landscapes represents a major threat to many currently undeveloped sites. What growing urbanization implies is that natural areas will increasingly serve as places of relaxation and escape from the pressures of city living. In turn, the values associated with natural areas will lie with their recreation potential, rather than with the products (i.e., timber, minerals, etc.) that can be extracted from them. From a public policy, decision-making perspective, social and political considerations are also becoming important factors in determining how undeveloped landscapes are utilized or encroached. The manager

of undeveloped recreation lands in close proximity to large urban centers may face growing public pressure for access to accommodate a variety of recreational endeavors, i.e., off-road vehicles, mountain biking, skate boarding, nude sunbathing, etc. With increasing frequency, these activities conflict with other users and uses, resulting in controversies over how to use and who gets access to limited land resources.

Park and recreation agencies have a moral and legal obligation to safeguard natural resources from destruction or impairment of their productive capability. In acquisition, it is important to purchase sufficient property to safeguard natural resources providing recreational opportunity. Hence, providing a boat launching area with no buffer between the parking area and the shoreline is likely to foster pollution of the lake through erosion and parking lot runoff that includes oil, grease, and other compounds harmful to the environment. Hence, consideration of ecosystems such as watersheds, the presence of rare, threatened, and endangered species, and the restoration of degraded sites should be primary, not peripheral, concerns during acquisition.

Acquisition of parkland does not end the challenges of park managers; rather they shift to maintaining control of the land. One of the first challenges of land managers is to protect their lands from encroachment by unauthorized use.

Typically when parkland is acquired, it will not be fully developed. Rather, it will be vacant land, with resources, a past history, and the potential to be used for a variety of recreational pursuits. During this period, it is critical that control be maintained.

### ***Adverse Possession***

Adverse possession, when one takes exclusive possession of another's property, can result in the loss of property rights for the park and recreation entity. This typically involves constructing a building or facility on park property. It is most prevalent near the property lines, with garages, fences, ponds, pools, and other encroachments crossing property lines in an open manner.

The courts have granted claims for permanent rights in another's property to adverse interests. State statutes concerning adverse possession require from 5 to 20 years of open occupancy of another's land to make such a claim. Hence, the organization should accurately delineate its boundaries. When land is being acquired, the legal description (meets and bounds) should be used to accurately stake out the property before purchase. This should be followed upon acquisition, by the placement of appropriate boundary markers or fencing. If encroachments are noted, the encroaching owner should be immediately notified and asked to remove the encroachment.

Regular inspection of boundaries should occur to maintain legal boundaries. Pay special attention to new developments adjacent to the park being constructed or where landowners are remodeling. While the loss of a foot or two of property may seem a minor nuisance, it may influence the organization's use of its adjacent property. Further, it displays a lack of stewardship of resources.

## Feasibility Studies

A feasibility study is an essential decision-making tool to be used by the governing authority and management. While it cannot ensure a project's success, it is invaluable to organization decision-makers in deciding whether to proceed with a project and to the funders in whether to finance a project. A feasibility study or analysis is the process of defining and testing a specific project concept for a specific site to determine whether the economic, legal, political, physical, financial, and marketing environments favor implementation of the proposed project on a designated site.

The role of feasibility studies in planning varies among sectors. For the private for-profit sector, a feasibility study is essential because the enterprise must be financially profitable. Commercial recreation enterprises focus on site-profitability analysis and usually do not purchase a site until a feasibility study has been completed. However, for both the public sector and the nonprofit sector, there also is the factor of appropriateness. They should do feasibility studies before construction of any special facility, such as golf courses, swimming pools, "extreme sports" facilities, parks, zoological parks, water-parks, and centers—community, teen, senior, fitness, nature, et al. Often in the public sector, the site has already been acquired and the focus then is more on the appropriateness of the facility and on the need of the public and whether there would be an adequate number of participants to justify the special facility. (See Chapter 8, Program Services and Event Management, and Chapter 23, Evaluation and Action Research.)

In addition to a feasibility study for a new facility, an organization may undertake routine feasibility studies and assessments of existing sites for improvements or renovation as facilities age, become less functional, or develop operation and maintenance problems. Organizations must seriously consider decisions to renovate or replace areas and facilities because of the potential for extensive start up and long term ongoing operation and maintenance costs.

The organization manager and staff must be integrally involved in the study. Although the study can be prepared by a staff member associated with the

### Exhibit 11.2 Feasibility Study Components

<b>Programmatic Analysis</b>
<ul style="list-style-type: none"> <li>• General community overview</li> <li>• Market analysis</li> <li>• Administrative feasibility</li> </ul>
<b>Physical Site Analysis</b>
<ul style="list-style-type: none"> <li>• Ecological characteristics</li> <li>• Natural (physical) features</li> <li>• Human/cultural impacts</li> <li>• Legal environment</li> <li>• Infrastructure</li> </ul>
<b>Financial Analysis</b>
<ul style="list-style-type: none"> <li>• Estimated capital costs</li> <li>• Projected operating costs</li> <li>• Potential revenues</li> <li>• Financing options</li> <li>• Local/regional economic impact</li> </ul>

proposed project, often such a person does not have adequate time to undertake a comprehensive analysis or lacks the breadth of competencies needed. Further, the study tends to be more objective if prepared by a contracted outside consultant. Often there is a combination of in-house and outside contracted personnel.

A comprehensive feasibility study is composed of three components: programmatic analysis, physical site analysis, and the financial analysis (see Exhibit 11.2). Each of the components is described briefly. (For more detail, see Schwanke, 1997.)

The extensiveness of the feasibility study depends on the project and the information already in hand. Not all aspects of each component are needed for all types of proposed projects. Much of the information is available from reports, records, maps, and studies that have already been done. Offices to check include the city and county record of deeds, planning and engineering offices; state agencies that deal with land, water, wildlife, and forestry; federal land agencies; county extension and soil conservation offices; the local weather station; the local fire, police, gas, electric, and telephone offices; and the local library and college/university libraries.

The feasibility document is mostly informational tables, figures, charts, diagrams, maps, and photos and should be concisely and graphically presented. A proper study provides the foundation for detailed planning (See sections on Physical Resources Planning Process and the Site Master Plan, below).

## Programmatic Analysis

A private entrepreneur will tend to consider a range of program options or amenities, while public and nonprofit organizations tend to focus more on specific pre-considered programs. A programmatic analysis should include three aspects:

A general community overview, including:

- economic climate physical resources planning;
- political stability;
- transportation facilities and traffic patterns;
- community support;
- weather patterns;
- population composition and trends;
- cultural and historical considerations; and
- promotional organizations.

A market analysis encompassing:

- potential types of and numbers of visitors/guests/participants and where they are located;
- evaluation of whether the targeted population is already adequately served;
- seasonal patterns;
- travel trends (visitor behavior and characteristics);
- distance people will travel to participate;
- existing competing and complementary enterprises, services, and programs;
- supporting amenities that would be desirable;
- needs and preferences of potential participants; and
- uses of area/facility and to what extent.

The administrative feasibility addressing:

- How does the project fit into the structure and policies?
- What changes would have to be made? (See Chapters 8, 9, and 15.)

## Physical Site Analysis

The physical site analysis includes advantages (opportunities) and disadvantages (challenges) for the proposed site and any alternative sites. Site feasibility includes five types of analysis. The nature of the data is illustrative of the type of data useful and is not comprehensive. See the next section of this chapter for further development of the five types of analysis and the use of such data in physical resource planning.

Ecological characteristics, including:

- flora: major vegetative covers, forests, and agriculture; species present on site, woodland/

fence rows/vegetative masses, location/sizes of specimen trees;

- fauna: wildlife habitats, density of species;
- micro-environments: special features/habitats;
- other ecological and environmental factors: views, sounds, special conditions.

Natural (physical) features, including:

- topography: elevations, high and low points, slopes, ridges, drainage and grading needs;
- hydrology: watershed, water source features and resources (streams, lakes, swamps, bogs), flood plains, flood hazards and erosion, floodway, groundwater table, depth to bedrock, location of wells, sources of pollution on- and off-site;
- soils: classification by type and use;
- geology: surface and subsurface conditions, rock outcroppings, geological base and land forms;
- oceanography: shoreline, littoral drift, dunes location, soundings, and wave action, where applicable;
- meteorology: climatic factors, prevailing winds, summer and winter, temperature, humidity, rainfall, snow accumulation, solar orientation, sun angles, ice build up, and movement.

Human/cultural impacts, including:

- archeological sites;
- historic sites and landmarks;
- existing land uses and proposed future changes or developments, including open space/vacant land and structures;
- growth/development patterns in area;
- any objectionable uses or activities on adjacent plats;
- sources of noise;
- schools; and
- past site uses.

Legal environment, including:

- legal descriptions, map, and drawings, (i.e., zoning and land use plans);
- regulatory environment and permitting process, e.g., zoning, building codes, and applicable restrictions, certainty of approvals over time;
- deed history and recorded survey, determination of financial liens;
- existing and availability of easements and rights-of-way;
- design feasibility for the site; and
- mineral, water, and air rights.

Infrastructure, including:

- utilities, e.g., power, water, sanitary sewer and storm-water, and sanitation;
- electricity, natural gas, heat availability;
- emergency services, e.g., police, fire, ambulance/paramedic;
- communication services, e.g., telephone, cable; and
- transportation, circulation and existing traffic patterns, traffic engineering, access points/entries, proximity to regional transportation system, highways, air, railways, pedestrian ways, trails/paths (existing and planned).

## Financial Analysis

A feasibility analysis also includes the financial analysis. Is the project financially feasible? There are five financial aspects:

### *Estimated Capital Costs*

The capital costs are typically projected by facility type and size. They include costs for land, the construction of buildings and outdoor facilities, and furnishings.

### *Projected Operational Costs*

The manager and staff carefully research similar facility sites to determine estimates for operation and maintenance (see Chapter 13, Management of Operations, and Chapter 20, Budgets). Marginal cost projections are assumptions of hourly, monthly, or annual costs directly attributable to operating and maintaining the enterprise. These costs include labor, supplies, equipment, utilities, and any other direct costs associated with the operation.

The early success of any revenue venture will be largely determined by public exposure and awareness. Marketing is a direct expense that is added to anticipated operating costs within the feasibility study. A multi-faceted marketing campaign should be developed. The overall objective is to provide the organization and the manager with a good estimate of the market area, how far people will travel to participate, and where and how advertising dollars should be spent. (See Chapter 15, Public Relations, Marketing, and Customer Service.)

### *Potential Revenues*

Operating profits reflect the net proceeds of the enterprise after all expenses associated with the operation have been deducted. At this stage of the feasibility study, the organization should speculate on the adequacy of its revenue to retire any bonded indebtedness.

Financial projections are frequently made from two perspectives: *expected* and *conservative*. In each

instance, the projections are monthly, annual, and break-even. The expected projections are the “best guess” as to what revenue is expected. The conservative projections are slightly cautious.

The feasibility study requires much the same process and content found in portions of traditional business plans. The potential operating revenue phase of the study should examine competition, pricing and revenue, and marketing.

Competition with other like facilities in the immediate vicinity must be evaluated when determining the feasibility or advisability of offering similar services. Who are the competitors? Will the project have a market share? The answers should clearly advise moving forward with an enterprise or not.

Establishing fees is also a function of knowing what the competition charges. If an organization can provide a “value added” experience, perhaps more can be charged than the competition. Are the facility and/or programs more convenient for participants? These are important considerations. (See Chapter 19, Financial Management, on pricing.)

An organization may have a non-resident or non-member fee policy. In this instance, those who do not live within the taxing district of the public agency or are not a member of the nonprofit association or private enterprise are charged a higher fee. These are acceptable practices to achieve equity for the taxpayers within the public jurisdiction of the agency or members of nonprofit association and may be a consideration in pricing strategy.

Maximum potential revenue also is dictated by the number of hours available for use while actual revenue is determined by number of hours utilized. Concession sales, supplies, and other sources of revenue must have established fees and the income factored into revenue projections.

### *Financing Options*

The organization must determine its financing options to cover the capital costs. Whether the organization is a public, nonprofit, or private for-profit entity will bear upon these options, as does the nature of the development. Options may include the sale of revenue bonds, lease of the facility by a private corporation, rentals for limited specific uses, advertising, joint efforts with businesses (partnerships and sponsorships), general obligation bonds, tax allocation bonds, state/federal grants, and gifts and donations (See Chapter 19, Financial Management).

### *Local/Regional Economic Impact*

It is important to realize that many sport and recreational facilities have a definite economic impact on the local and regional community. The level of this impact

depends upon facility size, function, and purpose. A facility can make a greater economic impact by bringing in more business to the community if it is involved with high-profile sports participation (i.e., professional sports events) and other types of entertainment activities (i.e., concerts).

In addition to these five aspects, design costs should not be overlooked. Usually the consultants doing the design(s) aggregate about five percent of the total estimate costs. (See Chapters 19 and 20 for financial background information.)

## The Physical Resources Planning Process

The purpose of the physical resources plan is to guide the development of land use and facilities for community parks and recreation. It provides the basis for both immediate and long-range decisions. The physical resources plan is an integral part of the comprehensive system plan (see Chapter 5, Organization Structure and Administrative Operations). Physical resource planning is an essential function of management.

Terminology for a physical resources plan varies in the literature, including master plan, comprehensive plan, five-year plan, capital improvements plan. Physical resources plan is used here as it differentiates better from the overall comprehensive system plan and the recreation program plan (see Chapter 8, Recreation Program Planning). The term site master plan, as used in this chapter, refers to a plan for a specific site and is discussed in the last section of this chapter.

An example of area master plan requirements in a more comprehensive approach at the state level is shown below. This is the outline for a master plan at a community, township, or county level that is used in Michigan. The action plan section of the comprehensive plan would contain the individual proposed site master plans. This plan is required by the state for matching funds consideration. Land and water conservation funds from the state are used to subsidize the program.

The Community Recreation Master Planning summary required by the Division of Natural Resources in Michigan describes what a community recreation plan must contain to qualify the community for Land and Water Conservation Fund (LWCF) and Natural Resources Trust Fund (NRTF) grants from the Michigan Department of Natural Resources, and suggests ways to develop a plan. Approved plans establish grant eligibility through December 31 of the fifth full year from the date the plan was adopted by the community's governing body. The Department of Natural Resources encourages submission of draft plans for informal

review prior to adoption. Exhibit 11.3 shows the steps in the planning process.

A solid plan—according to the recommendation of the State of Michigan Division of Natural Resources Department—must include the following:

- *plan adoption*: resolution of adoption by park and recreation commission or governing body, evidence of transmittal of plan to county and regional planning agencies (omit from draft plans);
- *action program*: five-year description of recreation actions to be taken, including capital improvement schedule (CIS) showing years, costs, and funding sources; map;
- *basis for action program*: clear rationale for each action included in action program (why action is a priority);
- *description of planning process*: description of how plan was developed: major steps, who was involved, how public was involved;
- *recreation inventory*: description and map of existing recreation opportunities in and around the community, including relevant private and public school facilities;
- *community description*: description of relevant social characteristics of community, (population distribution by geography, age, sex, race, ethnic groups, disabled, employment, trends) and physical characteristics (topography, water resources, land use, etc.) including maps;
- *administrative structure*: description of how park and recreation functions are or will be completed: operating budget, staff, administrators, commission, and relationship with other agencies; and
- *organization chart*.

The physical resources plan encompasses all types of physical resources, including natural undeveloped areas, parks and playgrounds, special facilities (such as golf courses and aquatic complexes), and buildings (such as fitness centers, community centers, nature centers, et al.). While the nonprofit and private for-profit sectors also must do physical resources planning, they do not generally have open space and park lands, but focus on special facilities and buildings. Because of the importance of the natural areas in community development, the focus of this section is on physical resources planning by public agencies. However, the basic steps are applicable to all organizations. What steps are involved in the planning process? Twelve steps or facets serve as a guide to the planning process for the manager (see Exhibit 11.3).

Each city and community has unique situations that either preclude the need for certain aspects of the

**Exhibit 11.3**  
**Steps in the Planning Process**

Process Component	Who Does It?
<b>Step 1</b> Strategy and work sessions	Staff/administration
<b>Step 2</b> Identify and confirm goals, objectives and standards	Staff/boards
<b>Step 3</b> Design of the planning study Staffing Selecting a consultant (bidding/documents)	Staff/administration
<b>Step 4</b> Agency approval for funding	Staff/administration
<b>Step 5</b> Data collection Population demographics Participation patterns City/community data	Staff/boards/community/ Consultant
<b>Step 6</b> Area and facility inventory Municipal/city jurisdiction Schools (K-12) University Public and private commercial Church-affiliated resources County/regional/state areas and facilities	Staff/consultant
<b>Step 7</b> Preparation of base maps Identification of use areas Classification of park and recreation system components	Consultant/staff
<b>Step 8</b> Development of area and facility overlays	Consultant
<b>Step 9</b> Preparation of a needs assessment	Consultant
<b>Step 10</b> Prioritization of projected improvements Identification of funding alternatives Identification of time line Identification of preliminary project cost estimates	Consultant/staff
<b>Step 11</b> The approval process	Consultant/staff
<b>Step 12</b> Implementation & evaluation	Staff

plan or require additional modification to this traditional set of procedures. It should be noted that some of the steps are similar to those used for comprehensive system and recreation program planning; however, the focus in this section is on the use for developing and implementing the physical resources plan.

For a clearer understanding of the process, the steps may be conceptually clustered. Steps 1 through 4 get the process underway by setting up work groups, involving the staff, the board, and citizens, and affirming the relationship of the physical resources plan to the agency's mission, goals, and objectives. Collection of information is the essence of steps 5 and 6, while steps 7 and 8 provide for the base maps and overlays, identifying the location of recommended areas and facilities.

Step 9 assesses the need for various types of areas and facilities. The last three steps bring the planning process to culmination. Step 10 sets forth the priorities for the projected improvements, including funding and a time-line (phased development). The formal approval process is Step 11 and implementation and evaluation of the plan is Step 12.

These steps or facets of the planning process may be in progress simultaneously; so the manager should formulate a projected planning sequence. The preparation of a Gantt chart for tracking the timeline and progress is helpful. (See Compendium 11-7 for a Gantt chart from the Fort Wayne Park and Recreation Department that illustrates the chronological sequencing of 23 separate functions for a single project.)

If a consultant is used, often that person will suggest a procedural framework and timeline. This should be a part of the contract with the consultant. Also, local community conditions may delay the process. The content of the steps or facets is what's important—and, that all get accomplished in a timely manner.

## Step 1. Strategy and Work Sessions

The first step is for the organization to form a strategy to accomplish the task and to involve the staff, governing body and citizens. (*Note: "board" is used to denote governing authority; if there is an operating policy or citizen advisory board, the members should be integrally involved.*) The organization must also confirm its vision, mission, and goals and the specific goals and objectives for the physical resources plan. Also, the governing body must give official approval of the planning process and its funding.

There are several aspects to establishing the planning strategy and work sessions. These include a time line (see Compendium 11-6 for Fort Wayne Project Gantt Chart) and the manager working with the organization's staff and the organization's board, and the community.

How should the strategy and work sessions be structured? Primary responsibility for creating and maintaining interest in planning rests with the park and recreation manager. The impetus for the decision to pursue the plan may have come from a variety of community sources that, in reality, may serve to validate and broaden the base of support. The strategy and work sessions also provide an opportunity for staff and board members to take meaningful roles in the forming of goals and objectives for the physical resources plan. Once the planning begins, the manager becomes the strongest proponent and must maintain intensity in building the team of planning supporters.

The manager may use existing documents (see Exhibit 11.4) as a discussion guideline (background information) for the initial strategy and work sessions. Information should be obtained for the past five years, for example, annual reports and significant grants received for the past five years. Many community organizations and individuals will be contacted for documentation. This provides a peripheral benefit by raising interest in, and articulating the existence of, the planning process. People particularly lend favorable support when personally involved in forming planning outcomes and decisions. Contacting and including additional organizations and individuals in the process becomes a positive public relations tool.

The informal strategy and work sessions are very important to the successful development of the physical resources plan. The manager should not proceed

without a clear understanding of existing staff and board expectations. Questions should be asked relative to perceptions of organization priorities for serving the needs of the public. The manager should prepare questions that solicit input on quality and quantity issues. The manager should anticipate the need for several informal sessions. The challenge is to adequately and accurately record the expectations and reduce those comments to their lowest common denominator as broad goals with realistic objectives. A balance needs to be struck between all that may be possible and all that is not probable.

### *Board Participation*

It is the board's responsibility to create and maintain a physical environment conducive to a worthwhile leisure experience and consistent with reasonable expectations of future funding and participation trends and needs. Decisions that involve the master plan and the capital-outlay budget request are major concerns. Prudence demands that maximum use be made of the present open space and facilities before acquisition, construction, or remodeling is considered. Credibility in capital funding requests should be ensured along with attention to maintenance requirements and escalating energy and utility costs. Efficient use of the board's time and effort requires that it be concerned with policy oversight and that implementation be properly delegated to the staff (see Exhibit 11.5).

### *Citizen Involvement*

Planning should include total citizen involvement in the process to best meet their needs and gain their support. To plan properly, the organization should include both general public and special interest groups to ensure complete and realistic views of community desires. There are different approaches or models (see Exhibit 11.6) for interaction with the community:

- model A: regular meetings open to the public with specific agenda items for discussion;
- model B: special public meetings, soliciting ideas and constructive criticism or comments;
- model C: workshops open or targeted to an identified segment of the population including conceptual plans and/or models. There also may be citizen surveys; but a survey alone does not suffice. There must be opportunity for face-to-face citizen input.

## Step 2. Identify and Confirm Goals and Objectives

There should be goals and objectives based on the organization's mission. Standards may be used to formulate goals and objectives for a physical resources plan.

**Exhibit 11.4**  
**Information to be Assembled (for the past five years)**

Document/Description	Completed
1. Agency annual reports	
2. All fees and charges information/policies of the agency	
3. Major improvements accomplished by the agency	
4. City/County comprehensive plans (if existing)	
5. Recent community surveys conducted by utility companies	
6. Chamber of Commerce information package, including community maps	
7. Census information	
8. City or county planning office visit (cross-planning documents)	
9. Economic development plan or economic base study for community	
10. School data (locations, names, inventory, service areas, use policy)	
11. School/park agreements (if applicable)	
12. Current city/county maps	
13. Area telephone directory	
14. Most recent physical resources plan (if applicable)	
15. Any special project or program reports of the agency	
16. Description of any significant grants received by agency	
17. List of all existing support groups and nature of support provided to agency	
18. List of special interest groups who cooperatively worked with agency	
19. Site maps of each park (inventoried and drawn to scale, if possible)	
20. Description of any current capital improvement projects or programs	
21. Organization charts of government and agency structures	
22. List of all agency sponsored/cosponsored programs	
23. Copy of the act or ordinance empowering board or commission	
24. Copy of county plat reference document	
25. Copy of county soils reference document	
26. Most recent area employment report from State Office of Employment	
27. Ordinances or policies concerning land dedication and or impact fees	
28. Building permits and addresses plotted	
29. Natural resources inventoried (e.g., agricultural, wetlands, woods, meadows, et al.)	
30. Vision and mission statements of agency	
31. Wetlands identification	

***Constructing Working Goals and Objectives***

Determining present deficiencies, reorienting budget and staff, and looking to the needs of the future serve as the primary basis for formulating an agency's unique set of goals and objectives. The manager and staff may be of significant assistance in solidifying the various

community and board observations and wishes for the future. The missions and goals are more global and provide direction for establishing the specific working objectives for the physical resources planning. The manager and staff should be prepared to formulate and articulate a vision for the department through clear and

**Exhibit 11.5**  
**Board/Commission Self-Study Criteria**

Self-Study Questions	Yes	No	Don't Know/ Can't Judge
1. Has the board approved a master plan for the acquisition of open space and facility development that includes present and anticipated needs?			
2. Does the board make decisions on details related to buildings and grounds that really should be delegated to the administrative staff?			
3. Within the last two years, has the board received and reviewed a report on physical plant utilization, open space utilization, and open space requirements?			
4. Before it approves proposals for enhanced or new construction, does the board assure itself that present space and recreation areas are effectively scheduled and used at maximum levels.			
5. Has the board adequately addressed deferred maintenance problems?			
6. Has the board recently reviewed energy conservation measures?			
7. Has the board reviewed plans for complying with federal requirements on accessibility for the handicapped?			

**Summary:** In relation to this criterion, I believe the board's performance has been:  
 Very good    Good    Adequate    Poor    Don't Know/Can't Judge

concise abbreviated statements that are easily understood, measurable, and achievable. The following brief suggestions may help the manager and staff prepare the actual text of the objectives.

*Undesirable:* The Department will seek to improve the quality of life for all residents through continuing park development.

*Acceptable:* The Department will plan for, and appropriately develop, a neighborhood park within a six-block service area for each residential area by the year 2005.

Why is the first statement undesirable? The term "seek" suggests an effort rather than a commitment. "Quality of life" is difficult to identify and measure. "Park development" is very general and undefined and "continuing" is not a definitive point in time.

Why is the second objective more acceptable? It is known from the statement that specific parks will be built where they do not exist, and that each park will be appropriately developed, which suggests a standard, predetermined set of site improvements. The comment concerning "every residential area" being served" defines equity and ease of geographic access. The objective is measurable. It also gives a specific date by which the goal will be met. (See Compendium 11-8 for Summary of Needs of Nappanee IN.)

***Determining Measurable Objectives Based on Standards***

One of the first questions arising in the physical resources planning process typically concerns the quantity of area and facility development. Another question is to what extent existing improvements are at acceptable levels, and, if not, what acquisition and development activities should be undertaken to meet the community's future needs.

Organizations should establish benchmarks that specifically define acceptable levels of parkland acquisition and recreation facility development. Standards are desirable professional practices and should be used as the base for benchmarking. Some managers prefer to refer to established standards as guidelines, denoting flexibility for communities to meet their specific situation. While standards are developed for the typical community, each community is unique. Communities are dynamic and benchmarks should be defined for several "what if?" scenarios. As an example, population has traditionally been used as the primary guiding factor in most all area and facility standards. If the community makes a long-term decision to provide a tennis court for every 2,000 residents based on a current population standard, future needs and improvement costs will then be highly sensitive to any major population shift.

**Exhibit 11.6**  
**Projecting Future Sport Facility Needs Based on Population\***

Improvement	Standard	Population* 40,000	Population* 60,000	Population 80,000
Tennis	1/2000	20 Courts	30 Courts	40 Courts
Volleyball	1/5000	8 Courts	12 Courts	16 Courts
Softball	1/5000	8 Fields	12 Fields	16 Fields
Football	1/20,000	2 Fields	3 Fields	4 Fields

\*Additional existing population/needs standards can be found in the NRPA standards and is carried by many state five-year recreation-planning documents.

Future needs may be addressed by projecting population growth (see Exhibit 11.6). This projection is for the residents of the local community. If the community is a tourist destination, then the potential increase in use by visitors must be taken into account. Other methods of determining facility needs exists. Mertes and Hill (1996) wrote *Park, Recreation, Open Space and Greenway Guidelines for NRPA* and published the formula-based approach (see below). Because of ease of use and the easier public understanding, population/needs based ratios (i.e., 1 facility/1000 population) are more commonly used.

Precautions must be taken when adopting and formulating a community’s benchmarks or standards. There may be several associations dedicated to the same activity, that provide various recommendations that may be slightly inconsistent. As an example, there are numerous franchises available for youth baseball, such as Boys Baseball and Little League. Franchise associations determine not only the character of facilities required, but differing dimensions, facility standards, and rules.

There are many standards and guidelines for open space, greenways and parks; for sports courts indoors and outdoors and outdoor fields; for fitness centers and theaters. Some standards address population, while others are based on use (the amount of use a resource or facility can accommodate under certain conditions), or site (estimating acreage needs for local park and recreation areas). The manager is not expected to be a specialist on everything, but does need to oversee all planning. The manager should rely on program specialists in the agency and within the community and employ consultants with expertise in the particular area being planned. There are many resources to assist. (For a few selected resources chosen to show the variety, see Compendium 11-12.)

Quantitative-driven benchmarks are easy to establish and use, but today need-based formulas better serve the community. In an effort to project into plan-

ning need-based formula, the Level of Service (LOS) planning concept was developed by a joint task force of the American Academy for Park and Recreation Administration and the National Recreation and Park Association. Their work is set forth in the publication *Park, Recreation, Open Space and Greenway Guidelines*, authored by the task force co-chairs, James D. Mertes and James R. Hall (1996). This approach uses basic formulas. One formula is for the recreation open space standards as seen in Statewide Comprehensive Outdoor Recreation Plans (SCORP).

The other is level of service standard. (LOS). While LOS focuses on community needs, it also uses the traditional standards related to types of spaces and quantitative guidelines of population and location. It endeavors to relate recreational needs to spatial analysis within a community-wide system of parks, recreation areas, and open space. LOS is said to be needs-based, facilities-driven, and land-measured, and sets forth a recreation facility supply formula, a recreation facility demand formula, and a formula for minimum population service requirement derived from the supply and demand formula numbers. (Mertes & Hall, 1996) There are eight steps to calculating the LOS as provided in Mertes & Hall:

1. Determine the *park classifications* to which the LOS will apply. Parks and open space classifications include:
  - Class I: mini-park;
  - Class II: neighborhood park;
  - Class III: school-park;
  - Class IV: community park;
  - Class V: large urban park; and
  - Class VI: sports complex.

LOS does not apply to natural resource areas or greenways.

2. Determine the *recreation activity menu* for each park classification. The Recreation

Activity Menu (RAM) is the list of all recreation facilities, i.e., tennis courts, tot lots, picnic units, etc., that go into each park classification and for which a specific amount of space will be needed. The RAM determines the facilities space requirements of the LOS formula.

3. Use the *open space size standards* for each park classification for which LOS standards will apply.
4. Determine the *present recreation facility supply* (RFS) of these recreation activity choices.
  - Formula:  $RFS = EU \times A$ 
    - RFS = recreation facility supply (# visits available/year/unit)
    - EU = expected use (# visits/day/unit)
    - A = availability (# days/year/unit)
5. Determine the *recreation facility demand* (RFD) for these recreation activity choices given in number of facilities needed per population unit. This is usually obtained from a needs assessment.
  - Formula:  $RFD = RP \times PF/SS$ 
    - RP = recreation participation (# participants/year/unit)
    - PF = participation frequency (# visits/year/unit)
    - SS = sample size (# of occupants living in sample household  $\times$  # of households responding to needs assessment)
6. Determine the *Minimum population service requirements* (MPSR) for these recreation activity choices.
  - formula:  $MPSR = RFS/RFD$ 
    - RFS = recreation facility supply (see above)
    - RFD = recreation facility demand (see above)
7. The individual LOS for each park class. (LOS C)
  - formula:  $LOS\ C = PAC/TPS$  or  $TSA$ 
    - PAC = park acres by classification
    - TPS/1000 = total population served divided by 1,000 people or
    - TSA = total service area. Agencies can determine that certain size or type of parks serve certain service radii. For example a high school serves a mile radius; middle school, a half mile radius; and a neighborhood park is walking distance.
8. The collective LOS for the entire park and recreation system. (TLOS)

- formula:  $TLOS = LOS\ Class\ 1 + Class\ 2 + Class\ 3 + Class\ 4 + Class\ 5 + Class\ 6$   
 – LOS Class 1–6 = Level of Service in each recreation facility classification.

For further discussion of needs-based planning, see Chapters 8 and 23.

### Step 3. Design of Planning Study

This step relates to the process of developing the physical resources plan. It includes designating the park planner and the bidding process, which requires a Request for Proposal (RFP).

#### *Designating the Park Planner*

Some of the larger organizations choose to totally complete their own physical resources plans, as they have a competent park planner on staff, or even a planning department or unit. (See Chapter 7, Planning for Strategic Management.) However, most organizations should use a planning consultant. Consultants (park planners, landscape architects, or other planning professionals) bring informed judgment. They should be viewed as enablers who assist agencies with the process of planning. The quality of the physical resources plan is directly related to the selection of the right consultant (park planner). There are criteria to help the manager select the best park planner.

The park and recreation manager must *recommend* how the consultant will be selected and who will make that eventual decision. The community, however, expect the manager and staff to select the best possible consultant for the task at hand. And the manager may be well advised politically to broaden the decision base by including community members, board members, and staff in this review process. The actual review process for each consultant should be consistent and must follow a predetermined set of criteria. The manager should construct a rating sheet which identifies the various qualities and characteristics desired of the consultant. (See Compendium 11-9 for Oak Ridge TN RFP for a Master Plan and Exhibit 11.7 for criteria for selecting a planning consultant.)

The use of an evaluative exercise is for objectivity. A sliding scale may be constructed to guide and maintain such objectivity. References, as an example, might require each consultant to furnish five names or agencies. If each of the five provides an “excellent” rating, the consultant would receive 10 points. If the consultant’s references provided five consistent “poor” recommendations, zero points would be recorded for that specific evaluation. The criteria for “presentation” are perhaps the only ones that permit a subjective evaluation. Overall, this process is quick and protects both

**Exhibit 11.7**  
**Criteria for Selecting a Planning Consultant**

Criteria	Scale	Points
1. Number of years in the consulting business	1-10 points	
2. Number of master/comprehensive plans completed	1-10 points	
3. Number of staff to be allocated to the project	1-10 points	
4. Number of "outside" consultants participating	1-10 points	
5. On-site supervision and visits	1-10 points	
6. Example of similar type projects	1-10 points	
7. References	1-10 points	
8. Consultant presentation	1-10 points	
9. Fees to be charged	1-10 points	
10. Other (specify)	1-5 points	

the agency and the manager from future criticism and claims of bias or wrongdoing.

***The Request for Proposal (RFP) and the Legal Bidding Process***

Physical resources plans typically require a significant allocation of funds. The public agency's comptroller or purchasing agent is required by state statute and local ordinance to follow approved policies and procedures for allocation of those funds. Like any other large expenditure within government, competitive bidding will most likely be required before formal selection and approval of the consultant's contract.

The manager and staff are responsible for preparation of the park and recreation related content of the bid package or RFP. This content includes a very specific list of requirements specifying duties and functions to be performed. The following information should be included:

- the selection review process to be followed and closing bid date desired;
- specific services required by the park and recreation organization;
- specific support services furnished by the park and recreation organization; and
- budget and source of project funding.

Note that Exhibit 11.3 indicates the steps in which a consultant might be involved.

Some components of the bid package typically are prepared by the senior purchasing agent, comptroller, and/or finance director's department, including:

- copy of the specific performance contract (functions, dates, penalties, draws);

- notice of a pre-bid meeting and a point contract is named who will answer questions and disseminate information;
- financial documentation;
- publications (content and dates);
- checklist of submission items; and
- specific notifications of federal or state requirements.

A specific closing date is set after which no further proposals will be accepted by the organization. A date for the public bid opening is set and the applicable consultants are notified should they desire to attend.

***RFPs for Designer and Construction***

If the park planning consultant does not do the drawings, another RFP should be issued for this work. The work requested should include preparation of construction documents, written specifications, bid assistance, and construction observation.

**Step 4. Agency Approval for Funding**

There are two aspects of funding: funding the preparation of a plan (implementing these 12 steps), and then funding the capital improvements.

Funding is a critical element in capital improvements and requires approval by the governing authority. For public entities (schools and municipalities), the principal funding sources are government grants and taxing. An electorate referendum for bond issues or special tax levies is usually required. Nonprofit associations usually have a capital fundraising campaign and seek large donations from individuals and foundations. They usually are not eligible for federal or state grants.

The private for-profit sector must use its own financial resources (see Chapters 19 and Chapter 20).

### **Government Grants**

Most of the grants for acquisition and development of open space and parks (outdoor recreation) are provided by the various state governments. Many states have approved large bond issues or other financial sources for state and local land acquisition and development. Most of these state funds require a local physical resources plan that is in concert with the community comprehensive plan and the state comprehensive outdoor recreation plan (SCORP). Funds are usually on a matching basis—state and local.

Funds may be available for specific types of outdoor recreation areas. For example, Indiana lists on the Internet the funds for heritage corridors, streams, and trails; public shooting ranges and shooting-related facilities; training; and technical assistance. Some of these grants are available to nonprofit associations.

The manager should understand that government agencies take every precaution to avoid approving grants for projects that appear to have potential for failure and embarrassment. Physical resources plans tend to provide a comfort zone for funding agencies because they illustrate that the entire community governmental infrastructure has agreed to the capital expansion programs. The public resource code of California, as an example, requires directors to furnish as part of their applications for local assistance “certification from the planning agency of the applicant that the project is consistent with the park and recreation plan for the applicant’s jurisdiction and would satisfy a demonstrated need.”

SCORP is a term that came from the Land and Water Conservation Fund (LWCF) Act, passed in 1964. Initially the fund was derived from proceeds of sales of surplus federal real property, motorboat fuel taxes, and fees for recreation use of federal lands. However, this amount was far short of what Congress had expected, so additional dollars were added to the Fund from Outer Continental Shelf (OCS) mineral leasing receipts. These funds were provided for federal outdoor recreation projects and to the states that could reallocate to local governments. As a requirement for receiving funds, the states had to prepare a comprehensive outdoor recreation plan, approved by the appropriate field office of the National Park Service and be updated every five years, hence the term SCORP. In turn, for local governments to receive funds, they also had to develop a local comprehensive outdoor recreation (physical resources) plan compatible with the community comprehensive outdoor recreation (physical resources) plan, the community comprehensive plan, and the state plan. Seventy-five percent of the total LCWF funds have gone

to locally sponsored projects. According to the LWCF Web site:

Since the inception of the program in 1965, annual appropriations to the Fund have ranged from a high of \$369 million in 1979 to four years of zero funding between 1996 and 1999. The LWCF experienced significant increases in Congressional appropriations for State and local grants during the 2000–2002 fiscal years: \$40 million in FY 2000, almost \$89 million in FY 2001, and \$140 million in FY 2002. In FY 2003 and FY 2004, funding was reduced to \$94,383,000 and \$91,360,000 respectively.

Funding fell to about \$30 million in 2006 and 2007. A sample of the types of projects that are funded can be found at [www.nps.gov/ncrc/programs/lwcf/exemp\\_prjts.html](http://www.nps.gov/ncrc/programs/lwcf/exemp_prjts.html).

## **Collection of Information**

Step 5 assembles information that affects the planning of physical resources, such as statutory and regulatory requirements. An inventory of the areas and facilities is taken in Step 6, below.

### **Step 5. Data Collection**

Any physical resources plan must be based on extensive data. Usually much of these data will have been accumulated and analyzed as part of comprehensive system planning (see Chapter 7, Planning for Strategic Management) and the recreation program plan (see Chapter 8, Recreation Program Planning) and a feasibility study. There are several types of information that are especially pertinent: legal requirements, demographics, participation patterns, transportation availability, and various plans (e.g., school, regional/state/county business and industry).

#### **Legal Requirements**

The various statutory (ordinances) and regulatory requirements must be studied for compliance in developing the physical resources plan. These include the Environmental Protection Agency (EPA) regulations and the Americans with Disabilities Act (ADA) specifications for accessibility (see the Legal Environment subsection in the Feasibility Studies section above); and land use patterns as set forth in zoning laws regarding adjacent land uses to any proposed development. The impact of legislation can be both positive and negative.

#### **Demographics**

When planning for the future, there must be comprehension of present population characteristics and pro-

jections for the future, including age, gender, location, housing, income, and education. Census tract data and local and state planning reports constitute the primary sources of community population demographics ([www.census.gov](http://www.census.gov)). Minority participation is mandatory for current plans.

### ***Participation Patterns***

Community park and recreation participation patterns may be unique. Variables such as climate, geography, education, religion, culture, and economic base influence interests, opportunity, and frequency of participation. Standards for area and facility development are population driven and may require revision and modification to meet local conditions. (See Step 2, above.)

Most communities also have several organizations that sponsor and deliver leisure services. These may be public, nonprofit, or private for-profit. An inventory of community programs and facilities, as well as participation figures should be obtained. These data are particularly useful in the needs assessment (Step 9, below).

### ***Transportation Accessibility***

If people cannot get to a park and recreation area or facility, then they cannot participate. The transportation pattern, existing and proposed, can give specific information on how the constituency may physically visit the area or facility via these vehicle paths. The study should include both mass transit or other public transportation systems and pedestrian ways, including non-motorized transportation plans, shared use paths, and walking routes. Traffic counts are useful, particularly when a proposed development is in proximity to a shopping mall.

### ***Community Plans***

Local school districts typically have formally adopted plans that specify site size and components for elementary and secondary level schools. Most school sites contain park and recreation elements that inevitably affect the rationale for size and location of future public park and recreation developments. An inventory of each school site should be prepared, along with the geographic service area being defined with a profile of existing student population statistics. The current bus route system should be reviewed. The potential duplication of areas and facilities, as well as scrutinizing the feasibility of cooperative capital development between the schools and the public agency, should be studied.

Where a public entity, such as a township, county, regional government, state, or adjacent municipality has a physical resources plan, whether as part of its comprehensive plan or not, it should be reviewed for possible coordination and collaboration. Local reports for prospective business and industry may have been prepared. These

typically contain labor statistics, economic performances by industry type and code, values of public, private, and commercial resources, community and economic forecasts, and other spending and earning patterns.

## **Step 6. Area and Facility Inventory**

Recreation development and functional open spaces within a community typically extend beyond the jurisdiction of the local park and recreation agency. Whether public or private, all community facilities affect the needs assessment, and as such should be statistically included in the inventory. The inventory must be accurate and should reflect quantity factors, location, and condition. Overlays (Step 8, below) require physically locating all parks and facilities in the community. The staff or a consultant should prepare an inventory form categorizing the areas and facilities in the communities, with space for quantity and condition. Categories as appropriate to the community should be added or deleted. (See Compendium 11-10 for Newton Parks inventory worksheet.)

### ***Mapping and Overlays***

Maps are an essential part of physical resources planning, as they not only locate the areas and facilities but also provide basic information about the physical resources critical to planning. The base maps and overlays are not only useful in the decision-making process but highly effective for presentations to the various decision and policy making boards.

## **Step 7. Preparation of Base Maps**

Six types of base maps are desirable:

- zoning;
- land use;
- infrastructure (roads and streets, utilities);
- contour (satellite or aerial);
- air photo; and
- wetlands maps.

The staff or a consultant should prepare a primary base map. It is helpful for continuity to have the same person do all the base maps. The primary base map should permit easy location of community features that may influence or deter use of park and recreation resources. The map should be accurate, to scale, and large enough to permit viewing by large groups. There should be a boundary survey. Overall, the intent is to illustrate existing and proposed service areas.

Typically the road and street systems, railroads, state and national highways, significant natural features such as rivers, lakes, or mountains, and residential,

commercial, industrial, and business structures should be placed on the base map. The coloring of each of these unique community attributes on the base map is encouraged as it enhances interpretation of concepts.

## Step 8. Map (Area and Facility) Overlays

A number of base map overlays should be prepared to define service areas:

- overlay 1: neighborhood parks (existing and proposed);
- overlay 2: community parks (existing and proposed);
- overlay 3: regional parks (existing and proposed);
- overlay 4: aquatic resources (existing and proposed);
- overlay 5: golf facilities (existing and proposed);
- overlay 6: recreation centers (existing and proposed); and
- overlay 7: other public lands (existing and proposed) e.g., gardens, schools, greenways, easements, cemeteries.

The service areas for each of the existing or future areas and or facilities should be defined. Typically, a circle or block is drawn to scale on each overlay to identify the adopted or proposed service area standard for each type of park and recreation area or facility (see Step 2 regarding standards). The use of colors to distinguish existing from proposed may assist the decision making process and enhance the clarity for presentation.

Ideally the entire physical park and recreation system, existing and proposed, should be represented somewhere on the overlays. Theoretically the entire system and its overlay components could be viewed simultaneously as one total system, or each component viewed and discussed independently. Computer-aided design (CAD) systems allow base material, such as contours, vegetation, soils, etc., to be saved in digital format retrieved and overlaid with other stored data. (See Chapter 14, Information Technology Management.) This is faster and less expensive than traditional systems.

Organizations may also find computer-generated slide presentations useful as an alternative. Each transparent overlay or PowerPoint identifies the geographical location of any number of existing or proposed park and recreation open spaces and improvements.

### Assessment

Needs assessment, as related to a recreation program plan, deals with the recreation needs and wants of

the local population. A needs assessment as related to a physical resources plan considers the physical or natural resources and the balance in supporting the criteria or passive and active recreation types. An example of the recreation standard is one golf course per 50,000 people or the resource standard may be a one-mile service radius for the local high school sites.

## Step 9. Preparation of a Needs Assessment

Needs assessment is a process of adopting a standard (see Step 2), taking inventory of areas and facilities (Step 6), determining population (Step 5) and then looking at existing and future needs for areas and facilities. The needs assessment may be facilitated by a spreadsheet that depicts a quantitative analysis of all existing areas and facilities and the relationship of that data to present and future needs as defined through standards and demographics. A spreadsheet program permits rapid “what if?” scenarios.

The areas and facilities proposed in the needs assessment must relate to “human development” in the community. The manager and staff should formulate a formal program service analysis for each capital improvement identified in the needs assessment and proposed as a legitimate need for the future. This document links previously identified program needs with the actual benefits each and every facility provides. The *benefits* should be both quantitative and qualitative and should define specific activities, populations to be served, and the human development growth and experiences to be derived by participants.

## Completing the Process

There are three steps to completing the physical resources planning process—prioritizing the proposed developments, formal adoption, and implementation and evaluation.

## Step 10. Prioritization of Projected Improvements

The overall physical resources plan should have a phased development (prioritization), with a capital improvement budget for each phase. The plan should be flexible enough to accommodate changing conditions. Changing conditions may be the annexation or elimination of recreation lands. It could also refer to the changing financial structure for the development and/or maintenance of existing recreational holdings. In a positive sense, a bond issue may be approved by

vote of the resident population. In a negative sense the bond issue may be defeated.

An organization can expect most individual neighborhoods to visualize their own area and facilities needs as the highest priority and one that should be completed first, which is not typically feasible. Community demand for improvements will most likely exceed the financial and management capacities of the organization in any given year. A chronological phasing plan, based on realistic organization capacities, should set forth the estimated time table for meeting the entire set of previously identified area and facility priorities from the needs assessment.

Organizations should eliminate politics and constituent emotion from the decision-making process wherever possible. User needs and statistics are the tools of choice to provide some rationale for phasing. The needs assessment provides a statistical demand factor. The spreadsheet shows a “plus” or “minus” in terms of need for any given set of improvements. It is fairly easy to restructure the information in the database, which then displays needs of a community as population and standard variables are modified.

Communities and neighborhoods with the greatest statistical need should be the areas served first. Logically, the longer an organization waits to provide improvements to selected areas of its jurisdiction, the more expensive it becomes. In some cases, it is almost impossible to recover from difficulties associated with lost opportunities for land acquisition.

Financial capacity of an organization is a realistic constraint. Sometimes managers must make professional judgments to reorder priorities. The sequencing of improvements is important; however, the eventual completion of all projects is the ultimate goal. The manager should consider placing accumulated tax dollars in special funds until adequate budgets for more costly high priority improvements have been accumulated.

Priorities must be set for not just new areas and facilities, but also the upgrading of areas and facilities and regular maintenance, so that an area or facility does not deteriorate to the extent that it cannot provide the desired quality recreation experience. Particularly, where an area or facility represents liability problems, such areas and facilities must be given prompt attention, even though the cost may be relatively high. For example, surfacing under playground equipment is one of those mandatory considerations. Removal of toxic hazards is another. Safety of participants should be given the highest consideration when determining priorities in area and facility improvements.

Chapters 19 and 20 discuss financial management and budgeting strategies. These concepts should be kept in mind during any and all feasibility discussions concerning modification of previously determined area

and facility development projects and priorities. There must be a logical and strategic process linking realistic yearly budget projections to all future phases of the organization’s capital improvement program.

## Step 11. The Approval Process

Managers and consultants are directly involved in the formal approval process of a system-wide physical resources plan. Typically, communities will “adopt” the plans through a series of formal hearings or readings, after which the policy-making board approves a resolution of adoption. The policy making board (city council, town council, aldermen, or county commissioners) may request recommendations from the respective advisory boards before passing a formal resolution of adoption.

The manager should have involved park and recreation related advisory boards in the formulation of the plan and should provide positive formal written recommendations. The advisory infrastructure may include the park and recreation board, golf greens committee, forestry and cemetery boards if applicable, and any other allied program associations in the community.

The manager is not only responsible for assembling the comprehensive display of community support for the community-wide plan, but must be well prepared to defend the feasibility, accuracy, and details of initial and ongoing costs of the proposal. These discussions further complement the staff’s preparation of both feasibility presentations and readiness concerning ongoing management and operation issues and costs.

Experienced community decision makers on boards and councils understand that it is highly unlikely that everyone will be satisfied with all policies and procedures they approve. However, the formal approval process is not the proper time or place to argue the merits of the plan. If the citizen participation processes provided everyone in the community with an opportunity to participate, there is less worry for the manager, and the road to approval should be smooth.

Typical adoption resolutions include recognition of the physical resources planning document, the effective date of the resolution, the limits of responsibilities of the agency, and the strategy for implementation in terms of community boards and staff. It may require formal signatures affixed to the actual planning document for official archives. The Indiana State Division of Outdoor Recreation provides an example of a “resolution” which an agency might use to complete this portion of the process (Indiana Division of Outdoor Recreation, 1997). (See Exhibit 11.8.)

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**Exhibit 11.8**  
**Adoption Resolution**

WHEREAS, the \_\_\_\_\_ Park and Recreation Board is aware of the parks and recreation need of the residents of \_\_\_\_\_ Indiana, and

WHEREAS, the Board realizes the importance of sound planning in order to meet the needs of its citizens,

NOW THEREFORE, BE IT RESOLVED THAT THE \_\_\_\_\_ PARK AND

RECREATION BOARD, by unanimous declaration, does adopt the \_\_\_\_\_ Park and Recreation Master Plan as its official plan for the next five years, for the growth and development of parks and recreational opportunities in \_\_\_\_\_.

Passed and signed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

ATTEST

President \_\_\_\_\_

Town Attorney \_\_\_\_\_

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## Step. 12. Implementation and Evaluation

After formal approval of the plan, the manager must define a working set of operational objectives. Parks staff and recreation staff should both be involved in implementing the provisions of the plan for the community. There should be no confusion as to who is responsible for what function. The manager should prepare a time-driven chart setting forth specific work to be done and the specific assignments of each participating staff member.

The manager should understand the interests and abilities of the staff and assign tasks accordingly. The manager should encourage staff members to express any special interest in performing certain functions and consider that input for assignment of work. Collaborative management provides a mechanism for sharing ideas and concepts, and the manager may find routine meetings for such exchange quite useful.

There are two additional planning actions that must take place for quality implementation—individual site master plans and natural resources management plans. (See Area and Site Planning section, below.)

### *Evaluation*

Organizations may also want to consider implementing an ongoing strategy or process to allow the citizenry to communicate ideas and concepts. Boulder,

Colorado serves as an example of such a process. The Boulder Park and Recreation Department has a dedicated set of Web pages for its Master Plan at ([http://www.bouldercolorado.gov/index.php?option=com\\_content&task=view&id=2504&Itemid=2019](http://www.bouldercolorado.gov/index.php?option=com_content&task=view&id=2504&Itemid=2019)). The pages provide an explanation and description of the process and implementation and invite the constituency to contribute suggestions. This also provides some continuous evaluation for appropriate modification of the plan.

## Area and Site Planning

After the physical resources plan has been completed for each site, managers need to develop a site design and a natural resource management plan. There should be an area and site master plan. The area master plan is a projected plan for the entire property. This is usually at a scale of 1 inch = 100, or 200 feet. The site plan will be at a scale of 1" = 30 or 40 feet. This plan details the facility development. It is important that the site development meet the criteria or theme of the area master plan.

### Site Master Plan

There should be a site master plan for each area and facility. As with the physical resources plan, each should be adopted by the appropriate governing (policy) body.

The term master plan refers to the drawing that is completed or contemplated, with all of the physical modifications shown or proposed at an appropriate scale. A master plan shows all of the facilities, the vegetation (existing and proposed), circulation routes (roads, paths, trails), service and maintenance areas, parking, playgrounds, and all accommodations appropriate at the scale used. A preliminary cost estimate should be prepared to see how the planned park documents work within the budgeted project.

The larger scale (1" = 100+')

would cover the entire development as a master plan. The scale 1" = 40' would cover the site development master plan. The scale, 1" = 10' would detail development in the site plan. Scale can be expressed in two ways, by an inch-to-foot comparison or a foot-to-foot ratio. An example would be 1" = 20' or 1:2400. On drawings, it is recommended that a bar scale be used along with the designated scale. The designated scale would then be accurate, once the plan has been enlarged or reduced.

In an area recreation plan, there are several parts required to understand the needs and wants of the community. A preliminary cost estimate should be prepared to help prioritize the needs and wants. An additional approach would be to use the requirements mandated by the state administered land and water conservation funds (LWCF). Since the required data are not only complete but will also be inclusive, it is necessary to show an outline of the requirements.

- *Section 1* is the approval. It is necessary to show the local adoption and certification as well as state approval. This section can include any prior plan amendments.
- *Section 2* is the plan development. This section includes the participants of the plan development, citizen opinion, recreation goals, current use, standards comparison, benchmarks of other communities, projections, and regional priorities.
- *Section 3* deals with barrier-free compliance.
- *Section 4* defines the plan content. This includes a community description with social and physical characteristics of the submitting organization.
- *Section 5* is the action plan. This shows the site design specifics, the capital improvement schedule, and all rationale used in the development of the plan. It also includes site development plans drawn to scale. Funding sources will also be stated identifying any outside funds from grant applications as well as appropriated funds from within the organization or office submitting the plan.

The area and site plans can be completed with the use of "in house" designers or by hiring a consultant. One method to obtain the proper selection of a consultant is to complete a "Request For Proposal" (RFP). With this approach, several design consultants can be asked to bid on the development of the recreation area or site. A presentation of the approach to the solution of the project will be brought to the appointed board. The appropriate board will recommend the ranking of the presentations to the governing board. Each consultant or in-house designer will conform to the following procedure in preparing a master plan. The steps in a design process may vary by designer but basically will include the following steps: research, inventory, synthesis, preliminary design, final design, implementation, and evaluation.

Research includes identifying and organizing background material including:

- legal descriptions;
- utility drawings;
- control drawings;
- past studies;
- surveys; and
- program data.

Inventory includes:

- program analysis (includes types of public input);
- area analysis;
- site analysis; and
- financial analysis.

Synthesis includes:

- site plan schematic drawings identifying alternatives (site structure diagrams);
- a concept for design;
- evaluation of present and future needs;
- projection of future impacts and approval of final report and time lines.

Design includes:

- topographic and boundary surveys;
- preliminary design concepts;
- final design and contract documents; and
- preliminary cost estimate.

Implementation includes:

- bid documents and final cost estimate;
- award of the bid and contract;
- construction oversight of bonds objectives;
- site observation;
- maintenance;
- evaluation;

**Exhibit 11.9**  
**Checklist of Information for Resource Site Planning**

Document/Description	Completed
1. Map of the Region/County/ Community locating the proposed site	
2. Description of the setting: residential or rural	
3. USGS or topographic map of site	
4. Site survey: Easements and existing improvements or features	
5. Deed or zoning restrictions	
6. Existing encumbrances or assessments	
7. Soils information and analysis	
8. Archeological survey	
9. Location of access to all utilities and various utility capacities	
10. Road and street access (ingress and egress)	
11. Inventory of usable landscaping materials	
12. Significant natural features	
13. Environmental assessment of sight, sound, and smell	
14. History of use (agriculture, landfill, redevelopment)	
15. Environmental assessment	
16. List of proposed and potential uses and development	

- the “as built” drawings;
- comparison of objectives and results;
- review of mission and vision statements with the final project; and
- review of use patterns on an annual basis.

Managers obtain appropriate documents to provide background information for that particular site (see Exhibit 11.9). Many of these documents are the same as used for the physical resources plan. In addition, there should be an evaluation of the resource characteristics of each site (see Exhibit 11.10).

Exhibit 11.11 shows the design process in its entirety. This process shows the development of a project from researching the background information, through inventory, synthesis, design, development, and summary.

**Natural Resource Management Plan**

A natural resource management plan should accompany the site master plan of a resource-based area. The plan should be an integral part of developing the site use, having impact on activity areas. It should include both natural and cultural resources. The plan should reflect the professional interests of those who will program, operate, and maintain the area or facility. It also must provide for sound environmental practices.

Passive and natural areas require a uniquely different set of financial and ethical objectives. Natural area management requires an understanding of the interactions between ecological forces accompanied by a special stewardship strategy. Urban natural resource management requires a distinct understanding of user impact on wide varieties of natural resources.

Natural resource management requires the continued provision of quality experiences with minimal impact on natural and artificially created environments. Efficient maintenance coupled with appropriate operational policies and procedures reduces resource abuse and unnecessary waste of tax dollars (see Chapter 13, Management of Operations).

What should be included in a natural resource management plan? The following must be addressed in the plan:

1. provision of passive recreational experiences to further develop appreciation of natural resources;
2. geographic information;
3. site description and inventory;
4. pre-settlement conditions;
5. land use history;
6. current land use;

**Exhibit 11.10**  
**Resource Site Analysis**

**CITY ANYWHERE DEPARTMENT PARK AND RECREATION RESOURCE SITE ANALYSIS**

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_ Site Name: \_\_\_\_\_

Site Description: \_\_\_\_\_ Total acres: \_\_\_\_\_ Total cost: \_\_\_\_\_ Cost/acre: \_\_\_\_\_

Ability to expand: Yes No

Resource Characteristic	Comments									
	1	2	3	4	5	6	7	8	9	10
<b>LOCATION</b> Convenient to target constituents										
<b>ACCESSIBILITY</b> Auto-primary Auto-secondary Public transportation Walking/biking access										
<b>UTILITIES</b> Potable water Sewer Natural Electricity Gas Irrigation Water										
<b>ENVIRONMENTAL</b> Soils suitable for recreation use Soils suitable for construction Suitable topography for site improvements Drainage, water table, floodway, flood plain Grasses/trees/shrubs Contaminants/history/previous usage Versatility of the site										
<b>IMPACTS</b> Probable impact on surrounding land Surrounding land impact on park Other/Specify Other/Specify										

7. ecological processes and models;
8. stewardship objectives and justification;
9. stewardship constraints and opportunities;
10. stewardship polices; and
11. an action plan.

What should be included in an *urban* natural resource plan? In addition to the foregoing, special consideration should be given to a routine monitoring program of inspection for the special impacts on the systems from recreation use. Effective maintenance management programs require close cooperation

between recreation service providers and park management personnel. A formalized plan for the operation and maintenance of all park and recreation resources should be designed and approved. (See Chapter 13, Management of Operations.)

Planning concepts to be discussed:

- an initial inventory, assessment and classification process;
- floral and fauna monitoring program assessing impact on the resources;

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**Exhibit 11.11****Park and Recreation Master Plan Executive Summary**

INDEX:

WHY DO YOU HAVE THIS DOCUMENT?

WHAT IS A MASTER PLAN?

HOW DID WE GET TO THIS POINT?

WHAT IS THE MISSION OF PARKS AND RECREATION?

WHERE DOES CURRENT FUNDING GO?

WHAT SPECIAL NEEDS SHOULD WE CONSIDER?

WHAT IMPORTANT QUESTIONS HAVE BEEN RAISED?

WHAT HAPPENS NOW?

HOW CAN WE ASSESS THE ADEQUACY OF PARKS IN BOULDER?

WHAT HAPPENS NOW?

**WHY DO YOU HAVE THIS DOCUMENT?**

The City of Boulder's Park and recreation Department is planning for park and recreation services which will be needed over the next 20 years in Boulder. This summary of the draft Master Plan explains how the plan has occurred, and lists many of the park areas and recreational opportunities that Boulder will probably need in these 20 years.

As citizens of Boulder, we should all have a voice in the process of deciding which needs are most critical and which should have a priority for action. Here's how you can participate:

Read this document;

Think about the proposals it contains. Do you love them all? Are important items left out? Should priorities be revisited?

Speak out so your feelings are known. The last page of this summary lists ways you can be heard. This is our city, and our park and recreation system. The citizens of Boulder just approved a ballot issue to increase the sales tax to provide additional funds for park and recreation services. Now together we can help determine how Boulder's needs are met over the next two decades.

**WHAT IS A MASTER PLAN?**

A Master Plan is a city department's long-term action plan. It can be changed over time; in fact, regular annual reviews and bigger 5-year reviews are built into the plan. Still, once written, the plan provides strong guidance to the department as it makes decisions and sets priorities. With so many competing needs and interests in Boulder, it's critical that a structured evaluation process yield a blueprint for future action—and one that won't be changed willy-nilly according to this week's whim. Broad community input will help ensure that this plan is as comprehensive and fair as Boulder deserves.

**HOW DID WE GET TO THIS POINT?**

Other funding must be identified for the other initiatives.

Ballot Issue Funding: The ballot issue provides for \$50,000 per year to leverage additional grant funding, when available, for maintenance, renovation and refurbishment of some historic and cultural facilities including the Columbia Cemetery, Harbeck House, Chautauqua Auditorium, Dining Hall, Administration Building and Caretaker's Cottage, the Boulder Museum of Contemporary Art, and the Bandshell.

*continued*

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## Exhibit 11.11

### Park and Recreation Master Plan Executive Summary (*continued*)

#### WHAT HAPPENS NOW?

Do you love what you see in this document? Hate it? Like the bulk of the plan, but have a few suggestions to make it even better?

The park and recreation staff and Advisory Board members want to hear all about it. (In particular, groups need to provide data about their participants and programs so their needs can be taken into account.) Your voice can be heard in a number of ways:

- **In person.** Attend a public meeting (a schedule is included with this summary). Choose between a low-key, drop-in, open house and a more involved, hands-on workshop. (Be sure to confirm the dates, times, and locations in the Sunday Daily Camera's "News from City Hall.")
- **In writing.** Mail your thoughts to Cate Bradley, Planner, at the Iris Center, 3198 N. Broadway, Boulder, CO 80304. Or e-mail them to Cate at BradleyC@Ci.Boulder.co.us.
- **On the phone.** Call 412-7226 and leave your comments about the plan. In public. Come speak at the Park and recreation Advisory Board meeting on February 26. The meetings start at 6:00 P.M. in City Council Chambers, on the second floor of the Municipal Building at Canyon and Broadway. Public participation is usually scheduled for 7:00 P.M., but check the Daily Camera on the previous Sunday to confirm agenda details.
- **Want to see more?** The full-length draft of the Park and Recreation Master Plan is available for on-site reading at the Main Library; at the Citizens' Assistance Office at the Municipal Building; and at the North, South and East Recreation Centers. For your own copy, stop by the Department headquarters at the Iris Center, 3198 N. Broadway.

After all the input is collected, the Advisory Board will review citizen comment, and will work with the Department to incorporate the new ideas and suggestions. The revised plan will then be taken to the Park and recreation Advisory Board, the Planning Board, and the City Council for formal review and adoption.

The Department and the Board are very excited about this plan. With everyone's help, we can be sure that the next twenty years see exceptional progress in Boulder Parks and Recreation. Please join us in this process; together, we can make sure Boulder remains a city of which we can be proud.

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- endangered, threatened species of special concern and need for protection;
  - coordination of master planning and preserve analysis;
  - development of site management objectives;
  - delineation of natural resource management units;
  - development of detailed management prescriptions; and
  - management prescriptions evaluation and monitoring cycle.
- provide educational and social opportunities to build an awareness of the importance of natural resources; and
  - development of advocacy of individuals, families, businesses, corporations, and organizations to participate in the restoration process.

Goals for natural resource management plan might include:

- restore and preserve the bio-diversity of ecosystems;
- restore functions and processes of these ecosystems;
- maintain system dynamics and sustainable systems;
- restock/re-introduce floral and faunal species;

## Trends

There is a new push for park development in many communities to be based on sustainable planning principles. These "Green Planning Initiatives" may include such design elements as alternative storm drainage techniques, rain garden, bioswales designed to capture storm water and filter it through a natural plant system before the storm water enters local rivers and streams. Pavement may be installed that is porous and allows storm drainage to filter into the subsurface soil. Green roofs have been designed for buildings that are made of natural plant materials that reduce storm water runoff and provide relief of extreme heat caused by conven-

tional asphalt shingles. These are some examples of sustainable planning principles that make less impact on the environment.

Leadership in Energy and Environmental Design (LEED) is a national certification for new site and building development, a design process that assigns point values to "Green Planning Initiatives." The LEED certification adds up total points based on the design initiatives and a silver, gold, or platinum certificate is awarded to those projects that meet the criteria and points required.

A greater push to incorporate American with Disabilities Act (ADA) standards in design has been recently been incorporated in park design. Some state grant programs are now requiring the park design go beyond ADA standards. The new level of design is to make park sites "universally accessible." The universally accessible standard requires the applicants to describe how design elements such as bathrooms, picnic shelters, playgrounds, fishing piers, paths are designed so all abilities can participate together.

## Specialty Parks

Currently there are three specialty parks that are quickly entering the park and recreation scene. These three parks are skate parks, dog parks, and water parks or aquatic centers.

Skate parks carry high liability and are expensive but the demand for them is skyrocketing. Childs and

March (2002) note that the costs of a skate park in the year 2002 would be \$300,000 for a 12,000 square foot park. They would average \$25 a square foot. The liability problem is tied into the fact that the skate parks have a multiple-use dilemma caused by the age differences of various types of equipment that can be used in them. Enforcement is difficult in that the parks are not self-policing. It is difficult to define and enforce minimal standards for safety equipment and design standards for the parks.

Dog parks are gaining in popularity in urban areas. It is a place for dogs and owners to find flexibility with the leash law. Dog parks are smaller in size and not built to any specific service radius. In South Miami Beach, a half-acre site with trees, grass, water, and obstacles allows more interaction freedom between dog and owner. The parks are divided into two fenced-in areas with identical features. This allows one side to be closed for sanitation, treatment, repair, etc. while the other side of the park is open for use. Control of the dog is the responsibility of the individual owner. (See Compendium 11-11 for typical dog park rules.)

Water parks are being developed on many different scales. They range from water jets in a plaza setting to full stage aqua centers often attached to theme parks. Wave tech pools have given way to water slides, swimming beaches, water cannons, and mist sprayers. A good Internet reference is [waterparks.com](http://waterparks.com). It lists international locations, types of parks, and parks close to your location.

## Resources

- Childs, M. and March, J. (2002). Issues facing California's skate parks. *California Parks & Recreation*. 58(2), 32-33.
- Indiana Division of Outdoor Recreation, (1997). *Planning guidelines for parks and recreation*. Indianapolis, IN: Indiana Department of Natural Resources.
- Lancaster, Roger. A. (Ed.). (1983). *Recreation, park and open space standards and guidelines*. Arlington, VA: National Recreation and Park Association Printing Office.
- Mertes, J. & Hall, J. (1996). *Park, recreation, open space and greenway guidelines*. Ashburn, VA: National Recreation and Park Association Printing Office.
- Schwanke, D., et al. (1997). *Urban Land Institute Resort Development Handbook*. Washington, DC: Urban Land Institute.

## Internet Resources

- American with Disabilities Act (ADA) (2009). Accessibility guidelines—requirements for accessibility to buildings and park facilities. [www.access-board.gov/adaaf/html/adaag.htm](http://www.access-board.gov/adaaf/html/adaag.htm)
- National Park Service (2009). Land and Water Conservation Fund: recreation grants for state and local park stewardship. Available: <http://www.cr.nps.gov/lwcf/lwcf.htm> (4 Nov. 1997).
- U.S. Green Building Council (2008) LEED Certification. Available at [www.usgbc.org](http://www.usgbc.org)
- World Water Park Association Available at [www.waterparks.com](http://www.waterparks.com)

## **Authors, Consultants, and Contributors**

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