



## LAND USE AND MANAGEMENT PLAN

### Basic Plan Components

Most recipients of grants for acquisition projects will be asked to write a Land Use and Management Plan for their new conservation or recreation area. **Definition:** to formally institute a land use and management plan that clearly defines the intended uses of the property, active intervention necessary to perpetuate those uses, and the parties involved in managing the site. **Purpose:** this document will be kept by the town and DCS as a permanent record of the agreement on how to manage the property as well as the DCS grant program requirement that any site which receive grant assistance remain as permanently protected conservation and/or recreation land. Personnel changes, but this document should serve as a reminder to future site managers that the land is protected open space.

The following outline lists the basic elements of a site specific plan. It is followed by an authorized reprint from Peter Westover's Managing Conservation Land: The Stewardship of Conservation Areas, Wildlife Sanctuaries, and Open Space in Massachusetts. To obtain a copy, please contact the Massachusetts Association of Conservation Commissions at (617) 489-3930.

### Basic Plan Elements

1. **Grant Program Requirement** - describe the legal protection against conversion or disposal.
2. **Description of parties involved in the plan**
  - ◆ Conservation Commission
  - ◆ Recreation Department (if necessary)
  - ◆ Appropriate nonprofit such as abutting land trust or major nonprofit agency such as Massachusetts Audubon Society, The Nature Conservancy, or The Trustees of Reservations.
3. **Site Description** - inventory of the resources on the property
  - ◆ Natural Resources: include environmental significance i.e. rare species
  - ◆ Built Environment: i.e. existing building(s) and intended use(s).
4. **Land Use** - statement of the intended uses
  - ◆ Habitat Protection
  - ◆ Water Supply Protection
  - ◆ Passive Recreation – i.e. hiking, birding
  - ◆ Public Access – location of parking area(s)
5. **Management Plan** - description of the human intervention necessary to perpetuate intended uses. Examples are:
  - ◆ Mowing fields at appropriate times for bobolinks
  - ◆ Maintenance of built facilities such as trails, roads and parking lots
  - ◆ Educational and/or interpretive programs
  - ◆ Signs - purpose and placement (grant acknowledgment, parking, notice of habitat protection areas).
6. **Map of the Property** – show the following elements:
  - ◆ Significant Natural Resources
  - ◆ Specific Uses of various areas of the property (Land Use)
  - ◆ Management Areas - built facilities, managed forests and meadows.
7. **Signature Page**

- ◆ Be sure each party to the plan signs this document i.e. Conservation Commission, Recreation Department, any other supporting town agencies, and any non-profit organization that has been a partner on your project.

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## **The First Steps: Initial Approach to Land Management**

Conservation Commissions and other land management agencies may want to begin management of conservation lands under their control with some of the following steps. It may be necessary to involve volunteers or other designees of the Commission to carry out some of these steps, as Commission members themselves may not have the time or ability to proceed.

1. **Find the deed.** A permanent deed file for conservation lands should be kept in the conservation office; deeds are also often filed in Town Clerk and Assessors offices. A deed copy, if not available from Town Counsel, can be obtained from the County Registry for a per-page fee.
2. **Find the land.** On what road does the property lie and where is it on the town property atlas? Landmarks should be noted to enable Commission members and others to find the land again.
3. **Locate boundaries and corners** of the property from deed references or old field marks. A surveyor or engineer may be needed to help be sure of the boundary locations. Flagging should be used to mark iron pins, concrete bounds, old wire fences, and other existing monuments and landmarks. A civil engineer should plant new corner monuments where they are lacking, especially in places where one anticipates intrusions by abutting landowners.
4. **Create a base map** using available resources. The map should include, if available, topography, wetlands, vegetation cover types, streams, summits, buildings, interior roads, existing trails, and other features.
5. **Create a permanent property file** to include deeds, base maps, inventory data, management plans, history, ground and aerial photographs, news clippings, management needs and completed management steps.
6. **Walk the entire property** to look things over and assess the condition of the land, noting problems, waste or hazardous materials present, existing trails established by usage, condition of adjacent parcels of land, instances of erosion or contamination, and patterns of public use. Keep field notes and sketch maps in the property file.
7. **Make a preliminary inventory** of habitat, vegetation, rare species, wildlife, birds, insects, and/or amphibians (see inventory section) to get a general idea of the types of species on the site.
8. **Consult with abutters**, users, experts and/or local historians to make an **initial assessment of management considerations** for the property. Here is where a working group or ad hoc advisory committee may be useful. Call on other public and private non-profit managers of open space for assistance.
9. **Develop a management plan outline** with an implementation schedule for guidance. This should follow a standard format modified for use on all properties.
10. **Draw up a preliminary management plan**, which will be adjusted and refined as time passes. One may need to develop an interim plan for immediate implementation to remove attractive nuisances, clean up dumping problems, control access, and install regulatory signs. It is often a good idea to wait one full year of observation after acquisition before beginning any other management steps.
11. **Establish specific regulations** for the property if those for other conservation areas in town will not suffice. The Commission may feel the need to hold public hearings at this point to receive the reactions of users and abutters to the proposed standards. The regulations decided upon should be posted or otherwise publicized.
12. **Take initial management steps to solve obvious problems** so as to prevent deterioration of the property and pave the way for other, more positive management steps. In other words, stop backward progress first, then attend to forward progress.
13. **Address access questions:** how will people reach the land; how many do you want to reach the land; which groups of users should be provided for; where will they park and how will they know where to park; can and should provision be made for bicyclists, physically impaired users, and special user groups.
14. **Work closely with abutters** and other landowners who may be affected by the use of the land – parking, noise, farm odors, and other impacts.

## Management Plans

Management plans can become important institutional records of specific sites. Creating a plan for a conservation parcel can also be a good chance to pull together local naturalists, neighbors who are familiar with the site, and others who have useful views about what concerns are important and what are not (J. Anderson, pers comm).

Some of the elements of a good management plan may be written by consultants who can assemble background information without full knowledge of the underlying context of the property and its purchase and prior management. Consultants should not write management recommendations unless they have acquired a good seat-of-the-pants feeling for local politics and for how the town will respond to the recommendations and their financial implications. Commission members and others who already have an intimate knowledge of the property will be much better able to weed out blatantly unrealistic possibilities and focus on useful management steps that can be undertaken within a reasonable time frame.

It is probably best to start with a simple plan rather than risk getting bogged down in an overly complicated approach. Plans should also leave room for change. The initial plan laid out before or just after acquisition establishes a starting point, but should evolve naturally thereafter as familiarity with the area increases.

A good plan will be based on certain essential elements: present wildlife and habitat, flora, outside influences, use history, soil and hydrology, town expectations, and initial plans laid out for grantors of the land or for funding agencies like the State Division of Conservation Services.

Richard G. Studenmund of the Natural Lands Trust, Inc., a regional land trust operating in Pennsylvania, Maryland, Delaware, and New Jersey, prepared a useful summary of land management plans for the Fall 1989 issue of *Exchange*, the bulletin of the Land Trust Exchange (now the Land Trust Alliance). The Natural Lands Trust prepares a "Master Management Plan" for each of its properties through the following step-wise process:

1. Thoroughly describe the property using these elements:
  - a. **Size, location and access:** precise boundary information about the property (usually based on professional survey data) and instructions on how to get to the property if necessary.

- b. **Legal points:** identification of the political context of the property and any regulations or statutes that might affect its management.
  - c. **Mapping data:** preparation of a base map using tax maps and surveys for boundary delineation and USGS topographic maps and recent aerial photographs for roads, buildings, streams, ponds, and vegetation edges. The base map is then used as the foundation for more specialized maps such as those depicting plant communities or historical uses of the property.
  - d. **Maps of soils, geology and topography:** SCS data are used to produce a map of soils on the property. Wetland soils receive special attention; the map may also depict steep slopes.
  - e. **Species inventory:** the property description includes as complete a list as possible of the species present and their abundance. A description of principal plant communities should be referenced to a vegetation map and rare or unusual species identified. Observations or signs of wildlife should be detailed and impacts on habitat, such as overbrowsing, noted. Jeanne Anderson (pers comm) notes that "species lists are made infinitely more valuable if the sightings are mapped either community by community or at least by topography."
  - f. **Hydrology:** information on the property should include notes on groundwater flows and water quality if available.
  - g. **History:** the history of the land is described from conversations with nearby residents, written records, remnants of old roads, foundations, or fire scars. The description should include any human artifacts or features still on the property, such as buildings or drainage ditches.
  - h. **The surrounding area:** a map of adjacent land, including natural features, ownership patterns, and land uses. This information can reveal sources of disturbance, weed seeds, polluted water, outside human impacts on the property, and opportunities for adding to or buffering the preserve. As with other descriptive elements cited above, site inspection is critical and will contribute to a thorough knowledge of the site.
2. Divide the property into management units: These are areas likely to have differing management objectives or requirements, such as patches of woodland or field. Each management unit is defined using these criteria:

- (a) it contains a fairly homogeneous plant and animal community; (b) it has boundaries that are easily recognizable; and (c) it has a fairly uniform history and set of problems.
3. Lay out objectives and plans:
    - a. Objectives: should the property be managed for the maximum diversity of species, for public education or recreation, or for agricultural or forest production? Must the preserve be financially self-sustaining (rarely a question for public conservation land, although the prospect of revenue production can make purchase more palatable)? Priorities among the many possible conflicting objectives should be set clearly to guide the land manager.
    - b. Plans: the plans are the actions necessary to reach the objectives. In some cases, plans may simply involve monitoring the property in its current condition. Usually, more active plans are needed, ranging from wildlife habitat management to renting farm fields to building trails and parking areas to keeping the public off ecologically sensitive areas.
    - c. Problems and solutions: the management plan then describes foreseeable challenges or problems involved in reaching the objectives and outlines methods for addressing those problems. How can multiflora rose be removed to encourage native species? How can a constituency be developed for the property to help with management and caretaking?
  4. Prepare a financial plan: One should detail the financial implications of land management decisions, with estimates of operating and capital budgets for the next several years for each alternative being considered, including staff time. One should identify potential funding sources here as well.

- development of a resource zone map showing sensitivity and significance ratings for each management unit.

As recommended by the EOE summary, the plan and accompanying maps should typically be presented at each phase of completion to the appropriate agency director, review board, and public advisory group. Once the plan is adopted, the management agency should continually monitor management results and re-evaluate and modify the management objectives and plans based on monitoring results.

A majority of conservation areas in the Commonwealth have no management plans and no records of management work completed. It is easy to be intimidated by the planning process, but if the document is kept simple, if local experts are involved as volunteers, and if the Commission takes responsibility for land management directions, a basic plan should be easily achievable.

Good management plans also enable towns and private land management groups to exchange useful management information. Land management often depends on experimentation, and learning from the results of your own experience and that of others in this process is important. The Trustees of Reservations (TTOR), Massachusetts Audubon Society (MAS), other land trusts, some of the state and national parks in this country and elsewhere, and a number of Massachusetts towns and cities have good, basic, scientifically based plans from which other towns should try to learn.

The Executive Office of Environmental Affairs has briefly outlined its version of the above planning progression in a "Summary of Land Management Process" (Abbott 1990). In addition to the suggestions listed by Studenmund above, the EOE document recommends including these elements:

- recreational uses and social importance – intensity, impact, duration, conflicts, and anticipated future demand;
- condition and use of infrastructure – buildings, bridges, roads, utilities;
- administrative and management issues – staffing, safety, and other points;