



# Preparing a Conservation Plan

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## INTRODUCTION

Conservation of land, water and other natural features and resources is a priority for many New Hampshire communities. In order to implement conservation projects in a manner that protects what a community or region values the most requires some type of plan. To be effective, such a plan would be based on an inventory of the features and resources in a geographic area of interest. By compiling information on the identification, location and attributes of natural features and resources, community or regional groups can develop a plan to protect these features and resources through voluntary and/or regulatory means.

A conservation plan can be a vision for the future ecological health of an area. It typically includes reference to a natural resources inventory, a description of important features and an action plan to protect these features over a long period of time.

## WHY CREATE A CONSERVATION PLAN?

A conservation plan may be created to:

- Identify and describe the most important natural features and resources in a geographic area
- Promote conservation of these natural features and resources
- Guide municipal or private voluntary land conservation planning
- Document conservation priorities and recommended policies in a municipal master plan
- Suggest regulatory protection for some features and resources

## POSSIBLE COMPONENTS OF A CONSERVATION PLAN

Conservation plans are each unique, reflecting the physical, biological and social realities in their geographic areas of interest. However, conservation plans share some common ground with regard to content.

A conservation plan typically includes:

- A statement of purpose
- Goals
- References to documents that support the work
- Review of a natural resource inventory
- Interpretation of the inventory
- Landscape level considerations - watersheds, biological needs of wildlife, etc.
- Recommended types and levels of protection for identified features and resources
- An action plan indicating what is to be done, by whom and when.

### 1. STATEMENT OF PURPOSE

This section describes why the project is being done and how it is intended to be used.

## 2. GOALS

This section of a conservation plan states the reason(s) for the plan as well as the expected results of its application. Examples of goals might include protecting the water resources of a town, maintaining or improving local biological diversity, preserving prime agricultural lands or productive managed forest lands, conserving large blocks of open space or protecting scenic views. In addition to the protection of certain natural features and resources, a conservation plan may include goals related to public education, incorporating recreational opportunities into conservation planning, or conserving resources for other human use (such as public water supply protection).

## 3. REFERENCES TO DOCUMENTS THAT SUPPORT CONSERVATION PLANNING

There may be documentation of public support for a conservation plan in existing documents such as a community's master plan, zoning ordinance or a community survey. Referencing such statements of public policy can be used to decide the type, nature and scope of a conservation plan and how it is used. In turn, the conservation plan may influence future revisions to master plans and local land use controls. A conservation plan, however, does not have to include a regulatory component and can focus more exclusively on voluntary conservation options. However, neither voluntary nor regulatory conservation approaches alone can adequately protect all natural features and resources and a combination of both often provides the most thorough protection. Regulatory measures usually are less than optimal for resource protection but are uniformly applied. Voluntary techniques can provide an ideal level of protection but will only occur through the agreement of private landowners.

## 4. REVIEW OF A NATURAL RESOURCES INVENTORY

A thoughtful conservation plan can only be created with a knowledge and understanding of the identification, location and attributes of natural features and resources. This is usually accomplished by conducting a natural resources inventory prior to beginning a conservation plan, or using an existing inventory. Natural resources information is typically presented in the form of maps and a report that contains information about the mapped features and documentation of the inventory process.

A comprehensive natural resources inventory might be organized to include the following:

### ***Basic Inventory - Easily obtained and useful data***

Town Boundaries	Potential & known non-point pollution sources
Transportation networks	Topography
Utility networks	Conservation lands
Surface waters	Important agricultural soils
Groundwater (aquifers)	Rare species & natural communities
Wetlands	Unfragmented blocks of open space lands
Watersheds (regional)	

### ***Detailed inventory - More work collecting data & a higher level of detail***

Watersheds (local)	Agricultural lands assessment
Floodplains	Productive forest soils
Wetland evaluations	Managed forest lands & tree farms
Undeveloped shorelands	Significant wildlife habitats
Potential future public water supplies	
Cultural features (archaeologic & historic sites, scenic areas, etc.)	

These features and resources are usually presented on maps that show multiple features and resources organized around a common theme such as water resources.

## **5. INTERPRETATION OF THE NATURAL RESOURCES INVENTORY**

This section of a conservation plan expands on the natural resources inventory review, describing the information in the natural resources inventory: what important features and resources were revealed through the inventory, where concentrations of features and resources occur and where important features and resources occur together (“co-occur”) in the landscape. This step results in identification of the geographic areas that would be most significant as part of a comprehensive conservation plan for a community, watershed or other geographic area.

## **6. LANDSCAPE LEVEL CONSIDERATIONS**

This includes looking at the connectivity of habitats, integrity of aquatic and wetland systems, etc. Interconnectedness is the norm for components of ecosystems and human communities. The interrelationships of these components occur on many different scales, some of which bear no relation to municipal boundaries. This factor, coupled with the cumulative effects of human use of land and continuing population increase, requires thought about “big picture” issues, especially as related to water systems and wildlife biology. An effective conservation plan, should, for example, include consideration of the watershed context for streams, rivers, ponds, lakes, wetlands and estuaries. On the other hand, wildlife habitat and biological diversity conservation planning requires consideration of the biological requirements of species and natural communities, including connection of habitats, spatial relationships among habitats and the potential needs for species to adapt (by migrating , for example) to changing habitat conditions in the future.

Below are some suggestions for what to include in a conservation plan that focuses on water resource or wildlife habitat conservation.

If ***water resource protection*** is a primary concern in a conservation plan, these general principles may be appropriate:

- Protect entire watersheds
- Protect riparian areas with buffers
- Protect wetlands and surrounding uplands
- Limit impervious areas
- Maintain natural hydrologic levels
- Avoid soil erosion
- Control toxic materials
- Minimize road density

***Voluntary approaches to water resource conservation*** might include:

- Acquisition of riparian conservation easements
- Land acquisition
- Best management practices defined and promoted
- Public education.

***Regulatory approaches to water resource conservation*** might include:

- Establishment of public policy in the municipal master plan
- Setbacks, which specify a distance certain activities must occur from water or wetlands

- Buffers, which specify a distance certain activities must occur from water or wetlands and the character of the land between the activity or land use and the water or wetland.
- Best management practices required (e.g., performance-based zoning).

Some principles of conservation biology that might be considered when planning for **habitat conservation** include:

- Make conservation areas as large as possible
- Connect smaller areas near one another to create a bigger unit
- Locate areas close to each other
- Provide travel routes for animals by connecting reserves
- Include representative natural communities
- Include habitats for rare species or communities
- Work within watersheds when possible
- Include landscape variety (elevation, etc.)

*Voluntary approaches to habitat conservation* might include:

- Acquisition of conservation easements
- Land acquisition
- Best management practices defined and promoted
- Public education.

*Regulatory approaches to habitat conservation* might include:

- Establishment of public policy in the municipal master plan
- Requirement that subdivisions allow for continued movement of wildlife across roads
- Cluster or “open space” or “conservation” zoning
- Surface water and wetland protection measures will protect some habitat components for some species that associate with these habitat types.

## **7. RECOMMENDED TYPES AND LEVELS OF PROTECTION FOR ITEMS OF INTEREST**

In this section of a conservation plan, recommendations for the protection of identified and perhaps prioritized features and resources are given. For example: Maintain or restore shorelands of lakes and ponds in a naturally vegetated condition within 100 feet of the water or for rare species or natural communities, permanently protect land on which the feature occurs from development, plus a buffer surrounding it sufficient to ensure its long term viability.

Recommendations may also include statements of preference for particular types of conservation, either voluntary or regulatory. Examples: The preferred voluntary conservation technique is acquisition of conservation easements because..., or a floodplain ordinance should be implemented to control development in these environmentally sensitive areas.

## **8. ACTION PLAN**

An action plan will indicate what is to be done, by whom and when to accomplish the goals of the plan. An action plan will usually require and include a **time line** for and a **budget** that estimates costs associated with implementation of the plan and the proposed sources of funds.