

## Chapter 3 – Eco-Planning Goals

The purpose of this chapter is to set forth goals to guide the establishment of a proactive community-wide resource program. A program that will focus on ecological corridors within the community, protect our natural heritage and bring nature into the city. The basis of this program is to use the four pronged approach of regulation, acquisition, education and technical assistance. Previous chapters of this plan provided information on the natural history of the Alpena area. Once a site of high biological diversity, development over the last 150 years has converted many forests and wetlands to urban uses. The plan identifies remaining natural features and describes general ecological areas. Before proceeding it is important to address the following question.

### Why protect nature in our community?

1. Natural areas enhance the quality of life for residents and help define community identity by connecting residents to the natural landscape.
2. Healthy, functioning natural areas provide recreational opportunities including hiking, fishing, bird watching, and nature study.
3. Natural landscapes soften the hard edge of urban built-up areas with the greenery of leaves, the many colors of flowers and fruits, the smell of blossoms and the sounds of birds.
4. Parks and open space enhance the economic value of the area. Open lands cost less in services than other uses, and add to the value of properties nearby.
5. Natural landscapes have many environmental benefits- they control erosion, help retain stormwater, help clean the air of pollutants, help protect surface water quality, mitigate global warming by absorbing carbon dioxide and other greenhouse gases, and help shelter and cool our homes. All of these services are provided absolutely free.
6. Future generations will enjoy the legacy of today's efforts to protect our natural heritage.
7. Spiritual Values – "A sense of place, a sense of well being, a quiet place to look inward, feeling at one with the earth," there are many ways people express the spiritual values associated with spending time in natural areas.

### Overall Ecological Goal

*Protect the community's valuable resources from impacts of development so that people and natural systems can coexist. To this end, implement a proactive community-wide resource management program based on principles of ecosystem management, whereby all of the community's natural systems are protected and managed.*

"Ecosystem refers to the relationship between a community of plants and animals and its living and non-living environment. This relationship includes the rain, sun, wind and elements of the atmosphere; the plants and animals, including people, on the land and in the waters; and the soil, geology and water

that occurs on or in the land. Interacting together, these diverse environmental factors form an ecosystem.” Ecosystem management considers all components and the interrelationships of those components; and that altering one component will affect the entire ecosystem. For example, the destruction of wetlands will in turn negatively impact water quality.

## **Community-Wide Resource Goals**

### Collaborative Actions

*Use a collaborative approach to protecting and managing natural systems by forming partnerships with local and state agencies, adjacent units of governments, and resource organizations.*

*Support the community-wide Eco-Plan program with a combination of funding sources including grants, foundations and the communities’ general fund.*

*Continue to develop the City’s and County’s Geographic Information System (GIS) programs for use in community planning, community development, and natural resource management. Work towards developing data sharing agreements and establish protocol to exchange GIS data.*

The City of Alpena and Township of Alpena does not have specialized resource staff to establish and implement natural resource planning and management programs, nor are there the financial resources to carryout all of the prescribed resource management activities. There are local, state and federal agencies, as well as numerous organizations whose missions are to protect and manage natural resources. Though not a comprehensive listing, several of those entities are the Alpena County Conservation District, Alpena County MSU Extension, Alpena Sportsman’s Club, Wildlife Sanctuary Committee, Local Garden Clubs, Nature Conservancy, Headwaters Land Conservancy, Thunder Bay River Watershed Council, Northeast Michigan Council of Governments, Huron Pines RC&D Council, Michigan Department of Environmental Quality, Michigan Department of Natural Resources, Natural Resource Conservation Service, and U.S. Fisheries and Wildlife Service. These groups have staff, volunteers, and/or grant dollars available to work with communities on resource management.

There are great benefits to communities working together. Watersheds, streams, ecological corridors and wildlife have a complete disregard for political boundaries. The interconnected web of life, the” green infrastructure” was established long before the land area was divided into political units. Without question, the actions of one community can have a direct impact on the resources in an adjacent community. Therefore, it is imperative that adjacent communities coordinate land use planning and development activities. Working together to protect critical area-wide resources and to

improve and re-establish degraded ecological corridors is a win-win scenario for all communities.

### Comprehensive Land Use Planning

*Incorporate resource planning into the community's land use planning process.*

A comprehensive land use plan or master plan is a community's primary tool for guiding future development. The plan is often referred to as the legal foundation for zoning. Therefore, it is the key local document to plan for resource protection. The comprehensive land use plan should identify critical natural areas such as wetlands, stream corridors, floodplains, ecological corridors, and threatened and endangered species and plant communities. The land use plan should embrace environmental and ecological principals. For example, require quality of design that relates to the natural environment of the site, streetscape and landscape; and future land use types and development densities that are based on resource constraints and the carrying capacity of the land. The plan should have policy statements that encourage the preservation of open space and management of the community's green infrastructure. Since natural ecosystems extend far beyond the individual community's boundaries, the plan should coordinate with surrounding communities.

### Resource Friendly Zoning

*Implement the resource goals and recommendations identified in this plan and the community land use plan through the zoning ordinance.*

While comprehensive planning functions as a guide by identifying goals and policies, local zoning is the primary tool communities can use to encourage the use of lands in accordance with their character and adaptability, to limit the improper use of land and to conserve natural resources and energy. This plan recommends using performance zoning; density restrictions; setbacks, buffers and open space requirements; special districts and overlay zones; and cluster development/conservation development to protect identified critical natural areas.

### Stormwater Management

*Adopt area-wide stormwater management ordinances to regulate the conveyance, containment and treatment of stormwater run-off.*

Conventional urban development dramatically increases the quantity of stormwater run-off and degrades the quality of run-off as compared to natural landscapes. Impervious surfaces such as streets, parking lots and buildings increases run-off quantities. Ditches,

concrete lined drainageways and storm sewers speed up the removal of stormwater from urbanized areas, but do nothing to treat the run-off. When wetlands and natural drainageways are filled during development, communities need to build larger, more costly stormwater conveyance systems, often at the taxpayers' expense.

A more coordinated and proactive approach to stormwater management first focuses on preserving the green infrastructure - wetlands, natural drainageways, forests and meadows. Next, when development occurs, design standards are used to reduce the amount of impervious surface area, thereby reducing runoff quantities; and to create a landscape that filters and absorbs runoff before it leaves the site. Techniques may include construction of natural wetland detention basins and use of conservation cluster residential development. Along with reducing infrastructure costs, the reliance on a green infrastructure system will preserve and sometimes create important wildlife habitat.

### Lake, Stream and Wetland Protection

*Adopt zoning and development design standards to supplement State and Federal laws pertaining to wetlands and water quality protection.*

While there are a number of State and Federal laws designed to protect water quality and wetlands, the first line of responsibility falls to local communities. This is most evident in the area of non-point source pollution where increased runoff from urbanizing landscapes degrades surface water quality and negatively impacts wetlands. Local ordinances should prohibit damaging modifications to natural drainages and wetlands, require mitigation for unavoidable disturbances, protect natural buffers along waterbodies and wetlands, require adequate setbacks for buildings and pavement, and prohibit direct discharge of untreated stormwater into surface water and wetlands.

### Riparian Forests and Wetlands

*Work cooperatively with local, regional and state agencies to restore and protect natural buffers along the edges of streams, lakes and wetlands.*

Resource managers have long understood that naturally vegetated buffer strips play an important role in protecting the health and quality of surface water and wetlands. Removal of natural vegetation, planting of turf grass and placement of rock rip-rap not only destroys critical wildlife habitat, but has a long term negative impact on water quality. Buffers enhance fish and wildlife habitat, filter pollutants from runoff, stabilize shorelines, provide a visual and noise screen, shade and cool water, and enhance aesthetics. Buffers should range from 25 to 100 feet depending upon the wetland and water feature. The community should partner with agencies and organizations to secure funding for accomplishing restoration projects.

*Amend local zoning regulations to protect existing natural buffers along streams, lakes and wetlands.*

The best means to protect existing natural buffers during land development is through the local zoning ordinance. Zoning ordinances that encourage conservation cluster development and that require greenbelts will maximize the benefits of riparian forestlands. Greenbelt regulations should designate a minimum 50' water quality buffer of trees, shrubs and herbaceous vegetation. Regulations should include standards for establishing multi-layered vegetation (trees, shrubs and herbaceous), including spacing, density, and preferred species.

### Natural Landscaping

*Work towards the use of natural landscaping, where appropriate, in community parks, around public facilities, and on private lands.*

*Encourage the use of native plants for reforestation, wildlife habitat, street and neighborhood trees, landscaping, parks and roadside corridors.*

*Discourage the use of invasive, harmful and problem prone plants, such as autumn olive, multiflora rose, reed canary grass, purple loosestrife, boxelder, and Siberian elm.*

Pre-settlement vegetation types prior to the 1800's consisted of pine, oak and cedar woodlands, brush and forested wetlands, open meadows, upland brush, and marshes. Within the urbanized landscape, well-manicured, turf grass lawns with occasional lollipop shaped ornamental shade trees have mostly replaced these natural landscapes. These urbanized landscapes are grossly lacking in biodiversity and wildlife habitat.

Design standards and zoning requirements should be used to protect existing native trees and other native vegetation along with setting aside open space when lands are developed. Through use of incentives, technical assistance and educational programs homeowners, institutions and businesses should be encouraged to re-establish natural areas by planting native flowers, grasses, shrubs and trees. Communities should establish wildlife pocket plantings within parks and adjacent to public facilities. The plantings could be as simple as a couple of conifer trees surrounded by several fruit and nut bearing shrubs and trees. The appendices of this plan contains listings of recommended native plants and invasive/problem prone plants compiled by the Michigan Association of Conservation Districts and MSU Extension.

### Street Trees and Neighborhood Forests

*In recognizing the importance of trees in the suburban and urban environment, encourage the retention of existing native trees and the establishment of street and shade trees in residential neighborhoods and commercial developments within the Community.*

Research has proven a healthy fabric of shade and street trees provides numerous benefits. Urban forests reduce stormwater runoff by capturing precipitation; provide wildlife habitat; reduce energy consumption; increase property values; and create a more livable community. In older developed areas, communities can establish a street tree program to maintain existing trees and plant new trees when older trees are removed. Individual homeowners can further improve the environment by planting shade trees, wildlife shrubs, flowers and grasses. This plan recommends communities implement "Yard-Link," a cooperative neighborhood-wide backyard planting program designed to create interconnected wildlife habitat areas and re-establish fragmented wildlife corridors.

When development occurs on "green sites," communities can use the site plan review process to minimize the loss of existing native trees and shrubs. The process can be used to encourage the planting of shrubs and trees where needed, provide suitable areas for planting trees, minimize conflicts with utility and transportation systems, and incorporate aesthetics considerations to protect views along roads and streets.

### Open Space Preservation

*Identify non-protected areas within the community that present opportunities for protection, prioritize those areas to maximize biodiversity and community benefits, preserve priority areas using all available resources and techniques.*

Preserving open space within an urban landscape will make neighborhoods more livable. A national survey found the three most desirable amenities for residential areas were open space, walking and bicycle paths, and gardens with native plants. Communities with the greatest success at preserving open space use a multitude of approaches. The common approaches are dedication/donation of lands, purchase of development rights, fee simple purchase, conservation easements, voluntary conservation and land trades.

## Ecological Corridors

*Encourage the preservation, enhancement and restoration of critical wildlife habitat and important ecological corridors.*

Some of the best opportunities and clearly the least costly means of protecting and improving the ecological resources are through voluntary conservation. This plan encourages communities to work with local, state and federal agencies and organizations to develop a landowner technical assistance program that targets parcels within key ecological corridors. Particular attention should be given to areas under pressure for development and areas where the integrity of the corridor has been compromised by development.

Railroad right-of-ways and Rail-Trail corridors present excellent opportunities for creating ecological corridors. Often, the simple act of planting trees and shrubs will greatly boost the resource benefits of the transportation corridor. Another advantage of working along these corridors is the single ownership of either Lake States Railroad or Michigan Department of Natural Resources.

The zoning ordinance can be used to preserve critical areas through open space conservation development, cluster residential development, dedication/donation of lands, and purchase of development rights. During the site plan review process, communities are able to work towards protection of primary and secondary conservation areas, including critical wildlife habitat, steep slopes, ridgelines, wetlands, lowland forests, old growth forestlands, and natural meadows.

## Education and Public Awareness

*Increase public awareness and encourage residents and businesses to participate in the implementation of the community-wide Eco-Plan through educational programs and community events such as National Arbor Day and Earth Day.*

Landowners (residential, commercial and institutional) will play a key role in maintaining the ecological resources of the community. In order for the Alpena Eco-Plan to reach full maturity, a strong education and public awareness program needs to be implemented. At the present time, the City does not have an environmental educator on staff, nor is it a consideration in the near future to hire such staff. However, this education goal can be achieved by working cooperatively with agencies and organizations such as MSU Extension, Jesse Besser Museum, Community Foundation for Northeast Michigan, Alpena Conservation District, Wildlife Sanctuary Committee, Thunder Bay Watershed Council, Michigan DEQ, local schools and Northeast Michigan Council of Governments.

The Eco-Education Program should include workshops, newsletters, direct mailings and web sites to disseminate information. There are many state and federal agencies; organizations and foundations that have grant programs designed to support natural resource education efforts. Of course, a technical assistance program must follow a successful education program. In other words, once people are motivated to take action, technical assistance should be available to make sure activities are properly carried out.

### Technical Assistance

*Promote a healthy and diverse natural environment by developing a technical assistance program with the assistance of agencies, organizations, associations and resource professionals.*

Much of the Eco-Planning area is in private ownership. In conjunction with the above education and public awareness effort, the community needs to establish a technical assistance program. Landowners planning to implement recommended activities will need to access technical assistance. The City of Alpena and Township of Alpena do not have the specialized resource staff to provide this assistance. They do not intend to hire such staff in the near future. However, there are local, state and federal agencies, as well as numerous organizations whose missions are to protect and management natural resources. These groups have staff, volunteers, and/or grant dollars available to work with communities on resource management. The City and Township have the ability to tap into grant dollars, which can in turn be used by organizations to provide the needed technical assistance.