Introduction

A generally accepted definition of open space is land that lacks man-made features, or is without significant alteration, and which may or may not be set aside for public use. The abundance of open space in Michigan, including lakes and other natural resources, is a valuable resource, not only for aesthetic benefits and its role in rural character, but also for tourism and its contribution to the State’s economy.

Most importantly, open space contributes significantly to the quality of life experienced by those who live in the Township. This was reflected in the Community Survey when respondents were asked about issues of importance to them about living in Caledonia, 77% valued “rivers, trees, and natural features,” and 80% valued “open spaces/rural atmosphere.”

Therefore, the conservation and protection of open space and natural features in Caledonia Township is a critical part of the Master Plan’s considerations; for their loss not only may result in damage to environmentally sensitive areas, but can negatively affect the economy, property values and the general quality of life.

The familiar trend of uncontrolled urban sprawl continues to threaten rural townships such as Caledonia. It is far easier to convert open space and undeveloped land to residential and commercial uses than it is to return such uses to open space. Too often in high growth communities such as Caledonia, farmland and open space is regularly displaced by development.

Fortunately, however, for a township located adjacent to a major city, Caledonia has still managed to retain a significant portion of undeveloped land and natural features. Over half of Caledonia Township’s land still remains undeveloped, which is a good indication that open space is recognized as an important asset. This may well be the cornerstone to Caledonia’s future quality of life.
Caledonia Charter Township  
Master Plan  
Open Space And Natural Features

Inventory

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Caledonia Township consists of approximately 21,300 acres of land. Approximately 25% of this land is classified as open space or occupied by natural features, including rivers, streams, lakes, wetlands, and forests.

Water Bodies

Water bodies including rivers, streams and lakes, currently constitute approximately 346 acres, or 1.6% of Caledonia’s total land. The Thornapple River is perhaps Caledonia’s most prominent natural feature. In many areas the river is buffered by areas of forests and wetlands, and an almost contiguous natural greenway corridor.

The Thornapple is one of the Grand River’s major tributaries, and serves as the primary drainage destination for runoff water in the Township. The river plays a very important role when Caledonia Township experiences increased amounts of rainfall. Development typically includes the construction of impervious surfaces such as parking lots, driveways and buildings, which block rain water from seeping into the ground. The water then becomes known as runoff, and larger amounts would flow into the Thornapple River. Therefore, as increased development occurs, so will the river’s role to relieve storm flow and increased flooding can occur. The other river located in Caledonia is the Coldwater River, which enters the Thornapple in the southeast corner of the Township and flows from the east. Both rivers serve not only as important natural features in Caledonia Township, but as valuable aesthetic assets as well.

There are also several lakes located in Caledonia, the largest of which is Campau Lake in the northwest quadrant of the township. Like the Thornapple River, Campau Lake is also a major drainage basin for runoff water. This area of the township, which includes the Campau/Kettle Lakes area and the Village of Alaska, has already experienced a relatively significant amount of development.
Only a small portion of Campau Lake and the Thornapple River’s shorelines remains natural, the rest has been developed as residential. Campau and Kettle Lakes are connected and provide recreational opportunities such as swimming, boating and fishing. Water craft access to the lakes is provided through the MDNR’s Public Access site on the eastern shore.

Other significant lakes in Caledonia Township include Kraft Lake in the northwest quadrant; Buck Lake in the northeast quadrant; Blodgett, Barber and Riley Lakes in the southeast quadrant and Emmons Lake, located within the Village of Caledonia.

**Wetlands**

Over 420 acres of wooded and shrub wetlands are found along the Thornapple River, Buck, Barber, and Blodgett Lakes, and various creeks. The wetlands depicted on the Natural Features map were identified based on:

1) 1978 MIRIS information (Michigan Resource Information System)
2) Changes since 1978 as detected by 1999 aerial photographs
3) A “windshield” survey

The Township has experienced a slight loss of approximately 20 acres of wetland since 1978. The decrease may be due to numerous factors, most recently seasonal fluctuations in rainfall affecting water levels.

Wetlands are a valuable resource and perform many functions that protect environmental quality and our quality of life. Wetlands protect property owners from flooding, maintain the quality of rivers and lakes, provide wildlife habitat, and provide erosion control.

The State of Michigan assumes some of the responsibility for protecting wetlands, under Michigan’s Wetland Protection Act. It regulates the following activities related to wetlands:

1) Depositing or placing fill material in a wetland
2) Dredging, removing, or permitting removal of soils or minerals
3) Constructing, operating, or maintaining any use or development in a wetland
4) Draining surface water from a wetland
Only those wetlands that fall under the definition of the act are regulated and are generally those that are adjoining a water body and that support wetland vegetation or aquatic life.

**Forested Land**

A significant portion of Caledonia Township is forested, approximately 5,013 acres, or 24%. Most of the forested areas are found along the Thornapple River and its tributaries. The forests are made up of maples, oaks, cottonwoods, sassafras and other native Michigan species.

Over the past decade, forested land has decreased in the Township. A majority of that loss has occurred due to clearing for residential development. Forested lands are generally targeted as desirable residential building sites because of their aesthetic value, which increased the real and perceived quality of life as well as providing sanctuary for wildlife, reducing runoff and erosion, and improving air and water quality.

**Preservation Techniques**

Three Township Goals relate directly to the desire of the Township to preserve its high quality natural features and open spaces:

- *The Township will adopt land use and zoning measures designed to control the quality of development by ensuring a thorough review of development proposals and their potential effects on the Township’s natural beauty, rural character, and sensitive environmental areas.*

- *The Township will pursue (through acquisition, donation, easements, or other similar means) the preservation of areas that merit permanent protection from development, such as sensitive natural features, recreation lands, and public open spaces.*

- *Through zoning, site plan review, and education the Township will encourage approaches to land development that take natural features such as soils, topography, steep slopes, hydrology, unique views and vistas, and natural vegetation into account in the process of site and building design.*
Preservation and Integration

Preservation measures apply to those features which are so sensitive or valued that any alteration has negative impacts on aesthetics, property, or environmental quality. Development should either be prohibited or restricted to those projects which have only a slight effect on these features. Wetland areas is one example of lands requiring preservation techniques.

In areas where the natural features are an integral part of the community’s character, but where minor changes only slightly impact the quality of life, integration may provide adequate protection. Integration allows natural features to remain undisturbed, yet exist in concert with development. The Township should carefully monitor land use in areas rich in these features.

Environmentally sensitive natural features can either enhance or restrict development projects, depending on the type and extent of the feature. For example, the crest of a hill may provide a view which adds appeal to a site. Mitigating erosion and stabilizing the hillside during and after construction can dramatically increase development costs. However, the cost to the community could be the loss of a natural view.

The following describes the various techniques that may be pursued in either preserving open spaces and natural features from development, or ensuring that they are properly integrated into development projects.

Zoning Techniques

There is a wide range of zoning techniques that may be used to preserve and enhance the open spaces and natural features in the Township. These techniques are not necessarily mutually exclusive. In fact, they are often most effective if used in appropriate combinations. Regardless of the measures selected, it is important that the short and long term effects of each method be clearly understood.

Planned Unit Development (PUD)

Planned Unit Development is a zoning technique which can be used to permit flexibility in the application of zoning standards to allow significant land areas to be set aside for preservation. PUDs can be used for residential, commercial, or industrial uses... or any combination of uses. PUDs are especially effective in ensuring careful development of sites of special concern, including natural areas.
The intent of a PUD is to allow for special conditions for which normal zoning regulations are inappropriate. Approval of PUDs is intended to be reserved for special situations, such as preserving natural areas, development on larger parcels, allowing multiple uses on the same property, or innovative project designs.

A PUD can be included in a zoning ordinance in one of the following three ways. A PUD allows for design regulations that promote open space preservation.

*Open Space (Cluster) Development*

Open space development, also known as clustering or cluster development, encourages the preservation of open or environmentally sensitive areas. It is a technique that can be used for farmland, open space preservation, or both. Open space development does not increase the density permitted, it simply allows the same number of homes on a smaller portion of the site. The density must still fall within the requirements of the zoning district.

The areas designated for preservation can be “maintained” in several ways. The open space can be deeded in equal parts to the property owners of the development with selling restrictions. This would create the need for a homeowner's association to maintain the open area, if the area required maintenance. Another option is deeding the area to a local land conservancy or the Township. If the open area was previously farmed or suitable for farming, it may be leased to a farmer for production. The end result of any of these options is the permanent preservation of open space.
The benefits of open space development include:

- Permanent protection of open areas without restricting property rights
- Improved environmental quality
- Rural character preservation
- Savings to property owners over time due to less infrastructure maintenance
- Development potential of a site is not limited
- No large public expenditures for land acquisition

**Overlay Zoning**

Overlay zoning is the application of an additional set of regulations to an established zoning district or districts. Areas commonly targeted by overlay zones include: floodplains, watersheds, environmental areas, lakeshore/shoreline, river corridors, high risk erosion areas, historic districts or economic revitalization areas.

The benefits of using an overlay zone include:

- The preservation of natural features
- Response to land use issues that affect multiple zone districts
- The enhancement of public awareness of a valuable resource
- The provision of character continuity between districts (e.g. similar greenway requirements along a river)

**Other Techniques**

**Conservation Easements**

A conservation easement is the voluntary donation of land with restrictions placed on it for the protection of agriculture, open space, and natural resources. The landowner retains ownership and can use it for specific conditions upon which the landowner and the nonprofit easement holder have agreed. Conservation easements are flexible to the landowner’s needs and may have limited provisions for use and development.

Certain rights to use the property can be held such as the right to grow crops, cut timber, construction of new farm buildings, careful location of house for family members, or subdivision of a lot for resale. Keeping these rights will affect the value of the conservation easement.
The easement is considered a charitable contribution for which the landowner does not receive direct income benefits from the donation of their land. The landowner benefits from the donation through federal and state income tax deduction, lower property taxes, and reduction in estate and inheritance taxes. The value of the conservation easement is the difference between the fair market value and the value of the land after restrictions have been imposed.

The length of the easement may be flexible from a few years to permanent preservation. However, federal tax benefits are only available on permanent easements. The conservation easement stays in effect if the property is bought, sold, given or transferred to another owner. The new owner then assumes all responsibility of the conservation easement. When the surrounding areas change to the extent that the restrictions of the conservation easement can no longer be met, the easement may be changed or terminated by the courts.

**Purchase of Development Rights/Transfer of Development Rights**

Both Purchase and Transfer of Development Rights (PDR/TDR) programs are voluntary preservation programs that allow individual property owners to sell the development rights to their land. Both programs involve the use of conservation easements. The difference between the two programs is the opportunity in a TDR program for the development right to be utilized in another area. Typically, these land preservation programs are used to preserve agricultural land though the techniques could also be effective for preserving open space.

**P.A. 116**

The Farmland and Open Space Preservation Act, known as P.A. 116 provides the framework for four programs to preserve farmland and open space. The two that apply to open space preservation will be discussed here, the Local Open Space Easement and the Designated Open Space Easement.

The difference between the two programs lies in the property that is eligible. The local Open Space Easement is available for both open space and farmland whereas the Designated Open Space Easement is specifically for areas delineated as historic or environmentally sensitive. Both programs are voluntary and involve the use of a temporary conservation easement.
Local Open Space Easement

- Ten to ninety-year agreements
- Predominantly undeveloped property of any size which possesses natural or scenic resources that by preserving it would conserve resources, such as soils, wetlands, beaches, historic site or recreational value
- Predominantly undeveloped, idle potential farmland of 40 acres or more
- Land may not be developed while in the easement
- Landowner is eligible for a direct property tax reduction equal to the development right value of the property and exemption from special assessment

Designated Open Space Easement

- Ten to ninety-year agreements
- Undeveloped property of any size that is historic in nature or along a State Designated Natural River or within an Environmentally Sensitive Area designated under the Shorelands Protection and Management Act.
- Land may not be developed while in the easement.
- Landowner is eligible for a direct property tax reduction equal to the development right value of the property and exemption from special assessment.

Rural Character

The preservation of rural character is a dominant theme for the Caledonia Charter Township Master Plan. However, as development increases, the challenges to preserving the unique character of the township becomes greater.

A specific purpose of preserving rural character is to recognize and protect the qualities of rural living enjoyed by the Township’s residents. The abundance of natural features and the high quality of life to which they contribute are worth preserving. Where development of land is requested, the densities and design of such proposals should be of a nature that will continue the rural character of the area or permit use of a portion of the land for preserving open space or natural features.

Preserving the rural character is important since it was for this reason that many people moved to this area. Existing open spaces help maintain the feeling of openness and tranquility prized by area residents. Careful open space planning can also enhance the ability of the Township to limit traffic impacts and environmental problems associated with more intensive development.
Defining Rural Character

Michigan’s diverse landscapes, including its shorelines, riparian areas, open fields, forests, and farmlands, draw residents to a variety of rural areas throughout the state. Rural character is many times a perception unique to the individual. One person may interpret rural character as having a low density of development; another may only recognize it where there is a complete absence of man-made features, such as signs and buildings.

But regardless of any individual interpretation of rural character, it remains true that as more people are attracted to rural areas, preserving the unique character of an area becomes more of a challenge.

Ultimately, it is the community’s own definition of rural character that is the single most important part of its preservation. It is up to each community to decide what its rural character is and subsequently, how it can be preserved. For example, definitions of rural character may include the following elements:

- Tree-lined streets
- Farmlands
- Woodlands
- Clean air and water
- Undeveloped open space
- Natural stream banks
- Natural lake shorelines
- Outdoor recreation opportunities
- Small villages and communities

Roadside Rural Character

The principal perception of rural character is formed by natural settings (or the lack thereof) along the roadside. Homes spaced out along roadways, particularly when near the street, tend to detract from the rural character of the area when the view is more of buildings than of open space.

A byproduct of strip residential development, the inefficient use of land, also occurs when homes are placed near the front property line. A number of properties in the Township are divided into relatively large lots, with the frontage taken up by individual homes. This type of development tends to create relatively deep lots which leaves sizeable portions of properties cut off from road access and essentially unusable.
While this may not be a problem for the original and some subsequent owners, others may look for opportunities to use the back portions of these lots for further development and seek variances or other approvals from the township to do so. The 1997 amendments to the state Subdivision Control Act (now called the Land Division Act) provides limits to the depth of lots created, but access to interior properties will continue to be an important consideration in reviewing future development proposals.

The number of driveways along these roadways can become a traffic issue, particularly in areas where zoning allows relatively narrow lot widths. In fact current access management guidelines call for driveway spacing of 550 feet for roadways with an average speed of 55 miles per hour (see table).

Although individually these driveways do not generate excessive amounts of traffic, over time an increase in their number on a busy roadway can present problems with additional turn movements, especially where vehicle speeds are high.

**Land Development Options**

*Lot Widths*

Increasing lot widths can have the effect of separating the distance between homes to allow for a more “open” feeling. This would require changing the applicable zoning requirements along certain defined roadways (generally county arterial roads). Other applicable provisions for these fronting lots could include such elements as:

- Increased lot width and/or area
- Greater setback requirements
- Provisions minimizing urban vegetation (manicured lawns, flower gardens, etc.) and preservation of larger trees in areas visible from the roadway

However, simply changing the district requirements would mean that the width requirements would apply to all roadways. Therefore, to make this regulation more effective, and to discourage development along the roadway, a companion change to encourage development into the site may be needed. This could be accomplished by decreasing the lot frontage required on roads that are part of the development project. Again, this does not imply that the site density needs to be greater, only that the lot width for interior streets be less than what is required along the arterial roadway.
Implementing these provisions requires adoption of any overlay district that would apply to residential zone districts along arterial roadways. Lots fronting on the interior streets would require less widths and setbacks.

**Development Setbacks**

Another provision that could be implemented would require a minimum development setback for residential projects of more than a single lot. The setback would require that no building that is part of the development could be nearer to the arterial roadway than 200-300 feet. (The weakness of this provision is that it would be more difficult to apply it to individual home sites.)

Other provisions applying to this setback area would be that no native or natural vegetation be removed from the setback, nor any grading or changes in topography occur, except that necessary for entrance roads. The Ordinance could allow the Planning Commission to modify this requirement if the developer demonstrated that the clearing of existing vegetation would contribute significantly to the purpose and objectives of the development. Or, the Planning Commission could reduce the setback if existing landscaping provided a natural screen, or the proposed development provided a landscape screen. There should, however, still be some minimum setback.

This provision would also have to include some allowance for lot variations so that the overall density permitted by the Ordinance could be maintained.

**Open Space Development**

There could be further incentives for the clustering of residential units, or “open space development,” as discussed earlier.

It would also allow for the preservation of significant natural features, provide open space for recreation, or allow the continuation of farming on interior land areas. To preserve the roadside character, some or all of the required open space could be placed abutting the roadway.

**Development Incentives**

Currently, open space development in western Michigan is not particularly prevalent, or indeed, attractive to home buyers. One of the reasons that many buyers are looking in the rural areas is to avoid being too near other homes. Unlike eastern Michigan, where land values are generally higher, open lands are abundant in western Michigan and land prices are very reasonable.
However, there is a segment of the marketplace that can appreciate the value of preserving larger open spaces within a development. Therefore, offering of incentives to developers for using this development technique is appropriate. The basic incentive to which developers will most readily respond is an increase in the number of units which could be permitted over the base density calculated under the parallel plan. This is generally considered a development “bonus.”

The amount of the bonus may vary depending on the nature of the development, and they may be used in combinations of one or more different incentives. An example, incentives may include an increase in the number of units if:

- Additional open space is provided beyond that normally gained in the lowering of individual lot sizes.
- A community wastewater and/or domestic water system is used (avoiding the need for septic systems and individual wells).
- Recreational amenities are provided such as tennis courts, club house, or similar facilities.
- Walkways, trails, or bike paths are included within the development.
- Significant areas of active agricultural lands are preserved.
- Where appropriate, commercial uses may be permitted (usually subject to certain restrictions to limit size and effect on the area).

**Thornapple River Greenway**

*What is a Greenway?*

Greenways are open spaces used to conserve and enhance natural and cultural resources. Greenways may also provide recreational opportunities, aesthetic benefits, and linkages for users between open space and recreational facilities. Greenways are not a new concept. There are several examples throughout Europe where greenways have been used as walking and hiking trails, scenic vistas, cross-country ski trails and for other such purposes.

However, only recently have they gained such widespread support in America. The new-found popularity of American greenways is largely due to a citizen led movement to provide alternative modes of transportation and convenient access to open space.

In addition to these benefits, greenways provide and serve a number of other advantages and important functions. Greenways can:
tie park components together to form a cohesive park, recreation and open space system.

- Emphasize harmony with the natural environment.
- Preserve an attractive environment for residents, businesses and visitors.
- Allow uninterrupted and safe pedestrian movement between parks throughout the community.
- Protect areas inappropriate for development such as flood plains, wetlands and steep slopes.
- Promote tourism and can enhance the local economy.
- Foster a greater awareness and appreciation of historic and cultural heritage.
- Provide people with a resource-based outdoor recreational opportunity and experience.
- Promote a sense of place and regional identity.
- Provide an effective and sensible growth management tool.
- Enhance property values.

Need for a Greenway in Caledonia Township

With all of the prominent natural features that exist in Caledonia Township, a linkage system which ties areas of natural beauty and development together is a necessity. However, the Township is continuously feeling pressure to develop its vacant land, which will certainly threaten the feasibility of a contiguous linkage system.

The concept of developing a greenway in Caledonia Township has been previously considered. The 1975 General Development Plan for the Township outlined various proposed trails including the North Country Trail, which was planned to run along the east bank of the Thornapple River throughout the Township. In addition to a non-motorized pathway system, the concept of preserving a greenway along the Thornapple River would serve as a better means of protecting the environmentally sensitive river corridor.

Also, the 1997 Recreation Plan for Caledonia Township included an Action Plan which proposed improving river access through the acquisition of land for future parks/open space areas and trails. Caledonia Township’s park system consists of Caledonia Lakeside Park on Emmons Lake in the Village of Caledonia, and Ruehs Park on the Thornapple River in the north portion of the Township.

Currently there are no pedestrian linkages between these and other areas in the Township, which limits recreational opportunities. Additionally, with no ensured
development protection in these environmentally sensitive areas, Caledonia Township’s natural features and open spaces may be targeted for development. The Thornapple River corridor may serve as the primary linkage for a Caledonia Township system, but other adjoining corridors should be considered as well. Consumers Power Company maintains a major utility easement that runs east and west through the center of the Township. This easement could serve as an ideal corridor for access to the Thornapple River from the east and west sides of the Township. Specifically, residents of the Village of Caledonia would only have to travel approximately ½ mile north to access the easement. Additionally, in the north-east quadrant of the Township, the easement forks off to the north-east and could be easily tied into the Campau and Buck Lake areas.

Many communities in Michigan have also converted abandoned railroad right-of-way corridors into recreational trails. The York Central Railroad, which was abandoned in the 1970’s, bisects the south-west corner of Caledonia Township through the center of the Village of Caledonia. This corridor could serve yet as another spoke in the Township’s linkage system, providing Village residents with a southern access alternative.

Community Support

A successful greenway project is usually the result of a partnership in planning between citizen groups, local governments, conservation organizations, and local businesses. In a recent survey of Caledonia Township residents, it became evident that the desire to develop and implement a greenway exists. As part of the Community Attitude Survey in the 1989 Caledonia Land Use Plan, residents were asked what they felt was their best natural resource in Caledonia Township. The Thornapple River showed up as a number one response by all groups that participated in the exercise.

The citizens were also asked if Caledonia’s natural resources should be protected and if so, how. The majority agreed that the natural resources, specifically the river corridors, should be protected, and suggested such means as: zoning to restrict development, the acquisition of river-front property, encouraging a State role in land preservation, and establishing protection buffers around environmentally sensitive areas. In short, Caledonia Township citizen’s established the recommendation for a greenway.

Another Community Attitude Survey was completed in 2000. When asked about problematic conditions in Caledonia Township, 25% of the respondents felt that lack of parks was a serious problem. Also 62% of the respondents felt the
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Township should try to preserve land along the Thornapple River for public use and enjoyment.

The majority of respondents were only moderately satisfied with recreation services in the Township. And finally, when asked how important open space was to Caledonia Township, 59% of the respondents felt it was very important. This was the highest score in this particular category, ranked higher than even schools, housing, and crime rates. The third highest response for the Township’s most important feature was its rivers, trees and natural features (53%).

How Can A Greenway Benefit Caledonia Township?

Social and Recreational Benefits.

Today, more and more people are making efforts to live healthier by turning to recreational activities for the exercise, the social opportunities they provide, and for purposes of stress relief. This has led to an increasing demand for outdoor activities such as jogging, in-line skating, biking, walking and cross-country skiing. In 1999, Caledonia Township was home to nearly 7,880 residents, most of which were under the age of 40 (average age was 32.55 years). Although persons of all ages will take advantage of pathways, they are most popular among those between 15 and 35 years of age. Perhaps the largest social benefit that greenways can offer is their ability to tie different communities together by linking features such as parks, historic sites, neighborhoods and shopping districts.

Aesthetic Benefits

The aesthetic benefits of a greenway corridor are obvious. Rivers are considered by most as places of beauty, and those that have the appearance of being “untouched by man” are sometimes considered natural wonders. It is highly unlikely that the meandering Colorado River in the Grand Canyon National Park would be visited by thousands of people every year if its banks were lined with homes and businesses. Most jogging enthusiasts would prefer a run along a scenic river corridor rather than down a road, or worse yet around an oval track. Nature lovers and bird watching enthusiasts also have the opportunity to share with their children, wildlife in its natural habitat.

Environmental Benefits

Greenways are often classified by function and use. Functional attributes include water management, wildlife management and other activities related to
environmental protection. A vegetated corridor can help enrich the quantity and diversity of plants and animals in a community. As land is developed, it is typically done so in a manner which fragments natural areas as opposed to keeping them clustered. And wildlife species need sufficient natural space to roam, find food, and generally sustain their populations. Greenways not only help keep air and water clean, they allow the interactions necessary to sustain life between plants, animals, air, soil and water to occur.

**Economic Benefits**

Greenways can also provide several economic benefits to a community. Because greenways are linear, they typically affect a large number of land owners and require a great amount of cooperation and support. Currently, there are over 50 property owners along the banks of the Thornapple in Caledonia Township. Many of these property owners may be hesitant or outright object to donate a portion of their property as protected greenway space. They may feel it will have a negative effect on their property due to loss of privacy and the possibility of inviting vandalism.

In most cases however, the value of taxable properties adjacent to greenway corridors will increase. One Seattle study has shown that residential property near greenways was easier to sell and sold for an average of 6% more as a result of its proximity to the trail. Business owners also see economic benefits from greenways because they promote tourism and thus increase spending in the communities they connect.

**Greenway Implementation**

The Thornapple River corridor, with a few exceptions, is still largely undeveloped. However there are currently no significant laws in place which would ensure it will remain that way. The land adjacent to the river’s designated flood plain boundary is zoned Agricultural (A), Rural Residential (R-R), Low Density Residential (R-1), Medium Density Residential (R-2), Neighborhood Business (C-1) and Planned Unit Development (PUD). Although the Township’s Zoning Ordinance prohibits most development within the flood plain, the fringes of the river corridor are still subject to development.

River-fronting greenway corridors typically include an easement that is wider than the flood plain limits. Overlay zoning districts are typically used to address this problem. (See earlier discussion on Overlay Zoning.) Through the incorporation of an overlay zone along the Thornapple River corridor, Caledonia
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Township will have the appropriate means to protect its greenway from future development.

The key to a successful greenway system is access. Access to a Caledonia Township Greenway system should be provided to and from areas of development in the Township such as Alaska, Village of Caledonia, La Barge, and Holy Corners. Although greenway corridors can be as little as 25 feet wide in subdivisions, 50 feet is usually considered the minimum. Widths over 200 feet are considered optimal. The average width of the flood plain limits ranges from 100 to 500 feet from the waterline. Therefore, Caledonia Township has adequate land resources available to support a greenway.