Meridian Township Greenspace Plan

APPENDIX FINAL REPORT

Prepared For:



Charter Township of Meridian

Prepared By:



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May 6, 2004

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1. Project Context

Meridian Township is approximately 32 square miles in size, and about 40,000 people call the township their home. Meridian Township is in many respects a microcosm of urbanizing communities throughout Michigan. It is working to establish its own identity and at the same time define its relationship with its urbanized and growing neighbor, East Lansing. While Meridian Township is a Charter Township, it has a population, commercial core, and a sophistication of government services that surpasses many cities.

Extensive agricultural areas with relatively few large contiguous woodlots surround the Lansing metropolitan area. Meridian Township and its immediate neighbor to the north, Bath Township are the exceptions to that rule. Both townships tend to have minimal active agricultural lands with a substantial amount in open space. Much of this is due to extensive wetlands and rolling landforms with pocket wetlands that are difficult to till.

The Township's proximity to and inclusion of portions of Michigan State University (MSU) have a profound influence on the community. Many people who live in the Township are directly associated with the university. MSU is the gateway to the Lansing River Trail system. Planning is underway to create a trail extension through campus from Harrison Road to Hagadorn Road. This project, known as the Red Cedar Greenway, was planned with the idea of the trail continuing into Meridian Township.

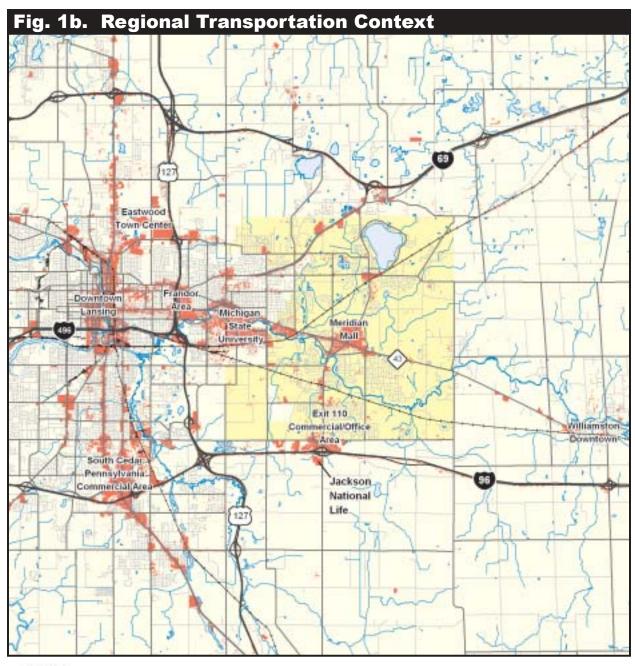
The following illustrations explore some of the regional influences on Meridian Township:

- Regional Political Context
- Regional Transportation Context
- Regional Recreation and Open Space Context



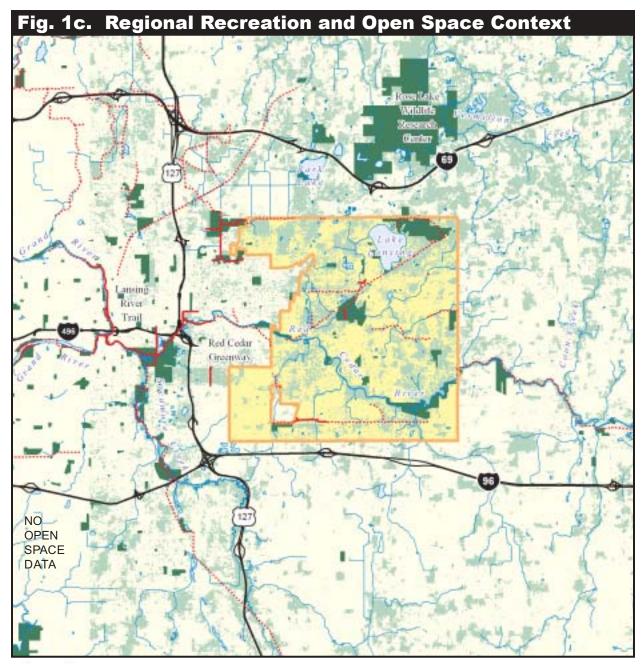
	Expressways
	Main Roads
_	- Rivers and Streams
	Water
	County Line
	Meridian Township

Located in the northern portion of Ingham County, Meridian Township is just 10 miles to the east of Lansing, the capital of Michigan. The Township is bounded by Williamstown Township to the east, Alaiedon Township to the south, and Bath Township in Clinton County to the north. Directly adjacent to the Township to the west are the city of East Lansing and the campus of Michigan State University. The Township shares in the economic success of the nearby urban area. However, the location of the Township adjacent to the Lansing metropolitan area also means intense growth and development pressure, as well as economic challenges.



Expressivays
Arterials and Collectors
Local Roads
Railroads
Meridian Township
Commercial / Office
Centers

Areas in red show the major regional commercial centers that act as traffic generators. According to MDOT, traffic counts for the I-69 business loop running through the northwest corner of the Township average 16,700 vehicles per day. Grand River Avenue, or M-43, also serves as a major transportation corridor into and out of the metro area. The portion of Grand River Avenue between Okemos and East Lansing carries an average of 35,000 vehicles per day. This heavily used corridor and the Okemos / Marsh Road corridor connecting I-96 and I-69 effectively split the Township into four quadrants. Careful planning is needed along these key transportation corridors to avoid fragmenting the Township.



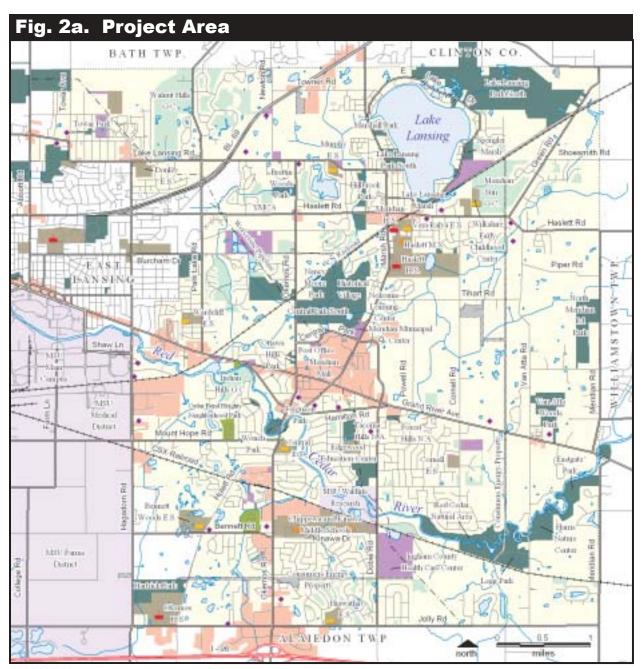
Existing Trails Proposed Trails Expressways (Major Barriers) Rivers and Streams Water Bodies Parkland Existing Open Space Meridian Township Meridian Township is in a region of gently rolling moraine landforms. Much of the pre-settlement vegetation in the uplands once consisted of beech-maple forests, but the area was cleared for farming early on by European settlers. The original wet prairies and marshes of the lowlands were tilled and drained for farming as well. Although the vast majority of the natural areas have disappeared in the region, patches of forested areas and wetlands still remain. Rose Lake State Wildlife Research Station to the northeast of the Township is a protected state land of over 4,000 acres consisting of abandoned fields, marshes and oak woodlands. The area is used for both biological study and recreational activities such as hunting and horseback riding. A network of existing and proposed non-motorized facilities link destinations in the Township to the broader region, particularly on and around the MSU campus.

2. Inventory of Existing Conditions

Meridian Township has managed to avoid one of the pitfalls of many developing townships in that the distribution of commercial lands and open space provide a logical community framework with which to work. The commercial activity is focused on the center of the Township immediately adjacent to the community center and a large contiguous public open space. Other large open spaces are placed on the periphery of the Township. It does however have both natural and built features that serve to separate the Township. The Red Cedar River is crossed only four times with bridges. The two railroads also provide barriers to the movement of people. Perhaps the most significant barrier is Grand River Avenue. This busy roadway provides an impediment to pedestrian and bicycle movement and a psychological barrier between neighborhoods. Okemos Road south of Grand River Avenue and Marsh Road north of Hamilton also have the potential to become serious barriers.

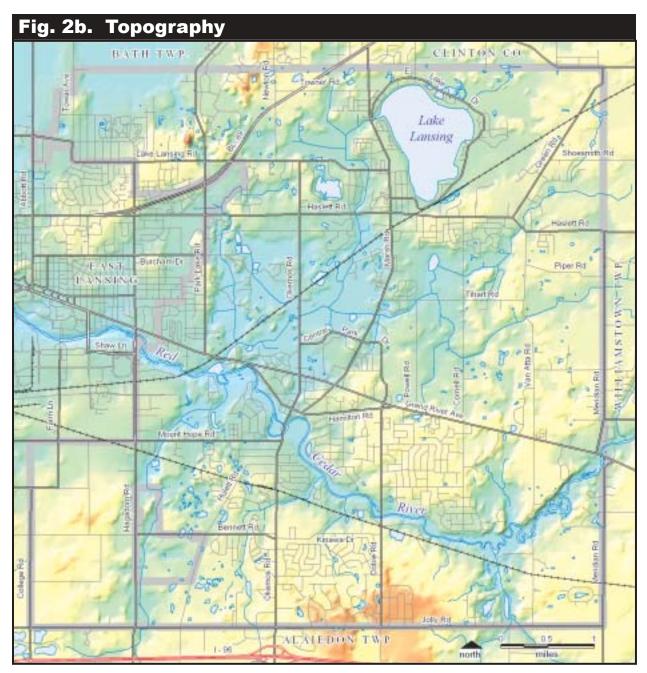
The following maps explore in detail the key influences to the Greenspace Plan:

- Project Area
- Topography
- Surface Water
- Groundwater
- Existing Land Use
- Existing Zoning
- Future Land Use
- Non-motorized Transportation Network
- Sewer System Coverage and Septic Suitability
- Potential Development Index
- Prime Farmland
- Regulated Land



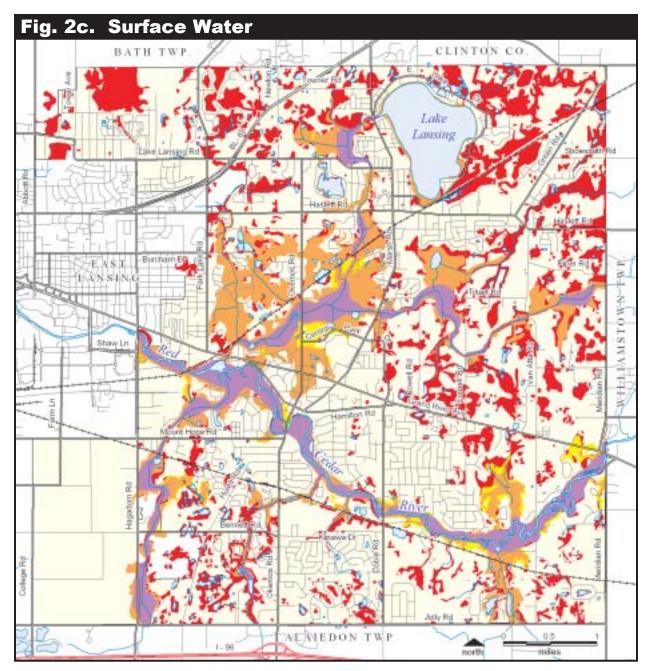
	Place of Worship
-	High School
	Middle School
-	Elementary School
	Water Body
	Commercial/ Office
	Public School Property
	Parks and Open Space
	Other Public Land
	Private Open Space
	Cemetery
	MSU Property
	Public Utility
	Meridian Township

The project area is Meridian Township, 32 square miles in area. Adjacent to the Township is East Lansing and Michigan State University. The presence of this major institution and the Lansing metro area has profound effects on the current land use pattern in Meridian Township. The Township has a combination of rural scenic areas, ecological resources, and areas of burgeoning commercial and residential growth. Much of the once rural Township now serves as a bedroom community to the cities of East Lansing and Lansing. Lake Lansing and the Red Cedar River are the predominant natural features in the Township. Commercial development in the Township is mainly centered around the corridors of Okemos Road, Marsh Road, and Grand River Avenue. Meridian Mall is located at the intersection of Marsh Road and Grand River Avenue. The Township has a population of 39,125 people.



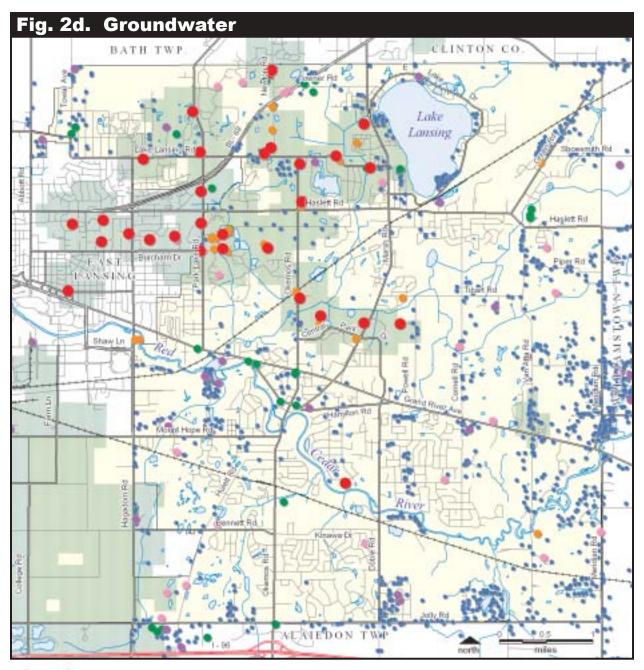


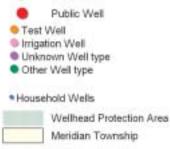
The topography of Meridian Township consists of gently rolling ground moraines with elevation varying approximately 110 feet across the Township. Lower lying areas are historically the site of broad swamps and marshes, the post-glacial drainage system being not well defined in this area. Many small kettle lakes and numerous streams pocket the shallow depressions in the landscape.



 Creek
Water Body
Floodway
Wetland
100- year flood area
500-year flood area
Meridian Township

Lake Lansing, the largest body of water within 30 miles of the city of Lansing, is an important regional recreation destination. The marshes along its edge are home to several species of rare wetland plants. The Red Cedar River, another prominent regional water feature, meanders through the Township from east to west on its way to the confluence with the Grand River in Lansing. In addition to the important habitat it provides, the Red Cedar River offers many recreational opportunities including kayaking and bird watching. Numerous small streams, ponds, agricultural drains, and a diversity of wetland types dot the landscape of Meridian Township. The wetlands serve as sediment control, critical habitat, and biological filters of excess nutrients in the surface water system. While wetlands used to cover 20% of Ingham County, today they only cover 3% of the county.



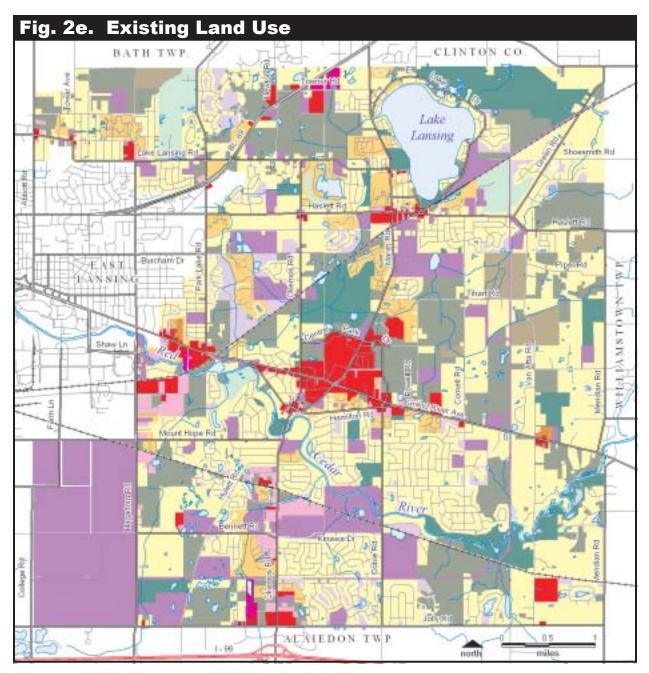


Other Well types include commercial wells, wells at a business where the public is not served, or wells used to fill a pond or water livestock.

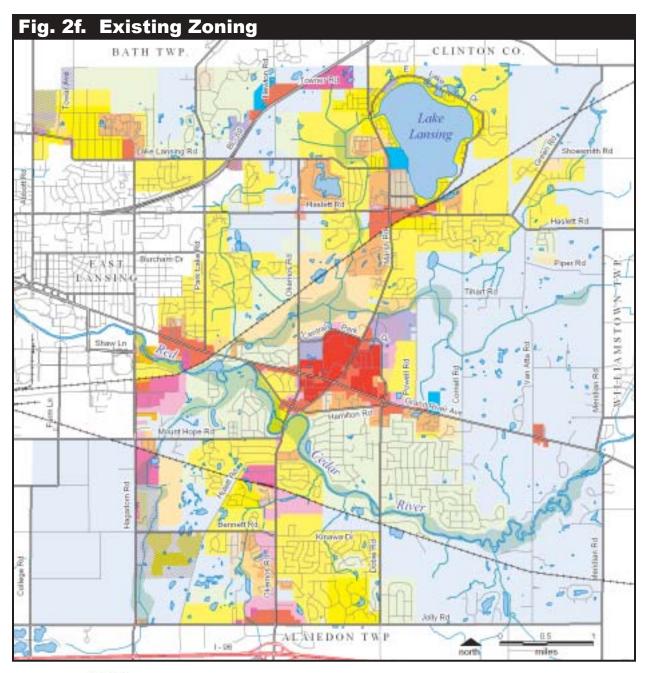
Well information was developed from the MDEQ Statewide Groundwater Database. The data is available online at: http://www.mcgi.state.mi.us/mgdl/ The water source for Meridian Township is the Saginaw Sandstone Aquifer. The East Lansing-Meridian Water and Sewer Authority operates a water treatment and pumping facility located on Burcham Road, east of Park Lake Road. The facility treats water from 29 public wells.

The wellhead protection area indicated on the map in green is defined by the State of Michigan as "the surface and subsurface areas surrounding a water well, or well field, which supplies a public water system, and through which contaminants are reasonably likely to move toward and reach the water well, or well field within a 10-year time of travel." These areas are subject to special regulations and permitting processes.

Meridian Township Greenspace Plan Appendix Final Report



Agricultural Commercial Golf Courses Industrial Institutional Mobile Home Multiple Family Office Parks Residential Common Area Single Family Undeveloped Water Much of the land in Meridian Township is devoted to residential uses, mainly single family homes. A large portion of the Township is also taken up by a variety of public land uses. Michigan State University has several major land holdings within the Township devoted to agricultural and ecological research. In the center of the Township, a hub of commercial land use is clustered around the intersection of Grand River Ave. and Marsh Rd. Other commercial parcels and office parks are scattered along the major road corridors. Several large undeveloped parcels in the Township are interspersed between the commercial center and residential neighborhoods, making them prime targets for development.

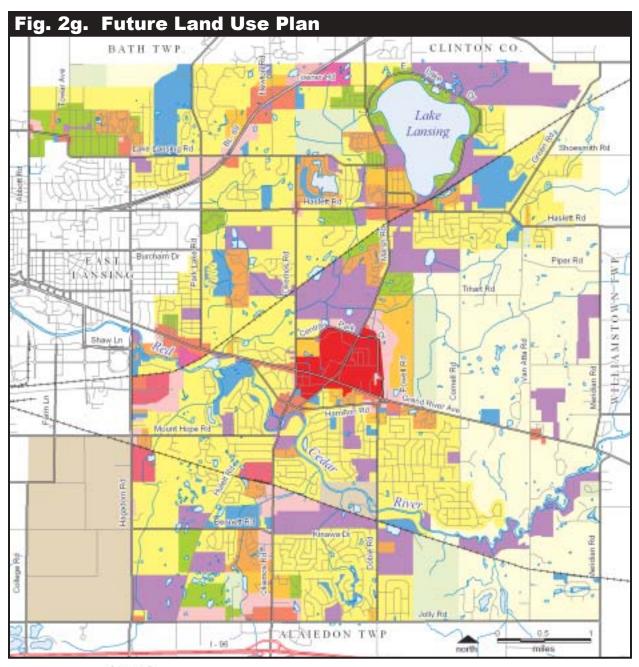


C1- Commercial District C2- Commercial District C3- Commercial District CR- Commercial Recreation CS- Community Service I- Industrial District PO- Professional and Office RA-1 Family Med. Density RAA- 1 Family Low Density RAAA- 1 Family Low Density RB-1 Family High Density RC- Multi. Family 14 DU/Acre RCC- Multi, Family 34 DU/Acre RD- Multi. Family 8 DU/Acre RDD- Multi, Family 5 DU/Acre RN- Mixed Residential RP- Research and Office Park RR-1 Family Rural Residential RRA-1 Family Suburban Estate RX-1 & 2 Family Residential

Act 425 Areas

Floodway, included in the Conservation District Zoning (see text at bottom right) Township-owned public lands as well as MSU properties in the Township are often zoned as residential. Although it is unlikely this land will ever leave public ownership, if it does, the current residential zoning will affect the development patterns of these parcels.

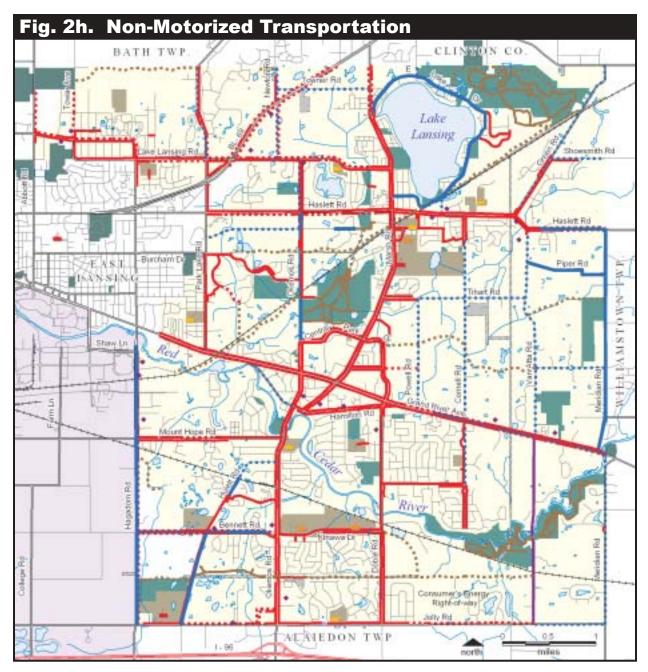
The Conservation District zone, shown in dark green, is an overlay zone that protects sensitive lands in the Township including floodway and floodway fringe areas. It also can include groundwater recharge areas determined on a case-by-case basis. The Conservation District is subject to special regulations and permitting processes.





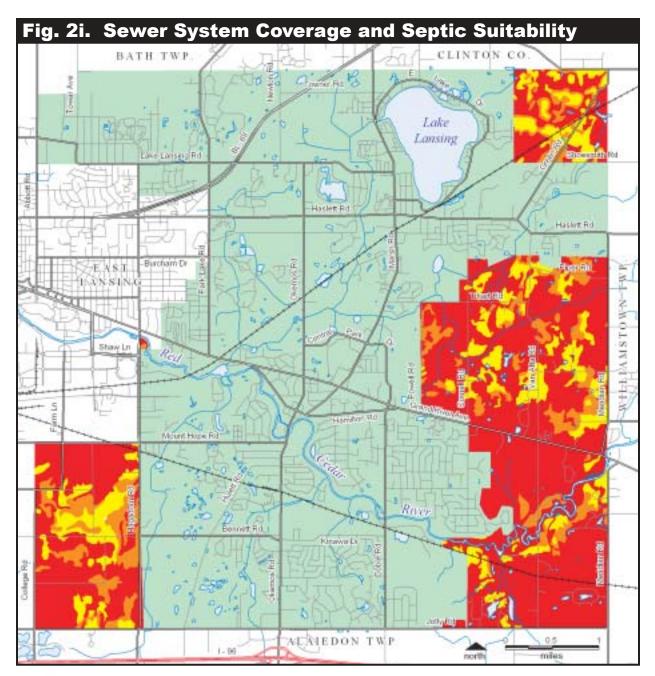


The current Future Land Use Plan was adopted in 1993. The plan includes only general categories and does not differentiate between different types of public land uses such as parks and schools. Also, the Current Zoning Map does not correspond with the Future Land Use Plan in many instances, such as the identification of MSU property, park land and other public lands, golf courses and common areas. To ensure the viability of the plan and the long-term protection of park land in the Township, the zoning should be changed to more closely reflect the plan and specific designation of park land and open space should be included in the plan.



Legend Existing pathway Alternative Pathway Existing Shoulder Existing Trail · Planned Shoulder · · · · Proposed Pathway ** Proposed Trail Temporary Path High School Middle School Elementary School Public School Property Parks and Open Space Public Utility MSU

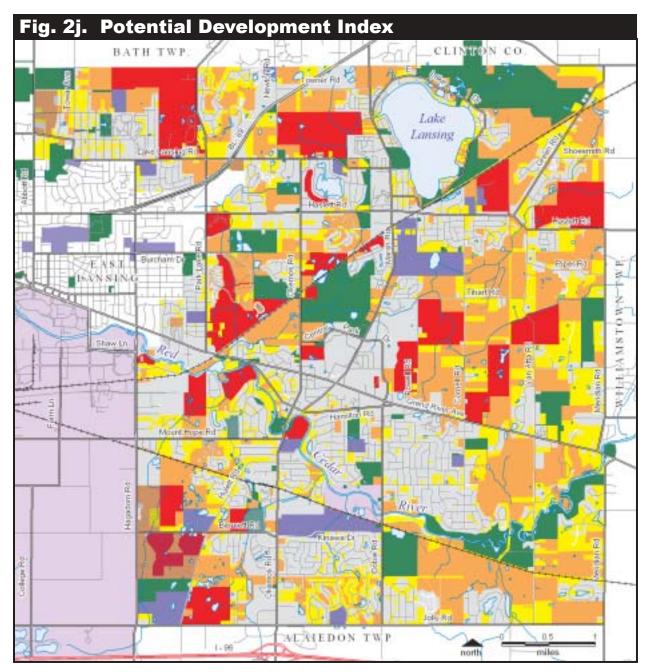
This map illustrates existing and proposed non-motorized facilities in Meridian Township. The existing conditions include sidewalks in the more urban areas of the Township and paved shoulders along the rural roads. Currently, there are no significant lengths of off-road shared-use pathways in the Township, although numerous links have been previously proposed. The river presents a barrier to north-south non-motorized travel in the Township. A path along the Red Cedar is planned both east and west of the Township. Linking these two proposed trails across the Township in the future will create a major recreational route not only for the Township, but for the county as well.



_egend



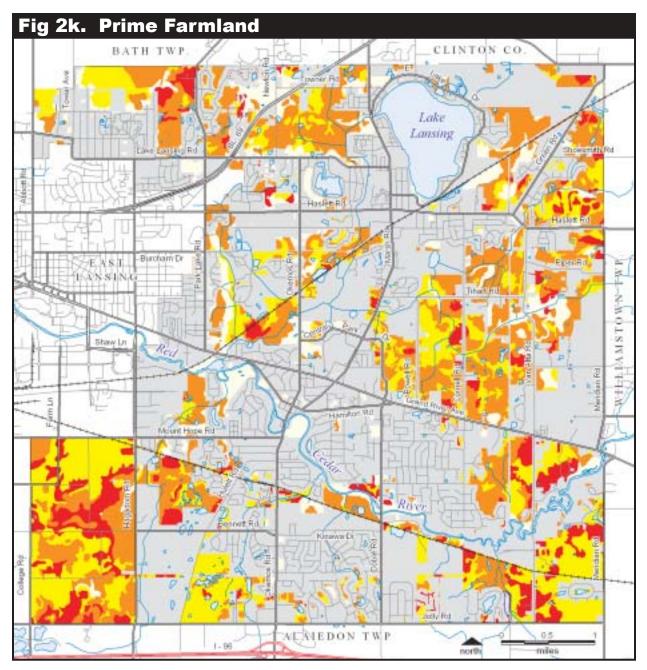
Township sewer service area Soils with slight septic deficiencies Soils with moderate septic deficiencies Soils with severe spetic deficiencies The existing Township sewer system connects the majority of Township land. Many of the soils in the areas that remain unconnected to the sewer system have severe deficiencies for the safe accommodation of septic systems. Because of this, any new development occurring in these areas, mainly the southeast corner of the Township, will likely require the expansion of the existing sewer system.



Potential Development Index (zoned density / existing density)

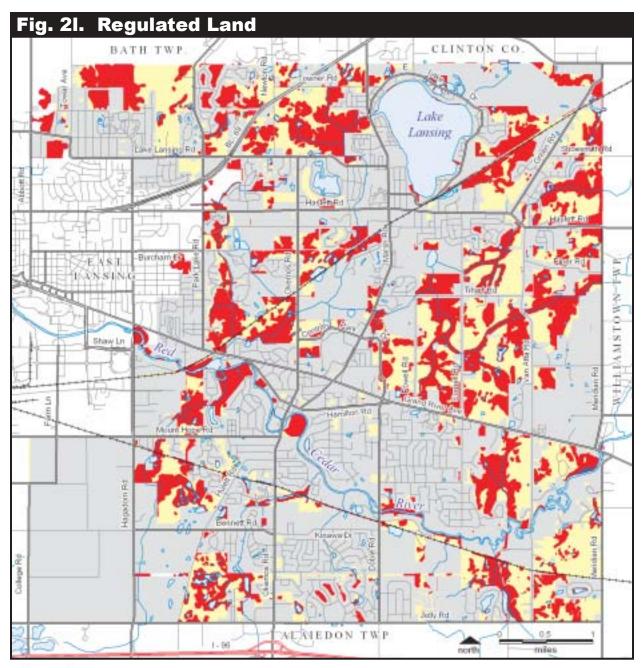


Public Land Public School Property MSU Property This map was created by comparing existing parcel sizes with the minimum allowable lot size or the maximum number of dwelling units allowed as specified in the current zoning ordinances. The resulting "Potential Development Index" reflects the degree by which a parcel can be divided into smaller lots according to the current zoning regulations. Any parcel having an index less than or equal to 2 in most cases may be considered fully developed. Any parcel with an index of greater than 2 may be subdivided further. Parcels shown in red, orange and yellow can be divided into numerous smaller lots. Red parcels have the highest discrepancy between their current size and the minimum allowable lot size according to their zoning status. Commercial, office, and industrial properties are not classified according to the Potential Development Index due to a lack of information on their current development status.





This map identifies lands in Meridian Township that are considered prime farmland, both on a national level and on a regional level, according to characteristics identified by the USDA. These characteristics which include growing season, moisture supply and quality of the soil make the land ideally suited for sustaining high yields of crops. Early European settlers converted much of the land in the Township to agriculture. Large tracks of beech-sugar maple forests were cleared for their rich, loamy soils. Today, however, farmland in this region and across Michigan is disappearing at an alarming rate to make way for residential, commercial and industrial development. The irreparable loss of this highly productive farmland to development is a major conservation concern. Preserving viable farmland and high quality soils is vital for the long-term sustainability of the region.





Much of the land in the Township that remains open for further development is subject to building regulations that protect sensitive lands. This includes State and Federal regulations protecting the type and extent of building that occurs on or near wetlands, lakes and flood areas. Federal, State and Township laws ensure development in wetlands can only occur through an extensive permitting process that ensures no other practical alternative to building in the wetland exists. The Meridian Township Code extends these regulations to include restrictions on development within a 20-40 foot buffer of all wetlands. Township streams, rivers and lakes are also currently protected from development by a regulated buffer ranging from 25-50 feet. This "natural buffer" protects surface water from pollutants running off farmland and impervious surface in the area and maintains critical habitat for wildlife.

3. Visioning Public Workshop

The purpose of the Visioning Public Workshops was to identify hopes and concerns that the citizens of Meridian Township had for their project. Participants were asked individually to identify green and open spaces that should be recognized in the system, including both specific places or general resources. The participants were asked why they indicated that these places should be preserved and why their suggestions were important. Participants were also asked to identify potential walking and bicycling links and types of routes they would like to see.

After filling out their individual worksheets, participants worked in small groups to mark on large maps their top green and open spaces as well as the top walking and bicycling linkages.

This section includes:

- Examples of the forms used in the workshop
- Maps illustrating the public input received from the small group process:

Fig. 3a. Public Visioning Input: Green and Open Space - maps the specific places that people indicated they wanted to preserve as well as general areas that were mentioned often.

Fig. 3b. Public Visioning Input: Walking and Bicycling - shows suggested links separated into links that use existing road right-of-way and those that are away from the road. Also areas that need general improved access were noted.

- Written summaries of the public input received
- Recorded data from the forms

Example of Visioning Workshop Form 1

Meridian Township Greenspace Plan Visioning Workshop

£ Tuesday, April 29 OR £ Wednesday, April 30, 2003, Meridian Township's Townhall Room

Personal Thoughts

Visualize the future

Think ten or twenty years into the future and visualize Meridian Township as you would like it to be. In you mind, move about the township and visit some of your favorite places. What do the natural areas and open spaces look like? How about the roads and the views along the roads? Now take a moment and think about going for a walk or a bicycle ride. What new routes are available, and how are some of your favorite routes improved?

Tell us what you saw

Please take about ten minutes to fill out this sheet. The purpose of these questions is to understand what specific places are valued by people and should be considered for preservation.

Green and Open Spaces:

	What specific places should be preserved? *	Why is it important to you?
1.		
2.		
3.		

* Please focus on areas that are not currently protected Indicate a common name for the location or address if available Put a small dot on the map for each place

Walking and Bicycling Links:

	Endpoints?	What type of route?
1.		
2.		
3.		

About Me:

- ____ Live in Meridian Township
- ____ Homeowner in Meridian Township
- ____ Work in Meridian Township
- ____ Own a Business in Meridian Township

Please put the completed form in your table's envelope!

Example of Visioning Workshop Form 2

Meridian Township Greenspace Plan Visioning Workshop

£ Tuesday, April 29 OR £ Wednesday, April 30, 2003, Meridian Township's Townhall Room

Table Summary for Table Number

Using the Individual Thought sheets that you filled out as a starting point, please take twenty minutes to share you thoughts with the others at your table and list the top two or three for each category. You may find it helpful to combine similar hopes or concerns. Each table should appoint one person to provide a three-minute summary to the entire group.

Green and Open Spaces:

	What general types of places should be preserved ?	Why are these important?
1.		
2.		
3.		

Put a large dot on the map for each place.

Walking and Bicycling Links:

	From where to where?	What type of route?
1.		
2.		
3.		

Use a marker to dash in the key routes.

Comments:

Please put the completed form in your table's envelope!

Example of Visioning Workshop Form 3

Meridian Township Greenspace Plan Visioning Workshop

£ Tuesday, April 29 OR £ Wednesday, April 30, 2003, Meridian Township's Townhall Room

Comment Card

If you have something that you would like to share with the design team beyond the standard sheets please take a moment and fill in this sheet. The contact information is optional. If you would like you could take this home and mail it in the address at the bottom of the page.

Optional Contact Information:

Name:		
Address:		
Telephone:		
E-mail:		
£ Please notify	of project meetings	

£ E-mail

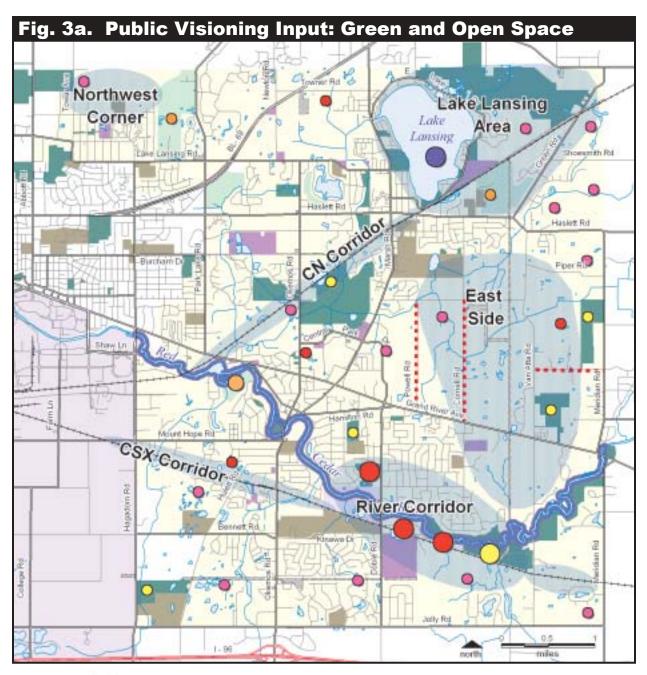
£ Mail

Please feel free to mail or fax this form or any other comments after the meeting to:

The Greenway Collaborative, Inc 214 Nickels Arcade Ann Arbor, MI 48104-2410 734-668-8848 Fax: 734-668-8820 www.greenwaycollab.com normancox@greenwaycollab.com

I prefer to be contacted by:

Please put the completed form in your table's envelope!





Specific areas highlighted by the workshop groups have been noted on the map. Lake Lansing and the Red Cedar River corridor were chosen by numerous groups for recreation, wildlife, and water quality reasons.

Preserving land along both the CN and CSX railroad corridors was a concern highlighted by several groups. Several properties along the river were chosen by different groups as targets of preservation. Legg Park and Indian Hills Golf Course are existing public and semi-public properties that were also chosen by several groups for increased protection.

Meridian Township Greenspace Plan Appendix Final Report

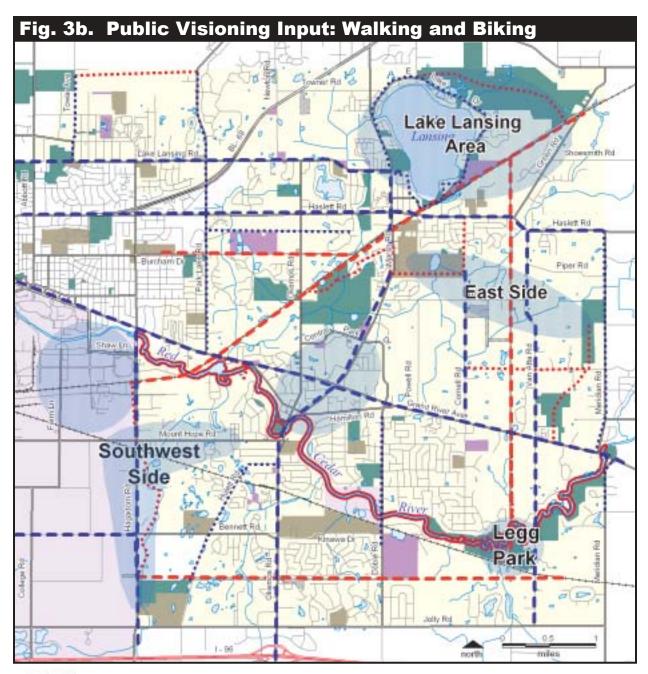
Public Visioning Workshops Summary of Public Input

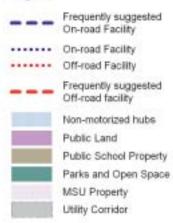
Tuesday, April 29th and Wednesday, April 30th, 2003 from 7:00 PM to 9:00 PM Meridian Charter Township Town Hall Room

Green and Open Space

People attending the meeting were clearly in support of the Township's efforts to preserve greenspace. In general, farmland, rural roads, woodlots, lakes, and stream corridors were all identified by numerous groups as areas encouraged for protection of wildlife and for recreation opportunities. The individual responses can be grouped into several general regions in the Township:

- 1. The northeast corner of the Township and the lands adjacent to Lake Lansing and Lake Lansing Park North. These were noted as being valuable for wildlife, and popular areas for recreation. The CN corridor from MSU to Lake Lansing was mentioned not only in the context of a possible trail link, but preserving the lands along the corridor for recreation opportunities and wildlife.
- 2. "Protecting Existing Woodlots" and "Preserving Farmland" were the most frequently mentioned general responses. There is strong public sentiment for preserving the rural character of the east side of the Township. Protecting the scenic views and canopied country road feeling along Van Atta, Tihart, Powell and Cornell Roads were mentioned numerous times. In conjunction with this area, many people mentioned utilizing the Consumers Energy corridor for open space and recreation.
- 3. Preservation of the Red Cedar River corridor was frequently mentioned for recreation, wildlife and water quality reasons. In particular, people focused on the southeastern portion of the corridor, the lands adjacent to Legg Park and Red Cedar Natural Area. Several people stressed the urgency of purchasing intact land along the Red Cedar while it still remains. This included the lands between the Ingham County Health Care Facility and the parks, areas along the CSX railroad corridor, and further protection of the MSU wildlife research area.
- 4. Several people noted the northwest corner of the Township for its lack of public parks, and large intact blocks of woodlands.
- 5. People also stressed the importance of protecting existing parkland and being alert for opportunities to buy/preserve MSU properties if the opportunity should arise.





Several focus areas for non-motorized transportation improvements emerged from the public responses. These are shown on the map as shaded in blue.

Suggestions for off-road facilities included continuing the Red Cedar Greenway from the east side of the township to the west side, the CN railroad to Lake Lansing, the Consumers Energy Corridor, and the Interurban line.

Suggestions for on-road facilities included bike lanes and pedestrian paths along Okemos Road, Lake Lansing Road, and Grand River Ave.

Public Visioning Workshops Summary of Public Input

Tuesday, April 29th and Wednesday, April 30th, 2003 from 7:00 PM to 9:00 PM Meridian Charter Township Town Hall Room

Walking and Biking

The responses indicated strong sentiment to expand the system of non-motorized facilities in the Township. Several people stressed the need for increased maintenance of existing paths in addition to expanding what is currently a fragmented system. In general, people stressed the need for bike lanes, wider shoulders on rural roads, and more pedestrian facilities along main road corridors. Other common comments were a strong need for a north-south link and east-west link, and connections to the larger region, particularly Rose Lake Wildlife Area. Connecting schools, parks, individual subdivisions and downtown areas with trails or other non-motorized facilities was a common theme. Out of the comments, several more specific areas of focus emerged:

- 1. The most frequently mentioned off-road trail opportunity was connecting MSU with Lake Lansing along the CN railroad. Lake Lansing was mentioned frequently as a hub for which trails connecting to various parts of the Township should connect, including the river corridor, Burcham Park and Legg Park.
- 2. A second major theme was continuing the development of the trail along the Red Cedar River which would connect to the Lansing River Trail, Red Cedar Greenway and the west side of the Township. Along with this, there were several mentions of expanding the current network of trails in the parks along the Red Cedar, including the Red Cedar Natural Area, and Legg Park, where several people mentioned the need for a river crossing.
- 3. Implementation of a non-motorized system on the east side of the Township was frequently brought up. Suggested linkages were North Meridian Road Park with Van Atta Road, Haslett High School, Cornell Road and Legg Park. Many people also mentioned utilizing the Consumers Energy corridor as a possible link.
- 4. The Interurban Trail was brought up by several groups as a link between East Lansing and the Lake Lansing area.
- 5. The Southwest corner of the Township also was a focus of several groups. This included the need for creating a bike and pedestrian friendly connection to Alaiedon Township to the south, and improving facilities along Mt. Hope Road.
- 6. The commercial core, including the corridors of Okemos Road and Grand River Avenue were frequently mentioned as needing both bike and pedestrian improvements and trail linkages to neighborhoods and the MSU campus.

Public Visioning Workshops Recorded Written Responses

Tuesday, April 29th and Wednesday, April 30th, 2003 from 7:00 PM to 9:00 PM Meridian Charter Township Town Hall Room

Personal Thoughts Worksheets

What specific places should be	Why is this important to you?	#
preserved?		
Red Cedar River Corridor	Green ribbon, canoeing, kayaking, protection of water quality, walking, biking	7
CNN corridor to Lake Lansing		4
MSU property	Used by thousands of people	3
Van Atta Road	Rural, tree canopy, views	3
Land contiguous to Lake Lansing and North Lake Lansing Park	Wildlife habitat, connection for recreation	2
N. Lake Lansing	Good hiking, habitat, recreation	2
East side of township kept rural		2
Tihart Road	Rural heritage, near wetlands and openspace	2
Linn farm		2
Consumer Energy ROW	Wildlife corridor, possible extension of Legg Park	2
Land adjacent to Legg Park	Wetlands, trilliums, trails	2
Property adjacent to Medical center	Barrier to Residential development off Jolly Rd.	2
Moore property		2
Area along CSX railroad	East-west corridor, connect parks and open space along river corridor	2
Field at Haslett and Green Rd.	Wildlife habitat, views from residential, country	1
SE corner of Okemos Rd. and Central Park drive	Interesting tree species from by previous owner, wildflowers, mature trees, contiguous to Central Park South, wetland at south end, county drain	1
Powell/ Cornell area	Buffer for commercial development/ Large enough to make a difference	1
Sylvan Glen outlets	Shields railroads, pathways, connector between MSU wildlife prop. and Moore prop.	1
MSU Wildlife research area	Green island along river	1
Sander Property	Last piece of Red Cedar prop. other than Moore prop.	1
Red Cedar Natural Area	Great place to hike	1
Dart Property		1
Dobie Rd to Central School (Okemos Rd)	Centrally located, large area	1
NW corner of township	No public parks, under growth pressure, large block of woodlands	1

Question 1. Green and Open Space

Land east of Towar and north of Biber	Large tract of woodland, mixed wetlands	1
Hartrack area		1
Ruby Road		1
Wetland at prairie at North end, Country	Attracts wildlife	1
lane		
Sugarbush, 5 acres at 4383 Maumee Rd.	25 gallons of maple sugar a year, possible	1
	conservation easement	
General responses		#
Farms	Agricultural heritage of community,	7
Woodlots	Wildlife areas	7
Along railroads		3
Existing Parks		3
River and creek corridors	Part of watershed protection, beauty, habitat	2
Rural roads/ Canopied roads		2
Wetlands as part of a system	Do not surround by development, keep	2
	connected	
Natural areas		2
Empty lots in strategic places in older		1
subdivisions		
Lake Lansing and other small lakes, ponds	Wildlife, scenic views	1
Woodlots adjacent to wetland	Availability for wildlife habitat, including	
	migratory birds, provides beauty	
Floodplains	Protect existing residential areas	1
Wellhead protection areas		1
Corridors for wildlife	Allow safe movement	1
Recreational sports facilities		1

Question	2.	Walking	and E	Bicvel	ling	Links
X a conton		· · · · · · · · · · · · · · · · · · ·	and L	, i e j e i		

Endpoints?	What type of route?	#
MSU to Lake Lansing along CNN Railroad	Off road route through woods, Safe routes to school	8
Red Cedar trail from MSU to Meridian Rd.		5
Consumer Energy corridor	Paved, off road	4
Interurban trail from water plant to Lake		3
Lansing		
East-west link to MSU lands in south	Biking and walking, Safe routes to school	3
South side of Mt. Hope	Biking/ walking	3
Grand River Ave. E-W	Walking and Biking	2
Lake Lansing to north (Rose Lake)	Biking and walking	2
Links to MSU		2
More trails in Legg and Red Cedar Natural		2
Area		
Van Atta Road		2
Path along Cornell		2
River trail to Lake Lansing		1
MSU to Lake Lansing via Mt. Hope		1
Burcham Park Lake Rd. to Lake Lansing	Paved or crushed limestone	1
Harris-Legg Park to N. Lake Lansing Park	Paved or crushed limestone	1

Link to the south of the township	Walking and biking safely	1
Connect to Williamston Township	Near Germany Rd. and N. Meridian	1
MSU to Meridian Mall	Biking and walking	1
Lansing Riverfront trail, Kalamazoo St.		1
South side-Mt. Hope, Maumee to Okemos	Walking and Biking	1
rd.		
CSX trail	Hiking, biking	1
Jolly Rd. Corridor	Biking and walking, trails adjacent to road	1
Red Cedar river trails		1
River crossing west of Legg	Hiking trail	1
Bridge over Red Cedar at Shoals	Connection to park off Van Atta	1
subdivision		
Haslett H.S. to Cornell connection		1
Foster Drain from N. Meridian Park, W. to		1
Van Atta to Powell to link with trail around		
Mud Lake and back of Haslett High		
School.		
Dobie to Cornell		1
Van Atta Woods from Dobie and Jolly Rd.	Walking and Biking	1
Central Park to Haslett		1
Central Park south to Nakomis Trail		1
Meridian Mall		1
Commercial corridors		1
General Responses		#
East-west links		4
More bike lanes along roads		3
Connect trails to parks		3
Connect trails to schools/ safe routes		3
Connect to a regional system		3
North- South connection	On road with bike lanes, wide shoulders	3
Connect subdivisions		2
Complete and maintain existing paths first		1
Connect trails to township facilities		1
Continue walking/bike path development		1
More paths along rural roads		1
Wide shoulders		1
Encircle township and create spokes that		1
connect areas		

General Comments from Personal Thoughts Worksheets

Green and Open Spaces

- ∉ All proposed pathways in master plan (on and off road) should be developed; they are the basis for pathways within the community to connect the parks and greenspace.
- ∉ Save openspace via the land preservation board on a priority basis as soon as possible, it is disappearing fast.
- ∉ Real bike paths should not be addressed as sidewalks. We need a network of pure bike paths connecting parks and residential for health of citizens, recreation and to encourage biking.
- ∉ Natural and open space areas safe and accessible where practical, not everywhere needs to be paved.
- ∉ Be reasonable with development landscape requirements. Don't just go after 'green cover'. Create a lasting look.
- ∉ Need an I-96 exit at Dobie or Meridian Rd.
- ∉ Reduce problem of lighting at night
- ∉ Keep east side rural with Urban Services Boundary
- ∉ Be ready to purchase MSU land if it comes up for sale
- ∉ Some greenspaces should include development of Community Supported Agriculture
- ∉ Reduce strip malls and high-turnover rates- needless development. Overgrowth of business and commercial development
- ∉ Stop killing trees by damming water with roads. Culverts allow wildlife to move.
- ∉ Keep trails through natural areas natural with wood chips, no paved surfaces.
- ∉ Combination of natural areas, recreational sports facilities with ball diamonds, and walking and biking paths through the parks

Walking and Biking

- ∉ Current system is fragmented and virtually unusable
- ∉ Add soccer complex at the county property near Medical Care Facility.
- ∉ Off-road trails have a difficult easement process
- ∉ We need wide outer lanes on primary roads like Grand River and Haslett

Comment Cards

- ∉ As the township continues to be developed, greenspace and trails to allow citizens to walk and bike safely become critical to quality of life.
- ∉ I support the need to connect the natural "hubs" and preserve what is left of the township's natural beauty!
- ∉ Presentation went too fast. Much info. I will be using the packet for another group, Mid- MEAC, Greenway Infrastructure Map to get businesses to buy into promotion of river trail expansion.
- ∉ Promote cluster housing in conjunction with CSAs (Community Supported Agriculture)
- ∉ Make sure plan coordinates with TCRPC Wise Growth Regional Plan.
- ∉ Connect trails, connect parks, plant green along connecting trails, make sure every new subdivision has a public greenspace, make a cluster zoning ordinance.
- ∉ Connectivity, trails with views, natural, native plant material should be used, wetland preservation, trails to OHS- biking and walking.
- ∉ Connectivity to waterways and parks, connectivity to trails at MSU and E. Lansing. Each major neighborhood should have greenspace and plenty of walking, jogging, and bike paths.

Group Maps

Tuesday, April 29th

3 total tables participated- Table 1, Table 2, Table 6

Table 1

Green and Open Space Priorities:

- 1. Red Cedar River Corridor
- 2. Lakes and Ponds, including wetlands
- 3. Green Connectivity with surrounding areas

Walking and Biking Link Priorities

- 1. Red Cedar Corridor
- 2. MSU to Lake Lansing
- 3. N-S routes, E-W routes
- 4. Hagadorn Rd.

Other Stuff

- 1. More sidewalk connections to schools/ libraries
- 2. Paved shoulders for bikes

Table 2

Green and Open Space Priorities:

- 1. Save open space via Land Preservation Board on priority basis as soon as possible-disappearing fast
- 2. Red Cedar River Corridor

Walking and Biking Link Priorities

- 1. MSU to Lake Lansing off road path and old Interurban path
- 2. Continue to work on N-S link along Van Atta. Connect Legg Park to MSU.
- 3. Encourage bike lanes on roads so can commute and get around, in and out of township using nonmotorized vehicles, i.e. along Hagadorn Rd.
- 4. Complete existing plan

Table 6

Green and Open Space Priorities:

- 1. River properties
- 2. Continue Riverwalk across township
- 3. Save development pattern

Walking and Biking Link Priorities

- 1. West to East links
- 2. Riverfront properties
- 3. Complete planned trail system

Wednesday, April 29th

6 total tables participated- Table1, Table 2, Table 3, Table 4, Table 7, Table 9

Table 1

Green and Open Space Priorities:

- 1. Maintain golf course identified on map (Walnut Hills, Indian Hills, Meridian Sun)
- 2. Preserve land west of west of Post Office- library proposed
- 3. Park Lake Rd. between Grand River and Burcham

Walking and Biking Link Priorities

- 1. Bike lanes represent pathways and pre-existing public utility corridors
- 2. Link downtown Okemos and Haslett, develop town center
- 3. N-S routes, E-W routes
- 4. East-west pathway from Mt. Hope to Dobie

Other Stuff

1. More sidewalk connections to schools/ libraries

Table 2

Green and Open Space Priorities:

- 1. Connect existing schools and parks to neighborhoods
- 2. Look at University and public school property for conservation opportunities
- 3. Open sunny areas for CSAs

Walking and Biking Link Priorities

- 1. Bridge over rivers to connect parks with trails
- 2. Make Grand river, Okemos, Haslett, Lake Lansing Rd., more person friendly

Table 3

Green and Open Space Priorities:

- 1. Lake Lansing Area
- 2. Farmland-east side
- 3. Red Cedar River Corridor

Walking and Biking Link Priorities

- 1. Link to MSU area
- 2. Lake Lansing to Rose Lake
- 3. Park connectors

4. Trail area along Jolly Rd. corridor

Table 4

Green and Open Space Priorities:

- 1. Potential Conservation easements
- 2. Greenspaces in subdivisions
- 3. Cluster zoning

Walking and Biking Link Priorities

- 1. Connectivity
- 2. Walking/ Jogging/ Biking loops

Other Stuff

1. More sidewalk connections to schools/ libraries

Table 7

Green and Open Space Priorities:

- 1. Sylvan Glen
- 2. County Medical Center
- 3. Applegate property

4. Existing parks and other areas (see map)

Walking and Biking Link Priorities

1. Pathways marked in blue dash- see map

Table 9

Green and Open Space Priorities:

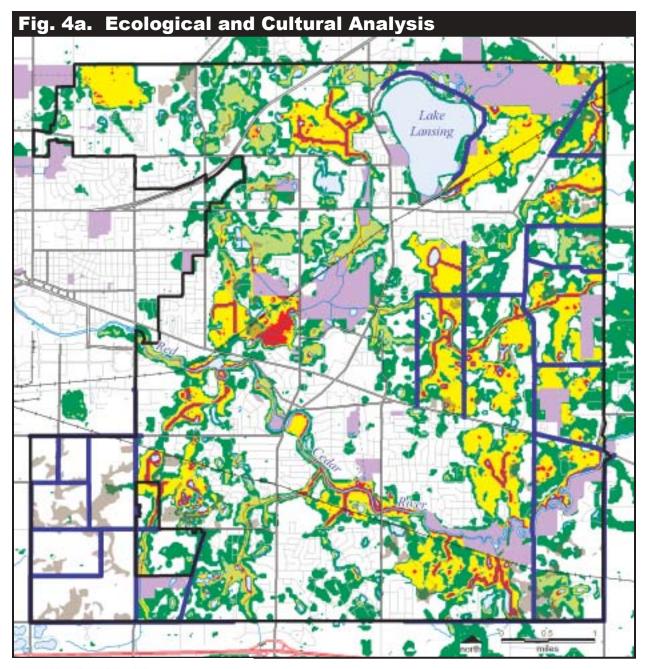
- 1. Preserve intact woodlots
- 2. Eastern third preserved rural
- 3. Preserve scenic corridors

4. Analysis and Alternatives

During the Analysis and Alternatives phase, the project was divided into two components: the conservation corridor component and the non-motorized corridor component. The conservation corridor analysis was a scientific evaluation of the existing natural features based on accepted ecological principals. The non-motorized corridor options were drawn more from public input and a subjective evaluation of the hubs, sites and potential routes.

For the conservation corridor analysis, a grid based evaluation model was created that used data prepared by the State of Michigan for forest management. Because a statewide dataset was used, adjacent communities could be evaluated as well. The result was a ranking of the existing natural features. This information was used in the drafting of the Priority Conservation Corridors.

The non-motorized corridor options took into consideration a number of factors. One of the goals was to create as much of the system off-road as possible. Also, the non-motorized corridor should attempt to integrate with the evolving conservation corridors if possible. As a completely off-road system was not feasible, the off-road alternatives are dependent on on-road linkages.





This map shows the results of a model created to rank ecologically valuable areas in Township according to several criteria. The following page outlines the ranking criteria in more detail.

Important cultural considerations such as scenic road corridors, scenic view sheds and prime agricultural land are shown on the map as well. Scenic road corridors were developed through aerial photography and land use/ land cover data. The scenic corridors were later refined through public input, Township staff input, and field checking. A view shed analysis using GIS was performed but determined to be unreliable and therefore not pursued.

Ecological Analysis: Ranking Criteria

The following criteria were used to identify and rank ecologically valuable areas within Meridian Township:

Wetlands

All wetlands were buffered with 100 ft. These areas received +1 point.

Rivers and Streams

Rivers and streams, including the Red Cedar were buffered by 100 ft. These areas received +1 point.

Lakes

Lakes were buffered with a 100 ft. buffer. These areas received +1 point.

Rarity

Forest cover classification data created from the Integrated Forest Monitoring Assessment and Prescription project (IFMAP) was analyzed within an area of approximately 20 square miles surrounding the Township. Forest cover types contributing to less than 5% of the total forest in this area (both upland forest and lowland forest) were considered rare and further analyzed. If a majority of the rare forest cover type occurrences fell outside of developed areas in the Township, it was given +1 point. Out of five rare forest cover types contributing to less than 5% of the forest cover, only one was excluded on this basis- "Other Upland Conifers". This forest cover type occurred mainly in residential developments and therefore probably includes plantings of Colorado Blue Spruce and other ornamental conifer trees. Four forest types were given +1 for rarity within a 25 mile area:

- "Aspen Association" Proportion of Aspen exceeds 40% of the canopy
- "Lowland Coniferous" Proportion of coniferous trees exceeds 60% of the canopy
- "Lowland Mixed" Mixed forest not falling into any other category. Proportion of conifers to deciduous ranges from 40%:60% to 60%:40%
- "Other Upland Deciduous" Proportion of any single species other than oak or aspen exceeds 60% of the canopy

Open Space Corridors

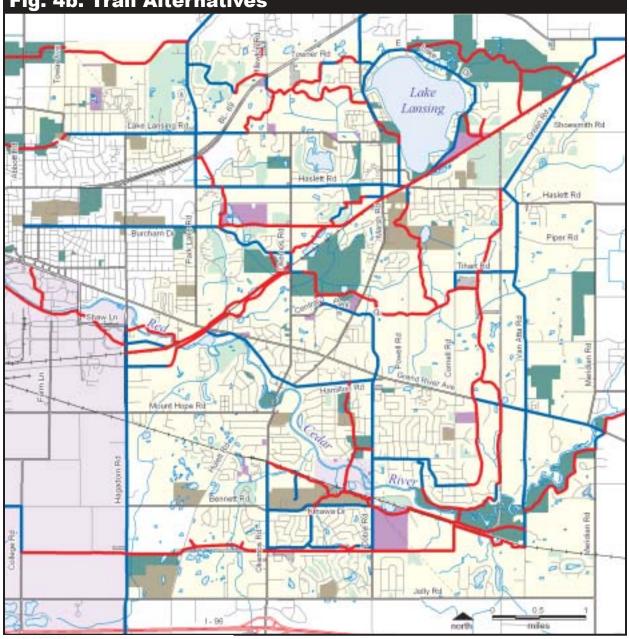
Using forest and shrub cover data from the Integrated Forest Monitoring Assessment and Prescription project, areas of interior open space in the Township were hand-digitized. Road corridors were ignored. This resulted in a map of the open space system within the Township. Areas falling within this system received +1 point.

Size

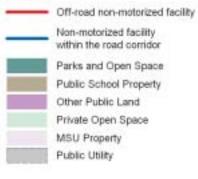
The open space corridors mentioned above were intersected with local and arterial roads creating new areas of interior, contiguous open space. These were divided into categories by size using a natural breaks classification system. The natural breaks classification method ensures that similar data is being compared as much as possible by maximizing the differences between the classes of the data while minimizing differences within the classes. The resulting categories were converted to a grid with the following point system:

- 130-480 acres = +1 point (19 areas)
- 20-130 acres = + 0.5 points (41 areas)
- 0-20 acres = no points (282 areas)

Fig. 4b. Trail Alternatives



Legend



This map shows several different non-motorized linkage options within the township. Alternative routes were developed considering the following criteria:

- location of important non-motorized hubs such as schools and recreation destinations
- public input received in visioning workshops
- · previously planned routes and existing facilities
- the location of wetlands and valuable ecological land
- the opportunity for inclusion of links through the sites of future development

5. Alternatives Public Workshop

The Alternatives Public Workshop was an opportunity for the public to consider whether some areas in the Township were capable of higher densities than others based on the natural features and evaluate the non-motorized link alternatives. The workshop had two small group exercises utilizing maps. The information from this workshop was then recorded into a geographic information system so that the results could be interpreted.

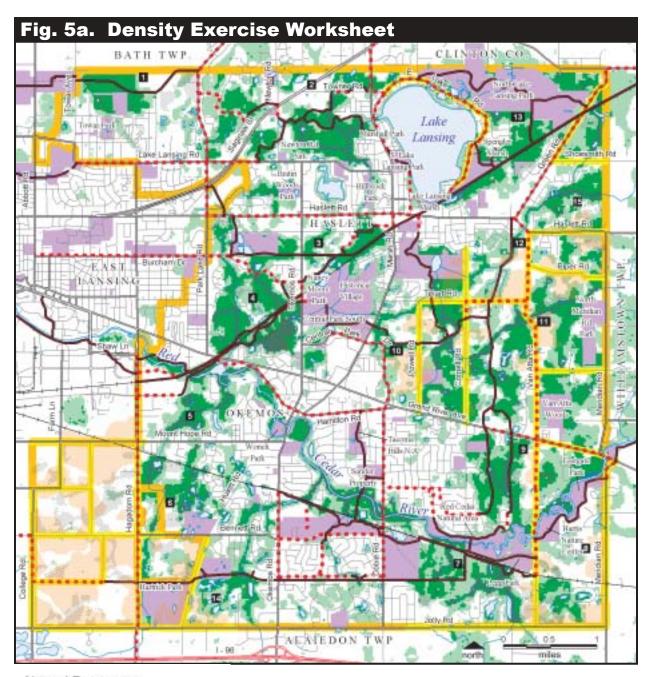
The Draft Vision, Goals and Objectives were also presented for feedback at the workshop. The comments received were recorded verbatim and are included in this section.

This section includes:

- Examples of the maps used in the workshop:
 - Fig. 5a. Density Exercise Worksheet Fig. 5b. Links Exercise Worksheet
- Example of the Vision, Goals, and Objectives form used in the workshop
- Maps illustrating the public input received from the small group process:

Fig. 5c. Density Exercise Results Fig. 5d. Links Exercise Results

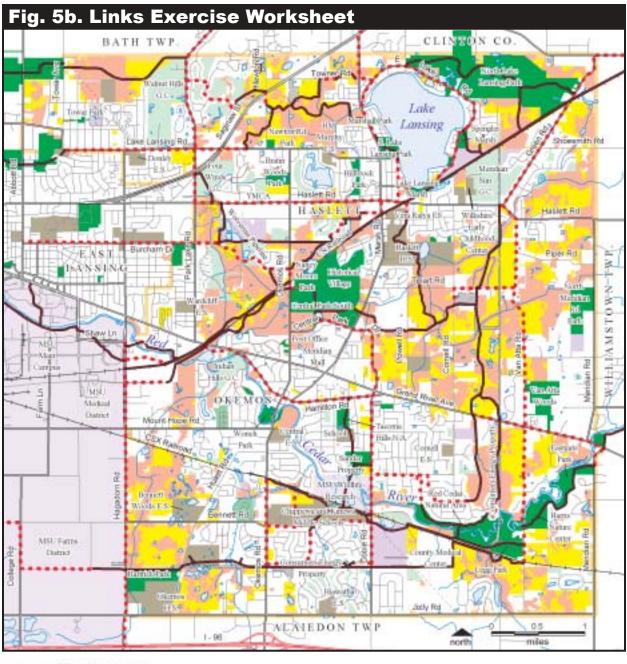
• Recorded data from the worksheets





This map was used in the Alternatives Public Workshop to show the ecological resources inventoried and ranked in the alternatives phase. Cultural resources such as prime farmland, scenic corridors, and scenic view sheds were presented for feedback as well.

The numbers on the map indicate regions were future development is likely to occur according to current development patterns and the regulatory framework in the Township. Attendees were asked to "transfer" development rights between zones to indicate where they would like to see open space preserved in the Township and areas they would like to see developed with increased density. The results of the exercise are shown in Figure 5c.





This map was used in the Alternatives Public Workshop to show the trail options developed in the alternatives phase.

The participants were asked to mark up the worksheets to indicate what routes they would like to see incorporated in the system and which routes they felt were inappropriate as well as any information they cared to share about the routes shown.

The results of the exercise are shown in Figure 5d.

Example of Preliminary Draft Vision, Goals and Objectives Form

Meridian Township Greenspace Plan

 $\pounds\,$ Wednesday, June 18, 2003 $\,$ OR $\,\pounds\,$ Thursday, June 19, 2003, Meridian Township's Townhall Room

Preliminary Draft Vision, Goals and Objectives

Vision Statement

When implemented, the greenspace plan will provide a network of open space and non-motorized linkages that will protect and connect valued natural and cultural resources, and improve the quality of life for township residents.

 \pounds Strongly Agree \pounds Agree, but with modifications \pounds Disagree

Please include any additions, modifications or strong objections to the statement that you feel are needed:

Greenspace Network Goal

Identify a network of ecologically and culturally valuable resources to be protected.

Strongly Agree	Agree, with modifications	Disagree	Objectives:
			1. Diverse and unique lands are preserved
			2. Protected features should reflect public consensus received during the planning process
			3. Majority of all future protected lands should be integrated in a network
			4. The impact of transportation facilities on wildlife corridors is mitigated
			5. Corridors will be identified through currently developed areas that, while perhaps not
			feasible now, may eventually be incorporated through redevelopment

Please include any additions, modifications or strong objections to the goal and objectives that you feel are needed:

Non-motorized Linkages Goal

Define a primarily off-road system that links major destinations for both recreation and transportation.

Strongly Agree	Agree, with modifications	Disagree	Objectives:
			1. Non-motorized links should reflect public consensus received during the planning process
			2. Design of the non-motorized facilities should reflect current best practices for safety and accommodation
			3. System should connect the township's major parks, high schools, and commercial centers
			4. System should complement the existing and planned on-road non-motorized transportation facilities
			5. Links will be identified through currently developed areas that, while perhaps not feasible now, may eventually be incorporated through redevelopment

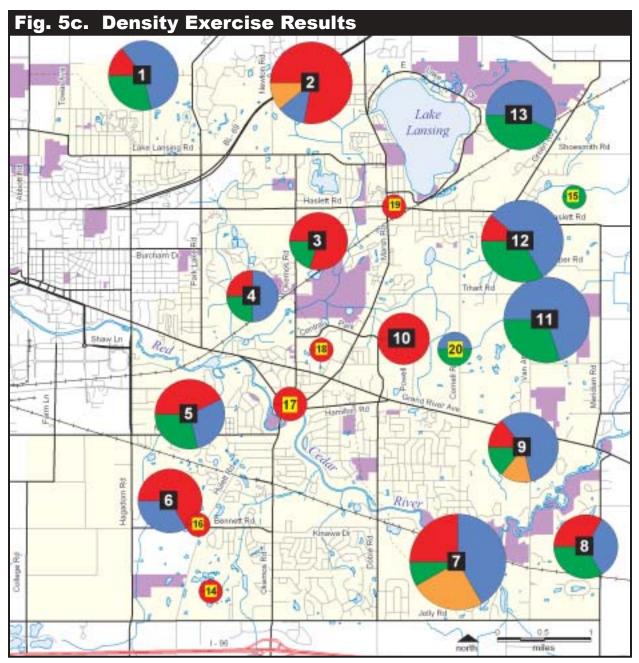
Please include any additions, modifications or strong objections to the goal and objectives that you feel are needed:

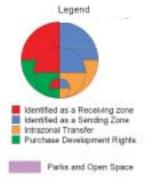
Implementation Goal

Outline a feasible implementation strategy that provides an equitable solution for all stakeholders.

Strongly Agree	Agree, with modifications	Disagree	Objectives:
			1. No negative impact on land values
			2. Clarifies township's expectations for development
			3. Expedites site planning process for proposals that meet the township's expectations
			4. Provides incentives to land owners for voluntary conservation measures

Please include any additions, modifications or strong objections to the goal and objectives that you feel are needed:





This map shows the results of the Alternatives Public Workshop Density Exercise. Attendees were asked to transfer development rights between numbered zones, identifying areas they would like to see developed with increased density and areas they would like to see preserved as open space. They also had the option of identifying zones where the development rights should be purchased as a method of open space protection. The pie graphs at the location of the different zones indicate the proportion of responses in each category. Yellow numbered zones indicate new zones identified by workshop participants. The size of the pie graph is relative to the number of respondents for a particular zone. The orange wedge indicates intrazonal transfers, where participants distinguished between different areas within one zone for development and preservation. Zones 11 and 13 were chosen by all groups as zones for open space preservation.

Alternatives Public Workshop

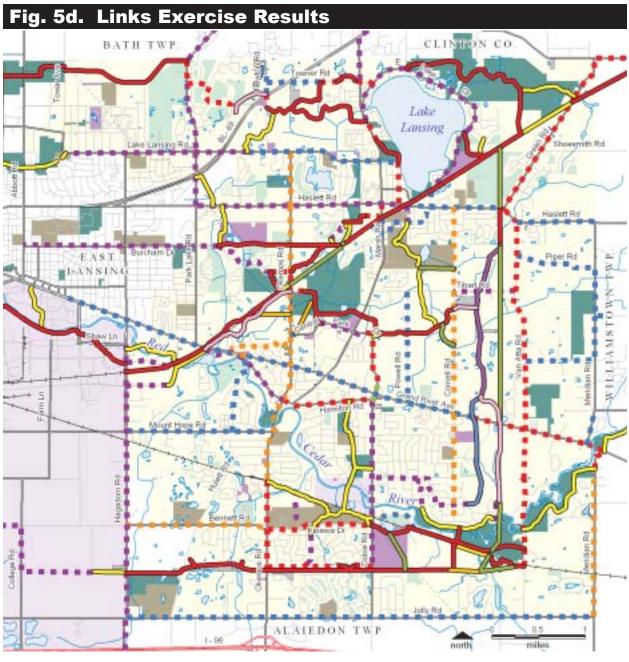
Zone	Send	Receive	Split Answers	Purchase	Notes
1	4	1	0	2	Preserve for openspace and rec land, park development
2	1	7	1	0	Newton Center, intrazone
3	0	4	0	1	Cluster zoning
4	2	1	0	1	Cluster zoning
5	2	3	0	2	
6	2	4	0	0	South half should receive
7	5	3	3	1	Land owners may give easements for wildlife research, intrazone transfer, N of CE sends, S of CE receives
8	2	2	0	2	
9	4	1	1	1	East sends, west receives
10	0	4	0	0	Not commercial, preferred residential, area east of Powell Rd.
11	7	0	0	3	
12	5	1	0	3	
13	4	0	0	3	
14	0	1	0	0	
15	0	0	0	1	
16	0	1	0	0	*not governors club
17	0	2	0	0	*
18	0	1	0	0	* within 400' of Powell Rd.
19	0	1	0	0	*
20	1	0	0	1	W. Cornell btwn Grand River and Tihart

General Notes

* Send 110 acres of development rights from existing and active farmland to multiple spots for mixed use: Villages of Okemos, Haslett, Meridian, MSU area, over to within 400' of Powell Rd.

Principles: Do not expand sewer system Preserve neighborhood parkland in developed areas Infill areas where infrastructure already exists.

Receiving: Near schools, near commercial, near arterials





On-road Route Public Input



Parks and Open Space Public School Property Other Public Land Private Open Space MSU Property Public Utility This map shows the public input on the nonmotorized links presented. The routes indicated were differentiated between on-road routes such as bike lanes and sidewalks, and off-road routes such as shared-use pathways that go through parkland and developments.

The results shown are grouped by overall responses:

- links that were approved by numerous groups
- links that had conflicting input (some tables approved it, some deleted it)
- links that were deleted by numerous groups
- neutral links- links that received neither approval or deletion by any group

Preliminary Draft Vision, Goals and Objectives Recorded Written Responses

Vision Statement

When implemented, the greenspace plan will provide a network of open space and non-motorized linkages that will protect and connect valued natural and cultural resources, and improve the quality of life for township residents.

23	Strongly Agree	5	Agree, but with modifications	0	Disagree
	Strongly Agree	•	Agree, but with mounications	Ũ	Disagree

Please include any additions, modifications or strong objections to the statement that you feel are needed:

- ∉ (2) Replace openspace with greenspace- not all open spaces are greenspaces, It is more friendly sounding and openspace means too many different things to different people.
- ∉ (3) Connect to Williamstown Township. Williamstown is interested in doing this. Along Red Cedar and Geomany Rd. Western Williamstown is very similar to E. Meridian
- \notin (3) Connections with other townships should be facilitated.
- ∉ Nice job.
- ∉ Reword: When implemented, the greenspace plan will provide *a systematic approach* to protect and connect openspace and valued natural and cultural resources, *and connected with trail linkages* that improve the quality of life for township residents.
- ∉ With all the focus on health and the obesity in this state, this is a perfect time for these proposed trails to become a reality.
- ∉ Non-motorized linkages may have to be concentrated along public ROWs to preserve personal privacy. Linked or isolated open space should preserve wildlife habitats.
- ∉ It is important to have an overall benefit for the total plan to the township. Some people, however, will go for the overall vision but will not want a path by their home. I feel the overall good should override individual objections.

Greenspace Network Goal

Identify a network of ecologically and culturally valuable resources to be protected.

Strongly Agree	In-between	Agree, with modifications	In-between	Disagree	Blank	Objectives:
24	0	2	0	0	2	1. Diverse and unique lands are preserved
19	1	4	1	0	3	2. Protected features should reflect public consensus received during the planning
						process
22	0	3	0	0	3	3. Majority of all future protected lands should be integrated in a network
20	0	4	0	0	4	4. The impact of transportation facilities on wildlife corridors is mitigated
23	0	3	0	0	2	5. Corridors will be identified through currently developed areas that, while perhaps
						not feasible now, may eventually be incorporated through redevelopment

Please include additions, modifications or strong objections to the goal and objectives:

General

- ∉ Should not create wildlife habitat areas next to roads. Should try and keep them away from these areas as much as possible.
- ∉ Add to goal: "Identify a network of ecologically and culturally valuable resources to be protected equitably"

Objective 1- No Comments

Objective 2

- ∉ Although public consensus is important, I feel common sense should prevail as plans are developed. Not all views will be apparent until after the plan is proposed
- ∉ Features that are desirable and worthy of protection? What exactly does protection mean?
- ∉ Add undeveloped. Protected features should also reflect an overall goal to protect undeveloped land, reinvest in existing built-up areas and provide a vision for the township.
- ∉ I think public input is necessary to take ownership, but there are issues that should be left to the engineers and environmentalists to determine the best method.
- ∉ Do we want to allow for some future modifications?

Objective 3

- ∉ Exceptions will occur
- ∉ Word: "Priority to" vs. "Majority of"
- ∉ Reword : "Future protected lands should be integrated in a network as possible"

Objective 4

- ∉ Wildlife is important yet deer are a hazard and allowing them to move even more is not always a positive.
- ∉ Cost vs. value
- ∉ Within reason

Objective 5

∉ I am afraid any currently developed piece of land owner's will object to a plan that "threatens" a future different from current use. When we proposed wetland protection, the hue and cry from wetland owners was enormous.

Non-motorized Linkages Goal

Define a primarily off-road system that links major destinations for both recreation and transportation.

In-between	Agree, with modifications	In-between	Disagree	Blank	Objectives:
1	8	0	1	2	1. Non-motorized links should reflect public consensus received during the planning
0	4	0	0	1	2. Design of the non-motorized facilities should reflect current best practices for
Ū	•	0	U	1	safety and accommodation
0	6	0	0	2	3. System should connect the township's major parks, high schools, and commercial
					centers
0	3	0	0	2	4. System should complement the existing and planned on-road non-motorized
					transportation facilities
0	4	0	0	4	5. Links will be identified through currently developed areas that, while perhaps not
					feasible now, may eventually be incorporated through redevelopment
	H 1 0 0 0 0 0 0 0	Agree Agree 0 4 0 3 0 4	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Disagr Agree Agree 0 0 8 0 0 0 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Appendix Appendix

Please include any additions, modifications or strong objections to the goal and objectives: <u>General</u>

- ∉ Should be sensitive to property owner
- ∉ All plans should be revisited
- ∉ Although I agree with these goals, there will be compromises in each that can and will be made.
- ∉ (2) Attention to people with disabilities. Consider linkages/ recreation areas for handicapped, elderly, etc.

Objective 1

- ∉ The no-mo links should not only reflect consensus but also the practical aspects of a wellintegrated system.
- \notin Make sure enough there is enough people imputing.
- ∉ Allow for future modification

Objective 2

- \notin Need to understand what best practices are.
- ∉ Bike lanes remain a problem. New roads could be required to have them but in this township, so far they don't uniformly have them.
- ∉ Some areas may be too sensitive for pavement

Objective 3

- ∉ Not at the sacrifice of off-road trails
- ∉ Add "libraries"
- ∉ Meridian Township High School should not be forgotten. It has a large proportion of of lowincome students who don't drive and could benefit from a trail system.
- \notin (2) Linakge with MSU
- ∉ Linakge with government land, linkage with Williamstown Township, linkage with Lansing
- ∉ (4) Include middle schools, elementary schools in linkages
- ∉ Add Link common motorized destinations.
- \notin As much as possible

Objective 4

 \notin If a non-motorized alternative is feasible, this should supercede an on-road non-motorized solution. <u>Objective 5</u>

∉ #5 will bring all the paranoids in town because they will not see the benefits of such a plan. They will think only of their current "investment".

Implementation Goal

Outline a feasible implementation strategy that provides an equitable solution for all stakeholders.

Strongly Agree	In-between	Agree, with modifications	In-between	Disagree	Blank	Objectives:
15	0	10	0	0	3	1. No negative impact on land values
22	0	3	0	0	2	2. Clarifies township's expectations for development
24	0	0	0	0	4	3. Expedites site planning process for proposals that meet the township's expectations
26	0	0	0	0	2	4. Provides incentives to land owners for voluntary conservation measures

Please include any additions, modifications or strong objections to the goal and objectives:

<u>General</u>

- ∉ Please incorporate the Greenways Plan into the Comprehensive Development Planning Process which is in the draft stage right now.
- ∉ This goal will be impacted by the attitude of the landowners and their motivations.
- ∉ Nice job!
- ∉ The financial aspect is going to be a stumbling block, but once a plan is completed and accepted, implementation should be quick.

Objective 1

- ∉ Add "residential land values". This may have a negative impact on the availability of land for commercial development. I don't agree that this should be a consideration
- \notin I don't think land values can be predicted one way or another.
- ∉ Perhaps some land owners anticipate lowered land values if a paved trail were to be installed adjacent to their property but I think public interest may need to override the concern about lowered property values.
- ∉ Insert "long-term" negative impact on land values
- ∉ Hard to achieve going through private property and backyards
- ∉ Limit or minimize to the greatest extent feasible vs. "no" which is absolute.
- ∉ Reword "Negative impact on land values should be minimized"
- \notin Not a top priority but should be considered as much as possible.

Objective 2

- ∉ Should be within the township development plan- not all the rezoning that is constantly occurring.
- ∉ This is difficult because the township development expectations seem to fluctuate.
- ∉ Ordinance development is yet to come
- ∉ Reword "Reflects township's expectations for development"

Objective 3

- ∉ The township needs to require a sketch plan for subdivision plots <u>at the beginning</u> of the plot, not at the end when it is too late to make changes.
- ∉ This must be very dramatic

Objective 4

∉ Reduce setbacks in favor of clustered openspaces. Reduce development costs in roadways, utilities and time in favor of clustered openspaces.

6. Meeting Summaries

This section includes summaries of the monthly progress meetings that were held between The Greenway Collaborative and the Greenspace Advisory Committee. Also included in this section is the summaries of the meetings the Greenway Collaborative held with key individuals in the township to gain more information about the issues surrounding development of a greenspace plan.

The following summaries are included:

- •Kickoff Meeting with Greenspace Advisory Committee, March 5, 2003
- •Progress Meeting with Greenspace Advisory Committee, April 2, 2003
- •Meetings with Key Individuals, May 2003
- •Progress Meeting with Greenspace Advisory Committee, May 7, 2003
- •Progress Meeting with Greenspace Advisory Committee, June 4, 2003
- •Progress Meeting with Greenspace Advisory Committee, July 2, 2003
- •Progress Meeting with Greenspace Advisory Committee, August 6, 2003
- •Progress Meeting with Greenspace Advisory Committee, September 3, 2003
- •Progress Meeting with Greenspace Advisory Committee, October 1, 2003

Meridian Township Greenspace Plan Kick-off Meeting with Greenspace Advisory Committee

Wednesday, March 5, 2003 from 1:00 PM to 3:00 PM Meridian Charter Township Administrative Conference Room

Meeting Summary

The purpose of this meeting was to review the project scope, schedule, project understandings and establish project processes.

Introductions and Attendance

The attendees were asked to introduce themselves and the context under which they will be working on the project.

Rick Brown, Associate Planner: Rick deals with environmental regulations such as wetlands, floodplains and land clearing as well as long-term planning issues.

Mark Kieselbach, Director of Community Planning and Development: Mark has been the main contact on the project and acts as staff for the land preservation program of the township.

LuAnn Maisner, Director of Parks and Recreation: LuAnn works in conjunction with the 5 member Parks commission. The commission deals with issues associated with the parks millage, acquisition, maintenance, and development of parkland in Meridian Township.

Ray Severy, Director of Public Works and Engineering: Ray deals with the maintenance of the parks, public grounds and trailways, and pathway design in the township.

Martha Wyatt, Landscape Architect: Martha works on site plan reviews for new commercial developments and special use projects in the township. She also is staff for the Environmental Commission, which will be involved in acquisition decisions.

Susan McGillicuddy, Township Supervisor: The township supervisor is looking for a plan that will connect preserved lands throughout the township, designate safe corridors for wildlife, and include recreational and transportation pathways for residents that connect commercial areas and parks. Another major concern of the community is the annexation of Meridian Township by other communities. Hopefully the greenspace plan can serve as a tool with which to address this concern.

Gerald Richards, Township Manager

Norman Cox, The Greenway Collaborative, Inc. Clea Rome, The Greenway Collaborative, Inc.

Visions for the Plan

After introductions, Norm asked if there were any key points or questions to bring up regarding what the Greenspace Advisory Committee (GAC) envisions for the final plan. Points mentioned included:

∉ Will the plan include discussion of options for wildlife crossings at road intersections?

Inventory Progress Meeting with Greenspace Advisory Committee

Wednesday, April 2, 2003 from 1:00 PM to 3:00 PM Meridian Charter Township Administrative Conference Room

Meeting Summary

The purpose of this meeting was to review the inventory work that has been done to date and to discuss the Visioning Workshops.

Attendance:

Rick Brown, Ron Clark, Mark Kieselbach, LuAnn Maisner, Susan McGillicuddy, Martha Wyatt, Gerald Richards, Tom Westgate, Norman Cox, Clea Rome

The meeting began with introductions of the new members of the TAC, Ron Clark and Tom Westgate.

March 5 Kick-off Meeting Summary

The meeting summary was reviewed and no changes were requested.

Review of Inventory Work to Date

The first drafts of the inventory maps were reviewed and additions or changes needed were noted. Major changes included:

Regional Context

Ingham Co. misspelled, Williamstown Township, Fix sliver polygon, Fix road labels, Bath railroad no longer active.

Regional Transportation

Add 496 label, Increase red around Exit 110, Add bus lines, Label Eastwood Town Center and Jackson National Life. Fix labeling of Grand River Ave.

Regional Recreation and Open Space

Clean up and differentiate non-motorized path systems

Project Area

Switch labeling of golf courses, investigate presence of several lakes shown, add additional consumers energy property and several other public properties, change name of River Downs Park, remove WLNS tower, change name of Pine Lake G.C., label railroads, add Ferguson Park

Topography

Convert elevations to feet

Surface Water

Investigate "Other flood areas", remove if necessary

Farmland

Investigate drainage issues of Local Significance classification. Show area by Jolly Rd. and Merdian Rd. as developed.

Septic vs. Sewer Systems

Redefine existing sewer coverage. We will get new sewer coverage data from township.

Existing Land Use

Change designation of Eastgate Park (not water)

Existing Zoning

Clarify distinction between CV District and ordinance protection of sensitive lands.

Regulated Land

Clarify distinction between CV District and ordinance protection of sensitive lands.

Potential for Development Exclude 425 properties

Report Format

The Draft Inventory maps report format was approved.

Visioning Workshop

The format for the workshop was reviewed and approved. It will consist of about 45 minutes of background and presentation of the maps. The remainder of the meeting will be an opportunity for citizens to work in small groups to develop and prioritize their hopes and concerns for the greenspace plan through a series of interactive exercises.

It was decided not televise the workshop due to the difficultly of effectively filming the break-out sections. However, portions of the powerpoint presentation may be televised.

Individual Meeting with Ivin Kebler of Eyde Development Corporation

Wednesday, May 7, 2003 Eyde Development Corporation Headquarters

Meeting Purpose

Mr. Kebler is a representative of the Eyde Corporation, the largest private landholder in the township and developer of many sites within the township. The purpose of this meeting was to exchange information with Mr. Kebler about the Meridian Township Greenspace Plan and gather feedback on suggestions or information he may have that is pertinent to the plan.

Meeting Summary

Mr. Kebler gave a brief summary of the current development projects within the township, including 80 acres' near Lake Lansing Rd. and Georgetown Commons, and another project which is planned for 215 homes on 130 acres. Norm Cox talked about the approach of the greenspace plan, which is not to prevent development, but to outline areas of increased protection through a variety of means ranging from purchase of the land by the Township to identification of cluster development zones. Mr. Kebler maintained that the Eyde Corporation is not opposed to the idea of cluster development and if the demands are reasonable, they will gladly submit plans involving the protection of openspace. He demonstrated a plan in which the development corporation has designed the site to leave buffers along the roadway to protect the scenic quality of the road and include an area for a public park.

Individual Meeting with Eckhart Dersch

Wednesday, May 7, 2003 Meridian Township Hall, Library

Meeting Purpose

Mr. Dersch is a former biology professor who has lived in the area for many years and is very knowledgeable about the natural features of the township. He is a member of both the Park Commission and the Land Preservation Committee. The purpose of the meeting was to gather information from Mr. Dersch about natural areas that merit special consideration for the greenspace plan.

Meeting Summary

Mr. Dersch advocates the development of a conceptual framework for protecting greenspace in the township- a framework that includes identification of specific places as well as general zones of increased protection through regulation. Mr. Dersch spent considerable time with the township map outlining areas of special interest. These included the township drains and tributaries of the Red Cedar, and the Pine Lake drain area. He stressed the importance of focusing on waterways as a means of not only protecting an interconnected system of wildlife corridors but also stormwater management within the township. He recommended that the importance of flood control and stormwater management in the township be used as increased justification for the greenspace plan. Protecting natural river corridors is a cost-effective stormwater control system.

Mr. Dersch also proposed that the identification of an overlay zone of increased development regulations that is present on a map is beneficial to developers because it prevents them from being blindsided by township stipulations after their plans have been drawn up. The cluster zoning ordinance must be beneficial to developers to be effective.

He advocated adding land that is adjacent to the to the public parks to the public holding to expand the park system.

Individual Meeting with Tom Woiwode

Wednesday, May 14, 2003 Meridian Township Safety Building

Meeting Summary

At the request of Mr. Woiwode, the Greenway Collaborative presented a "progress report" to the Land Preservation Committee. Clea Rome met with Mr. Woiwode and Mike Thomas of the Preservation Committee before the presentation to talk about the greenspace plan and the role of the Land Preservation Committee in protecting land in the township. Mr. Woiwode stressed his opinion that the greenspace plan should focus on linkages between protected areas rather than identifying specific places that the township should purchase. He noted that if the plan identified specific places, the effectiveness of the Land Preservation Committee could be affected. However, during the meeting, Eckhart Gersch, another member of the Land Preservation Committee, noted that the greenspace plan could help the progress of the committee by identifying land of high priority. Mr. Thomas is using a GIS-based priority system very similar to the model used by the Greenway Collaborative to prioritize land for ecological value. Both the committee and the Greenway Collaborative could benefit by a continued exchange of information throughout the process of developing the Greenspace plan.

Progress Meeting with the Greenspace Advisory Committee

Wednesday, May 7, 2003 from 1:00 PM to 3:00 PM Meridian Charter Township Administrative Conference Room

Meeting Summary

The purpose of this meeting was to review the public input from the Visioning Workshops and discuss the general direction of the alternatives to be pursued.

Attendance

Rick Brown, Ron Clark, Mark Kieselbach, LuAnn Maisner, Ray Severy, Gerald Richards, Tom Westgate, Martha Wyatt, Younes Ishraidi, Norman Cox, Clea Rome, Bob Moore, Pam Kirbach

April 2 GAC Meeting Summary

The meeting summary was reviewed and no changes were requested.

Lake Lansing Trail Update from the County

Bob Moore and Pam Kirbach gave an update of the status of the Lake Lansing Trail development in the township. Because there is no room in the CN railroad right-of-way, the County is working with willing landowners to chart a route near the railroad corridor on private property. They are looking at 4-5 different variations of the route. The trail will eventually connect to the Interurban trail corridor, part of which is being constructed this year. Potter Park and Hawk Island will be the focus of the 2004 construction. Meridian construction will happen in 2005/2006. Currently, the County is working on getting permission to include a 20-year stipulation with the railroad for the MDOT grant application, which normally is not allowed.

Individual Meetings Update

Individual meetings with Ivin Kebler and Eckhart that had occurred earlier that day were briefly reviewed. Both individuals were helpful in answering questions and providing information about the township. A more detailed account of the meeting will be included in the final report.

April 29, 30 Public Visioning Meeting Summaries

The results from the public workshop were reviewed with the Committee. The responses from the individual worksheets and group maps had been recorded. In addition, maps created from consolidating the data into a GIS were presented and reviewed. No changes were requested.

General Discussion

A general conversation followed which included discussion of the next steps in the development of the alternatives, scheduling, map changes, and related topics to the greenspace plan. Major points mentioned included:

- ∉ The township would like guidance on how to maintain and manage land purchased for stewardship. The final report will include some guidelines and suggestions on this topic.
- ∉ Changes requested to the non-motorized inventory map included changing "CNN railroad" to "CN railroad", eliminating sidewalks from the map because of an incomplete database, and changing the pathway category to "Existing 7 ft. pathway". The Greenway Collaborative will send a draft of the map for review to Ray or Younes. It was noted that Sylvan Glen homeowners are responsible for the protection and maintenance of the Sylvan Glen Trust.

- ∉ It was noted that there is a group of people in the township that feel very strongly that increased density is detrimental. They feel that in order to maintain the rural character of the township, lot sizes should be kept large. Therefore, including a framework for educating people about the importance of protecting community greenspace and the benefits of tools such as cluster zoning is critical to the success of the plan.
- ∉ Ron Clark asked for a clarification on the final intent of the plan. He stressed that in order for the plan to be successful and equitable to the developers in the community, it must offer significant incentives for cluster zoning. Some example incentives could include an expedited design process, and the same or slightly higher economic returns for the developer. Ron also asked if enhancement of the existing roadways landscaping and street furniture was within the scope of the plan. It was decided that including some guidelines that refer to the roadway zone would be a helpful addition to the plan.

Schedule

It was agreed that the Analysis and Alternatives Report due date would be pushed back from May 28th to June 4, 2003 due to conflicts in the Greenway Collaborative's schedule.

Next Meeting

∉ June 4, 2003 at 1:00

Progress Meeting with the Greenspace Advisory Committee

Wednesday, June 4, 2003 from 1:00 PM to 2:30 PM Meridian Charter Township Administrative Conference Room

Meeting Summary

The purpose of this meeting was to update the committee on the progress of the project.

Attendance

Rick Brown, Ron Clark, Mark Kieselbach, LuAnn Maisner, Susan McGillicuddy, Ray Severy, Gerald Richards, Tom Westgate, Martha Wyatt, Younes Ishraidi, Norman Cox, Clea Rome,

Project Update

The Greenway Collaborative presented powerpoint slides of the progress of the project. These included the vision statement, goals and objectives of project formulated based on the public input. Minor word changes were requested:

- ∉ In the vision statement, change "protect and link" to "protect and connect"
- ∉ Remove "permanently" from Goal 1
- ∉ Objectives for Goal 1 (Greenspace Goal): Move Objective 3 to be first. Consider removing "Protected features should reflect public preference". It was noted that the protection of greenspace is directed by two ideas, the first being culturally valuable resources the public identifies and the second being land that has been selected for its high ecological value. It was agreed that the idea of culturally valuable land is chosen through community consensus should be added to the objectives.
- ∉ Include the idea that through redevelopment, older areas will be incorporated into the new system.

The Greenway Collaborative will send a revised draft to the committee for further review. Next, an update of the analysis process to date was given. Major points mentioned included:

- ∉ The Kinewa Middle School should be added next to Chippewa Middle School on the map.
- ∉ Edgewood School is closing but should still be identified as a school on the map.
- ∉ The trail noted through the Governor's Collection golf course was not intended to be a year-round trail. The trail should be changed to go down the west side of Hagadorn Rd. along the MSU agricultural lands. It should be shown to extend south to at least Jolly Rd.
- ∉ It was noted that the N-S Consumer's Energy corridor will be problematic as a link. Many single-family homeowners in this area are opposed to the idea. A trail along Van Atta Rd. should be shown as an alternative in that area.
- ∉ The White Hills Woods area has enough space to include a trail link through the property.
- ∉ It was suggested that the different trail alternatives should be shown as different patterns on the map.
- ∉ A link between the Edgewood School area and the Chippewa School should be considered. A bridge over the river would have to be constructed.

Upcoming Meetings

- ∉ Public meetings June 18 and 19, 2003
- ∉ TAC committee mtg. Wednesday July 2, 2003

Progress Meeting with the Greenspace Advisory Committee

Wednesday, July 2, 2003 from 1:00 PM to 3:00 PM Meridian Charter Township Administrative Conference Room

Meeting Summary

The purpose of this meeting was to review the progress of the Analysis and Alternatives phase of the plan.

Attendance

Members of the Greenspace Advisory Committee Norman Cox, The Greenway Collaborative, Inc.

Project Update

- ∉ The results of the ecological analysis and cultural inventory were presented. Minor changes included addition and deletion of scenic roads inventoried. This included deletion of Hulett Road south of Bennett Road, portions of Jolly Road, and a small portion of Bennett Road. Additions requested included Cornell Road south of Grand River Avenue, Newton Road, a portion of Raby Road, and a portion of Meridian Road.
- ∉ Other maps presented included the Trail Alternatives developed, the results of the Alternatives Workshop Density exercise, and the Link Exercise results.
- ∉ It was noted that Okemos Road is scheduled to be widened in 2005.

Project Schedule

The next meeting is scheduled for August 6, 2003.

Progress Meeting with the Greenspace Advisory Committee

Wednesday, August 6th, 2003 from 1:00 PM to 3:00 PM Meridian Charter Township Administrative Conference Room

Meeting Summary

The purpose of this meeting was to review the progress of the Preliminary Plan.

Attendance

Members of the Greenspace Advisory Committee Norman Cox, The Greenway Collaborative, Inc. Clea Rome, The Greenway Collaborative, Inc.

Project Update

A working draft of the preliminary plan was presented to the committee for approval prior to the workshop on August 14. The following edits were suggested:

- ∉ It was suggested that guidelines should be included for areas that are not part of the greenspace corridor.
- ∉ The location of the corridors through Ember Oaks needs to be adjusted to account for new development.
- ∉ Add MSU's farmland to Agricultural areas
- ∉ Missing corridor through Spring Lakes area was accidentally deleted from the map and needs updating.

An early draft of the poster was presented. Pictures on poster need to be adjusted to be more reflective of the environs of Meridian Township.

The results of the Preliminary Draft, Goals, and Objectives were presented. It was suggested to add the idea of identifying links through currently developed areas that, while important, may not be feasible now.

Project Schedule

The next workshop is scheduled for August 14, 2003..

Progress Meeting with the Greenspace Advisory Committee

Wednesday, September 3, 2003 from 1:00 PM to 3:00 PM Meridian Charter Township Administrative Conference Room

Meeting Summary

The purpose of this meeting was to review the content of the preliminary plan and discuss the final steps of the plan production.

Attendance

Rick Brown, Ron Clark, Mark Kieselbach, LuAnn Maisner, Susan McGillicuddy, Ray Severy, Gerald Richards, Martha Wyatt, Younes Ishraidi, Norman Cox

Project Update

The meeting began with a review of the project process and general issues to date. These included:

- ∉ A review of the August 14th public workshop. The committee decided not to schedule another workshop despite the minimal attendance of the workshop.
- ∉ It was noted that the report should stress that the non-motorized portion of the plan should not be considered a comprehensive non-motorized plan.
- ∉ The consumer's energy property issue was discussed. Norm noted that the majority of the public input was for including a trail on the Consumers property, however, it was agreed to leave these options off the final map because of the political climate. It was also noted that the utility corridors ownership of the land is changing due to privatization and this could be an issue in the future.
- ∉ Norm reviewed the prioritization of resource protection issue and it was agreed by the committee that protecting the greenspace corridors should be first priorty.
- ∉ It was suggested that a path along the RR ROW should be included on the map in case the corridor is abandoned in the future.
- ∉ Statistics about existing amount of public open land in the township will be incuded in the report for monitoring of progress in the future.

Budget and Report Content Review

The state of the budget and the proposed content for the report was reviewed and approved by the committee.

Schedule

TGC will send Mark Kieselbach draft copies of the report and poster for all the members of the committee by Wed., Sept 24. There will be an additional meeting on Wednesday October 1 with GAC to review the draft report. There will be no additional charge for the meeting. After reviewing the draft, committee members should email TGC ahead of time with issues they would like to discuss at the meeting.

Poster

It was agreed that the poster will serve as an executive summary for the report. The front side of poster will include an overview map and call out the benefits of the plan. The back side will discuss the implementation tools and provide an illustrative on how the tools may be implemented. TGC will coordinate printing of the map with U Litho, a reliable local Ann Arbor firm.

Report and Poster Distribution

The committee approved that the final distribution of the report will include commercially printed posters along with copies of the report on CD to distribute to interested parties. In addition, about 20 copies of the final report will be printed.

Greenspace Plan Meeting with Greenspace Advisory Committee

Wednesday, October 1, 2003 from 1:00 PM to 3:00 PM Meridian Charter Township Administrative Conference Room

Meeting Summary

The purpose of this meeting was to discuss the draft documents. This was not the final draft of the plan but TGC wanted to meet with the committee to review the materials that have been produced thus far. **Attendance**

Mark Kieselbach, LuAnn Maisner, Susan McGillicuddy (had to leave early), Gerald Richards, Martha Wyatt, Younes Ishraidi, Norman Cox, Clea Rome

Draft Poster Review

The following is a list of items that TGC will change/ add/ correct to the posters:

- ∉ Change parks to dark green so they read as part of greenspace system
- ∉ "Sites" color on diagram and the color of schools on map should be coordinated
- ∉ Clarify that the "Anatomy of a Greenspace" is a conceptual diagram and simplify its text
- ∉ Have Land Ethics or Mark Wycoff review the content of the poster

Preliminary Plan Review

The following is a list of major items that TGC will change/ add/ correct to the plan:

- ∉ Plan format will be changed- Chapters 7 and 8 will be combined to form the main body of the plan. The rest of the chapters will be included in a separate document as an "expanded appendix" complete with past meeting minutes, samples of the worksheets used, etc.
- ∉ The executive summary will be changed to an introduction and the purpose of the plan will be clarified, a historical context of the project will be added, and the language will be changed to focus on the positive aspects of the project rather than painting it as an anti-growth initiative.
- \notin Mention in text the future opportunities along the railroad rather than include them in the map.
- ∉ Mention Meridian Township's efforts to become a "walkable bikable community"
- ∉ Sample ordinance will not be included in plan but will be given to the township separately
- \notin Add a conclusion and discussion of the timeframe of the project to the plan.
- ∉ Add missing legends for overview map and matrix
- ∉ Add action items/ phasing for each segment- what aspects can be put in place at what time
- ∉ In the section on conservation zoning, clarify who does site by site inspections and that this focuses on areas of residential development rather than commercial development
- ∉ Clarify that this study will serve as an *aid* to the Land Preservation Committee
- ∉ Do not mention specifically mention the Mid-Michigan Land Conservancy. Clarify that the township will be the entity responsible for holding the conservation easement.
- ∉ Research the feasibility the greenspace set aside in areas where septic systems must be used due to lack of facility infrastructure
- ∉ "Disposition" word change
- ∉ Miscellaneous text edits

Potential Official Adoption Process

It was decided that TGC will print out 7 maps and 7 CDs for the Oct. 21st meeting with the Township Board. This will be given to Mark on the Fri. before the board meeting so it can go out in the packets. Depending on what the Board decides, the final publishing of the maps will either be done before the public hearing and the maps will be distributed prior to the hearing to "spread the word" OR about 20-30 maps will be printed in house for distribution prior to the public meeting and the maps will be professionally published after the planning commission approves the plan.

7. Additional Resources

The following list of resources are just a sampling of the many websites, publications and organizations providing further information relevant to the implementation of the Greenspace Plan in Meridian Township.

Greenspace Preservation

There are endless websites focusing on land preservation efforts across the United States. The three sites below are well-know national organizations and their sites serve as great clearinghouses for greenspace information.

American Farmland Trust

www.farmlandinfo.org

The American Farmland trust is an excellent resource for information on preserving farmland in the Township. Their website has articles, case studies of farmland protection laws, and technical assistance information

Land Trust Alliance

www.lta.org

The Land Trust Alliance is a national umbrella organization and information clearinghouse for local land trusts. Their website is a resource for conferences, workshops and publications about land preservation techniques and regional organizations.

Smart Growth Network

www.smartgrowth.org

The Smart Growth Network provides news, resources and funding information for community smart growth initiatives.

An excellent resource outlining the various options for the Township's role in a conservation easement program is *Using Conservation Easements to Preserve Open Space: A Guide for Pennsylvania's Municipalities* by Debra Wolf Goldstein, Esq. of the Heritage Foundation.

Greenways and Trails

Rivers, Trails and Conservation Assistance program of the National Park Service

http://www.nps.gov/ncrc/programs/rtca/

Provides technical assistance to communities to conserve rivers, preserve open space, and create trails and greenways.

Rails to Trails Conservancy

http://www.railtrails.org/field/michigan/ Local contact: Nancy Krupiarz, Michigan Filed Office, 416 South Cedar, Suite C, Lansing, MI 48912 (517) 485-6022 Provides technical assistance to communities to plan trails and greenway systems.

Non-motorized Transportation

The Greenspace Plan contains general background on best practices and guildeines for non-motorized transportation as well as interpretation on how they may be applied in typical situations in developing the Township's non-motorized system. This is not intended to be a replacement for the AASHTO's Guide for the Development of Bicycle Facilities, the pending Guide for the Planning, Design, and Operation of Pedestrian Facilities, USDOT's Designing Sidewalks and Trails for Access - Part II, Best Practices Design Guide, the pending Guidelines for Accessible Public Rights-of-Way, MUTCD, MMUTCD or any other applicable federal, state, or local guidelines. Given the evolving nature of non-motorized transportation planning, these guidelines should be periodically reevaluated to determine their appropriateness. Below is a list of these resources:

American Association of State Highway and Transportation Officials (AASHTO)

444 N Capitol Street, NW, Washington, D.C. 20001

AASHTO publishes a Policy on Geometric Design of Highways and Streets that is also known as "The Green Book." This set of guidelines is the primary reference for street design used by federal, state, county and local transportation agencies. For guidance on how to accommodate bicycles, The Green Book references AASHTO's Guide for the Development of Bicycles Facilities. Federal and most state sources of funding require that bicycle projects conform to these guidelines. a pending set of guidelines for the Planning, Design, and Operation of Pedestrian Facilities.

Michgian Department of Transportation

• Michigan Manual on Uniform Traffic Control Devices, 1994 Edition

US Department of Transportation

- Designing Sidewalks and Trails for Access Part II, Best Practices Design Guide,
- Pending Guidelines for Accessible Public Rights-of-Way
- Manual on Uniform Traffic Control Devices, Millenium Edition

Scenic Road Corridors

Scenic America

www.scenic.org

Context sensitive highway design, tree conservation, and the latest in national policy on conserving scenic views.

Voluntary Stewardship Programs

Adopt-A-Stream Programs

For information on existing curriculums, contact Kim Stokely or Carmen Lane at Box 1850, Hayfork, CA 06041-1850, (423)751-7312.

Adopt a waterway programs

adoptawaterway.com

Clean Sweep Program

Contact Martha Knorek, the site coordinator for Ingham County at (517) 887-4312 for more information.

Wildlife Road Crossings

Defenders of Wildlife Highway Crossing Campaign www.defenders.org/habitat/highways/

Federal Highway Administration www.fhwa.dot.gov/environment/wildlifeprotection/

Wildlife Warning Reflector Systems www.strieter-lite.com