Lakes to Land Regional Initiative

Unique Region. Unique Communities. Shared Vision.



Arcadia Township Master Plan

ADOPTED SEPTEMBER 3, 2014

ARCADIA TOWNSHIP MASTER PLAN

SEPTEMBER 2014

ACKNOWLEDGEMENTS



Beckett&Raeder







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Glossary

Sources

APA - American Planning Association Planner's Dictionary EPA - Environmental Protection Agency MI NREPA - Michigan Natural Resources and Environmental Protection Act B&R - Beckett & Raeder, Inc.

Blight

Unsightly condition including the accumulation of debris, litter, rubbish, or rubble; fences characterized by holes, breaks, rot, crumbling, cracking, peeling, or rusting; landscaping that is dead, characterized by uncontrolled growth or lack of maintenance, or damaged; and any other similar conditions of disrepair and deterioration regardless of the condition of other properties in the neighborhood. (Lincoln, Nebr., APA)

Buffer (also screening)

A strip of land, fence, or border of trees, etc., between one use and another, which may or may not have trees and shrubs planted for screening purposes, designed to set apart one use area from another. An appropriate buffer may vary depending on uses, districts, size, etc., and shall be determined by the [appropriate local board]. (Pomfret Township, N.Y., APA)

An area of land, including landscaping, berms, walls, fences, and building setbacks, that is located between land uses of different character and is intended to mitigate negative impacts of the more intense use on a residential or vacant parcel. (Dona Ana County, N.Mex., APA)

A strip of land with natural or planted vegetation located between a structure and a side or rear property line intended to separate and partially obstruct the view of two adjacent land uses or properties from one another. A buffer area may include any required screening for the site. (Charlotte, N.C., APA)

Open spaces, landscaped areas, fences, walls, berms, or any combination thereof used to physically and visually separate one use or property from another in order to mitigate the impacts of noise, light, or other nuisance. (Clarkdale, Ariz., APA)

Man-made or natural vegetated area with plantings to protect adjacent permitted residential uses from noise, odor, dust, fumes, glare, or unsightly storage of materials in commercial or industrial districts. (Rock Hall, Md., APA)

Buffer zone (also transitional zone): Districts established at or adjoining commercial-residential district boundaries to mitigate potential frictions between uses or characteristics of use. Such district regulations may provide for transitional uses, yards, heights, off-street parking, lighting, signs, buffering, or screening. (Miami, Fla, APA.)

Cottage Industry (also home-based business; home occupation)

A small, individual-owned business or concern that functions without altering the residential character of the neighborhood, and which does not create any negative impacts on the public health, safety, and general welfare of the adjacent property owners. (Dona Ana County, N.Mex, APA.)

A business in a residential area conducted primarily by the residents of the property manufacturing artistic, handicraft, and other craft items. (Monterey County, Calif., APA)

A processing, assembling, packaging, or storage industry, generally employing fewer than 20 persons, conducted wholly within an enclosed building located on a site isolated from other such uses, generating low traffic volumes and with little or no noise, smoke, odor, dust, glare, or vibration detectable at any property line. (Multnomah County, Ore., APA)

A use conducted for the generation of revenue entirely within a dwelling, or in an accessory structure located on the same lot or tract as a dwelling, which complies with the requirements of [local code]. The use must: be clearly incidental and secondary to the use of the property for residential purposes; not change the character of the structure or area; or have any exterior evidence of the workshop. Home workshops are intended to be limited to low intensity uses that produce or repair a product, but can be operated in such a way that they do not adversely affect adjacent properties. (Fort Wayne, Ind., APA)

Conservation Easements

A nonpossessory interest in real property imposing limitations or affirmative obligations, the purposes of which include retaining or protecting natural, scenic, or open space values of real property; assuring its availability for agricultural, forest, recreational, or open space use; protecting natural resources; or maintaining air or water quality. (Muskegon, Mich., APA)

A nonpossessory interest in land that restricts the manner in which the land may be developed in an effort to conserve natural resources for future use. (Rock Hall, Md., APA)

Anonpossessory interest of a holder in real property imposing limitations or affirmative obligations for conservation purposes or to preserve the historical, architectural, archaeological, or cultural aspects of real property. (Concord, N.C., APA)

An easement intended to protect, preserve, and conserve a natural feature, which shall prohibit the construction of any buildings or structures within the easement and shall prohibit the removal of all vegetation, except that which is necessary for protecting the public health and safety and/or according to an approved forest management plan, where required. (Wayne County, Ohio, APA)

Dark Sky Provisions

An ordinance or portion thereof designed to protect and promote the public health, safety and welfare, the quality of life, and the ability to view the night sky, by establishing regulations and a process of review for exterior lighting. (Ketchum, Idaho, B&R)

Existing Land Use Map

A map depicting the use of each parcel at the time of the writing of a master plan. (B&R)

Future Land Use Map

A map depicting the intended land use in each area of a jurisdiction. (B&R)

Impervious Surface

Any hard-surfaced, man-made area that does not readily absorb or retain water, including but not limited to building roofs, parking and driveway areas, graveled areas, sidewalks, and paved recreation areas. (Lake County, Ill., APA)

Any nonvertical surface artificially covered or hardened so as to prevent or impede the percolation of water into the soil mantle, including but not limited to roof tops excepting eaves, swimming pools, paved or graveled roads, and walkways or parking areas and excluding landscaping, surface water retention/detention facilities, access easements serving neighboring property, and driveways to the extent that they extend beyond the street setback due to location within an access panhandle or due to the application of [county] requirements to site features over which the applicant has no control. (King County, Wash., APA)

Any material that substantially reduces or prevents the infiltration of stormwater into previously undeveloped land. "Impervious area" shall include graveled driveways and parking areas. (Sandy, Ore., APA)

A surface consisting of asphalt, concrete, roofing material, brick, paving block, plastic, or other similar material which does not readily absorb water. (Bayfield County, Wisc., APA)

Any material which prevents, impedes, or slows infiltration or absorption of storm water directly into the ground at the rate of absorption of vegetation-bearing soils, including building, asphalt, concrete, gravel, and other surfaces. (Traverse City, Mich., APA)

Low Impact Development

An approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible. (EPA)

Open Space

land free of human structures, including non-permeable surface coverings to be used for parking. Open space may be privately owned and used for agriculture, forestry, or other commercial, recreational or aesthetic purposes. Open space may also be publicly owned land for parks or resource preservation. (EPA)

Overlay zoning district

An area where certain additional requirements are superimposed upon a base zoning district or underlying district and where the requirements of the base or underlying district may or may not be altered. (Milwaukee, Wisc., APA)

A special district or zone which addresses special land use circumstances or environmental safeguards and is superimposed over the underlying existing zoning districts. Permitted uses in the underlying zoning district shall continue subject to compliance with the regulations of the overlay zone or district. (Merrimack, N.H., APA)

A zoning district to be mapped as an overlay to a use district and which modifies or supplements the regulations of the general district in recognition of distinguishing circumstances such as historic preservation, wellhead protection, floodplain or unit development while maintaining the character and purposes of the general use district area over which it is superimposed. (Lancaster, Ohio, APA)

Provides for the possibility of superimposing certain additional requirements upon a basic use zoning district without disturbing the requirements of the basic use district. In the instance of conflicting requirements, the stricter of the conflicting requirement shall apply. (Racine County, Wisc., APA)

A district established by ordinance to prescribe special regulations to be applied to a site in combination with the underlying or base district. (Blacksburg, Va., APA)

Zoning districts that extend on top of more than one base zoning district and are intended to protect certain critical

features and resources. Where the standards of the overlay and base zoning district are different, the more restrictive standards shall apply. (Hilton Head, S.C., APA)

Screening (also berm; buffer; fence; visual obstruction)

(1) A method of visually shielding or obscuring one abutting or nearby structure or use from another by fencing, walls, berms, or densely planted vegetation; and (2) the removal of relatively coarse floating or suspended solids by straining through racks or screens. (Siskiyou County, Calif., APA)

A method of visually shielding or obscuring an abutting or nearby use or structure from another by fencing, walls, berms, or densely planted vegetation. (Clarkdale, Ariz., APA)

The treatment created with landscaping or a decorative two-dimensional structure to visually conceal an area or on-site utilitarian use that is considered unattractive. (Burien, Wash., APA)

Sedimentation Control Ordinance

An ordinance or portion thereof designed to manage the effects solid particulate matter, including both mineral and organic matter, that is in suspension in water, is being transported, or has been removed from its site of origin by the actions of wind, water, or gravity and has been deposited elsewhere. (MI NREPA part 91)

Sense of Place (also community character; community of place)

The constructed and natural landmarks and social and economic surroundings that cause someone to identify with a particular place or community. (Wisconsin Department of Natural Resources, APA)

The characteristics of a location that make it readily recognizable as being unique and different from its surroundings and that provides a feeling of belonging to or being identified with that particular place. (Scottsdale, Ariz., APA)

Environmentally Sensitive Areas

Environmentally sensitive areas include important natural resources such as sensitive topographic features (i.e. steep slopes (>15%)), geologic/geomorphic formations, sinkholes and karst terrain; scenic vistas/overlooks/lookouts; and public and private forest and woodlands. These areas also include wildlife management areas/natural areas designated for the protection of wild animals, within which hunting and fishing are either prohibited or strictly controlled. Identification of environmentally sensitive areas in your community can assist the community protect these important resources. (EPA)

Setback (also lot definitions)

The minimum distance by which any building or structure must be separated from a street right-of-way or lot line. (Blacksburg, Va., APA)

The required distance between every structure and the lot lines of the lot on which it is located. (Doylestown, Ohio, APA)

The distance between a street line and the front building line of a principal building or structure, projected to the side lines of the lot and including driveways and parking areas, except where otherwise restricted by this ordinance. (Duluth, Ga., APA)

Erosion

The removal of soil through the actions of water or wind. (APA)

The detachment and movement of soil or rock fragments, or the wearing away of the land surface by water, wind, ice, and gravity. (Champaign, Ill., APA)

The general process by which soils are removed by flowing surface or subsurface water or by wind. (St. Paul, Minn., APA)

The process by which soil particles are mobilized and transported by natural agents such as wind, rainsplash, frost action, or surface water flow. (Burien, Wash., APA)

Detachment and movement of soil, rock fragments, refuse, or any other material, organic or inorganic. (Sandy, Ore., APA)

The detachment and movement of soil, sediment, or rock fragments by water, wind, ice, or gravity. (Cudahy, Wisc., APA)

The wearing away of the ground surface as a result of the movement of wind, water, ice, and/or land disturbance activities. (Minneapolis, Minn., APA)

The wearing away of land by the action of wind, water, gravity or a combination thereof. (Grand Traverse County, Mich., APA)

Stormwater Management (also drainage)

Any stormwater management technique, apparatus, or facility that controls or manages the path, storage, or rate of release of stormwater runoff. Such facilities may include storm sewers, retention or detention basins, drainage channels, drainage swales, inlet or outlet structures, or other similar facilities. (Champaign, Ill., APA)

The collecting, conveyance, channeling, holding, retaining, detaining, infiltrating, diverting, treating, or filtering of surface water, ground water, and/or runoff, together with applicable managerial (nonstructural) measures. (Redmond, Wash., APA)

The system, or combination of systems, designed to treat stormwater, or collect, convey, channel, hold, inhibit, or divert the movement of stormwater on, through, and from a site. (Temple Terrace, Fla., APA)

Vegetative Buffer (also riparian)

An area extending landward from the ordinary high-water mark of a lake or stream and/or from the edge of wetland that provides adequate soil conditions and native vegetation for the performance of the basic functional properties of a stream corridor and other hydrologically related critical areas. . . . (Yakima County, Wash., APA)

Viewshed

The area within view from a defined observation point. (California Planning Roundtable, APA)

A visually sensitive area that is visible from a defined observation point. (Loveland, Colo., APA)

Zoning District (also base zoning district; land-use classification)

A section of the city in which zoning regulations and standards are uniform. (Wood River, Ill., APA)

Any district delineated on the official zoning district map under the terms and provisions of this code or which may hereinafter be created subsequent to the enactment of this code for which regulations governing the area, height, use of buildings, or use of land, and other regulations relating to development or maintenance of existing uses or structures, are uniform. (Hedwig Village, Tex., APA)

An area or areas within the limits of the city for which the regulations and requirements governing use, lot, and size of building and premises are uniform. (Hopkins, Minn., APA)

Any section, sections, or divisions of the city of which the regulations governing the use of land, density, bulk, height,

and coverage of buildings and other structures are uniform. (Cabot, Ark., APA)

A land use area or zone established by this title for the designated intent. (Sandy, Ore., APA)

A designated area of the territory of the city within which certain uniform zoning regulations and requirements, or various combinations thereof, apply as set forth in this title. (Santa Rosa, Calif., APA)

A part, zone, or geographic area within the city or under its extraterritorial jurisdiction within which certain zoning or development regulations apply. (North Liberty, Iowa, APA)

A portion of the city within which certain uses of land and buildings are permitted, and certain other uses of land and buildings are prohibited, or within which certain yards and other open spaces are required, or within which certain lot areas are established, or within which certain height limits are required for buildings, or within which a combination of such aforesaid regulations are applied, all as set forth and specified in this title, or any of the districts with which any combining regulations are combined. (Richland, Wash., APA)

Zoning Map (also official map)

A map that graphically shows all zoning district boundaries and classifications within the city, as contained within the zoning code, which is signed by the community development director and on file in the planning department. (Escondido, Calif., APA)

The map adopted as an ordinance by the municipality that delineates the extent of each district or zone established in the zoning ordinance. (Grand Forks, N.Dak., APA)

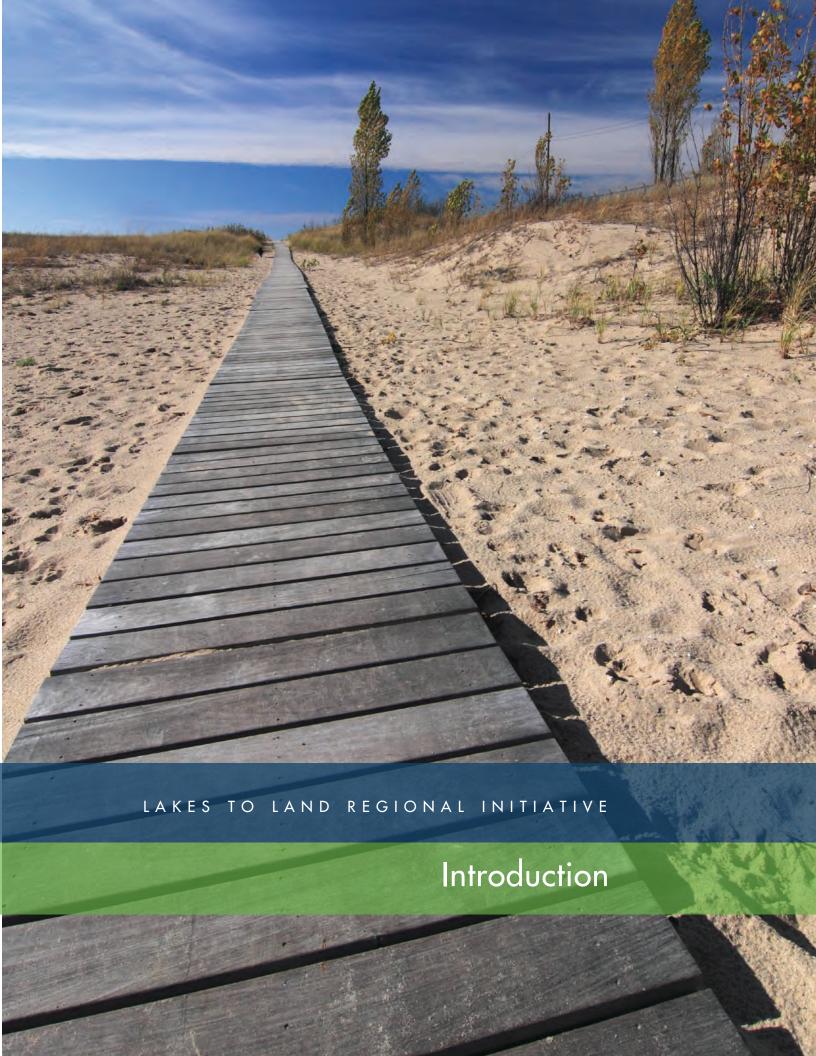
The map or maps that are a part of this zoning code and that delineate the boundaries of all mapped zoning districts within the physical boundary of the city. (Newport, R.I., APA)

The map and any amendments thereto designating the zoning districts, incorporated into this ordinance by reference. (Wood River, Ill., APA)

The map delineating the boundaries of zones which, along with the zoning text, comprises the zoning ordinance. (North Liberty, Iowa, APA)

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Why a collaborative master plan?

Residents of 16 communities along the State of Michigan's northwestern coast have decided to join forces in order to commandeer their future and set a course to navigate their growth and development together.

The purpose

Michigan has never seen collaboration like this before.

A project that began as five townships striving for better coordination has expanded into the largest planning effort of its kind in the state. Ten townships, four villages, and two cities have come together to define themselves as belonging to one cohesive region with the potential to become more than the sum of its parts.

The unique formation represented in this report is designed to plan for the region while maintaining communities' individual identities. By undertaking the collaborative master planning process, residents have discovered ways to work together as a united front, sharing assets and collaborating

on ideas to achieve economic well-being and excellent quality of life. We can identify the role that our communities' unique assets play within both the region and the state, then use that understanding to shape the future we will all share.

The strategies

- Develop individual master plans for each community that doesn't have one;
- Identify regional collaborative opportunities;
- Identify cross-community collaborative opportunities;
- Develop community-specific and regional implementation strategies;
- Develop the organizational capacity necessary to implement the plan.

What is a master plan?

"Master plan" is a serious-sounding name, and indeed it's a serious document. Intended to provide a clearly articulated vision of the community 15 to 20 years into the future, it either succinctly describes persistent concerns or defines the development of the "ideal" community. It also contains a guide to achieve that development based on careful study of many factors, and it can be legally referenced in land use decisions.

But before it's all those things, a master plan is a dream.

The process of master planning begins with dreaming about how a community could be a better place to live. Citizens gather and share perspectives on their community's strengths, weaknesses, opportunities, and threats. We talk about what the physical spaces in a community mean to us, how we would like to use them, and what we could do to make them better. We consider the challenges facing us and the organizations we could enlist to help overcome those challenges.

These are issues which must be considered for the success of any community, and the residents of the communities participating in this collaboration have decided to take it into our own hands. We know that unless we take control of our destiny, individually and as a region, our dreams may be left to debate.

What is a collaborative master plan?

For the purposes of this planning process, a collaborative master plan is a document that contains an articulated vision, with defined goals and strategies, for the future development of a geographic area based upon input from members of more than one community.

Basically, it's the same plan we just talked about—now with all our neighbors on board.

Planning at the local level is usually by definition limited to one community, but collaborative master plans have the luxury of erasing municipal boundaries to view the region as a whole. They are also synonymous with increasingly syllabic names like "regional strategic growth planning" or "regional asset-based land use development planning."

This collaborative master plan contains a "statutorily compliant" (see next page for legalese) master plan for our unique community, along with a regional component that seeks to understand collaborative opportunities, goals, and

strategies.

But...why?

The benefits of having an updated master plan are that it will:

- provide a point of reference for all land use decisions.
- prevent arbitrary or capricious decision-making.
- ensure wise use of resources.
- assist in preserving community assets.
- provide a sound basis for funding opportunities.

The benefits of collaborative master planning include:

- facilitating partnership within a geographical region.
- providing consistency between communities.
- helping communities identify and shares resources.
- protecting land use types and natural resource assets that cross municipal boundaries.
- providing a well-documented and justified basis for funding requests.
- understanding possible opportunities to achieve economies of scale
- capitalizing on existing assets.

understanding how sustainability

plays a role in maintaining a high quality of life for current and future generations.



1.1 The Lakes to Land Regional Initiative

Leadership Team

History of the regional initiative: What came before...

In the beginning, there were five.

As 2011 drew to a close, informal discussions among leaders in several communities had coalesced into a decision to forge ahead with a bold new idea: five neighboring townships would join forces to produce a cohesive set of master plans and implementation strategies. Initial assistance came from The Alliance for Economic Success (AES), an economic development organization serving Manistee County and the surrounding area that provides neutral third-party convener and facilitation services to develop organizational capacities and relationships. AES secured funding from the Michigan Department of Treasury State Economic Incentive Program, revised in 2011 to place heavy emphasis on coordination among communities, and the C.S. Mott Foundation. The beginnings of the Leadership Team were formed next and charged with the competitive bidding, interviewing, and selection of a professional planning consultant to guide and facilitate the process.

The five original communities quickly found company. Neighboring townships which did not have master plans seized the opportunity to create one, and communities which did have master plans asked to participate in the implementation phase. Within eight months, the collaboration had tripled in size to encompass 16 communities, signaling a hunger for cooperation. The end result is a defined region with potential collaborative partners and the possibility for greater success.

...and what we did next

The process of developing the collaborative and individual master plans began with the formal development of a Leadership Team. Consisting of representatives from each participating community, this team constituted the linchpin of the Initiative: members provided guidance to the consultants, acted as liaisons with their respective communities, and worked with their elected officials. Their first two action items were the selection of a name for the project and the decision to reach out and invite neighboring communities to join.

Next, the new Lakes to Land Initiative, or L2L as it is affectionately called, launched a media campaign. The lakestoland.org website was developed, Facebook and Twitter accounts were set up, a centralized phone number was dedicated, and email addresses of interested citizens were collected to begin a distribution list. Press releases kept local news outlets updated, and postcards were sent to every taxpayer within the participating communities inviting them to the visioning sessions. Leadership Team members hung posters advertising the visioning sessions and met with citizens face to face—often the most effective communication method available.

The visioning sessions, described in detail in Tab 3, were held throughout the summer in an effort to attract as many seasonal and non-seasonal residents as possible. Each participating community held a session, and two "make-up" visioning sessions were held for members of all communities who were not able to

Making it legal

According the Michigan Planning Enabling Act of 2008, the general purpose of a master plan is to guide and accomplish, in the planning jurisdiction and its environs, development that satisfies all of the following criteria:

- is coordinated, adjusted, harmonious, efficient, and econom-
- considers the character of the planning jurisdiction and its suitability for particular uses, judged in terms of such factors as trends in land and population development.
- will, in accordance with present and future needs, best promote public health, safety, morals, order, convenience, prosperity and general welfare.

It also has to talk about at least one of the following things:

- a system of transportation to lessen congestion on streets;
- safety from fire and other dangers;
- light and air;
- healthful and convenient distribution of population;
- good civic design and arrangement and wise and efficient expenditure of public funds;
- public utilities such as sewage disposal and water supply and other public improvements;
- recreation;
- the use of resources in accordance with their character and adaptability.

attend their own sessions. Visioning sessions were well attended, with some communities achieving over 100 individuals.

At the same time, presentations were given to individual planning commissions and regional conferences such as the Benzie County Water Festival, and Leadership Team members actively worked at inviting their neighboring communities to join the Initiative.

As the Initiative grew, it caught the attention of Michigan Governor Rick Snyder. Having recently begun a Placemaking Initiative connecting community development with economic development, Governor Snyder asked to audit the Lakes to Land Regional Initiative in hopes of developing strategies that could be replicated elsewhere in the State. Shortly thereafter, the Michigan Department of Natural Resources selected Lakes to Land Regional Initiative as a pilot project to assist with its own internal efforts in placemaking throughout the State. Meetings were held with representatives from Michigan State Housing Development Authority, Michigan Economic Development Corporation, and Department of Agriculture and Rural Development, all charged with helping Governor Snyder further the State's Placemaking Initiative. Other pertinent organizations which attended the Leadership Team meetings included the Grand Traverse Regional Land Conservancy, Benzie and Manistee County planning services, Michigan State University Extension Services, Hart Leadership Development, and the Northwest Michigan Council of Governments.

Once all of the communities had master plan drafts, about 60 leadership team members, trustees, planning commissioners, and interested citizens attended a "Priority Sharing" meeting to discuss their communities' pertinent issues. The 69 submitted priorities were arranged into ten themes which could then serve as a basis for the formation of work committees. This process illustrated clearly the potential benefits of collaboration. A series of sessions was conducted during the master plans' public period that focused on capacity building and learning how to work with funders to maximize opportunities for implementation.

Participating

Communities which are developing a master plan as part of the Lakes to Land Regional Initiative:

Communities which have recently developed a master plan and wish to collaborate with regional neighbors on implementation:

communities

The Lakes to Land communities are situated along the M-22 and US-31 corridors in Northwestern Michigan, stretching from the northern tip of Lake Township in Benzie County to the southern boundary of Manistee Township in Manistee County. It encompasses communities east of US-31 but adjacent to the highway, then continues west to the Lake Michigan shore.

In it are villages, cities, and townships displaying a range of character from rural agriculture to urbanized centers. Communities are adjacent to each other, have similar socioeconomic statuses, and share geographic attributes such as natural resources.

All communities in the geographic area were informed of the Initiative and invited to join.

Haven't I seen you before?

Some of the communities have previously collaborated together. Onekama Township and the Village of Onekama recently developed a joint master plan to facilitate the creation of one greater Onekama municipality. Pleasanton Township, Bear Lake Township, and the Village of Bear Lake attempted to create a joint planning commission and master plan in 2007. The communities in the northern section of the region have had an opportunity to collaborate by developing a regional trail system that spans a number of municipalities.

Historical settlements

Lumber and railroads were defining influences on the communities in the Lakes to Land region—many towns grew up around sawmills or train stops, nourished by the economic lifeblood such enterprises provided. As the fortunes of those industries went, so too did the fate of a few of the settlements.

Descriptions of two such "ghost towns" in Benzie County date from the year 1877. Gilmore was "located in Blaine Township on the shore of Lake Michigan, 12 miles south of Benzonia. Settled in 1850. Wood and logs shipped. Triweekly stage to Frankfort and Pier Point. George B. Farley, Postmaster and general store." A post office in Joyfield Township, 10 miles south of Benzonia, was described as "located on a fruit belt, mail by stage 4 times weekly. Amazia Joy, Postmaster and Pastor of the Baptist Church."

In 1883 Lake Township, the town of Edgewater was established on the northwest shore of Platte Lake and Aral settled in near Otter Creek. A narrow gauge railroad was built to carry lumber from the Platte Lumber Company to Lake Michigan, with docks at the shore. The Otter Creek Lumber Company, founded in 1891, reportedly shipped extensive material for the rebuilding of Chicago after the great fire of 1871. Lumbering took most of the maple, ash, oak, elm,

basswood, hemlock, and beech trees in the township, and the towns were gone by 1910.

In Manistee County, the town of Pleasanton, also called Saile Station, had 350 people in 1870. Eight miles east of Pierport and 25 miles north of Manistee, it was home to bucket manufacturers D. and R. Lumley along with a furniture maker, a basket manufacturer, and a blacksmith. Timber, potatoes, butter, and sugar were shipped out. The little hamlet was complete with two churches, a general store, and a school superintendent. Stage travel went to Manistee, Benzonia, and Traverse City, and in 1917 modernity arrived: it had telephone service and was listed as a stop on the Arcadia & Betsie River Railway. Further up on the A&BRR was a little town called Butwell, at the corner of Butwell and Taylor Roads, and all we know about a settlement named Burnham is that it was just due north of Arcadia on the county line.

Arcadia Township

The Arcadia & Betsie River Railroad, terminating in Arcadia, had extended over 17 miles to connect with the Chicago and West Michigan Railway by 1895. The line maintained an influx of goods to the area and allowed crop transportation from the fertile fields of the township to the markets of Chicago. There was also a good market for ice, which was cut from Bear Lake and hauled by wagon to A&BRR's Sorenson Station just east of Pleasanton Township from about 1890 until 1937. The Arcadia Furniture Factory on the north end of Bar Lake manufactured both furniture and fine veneers to be sold in Macy's in New York City. The Village of Arcadia, originally named Starkeville after lumberman Henry



1.2 Arcadia Furniture Factory

Constructed in 1906 after the Starke Sawmill burned down. Photo: Arcadia Historical Museum. Starke, changed its moniker to match the township in 1870. Anne M. Dempster opened the post office in 1870. Just north of town was a notable "fancy house," which soared in popularity when proprietors struck upon the novel idea of sending a wagon to Arcadia's pier to greet incoming sailors.

Bear Lake Township and the Village of Bear Lake

The earliest inhabitants of the area now encompassed by Bear Lake Township were the Odawa, marking their legacy by leaving behind an impressive number of artifacts. It is thought a burial ground exists near Pierport's artesian well, and a great battle may have taken place near "Brown town," where farmers reported clearing their fields and discovering large numbers of arrowheads and even tomahawks. A silver crucifix found in the area and dated 1664 indicates early contact with Jesuit missionaries, perhaps even explorer Father Jacques Marquette. The first non-Native settlers included Russell Smith, who built his homestead in 1863 on the south side of Bear Lake with the idea of a future village and offered up 12 acres to anyone who would come in and start one. John S. Carpenter and Eliphlate Harrington



1.3 Bear Lake School

Legend has it that Crystal Lake was formed by Paul Bunyan, a mighty lumberjack whose mighty big boot carved a footprint along the shore of Lake Michigan.

took him up, building a small store, a boarding house, a steam saw, and grist mill before selling out a few years later to George W. and David H. Hopkins. The Village of Bear Lake was incorporated in 1893.

On June 1, 1876, the Bear Lake Tram Railway began using horse-drawn freight cars to connect the growing village with the docks at Pierport, throwing the gateway to the rich markets of Milwaukee and Chicago open to full throttle. The last of the lumber soon slipped out, followed at close quarters by some early settlers including George Hopkins. By the 1930s, the freshly-cleared land had been put to use producing admirable quantities of blueberries, apples, and cherries. Many local families found seasonal employment on the farms, and the Little River Band of Ottawa Indians has noted the Odawa summer camp located along the shores of Bear Lake during the 1930s through 1950s.

Blaine Township

Blaine Township was founded in 1851 as the location of the Loyed & Thomas sawmill near Herring Lake. But its raison d'etre didn't last long: an unusually high water level in 1862 destroyed the dam across the creek, lowering Upper Herring Lake's water level by three feet and rendering the mill unsalvageable. Despite this setback, the township continued to grow, and its official organization in

1867 included the area that is now Gilmore Township. A large commercial fishery founded by John Babinaw ½ mile south of lower Herring Lake shipped thousands of tons of whitefish, herring, and trout to Chicago and Milwaukee.

Crystal Lake Township

Legend has it that Crystal Lake was formed by Paul Bunyon, a mighty lumberjack whose mighty big boot carved a footprint along the shore of Lake Michigan. The township that bears its name is not only the oldest in Benzie County, but predates the county itself by four years. Organized in 1859, Crystal Lake Township's vast area included nearly the entire county. The township's population expanded steadily, especially after the Homestead Act of 1862. One settler who stayed to raise a family was Hiram M. Spicer, a former school teacher who contracted typhus while serving in the Federal Army from 1863 to 1865 and may have moved to northern Michigan to avail himself of its renowned healthful air. Spicer became an accomplished horticulturist, and his 21-acre farm produced abundant quantities of peaches, apples, grapes, and cherries. He also served as Township Supervisor from 1874 until at least 1884. He helped construct a harbor, provided most of the harbor's pilings, and was twice nominated for the state leaislature.

City of Frankfort

A Michigan Historical Marker on the north side of the channel connecting Betsie Lake with Lake Michigan proclaims a piece of Frankfort's earliest history: it may have been the site where the famed Father Marquette died in 1675. In 1852, Joseph Oliver bought 14 acres between Lake Aux Becs Scies - French for "of sawbill ducks"—and Lake Michigan to become the first settler of what would become Frankfort. Three years later, a schooner owned by investor George W. Tifft from Cleveland blew into the little-known harbor seeking refuge from a storm; Tifft promptly bought a thousand acres surrounding the lake and sold it to a development company from Detroit. The first township meeting of the original, massive Crystal Lake Township was held in Frankfort in 1859, and the town became Benzie's county seat ten years later. By 1867, the United States government had taken notice of the Aux Becs Scies harbor and commenced improvements. Former Congressman and Montana territorial governor Jim Ashley capped off the northwestern journey of his Ann Arbor Railroad with the 1892 purchase of a small local line that connected it to Lake Michigan at Frankfort, and then the company built the lavish 250-room Royal Frontenac Hotel to attract tourists by both rail and water.

Village of Honor

About the first of April, 1885, Guelph Patent Cask Company foreman E.T. Henry arrived on the grounds with a crew of men and a small portable sawmill and began to clear a place for a set of camps, naming the settlement "Honor" in compliment to the baby





5 Downtown Frankfort, 1940



1.6 Platte River Trout Pond rearing grounds before the state hatchery

daughter of Guelph general manager J.A. Gifford. Hardly a quarter-century later, the 600-resident village was made the county seat by popular vote and later became the site of a wellknown and heavily attended annual reunion of Civil War vets (probably due in part to the name of the town—what veteran's group wouldn't want to meet in Honor?). The Seymour and Peck Company, successor to the Guelph Patent Cask Company, shipped veneer to Chicago while the Desmond Chemical Company Plant at Carter Siding converting cordwood into charcoal, alcohol, acetate and other wood derivatives. In 1953, Honor saw the opening of the Cherry Bowl Drive-In Theater, now lovingly restored and one of the oldest continually operating drive-in theaters in America, and Coho salmon were introduced to the area in 1966 through the Platte River Fish Hatchery.

Gilmore Township and the Village of Elberta

At just 7.25 square miles, Gilmore Township is the smallest in Michigan. The area was first settled in 1855 by Joseph Robar and John B. Dory, and the first improvements to Gilmore Township's harbor on beautiful Betsie Bay occurred in 1859. The harbor was deepened and piers were constructed; these proved vital to the fledgling settlement's future growth, which would depend heavily upon the shipping industry. In 1892, the Ann Arbor Railroad launched the world's first carferry service from Betsie Bay. Rail cars carrying lumber, coal, and grain now had a rapid shortcut to the shores of Wisconsin.

Elberta, the only village in Gilmore Township, was first settled in 1855. Early luminaries include L.W. Crane, lumberman and founder of the local sawmill, built in 1872, and James Gillmore, Benzie County's first newspaper publisher and the gentleman for whom the township was named. The home of a sawmill, a broom handle factory, and Frankfort Furnace, it shipped out wood, lumber, handles, bark, and pig iron. In 1887, the United States Coast Guard installed a Life-Saving Station on Elberta's Lake Michigan shore that operated for nearly 50 years until a larger new facility was built about a half mile away.

Joyfield Township

Reverend Amariah Joy, a Baptist minister from Putney, Vermont, filed Benzie County's first homestead claim on July 11, 1863 and quickly discovered the realities of life in the wilderness: few people and even fewer roads. But he and his wife Frances settled their homestead of 160 acres and Joy went on to become the first

1.7 A car ferry returns to Elberta, 1930s



1.8 Manistee Historic Salt and Logging Operations



Unless otherwise noted, historical photos are from the UpNorth Memories online collection by Don Harrison stores.ebay.com/UpNorth-Memories-Collection

postmaster and then supervisor of the township that bears his name. He was succeeded first by his son and a year later by Charles H. Palmer, a New York teacher who had traveled to Ecuador and California before enlisting in the Civil War. After the war, Palmer made his Michigan homestead claim in November 1866 and resumed teaching while he cleared his land for planting. Eventually his farm boasted a respectable 30 cultivated acres, including 1,500 fruit trees and a unique specialty in nut cultivation.

Lake Township

The Platte River Campground at M-22 on the Sleeping Bear Dunes National Lakeshore has a looooong history: artifacts dating from the period between 600 BC and 1640 AD suggest a little settlement, smaller than a village, in which Natives used the area on a seasonal basis "actually very much like what campers are doing today." By 1873, the corner of Michigan made up of forests, the lower Platte River, Otter Creek, Bass Lake, Otter Lake, Long Lake, Platte Lake, Little Platte Lake, Loon Lake (originally Round Lake), and part of Crystal Lake became known quite fittingly as Lake Township. The lighthouse at Point Betsie was lit in 1858, and Alonzo J. Slyfield served for 22 years as its keeper. As the lumber boom wound down at the turn of the century, resorts became the other economic staple for fishing, hunting, and summer guests. Chimney Corners opened in 1910, and Crystal Downs-known as one of the best golf courses in the US—was established in 1927.



1.9 Lake view from the top of Prospect Ave., Onekama

City of Manistee

The name "Manistee" is from an Oiibwa word first applied to the principal river of the county. The derivation is not certain, but it may be from ministigweyaa, "river with islands at its mouth." Other sources claim that it was an Ojibwe term meaning "spirit of the woods."

In 1841, the John Stronach family constructed a sawmill on Manistee Lake and later another on the Manistee River. By 1849, more settlers were arriving and the reservation was dismantled, with land given to settlers. The city was set back in 1871 when a fire swept through and destroyed over one-half of the city's buildings. Much was rebuilt, this time of brick.

In 1881, salt was discovered beneath Manistee and another industry was born. By 1885, there were forty sawmills operating and by the end of the century the population reached 14,260. Manistee claimed to have more millionaires per capita than any other city in the United States. They also had city-provided fire protection, a parks department, water, sewer and street lighting.

After 150 years Manistee County has both changed and remained the same. The early boom years of lumbering and exhaustive agriculture have evolved into a stable, diversified industrial base and a top fruit-producing agricultural center. It is the beauty and natural wonder that abounds in the region's forests, lakes and rivers that remain a constant factor and will always make Manistee County a special place to live and visit.

Manistee Township

Although Manistee County was "set off" as early as 1840, giving it a name and a geographic region, it wasn't officially "organized" until the state legislature divided it into three townships in 1855: Stronach, Brown, and Manistee. The tax rolls of that year showed over half the county's valuation in Manistee Township, situated along the Lake Michigan shoreline and host to the Manistee River's westward journey into

Manistee Lake. sawmills Two with surrounding dwellings lined the lake and eventually grew into the communities of Eastlake and Parkdale. The adjacent farms were among the most successful in the county, in part because the ready market in the nearby city. Manistée The National Forest brushes the

southeast corner of the township, blanketing the land south of the Manistee River and about two miles inland of Eastlake with trees regrown in the wake of the logging industry.

Onekama Township

When Adam Stronach sought a place to build a sawmill in 1845, he knew

the wooded acres along Portage Lake would be ideal. The area was known to settlers as early as 1840 by its Odawa name, onekamenk, or "portage." Although its inhabitants called it by its English name for a time, there was another Portage, Michigan and the townspeople voted for a reversion to its historic name of Onekama in 1871. Though the lumber industry was crucial to early development, sawmills and citizens didn't always mix. Residents fed up with the unnaturally high water

and the town largely relocated. Pleasanton Township

Perhaps it was the verdant fields and forests that attracted George B. Pierce, a retired minister seeking a healthy atmosphere on a new frontier, to what was then Brown Township in 1863. When Pleasanton was established separately the following year, he became its first postmaster. By 1870,

areas were now open to settlement,

Pleasanton Township was home to 65 families, the first shop and school were established, and the first sawmill would arrive in 1871. As settlement surrounding Bear Lake grew just a mile south of the township's border, residents took advantage of new markets for local timber and forest products. Life became increasingly

civilized for Pleasanton's inhabitants. By 1880, the community would boast two schools, a public library, a fenced cemetery, and two churches. A local resident was quoted in August 1877 as saying, "[W]hoever chronicles the history of Pleasanton ten years hence will no doubt inform the world that it is one of the most flourishing towns in the State of Michigan."

By one account, a reveler at a celebration of the new post office took the occasion to hitch his ox to a log in the dam and pull it out, lowering the level of Portage Lake within a few hours and washing much of old Portage out to Lake Michigan.

> levels in Portage Lake, raised to power the sawmill, took matters into their own hands. By one account, a reveler at a celebration of the new post office took the occasion to hitch his ox to a log in the dam and pull it out, lowering the level of Portage Lake within a few hours and washing much of old Portage out to Lake Michigan. Portage Creek dried out, previously submerged



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Regional Setting

Located a little over one hour southwest of Traverse City and two hours north of Muskegon, the Lakes to Land region sits nestled along the shores of Lake Michigan. Accessible from the north or south by M-22 and US-31, and from the east or west by M-55 and M-115, smaller county roads traversing its interior pass through fruit farms, small towns, and scenic vistas.

Although the regional setting of this collaborative master plan is diverse, the communities within it share similar topography, land uses, and economic bases along with a fierce sense of place. Many know the area as unique, peaceful, and possessing a tranquility unparalleled in Michigan. Bluffs beckon from the shores of Lake Michigan with an invitation to stop and watch the amber sunsets over turquoise water. Inland lakes dot the area, some providing safe harbor from Lake Michigan for small craft use. An urban feel can be found in the more heavily populated villages and cities which make up the northern and southern portions of the region. Fine restaurants, nightlife, culture, and entertainment are plentiful. Seasonal and permanent residents alike find hospitality and fellowship.

The region's diverse economic base is comprised of small mom and pop stores, larger retail outlets, and light manufacturing. Between the urban areas to the north and south lies the agricultural stretch of the regional

economy. Fruit farms growing apples, cherries, raspberries, blueberries, and plums are plentiful; other products include maple sugar, honey, corn, and general produce. Agricultural enterprises come in all types and sizes, from non-operative acreage to organic farms to large-scale production. A growing number of farms participate in Farm To Table endeavors such as Farmer's Markets, roadside stands, U-Pick and Community Supported Agriculture arrangements.

Healthcare institutions are found in both the northern and southern portion of the geographical range, and smaller urgent care facilities dispersed throughout the core of the region. Tourism and eco-tourism are important parts of the economy as the region's assets invite visitors to play and relax. Technology has allowed an increasing number of individuals to select the region as home and then define or continue their method of employment, making home occupations important to many.



Area of influence

At the inception of the collaboration, the initial communities agreed to focus on a general geographic area which possessed similar qualities and faced comparable issues regarding land use and policy.



2.2 The regional view from Google Earth
Platte Lake and Crystal Lake to the north,
US-31 running down the east, Portage
Lake to the south, and Lake Michigan in
the west.

As discussed in Tab 1, formation of the Lakes to Land collaboration did not happen all at once. Seeds of this capacity to work together were planted during the writing of the Onekama-based Portage Lake Forever Watershed Plan: the township and the village came together so well that they wrote an award-winning master plan covering the entire "Onekama Community." On a roll, they then formed a Community Development Committee and began to investigate the possibility of Scenic Heritage Route designation for route M-22. This brought them outside the township's borders and to the immediate discovery that the "M-22 communities" of Arcadia, Blaine, Gilmore, Crystal Lake, and Bear Lake were not only ready to collaborate but had plans of their own in mind

Taking a "the more, the merrier" approach, the original communities knew that they would be inviting their neighbors to join them. How, then, to strike a balance between inclusivity and manageability? Taking a cue from collaborative successes already achieved, they decided to focus on the features that had already paved the way for working together: water and transportation. This meant concentrating on the Lake Michigan shoreline communities and those adjacent to them, through

which US-31 runs. Taken together, the leadership team referred to these as the collaboration's "Area of Influence."

As we have seen, that strategy was a success. All but four of the townships signed on, and one village (Honor) decided to come on board even without its surrounding township.

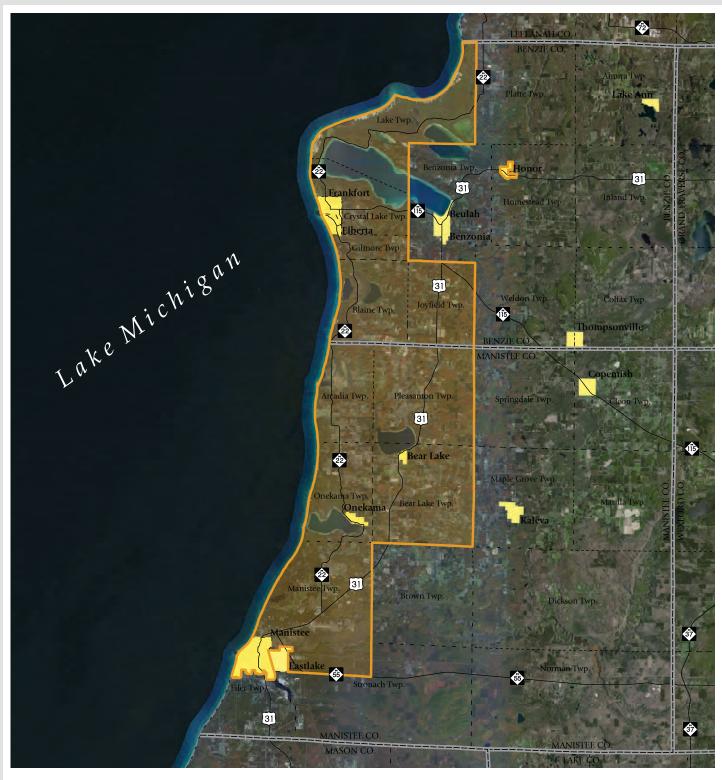
Regional location

Most of the communities within Benzie and Manistee Counties situated along the Lake Michigan shoreline are participating in the Initiative, along with several inland communities.

The initiative includes ten townships, four villages, and two cities. One of those villages – Honor – joined without the participation of surrounding Homestead Township. Manistee Township is participating without one of the two incorporated municipalities within it, the village of Eastlake. With those exceptions, every township is participating along with the incorporated municipalities within them. Crystal Lake Township is participating along with the city of Frankfort, Gilmore Township along with the village of Elberta, Bear Lake Township along with the village of Bear Lake, and the "Onekama community" of Onekama Township and the village of Onekama. The other participants are townships with no incorporated cities or villages within them: Lake, Blaine, and Joyfield Townships in Benzie County, and Arcadia and Pleasanton Townships in Manistee County. The narrative of this report consistently refers to these sixteen communities:

2.3 Table of community types

	Benzie County	Blaine	
		Crystal Lake	
		Gilmore	
		Joyfield	
Township		Lake	
l owr	Manistee County	Arcadia	
		Bear Lake	
		Manistee	
		Onekama	
		Pleasanton	
City	Benzie County	City of Frankfort	
Ö	Manistee County	City of Manistee	
	Benzie County	Elberta (Gilmore Twp)	
Village		Honor (Homestead Twp)	
Manistee County Bear Lake (Bear L		Bear Lake (Bear Lake Twp)	
		Onekama (Onekama Twp)	



LAKES TO LAND

Regional Location

Participating Communities

City or Village

- County Boundary

Township Boundary

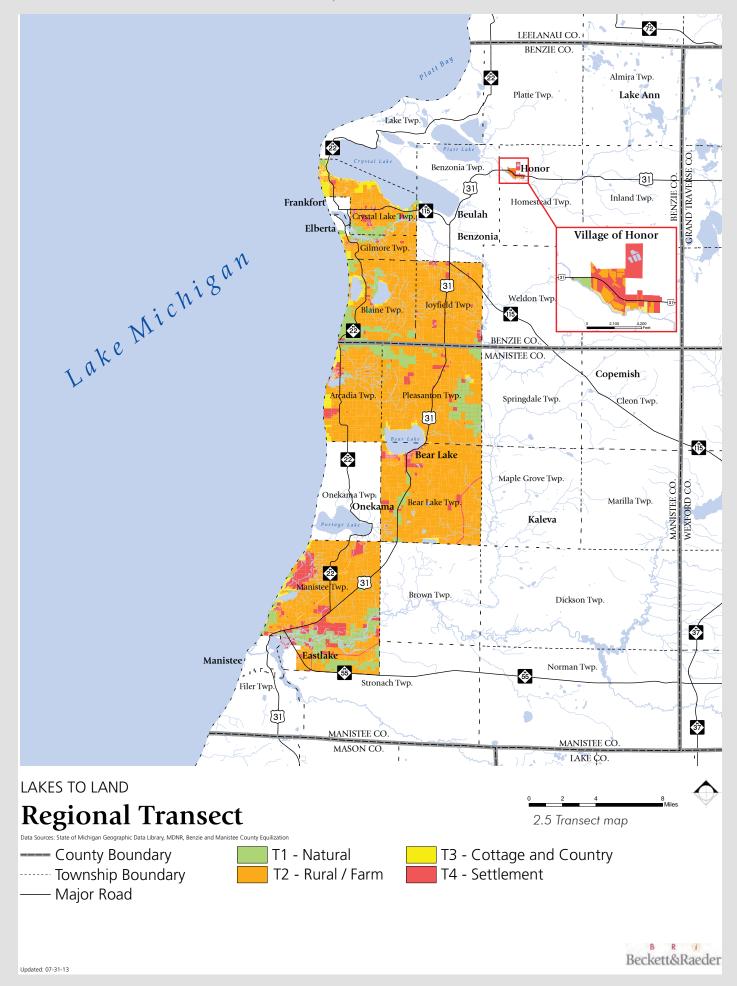
Major Road

Minor Road



2.4 Regional location map





Regional Transect

Shortly after the preparation of the Lakes to Land master plans began, the State of Michigan added placemaking as a component of the State's economic development strategy. Placemaking capitalizes on a local community's assets, inspiration, and potential, with the intention of creating public spaces that promote people's health, happiness, and well being.

The focus of the State's placemaking strategy is to create vibrant and economically viable places that will retain and attract talent and jobs. National trends note that younger professionals who are our up-and-coming entrepreneurs and business owners migrate to places which provide economic, social, cultural and recreational amenities. In order to consolidate limited resources, the State will likely leverage discretionary funds into communities which have the density to support a creative workforce and serve as generators for growth and investment.

To assess where these investments are likely to occur, a "transect" characterizes an area based on its natural and development elements. According to Wikipedia, "the urbanto-rural transect is an urban planning model that defines a series of zones from sparse rural farmhouses to the dense urban core. Each zone is fractal in that it contains a similar transition from the edge to the center of the neighborhood. The importance of transect planning is particularly seen as a contrast to modern Euclidean zoning and suburban development. In these patterns, large areas are dedicated to a single purpose, such as housing, offices, shopping, and they can only be accessed via major roads. The transect, by contrast, decreases the necessity for long-distance travel by any means."

The rural-urban transect includes six (6) zones from natural (T1) to urban core (T6). In the Lakes to Land region, only four (4) of the zones exist, ranging from Natural (T1) to Settlement (T4). The table on the next page describes in more detail the general characteristics found in each of the four character zones. Similarly, the map illustrates the locale of each zone based on a grouping of the future land use categories found in the nine community master plans. The result paints a picture of the Lakes to Land region as primarily Rural / Farm (T2) and Cottage and Country (T3). Only in several areas where densities range from 4 to 6 dwellings per acre are there Settlements (T4), such as the unincorporated village of Arcadia, the villages of Bear Lake, Elberta, and Onekama, and the City of Frankfort. These locales have the underpinnings to accommodate the level of economic and social activity that is envisioned in the State's placemaking initiative.

2.6 Lakes to Land transect typology

Туре	General Description	Element	Local Land Use Classifications
T1 Natural	Area characterized by its unique natural resource and ecological assets and therefore considered for future special land stewardship.	Land	Recreation / Open Space Forest
		Living	
		Commerce	
T2 Rural / Farm	Farming is the dominant land use activity with some large lot residential homes	Land	Agriculture Agriculture / Rural Residential - Rural Forest
		Living	_
		Commerce	
T3 Cottage and Country	This area consists of low density collections of year-round homes or seasonal cottages some of them clusters around inland lakes or along the Lake Michigan shoreline. Home occupations and outbuildings are permitted. Planting is naturalistic and setbacks are relatively deep. Blocks may be large and the roads irregular to accommodate natural conditions and topography.	Land	Residential - Resort
		Living	_
		Commerce	
T4 Settlement	Traditional residential neighborhoods characterized by a grid street pattern, smaller lots with higher densities than found in other locations.	Land	Residential - Settlement Commercial Corridor Commercial Node Village Center
		Living	
		Commerce	

Element Description

Properties under the ownership or management of Federal and State Agencies and Land Conservancies with a variety of natural and sensitive landscapes.

None

None

Agricultural includes parcels used partially or wholly for agricultural operations, with or without buildings, and include the following:

- (i) Farming in all its branches, including cultivating soil.
- (ii) Growing and harvesting any agricultural, horticultural, or floricultural commodity.
- (iii) Dairying.
- (iv) Raising livestock, bees, fish, fur-bearing animals, or poultry.
- (v) Turf and tree farming. Performing any practices on a farm incident to, or in conjunction with, farming operations.

Farm and non-farm related residences are also found in this category and occupy sites on less than acre to large acreage parcels between 5 and 10 acres in size.

Sporadic stores or shops which serve local residents. These are located along County roads and are not concentrated in one location to be considered a commercial node or district.

A variety of northern Michigan landscapes including rolling hills, lakeshores, meadows, forests and sensitive areas such as critical dunes and wetlands.

Residential land use found along Lake Michigan, inland lakes such as Bear Lake, Lower and Upper Herring Lakes, Arcadia Lake and Platte River, and other streams characterized by small lots. This category will contain a combination of seasonal and year-round homes.

Stores and shops dotted along County Roads, US-31 and M-22. These establishments include canoe/kayak rentals, bait shops, small grocery outlets, gas stations, art galleys and boat sales and service outlets.

Primarily developed and settled as historic villages and centers of commerce.

This land use category describes the neighborhoods of Arcadia, Elberta, Frankfort, Onekama, and Bear Lake. These neighborhoods are made up of single family homes located on lots with an average density of 4 - 6 units per acre. Homes are arranged close to the street with rear garages accessed by an alley when available. Arranged in a grid configuration, the streets are wide enough for on street parking but close enough to maintain an intimate neighborhood character. Trees and sidewalks line the streets, alleys provide rear entry to garages located in the backyard, and front porches beckon neighbors to sit and talk. A church may be found in the middle of the neighborhood along with neighborhood parks. Within walking distance to the Business district, civic, and recreational amenities, the Settlement area is the premier place to live for individuals looking for a more urban environment within view of Lake Michigan, inland lakes, and other natural resource amenities.

A variety of small stores and shops, banks, restaurants, and professional services.



Natural Assets

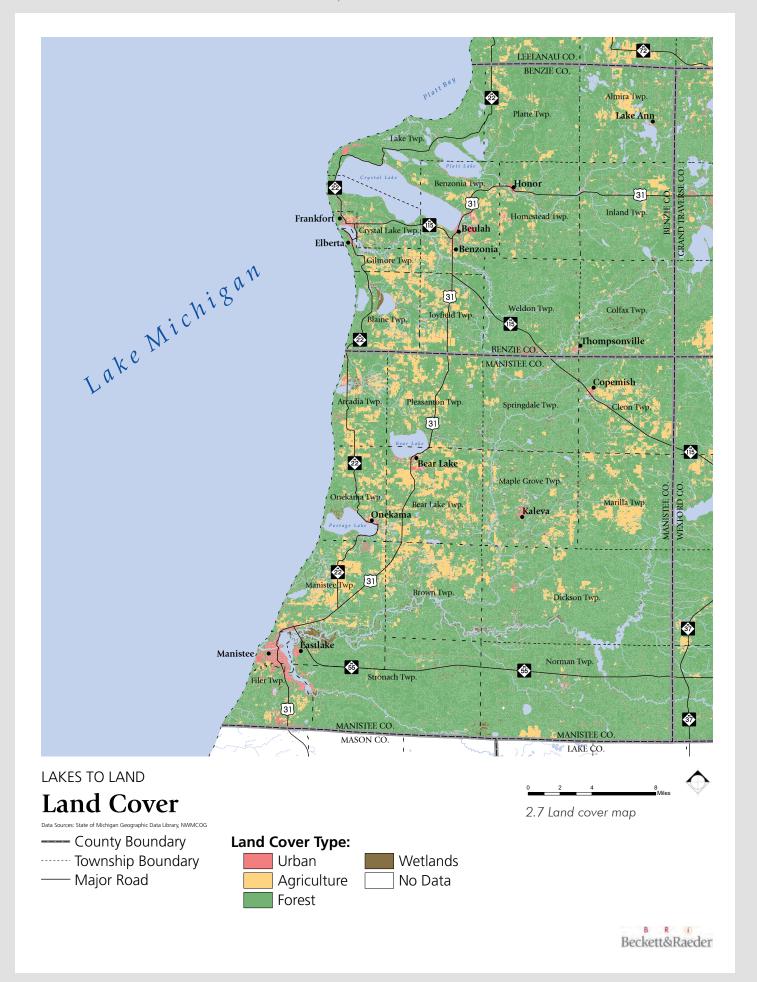
As the name suggests, many of the Lakes to Land region's very best assets come with the territory.

A coastal region abutting the sixth largest freshwater lake in the world could consider itself well-positioned in any reckoning of benefits, but the water resources in the L2L area extend far beyond that. Every township except Gilmore and Joyfield also hosts an inland lake, from the enormous Crystal Lake on the north end to little Bar Lake in the south. The rivers that criss-cross the area include the Big Manistee, one of the most important rivers of Michigan's lumber boom, the Betsie, and the Platte. This abundance has rightly earned the area the nickname "Water Wonderland," driving a robust tourism and recreation industry. But it also requires attendant maintenance and careful diplomacy from each of the diverse types of users on these public waters, from industrial shippers to trout anglers to stone skippers.

With water come wetlands. Once called "swampland," these hydric areas provide benefits like flood control, water cleansing, and prevention of erosion. They are so important that they are managed at the state level, meaning

that development affecting them is subject to a permit process. Historically, Michigan's original forests built a respectable proportion of the midwest and then gave way to agriculture on the soils that would support it. The soils that wouldn't frequently reverted to government control through delinquent taxes, leading directly to the assemblage of large parcels under federal and state control which then became conservation areas. These forests and preserves attract tourists and contribute to the rural scenery of the region, impacts which must be balanced against the untaxable and undevelopable nature of these vast swaths of land.

The region's most famous and unique natural asset are the sand dunes that line Lake Michigan's eastern shoreline, especially the Sleeping Bear Dunes to the north. Remnants of the glacial age that shaped most of the midwest's geology, these windswept mountains of sand play host to a diversity of biology, climate, and geology that is found nowhere else on Earth.



Land cover





2.8 Agricultural land cover
Top: Vineyards north of Manistee.
Bottom: Onekama fields in fall

"Land cover" refers to the physical material at the surface of the Earth: vegetation, water, pavement, ice, bare rock, wetlands, etc.

The vast majority of land within both Benzie and Manistee Counties is designated as Forest, with significant pockets designated Agriculture. Consistent with the Wetlands map in Figure 2.5, the Land Cover map shows wetlands mostly around the region's lakes, rivers, and tributaries.

"Urban land cover" refers to the impermeable surfaces with which we line our developments, such as streets, sidewalks, buildings, and parking lots. Shown in pink on the map, the areas in and around incorporated cities and villages, as well as along major roads, are designated Urban. Additionally, nearly every lake in the region is accompanied by an area of urban development. The proximity of development to water bodies presents particular challenges to water quality. Precipitation runoff carries pollutants such as vehicle fluids and animal waste across impermeable surfaces and directly into the water, without any of the filtration that would be provided by a permeable surface such as soil. Improperly constructed or failing septic fields can leach human waste into the water. Chemical fertilizer, even when properly applied and at the residential scale, can have serious consequences for water quality due to its concentration of phosphorous. This essential element for plant life can reduce the dissolved oxygen in a water body and thus its ability to support animal habitats.

Topography

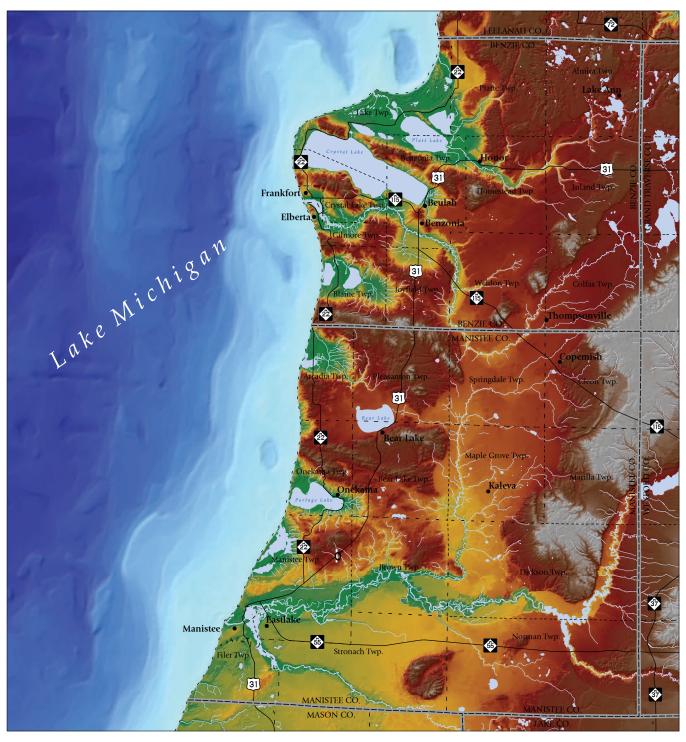
The configuration of a surface, including its relief and the relative positions of its natural and constructed features, defines its topography.

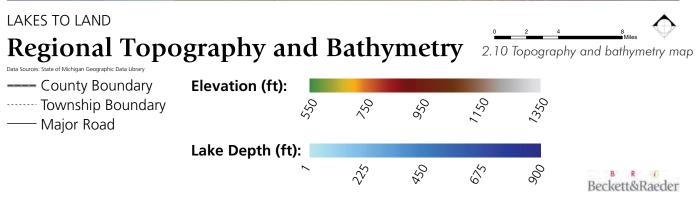
The map in Figure 2.8 demonstrates the highly varied terrain of the Lakes to Land region, which ranges from 450 feet above sea level in the river valleys to 1,350 feet at the ridge separating Benzie and Manistee Counties. Glaciers gouged the coast intermittently to form low-lying lakes, which have in turn been modified to suit human use over the past few hundred years. In many cases, the lakes remain surrounded by lands of higher elevation to form spectacular bluffs, as in the Arcadia and Frankfort areas. These topographic grooves also helped shape the valleys through which rivers such as the Platte, Betsie, and Manistee make their way to the Lake Michigan shore.

Topography plays an indispensable role in development. Engineering concerns presented by swift grade changes were a strong influence on the location of the region's railroad corridors. Construction in areas of low elevation can be subject to flooding, while a building on a severe slope risks an unstable foundation. Also pictured on this map is the configuration of the Lake Michigan floor—its bathymetry. This helps determine how a waterbody can be used. Shallower waters remain warmer and offer recreational opportunities like swimming and windsurfing, while only deeper waters can accommodate the larger vessels used by industry.



2.9 Topography and bathymetry of Frankfort
Note the surrounding bluffs and the dredged harbor. Photo: Google Earth







Slopes





2.12 View from Inspiration Point,

Slope is a calculation of "rise over run," or the change in elevation at two points divided by the distance between them.

When calculated this way, slope is expressed as a percentage or gradient. It can also be expressed in degrees, as the angle of the surface as compared to the horizontal. Figure 2.9 shows "strong" slopes, defined by an angle between 9.1 and 16 degrees (15-30% grade, or a 15- to 30-foot rise over 100 feet of distance), and "steep" slopes which have a rise of over 16 degrees (>30% grade). Awareness of the locations and extents of these slopes can impact decisions with respect to land use and transportation planning. The threat of erosion, sedimentation, and landslides all increase with the slope of a developed surface. Transportation requires more energy to cover the same distance, a situation that is drastically exacerbated as winter snow and ice reduce surface friction on the roads.

On the other hand, part of northwest Michigan's magnetic appeal is provided by its beautiful vistas and the recreational opportunities offered by its varied terrain. Many areas of steep slopes and undulating grades are concentrated around the inland lakes near Lake Michigan. Crystal Lake in particular has some steep slopes along both its north and south banks, as do several portions of the Lake Michigan shoreline, and the unincorporated village of Arcadia is nestled in a valley surrounded by steep slope hills. M-22 owes its "Scenic Route" designation to the spectacular views offered by steep hills; the popular state lookout Inspiration Point, just north of Arcadia, is the highest elevation on the eastern shore of Lake Michigan.

Watersheds

A watershed is a geographic area of land that drains surface water to a common point in the landscape.

Watersheds catch precipitation and snow melt and channel that water into streams. Those streams flow downhill to feed into bigger streams and rivers, collectively creating a network of waterways that eventually drains into a large water body—in Michigan, all watersheds eventually flow into one of the Great Lakes. The Lakes to Land region is served by three of the watersheds designated by the United States Geological Survey: Manistee, Betsie-Platte, and Pere Marquette-White.

Watersheds connect settlements to each other in a way that is particularly dissociated from jurisdictional boundaries. First, they are usually larger than any standard municipal unit—several to dozens of municipalities can sometimes fit inside a single watershed. Second, and more importantly, water moves under its own power from jurisdiction to jurisdiction. This means that the impact of land use decisions on water quality are felt far beyond the authoritative reach of the decision-makers. Regional planning is therefore an especially valuable tool in watershed protection, as in the case of the Portage Lake Watershed Forever plan that brought the Village of Onekama and Onekama Township together, or the Crystal Lake and Watershed Association that is the most recent incarnation of a citizen-led group focused on that waterbody stretching back over 40 years.



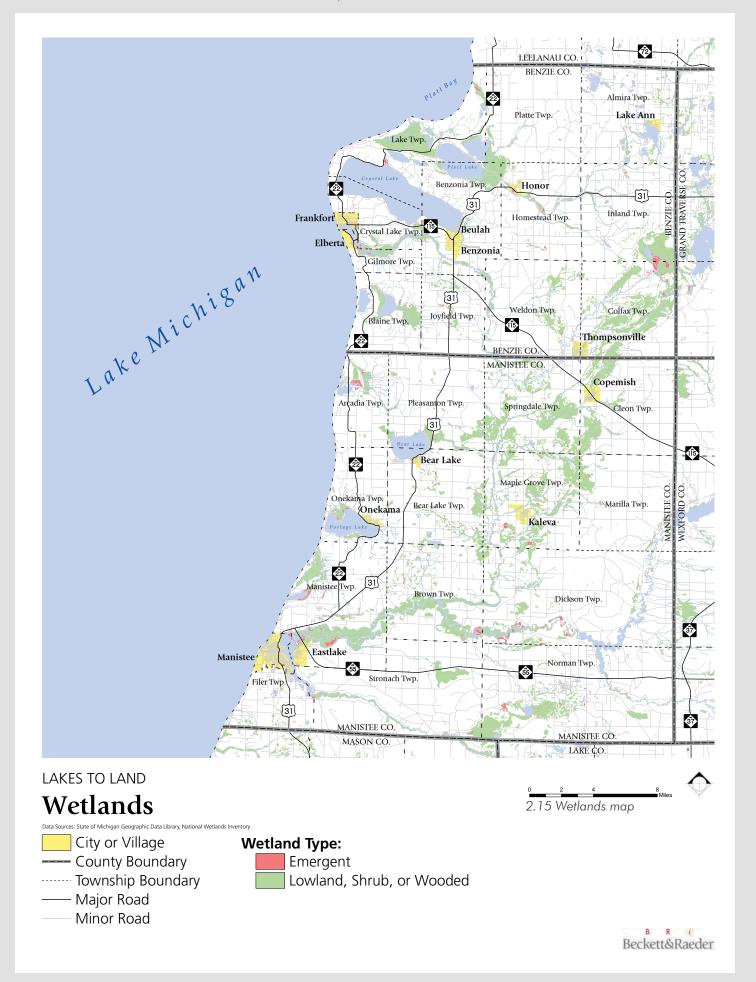
2.13 Traveling water

The Platte River goes under the M-22 bridge to meet Lake Michigan at the Platte Bay. Photo: UpNorth Memories by Don Harrison.

For this reason, federal and state monies for water quality management are often disbursed on the basis of an approved watershed plan. Section 319 of the national Clean Water Act provides grants to address nonpoint source pollution (pollution from diffuse sources such as fertilizer, oil, road salt, and animal waste in runoff). The Clean Michigan Initiative is a \$675 million bond dedicated to the state's water resources, including a \$90 million clean water fund and \$70 million in pollution and remediation monies. Nearly all of the Lakes to Land region is covered by a plan tailored to one of these two programs, with the exception of the areas adjacent to the Platte Bay and those surrounding Bar and Arcadia Lakes.

In Michigan, all watersheds eventually flow into one of the Great Lakes.





Wetlands

Michigan statute defines a wetland as "land characterized by the presence of water at a frequency and duration to support, and that under normal circumstances does support, wetland vegetation or aquatic life..."



2.16 Arcadia Marsh restoration project

Photo: Ducks Unlimited

It goes on to note that these lands are commonly referred to as a bog, swamp, or marsh. By any name, wetlands are key to maintaining northwest Michigan's natural amenities, and particularly its water bodies. They provide flood control, wildlife habitat, groundwater recharge and protection, pollution treatment, erosion mitigation, and replenishment of water nutrients.

They are so important that the Michigan Department of Environmental Quality delineates and regulates wetlands throughout the state, as shown in Figure 2.13. DEQ regulates wetlands that meet any of the following criteria:

- Connected to, or located within 1,000 feet of, one of the Great Lakes or Lake St. Clair
- Connected to, or located within 500 feet of, an inland lake, pond, river, or stream
- More than 5 acres in size
- Has been determined by the DEQ to be essential to the preservation of the state's natural resources

Every one of the communities participating in the Lakes to Land Regional Initiative has some delineated wetlands, although the greatest concentration in the region runs northeasterly through the non-participating townships of Maple Grove, Springdale, Cleon, and Colfax. Regulated wetlands require a permit and possibly mitigation for any activity (construction, fill, dredging, etc.) that will impact them.

2.17 Table of wetlands acreage

	Benzie	Manistee	Total
Emergent (characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens)	1,079.27	2,324.67	3,403.95
Lowland, Shrub, Wooded (characterized by low elevation and woody vegetation)	22,762.91	40,787.43	63,550.33

Source: National Wetlands Inventory

Protected lands

As the nineteenth century drew to a close, the lumber barons had just about clear-cut the entire state of Michigan. Though agriculture was expected to take the place of logging in the local economy as it had done elsewhere, soils better suited to the slow, woody growth of trees ensured that it did not.

Collapsing farm prices and tax delinquency following the end of World War I placed hundreds of thousands of acres of land under government control. Faced with a population hemorrhage out of northern Michigan, the state's Conservation Department embarked on a program of rehabilitating the land for recreational purposes.

The Manistee National Forest was created in 1938. Administratively a portion of the Huron-Manistee National Forest, it comprises just over 148,000 acres of land within Manistee County, including 5,778 acres in Manistee Township. The Forest provides recreational opportunities, fish and wildlife habitat, and resources for local industry.

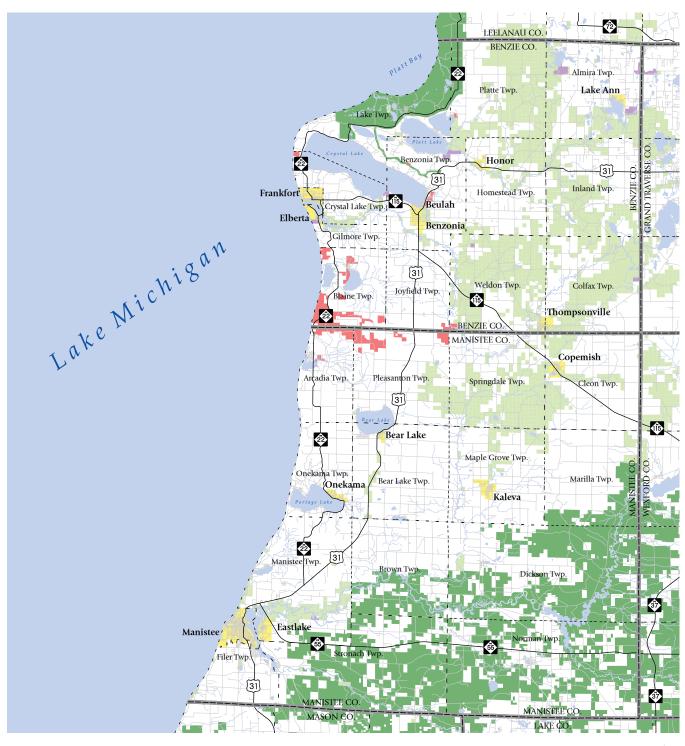
The Sleeping Bear Dunes National Lakeshore began as an unsuccessful 1941 recommendation to establish a state park on the Leelanau Peninsula. Finally authorized by the National Parks Service in 1970, it extends across approximately 35 miles of Lake Michigan Shoreline from Benzie to Leelanau

Counties, and part of its 12,000 Benzie County acres comprise 45% of Lake Township. The Lakeshore is an international destination for outdoor and wildlife enthusiasts. In 2011, it was named by ABC's "Good Morning America" as the Most Beautiful Place in America.

In the 1990s, Rotary Charities commissioned a study showing a breakneck pace of development in northern Michigan and responded by incubating the Grand Traverse Regional Land Conservancy. The Conservancy has since partnered with individuals, foundations, and all levels of government to protect over 34,000 acres of land and 100 miles of shoreline.



2.18 Lookout at Sleeping Bear Dunes Photo: National Parks Service





Federal, State, and Protected Lands

2 4 8 Miles
2.19 Protected lands map

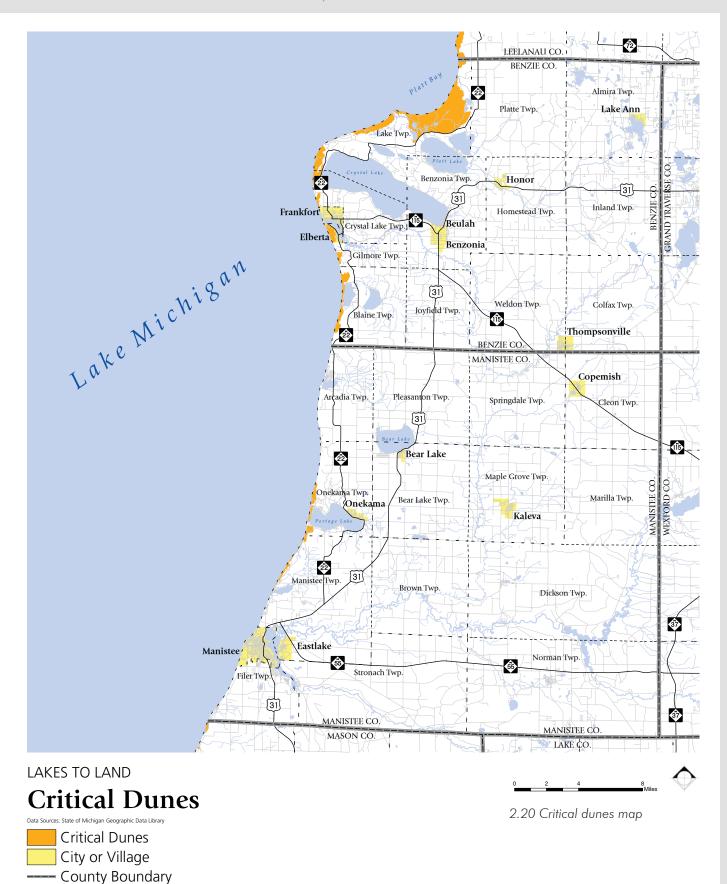
City or Village
County Boundary
Township Boundary
Major Road
Minor Road

Federal Owned Land
State Owned Land
GTRLC Nature Preserve
GTRLC Protected Land



Township Boundary

Major Road Minor Road



Beckett&Raeder

Critical dunes

Arcadia
Township
is the only
participating
shoreline
community
in which
critical
dunes have
not been
inventoried
by the
MDEQ.

Michigan hosts the largest collection of freshwater sand dunes in the world, a unique ecosystem sheltering five threatened and endangered species.

Protecting the dunes lining the Lake Michigan shoreline along significant portions of Manistee and Benzie Counties is an essential aspect of land use planning in northwest Michigan. Sand mining has been regulated by the State since 1976, and activities related to development, recreation, and forestry have been regulated since 1989. Earthmoving, vegetation removal, and construction activities within a critical dune area are subjected to a permit process. Local governments may assume that permitting authority by passing zoning restrictions that are at least as protective as state regulations, an option that has not been exercised by any Lakes to Land community.

There are approximately 7,025 acres of critical dunes along the shores of Benzie and Manistee Counties, nearly all (91%) of which is in Benzie County. Arcadia Township is the only shoreline community participating in the Lakes to Land initiative in which critical dunes have not been inventoried by the MDEQ.



2.21 Sleeping Bear Dunes



Transportation

Of all the subjects addressed in a master plan, transportation is among those best suited to be considered on a regional scale. People travel for the purpose of getting somewhere—frequently, somewhere outside the municipal boundary in which they started.

Of course, the story is much fuller. The connection between transportation and land use is so deep that many communities owe their very existence to the routes along which they sprang up: the port city of Manistee, for example, or the fortuitous harbor shelter that led George Tifft to arrange for the development of Frankfort. As the land use intensifies, so too do transportation routes: the Guelph Patent Cask Company's lumber operation in Honor brought the Pere Marquette Railroad to town, and the settlements at Manistee, Bear Lake, and Benzonia attracted an "auto trail" that would grow into the cross-country thoroughfare US-31.

For communities bordering a large body of water, limitations on growth are accompanied by challenges to land transportation. This describes the majority of Lakes to Land communities, where geography requires them to be the destination, not a waypoint, for westbound land travelers.

The inseparable nature of production and shipping means that industrial land uses are particularly entwined with transportation. Lumber encampments first sprang up along rivers so that harvested logs, too heavy to be pulled

efficiently by horses, could be floated to ships waiting at port. The emergence of the rail industry meant that operations were no longer confined to any water's edge—rather than bringing the industry to the transportation, the transportation could now be brought to the industry. The Ann Arbor Railroad illustrated the value of combining these approaches when it reached the end of its line in Elberta and began launching waterborne "car ferries" to transport cargo across Lake Michigan to Milwaukee and Chicago.

Sometimes, though, we travel just because we like it. As the 20th century got underway, the trains began to carry more tourists than cargo; some segments of the long-obsolete Ann Arbor Railroad bed have now been transformed into a pleasure trail for hikers and bikers. A group of gliding enthusiasts became so enamored of the offshore breeze at Frankfort that they made it into "the soaring capital of the world." The highway shield for M-22 dots the state, not as a route marker but as two kiteborders' proclamation of "appreciation for natural wonders such as bays, beaches and bonfire, dunes and vineyards, cottages, friends and family everywhere."





DH





2.23 Auto trail signs

Top and middle: Signs marking the Dixie Highway and West Michigan Pike

Bottom: M-22 sign that has become an unofficial symbol of northwest Michigan.

Road classification

Modern roads have been part of the public domain almost since their inception, and for good reason: their usefulness depends heavily on the consistency of their condition and entirely on their continuity of existence across varied lands.

But the "almost" is an important part of that sentence. In the late 'teens and early 1920s, Michigan was among many states that became criss-crossed with "auto trails," routes named by private organizations and marked with colorful bands on electric and telephone poles. The two such trails that headed to Mackinaw City via the Lakes to Land region were the West Michigan Pike, which began in Michigan City, IN, and the Dixie Highway Northern Connector from Niles, IN. Both traveled through the city of Manistee and the villages of Bear Lake and Benzonia.

Following Wisconsin's example, Michigan became the second state to replace this haphazard system with a numbered trunkline system in 1918-1919. ("Trunkline" now refers to all interstate, US, and Michigan highways.) The West Michigan Pike became M-11 until the United States Numbered Highway system was implemented nationally in 1926, when it was renamed again to US-31. It remains the main artery of Michigan's west coast, and it was the first highway to cross the Straits via car ferry. In 1952, it was designated as Michigan's only Blue Star Memorial Highway in a tribute to the Armed Forces.

Also among the Michigan's first state highway designations was M-22. Just 116 miles long, it follows the Lake Michigan shoreline from Manistee through Onekama, Arcadia, Elberta, Frankfort, and the Sleeping Bear Dunes National Lakeshore before it rounds the tip of the Leelanau Peninsula and returns south to Traverse City. Its sign has been adopted by a private recreation company as an informal brand of the region, and M-22 stickers and clothing are now seen all over the state. The Leelanau County portion of the route was designated part of the Leelanau Scenic Heritage Route in 2002, and it's an honor with a planning component: Scenic Heritage Routes cannot be adjacent to land zoned for commercial or industrial uses.

Finally, the road from Frankfort to Benzonia along the south shore of Crystal Lake was designated as M-115 in 1929. Traveling through the Manistee National Forest and the Pere Marquette State Forest, it now terminates in Clare at the intersection of business US-127 and business US-10.

These roads provide several options for travel north and south, but travelers to the east and west rely on county roads under the jurisdiction of the Benzie and Manistee County Road Commissions.

Vehicle traffic volume

Annual average daily traffic—the total volume of vehicle traffic on a given road in a year, divided by 365—is a simple measurement of how busy a road is.

One of the most common uses of AADT data, and in many cases the reason it is collected at all, is to determine the distribution of road funding for

improvements and maintenance. The United States Department of Transportation Federal Highway Administration requires each state to submit a Highway Performance Monitoring System report each June, and these reports form the basis for funding allocations. Three quarters of the 18.2 cent per gallon federal fuel tax is disbursed to the states, while the other 25% is distributed directly to county road commissions and city and village transportation authorities (all are required to provide matching funds). The Michigan Department of Transportation also collects a 19 cent per gallon gasoline tax in addition to vehicle registration fees and other transportation-related fees.

County roads make up 75% of the total Michigan road system, moving over \$800 billion of goods and services annually. While the most miles are driven on state roads, county roads are the site of

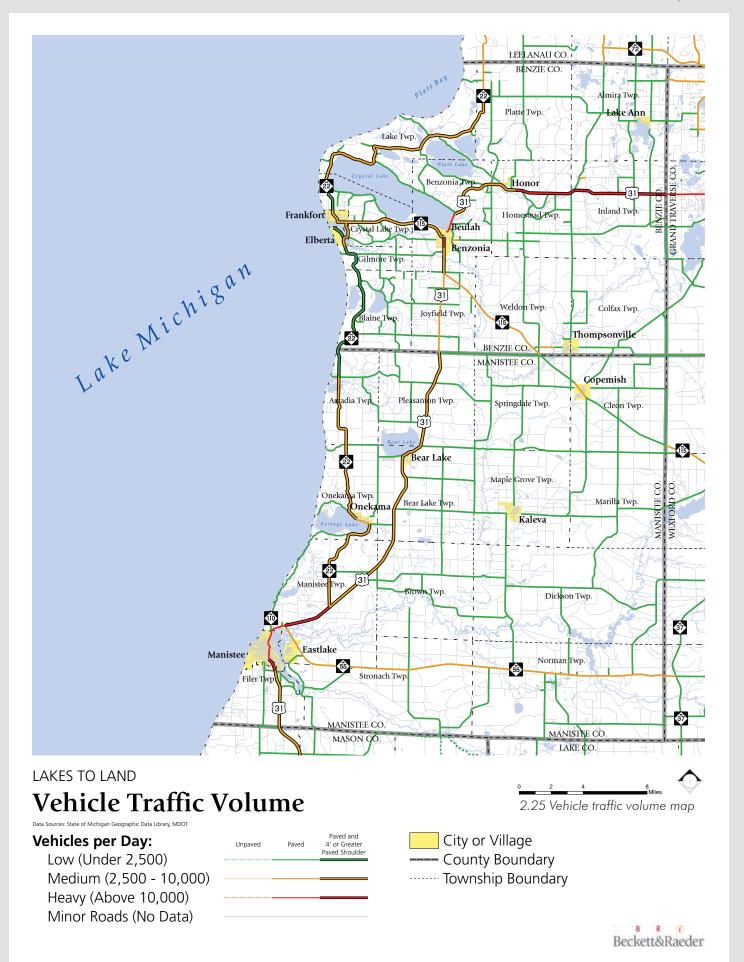
the majority of intersections—and crashes. Only four of the 889 Michigan traffic fatalities in 2011 occurred in Benzie or Manistee County. The Benzie-Manistee area saw the greatest number of accidents in November (174), followed closely by October (173) and December (171); crashes with injuries to persons occurred most frequently in October (33), August (31), and July (30). In both counties, drivers aged 16-20 accounted for the greatest number of crashes: 1079 per 10,000 licensed drivers, as compared with 578 crashes per 10,000 licensed drivers for those aged 65 and up. These trends are consistent with statewide data indicating that crash rates decline as driver age increases.

Traffic volume data can also help prioritize snow removal. For the 2011-2012 year, the Michigan Department of Transportation categorized snow and ice control on US-31 as Priority Level I, meaning that the surface will be bare of ice and snow even if overtime must be paid to accomplish it, while the Priority Level II designation of lower-traffic M-22 means that overtime can be paid to clear a one-wheel track in each direction but the rest must wait for the next scheduled shift.



2.24 Historical snow plowing in Manistee

Photo: UpNorth Memories by Don Harrison





Marine Harbors

Data Sources: State of Michigan Geographic Data Library, MDNR

City or Village

---- County Boundary

----- Township Boundary

—— Major Road

— Minor Road

Harbor Type:

Cargo, Commercial, and Recreational

Commercial, and Recreational



2.26 Marine ports map

Marine ports

The front door of many Michigan coastal communities is its port.

Great Lakes navigation brought the first European settlers to the Lakes to Land region, first to trap fur and then to harvest timber from this western frontier. Commercial use of the waterways has continued ever since, and today one quarter of the nation's top harbors by tonnage are on the Great Lakes. Maritime transport is considerably cheaper and more environmentally friendly than either rail or truck. Its average of 607 miles to one gallon of fuel per ton of cargo is three times the efficiency of a freight train and over ten times as efficient as trucking; it

produces 90% less carbon dioxide than a semi and 70% less than a train. And then there are the infrastructure costs. While rails and roads require continual maintenance, the vast majority of Great Lakes shipping lanes were created by glaciers without any help from us at all.

Sandy barriers prevent some rivers from emptying into Lake Michigan at the close of their journey toward sea level, pooling instead into lakes that dot the western edge of the state. It took no time at all for early settlers to begin dredging these barriers, transforming the lakes into roomy and land-locked harbors. Manistee, with its broad lake at the confluence of two rivers, is the largest in the region. This deep draft commercial harbor serves five major industrial facilities, including the Filer City Generating Station. Frankfort, also a deep draft commercial harbor, was once reknown

for the car ferries that launched rail shipments from the Ann Arbor Railroad onto the waterway system. Though those days are long gone, this Harbor of Refuge supports over 200 recreational boat slips. Citizens of Onekama have established infrastructure around their recreational harbor at Portage Lake that supports 230 recreational boat slips and generates tourist income; residents of Arcadia have done the same to support their 60 recreational boat slips and charter fishing enterprises. Both are also Harbors of Refuge, offering mooring to boaters stranded in inclement weather.

But harbors are not part of the maintenance-free portion of the Great Lakes navigational system. The US Army Corps of Engineers is responsible for them under the national River and Harbor Act of 1879, and the already-challenging task of reliably directing sand and water is complicated by persistent low water levels and deferred maintenance due to constrained budgets.



2.27 Freighter departure

Rails

The sole railroad line now operating within the Lakes to Land region is the CSX line that loops around the north end of Manistee Lake and continues south to Grand Rapids—all that remains of a bustling network of railroads across and around the region, many of which were built to serve the timber industry.

The Manistee route was also the first rail foray into the Lakes to Land region in 1881. Three years later, the Arcadia and Betsey River Railroad began a short trip between Arcadia and its then-neighbor to the northeast, Saile Station, continuing on to the then-village of Springdale in 1887.

Over the next several years, railways exploded all over the region: a Manistee & Northeastern ran a line from Manistee to Nesson City in 1888, the company that would become the Ann Arbor Railroad connected Cadillac to Frankfort in 1889, and lines connecting Walhalla, Interlochen, Lake Ann and Traverse City all popped up in 1890. This

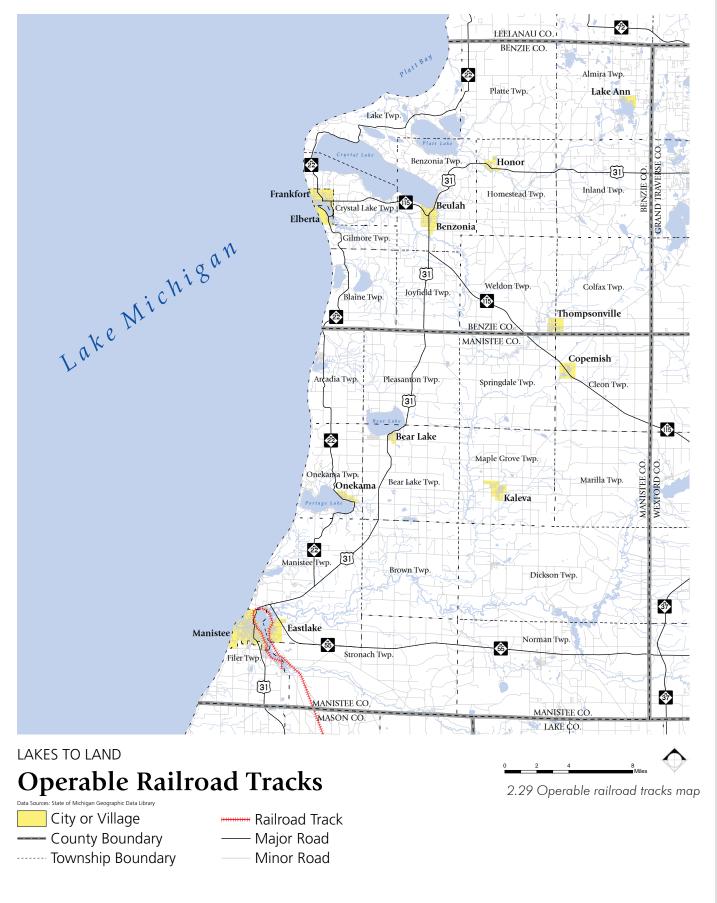
completed the backbone of the regional system, and beginning in about 1895 much of the rail-building effort was devoted to spurs that connected established stations and reached ever-further into the Leelanau Peninsula.

The need for rail cars plummeted at the close of the lumber era, and those connecting spurs began to disappear beginning around 1917. The main lines through the region lasted mostly intact until the Depression. In 1934, a Pere Marquette loop that ran from Traverse City through Lake Ann, Interlochen, and Kaleva stopped running, and the Arcadia and Betsey River Railway followed in 1936. For the next 40 years, only the north-south Pere Marquette line and the Ann Arbor Railroad's Frankfort connection remained. The former was abandoned in 1982, and the latter is undergoing rebirth as the Betsie Valley Trail after landing under the control of the State of Michigan in 1980.



2.28 The John D. Dewar Approaches an Arcadia Dock

Photo and text from Arcadia Area Historical Society: "This is a view south along Lake Arcadia's northeast shore. The steamer DeWar is on the left. Logs are stacked along the shoreline, in a barge, and in the water waiting transport to the Starke Sawmill. Source: Postcard Photo from the collection of Bob McCall"







Air travel

Long before Blacker Airport became the fastest way to get from the Lakes to Land region to the rest of the world, sailplanes brought the rest of the world to the region.

Manistee County - Blacker Airport is the largest airport in the region with 3,413 commercial enplanements ("civil aviation operations other than scheduled air services and non scheduled air transport operations for remuneration or hire") in 2010. It is publicly owned by the Manistee County Blacker Airport Authority, and its first commercial flight went aloft in 1961. Seven single-engine and one multi-



2.31 Frankfort Cinema TG 1-A This sailplane was, used by the U.S. Army Air Corps as a training glider. engine aircraft are based in the field. Of the 132 weekly flight operations it averaged in 2010, 72% were split evenly between transient and local general operations; 18% were commercial flights; 9% were air taxis; and less than 1% were military. By contrast, the public-use Thompsonville Airport is the smallest. Owned by the Village of Thompsonville, it hosts four single-engine aircraft. Half of its 15 flight operations per week in 2011 were transient general aviation while the other half were local general aviation.

Frankfort Dow Memorial Field, a general aviation airport, saw three commercial enplanements in 2010. Publicly owned by Frankfort City-Co Airport Authority, its 77 weekly flight operations in 2011 were also split evenly between transient and local general aviation. Its aircraft base, however, was unique: the 13 engine-powered vehicles were accompanied by six gliders and one "ultralight," defined in the U.S. as a single-seat vehicle of less than five gallons fuel capacity with weight and speed restrictions of 254 pounds and 55 knots (64 mph) respectively. These are the crafts of the Northwest Soaring Club, which was based at the Frankfort Dow Memorial Field until summer of that year.

A 1939 article in *The Rotarian* credits six glider enthusiasts with transforming this city of "a few commercial fishermen, a few Summer visitors, and no fame at all" into "the soaring capital of America." It went on to cite the first-ever incorporated sailplane school in America, the Frankfort Sailplane Factory, and the startling statistic that a full 80% of Frankfort's population had taken to the skies. Although the factory moved to Illinois before it folded and the school has moved to Cadillac with the Northwest Soaring Club, the gliders' glory days had put Frankfort on the map for good.



Regional Recreation

The tourism that has become one of the region's strongest economic bases is largely fueled by an abundance of recreational opportunities.

In the winter, residents are found playing on the slopes of nearby alpine ski resorts, racing down snow mobile routes, participating in snow shoe stampedes, enjoying a vigorous day of Nordic skiing, or relaxing in an ice hut on an inland lake trying to secure that perfect catch. Some more adventurous souls are racing their ice sail boats. When warm weather is upon the region, residents are found mountain biking or

walking on the non-motorized transportation trails, walking the tree-lined neighborhood streets of the villages and towns, and living life by enjoying family and community.

During the summer months, winter's empty and lonely orchards burst forth with energy.

Small fruit stands dot M-22, and nurseries along US-31 are available for drivers to smell the fresh air and listen to the sway of the trees while tasting the bounty of the area. Boating, whether sailing or under power, occupies many lazy afternoon days. Sailboats of all sizes cluster in weekly regattas on the

lakes vying for one more knot. When the wind gets too fierce for the sailors, the sailboarding crew unravels its gear and speeds over the whitecaps, catching air and impressing the bystanders. Lake Michigan may not get waves big enough for surfing on a regular basis, but its substantial wind kicks up some pretty large breakers for an inland lake.

All types of fishing exist in plenty: enterprise or recreation, fly or bait and tackle.

Fishing is a huge industry in the region, whether it is winter or summer. All types exist in plenty: enterprise or recreation, fly or bait and tackle. The region's rivers, streams, and lakes are heavily scrutinized for their freshwater inhabitants, and they are home to some of the finest fly fishing the country has to offer. Golf is also a

major recreational must for many who live and visit the region; opportunities range from opulent courses known throughout Michigan and beyond to propitious courses that host all levels of player.

Parks and recreation

"Because to so many citizens, men and women alike, life is a grind, a round of labor and a season of care... Thus public recreation facilities are provided because of the demand for a free and popular antidote to task-driving conditions."

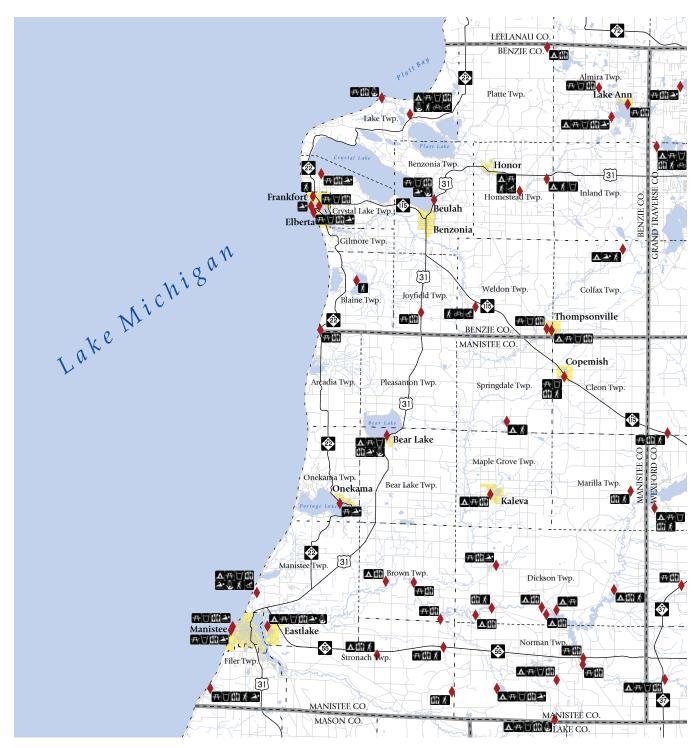
Charles Mulford Robinson used these words in a 1910 article titled "Educational Value of Public Recreation Facilities" to assure his readers that his treatise was not going to sap all the fun out of public parks. "To furnish that antidote is their essential purpose," he soothed. "Education is incidental to it." Still. his next several pages do not waver from their purpose: "The song of a bird, the scent of a flower, the glory of a sunset sky are parts of our common heritage. ... If the park can cultivate these in large numbers of people, as an incident of its service as a public pleasure ground, it will bestow great benefit; it will vastly increase its usefulness to the community; it will not only heighten



Blaine Township Park

the enjoyment of its own attractions, but it will put into hearts and minds a faculty of enjoyment that will be of service in daily life. To such extent, the investment which has been made in the parks will be paying daily dividends on the common stock of human experience."

That may sound a bit overblown, but it turns out that we needn't rely on the common stock of human experience to get dividends out of parks. Nearly a century after Mr. Robinson's article, a 2006 National Fish and Wildlife Foundation study found that "outdoor recreation sales (gear and trips combined) of \$289 billion per year are greater than annual returns from pharmaceutical and medicine manufacturing (\$162 billion), legal services (\$253 billion), and power generation and supply (\$283 billion)." Camping and hiking alone accounted for 55% of outdoor recreation's total impact on the US economy, surpassing fishing, hunting, water sports, trail- and snow-based activities, and wildlife viewing.



LAKES TO LAND

Recreational Facilities and Amenities

0 2 4 8 Miles 2.32 Parks and recreation map

Data Sources: State of Michigan Geographic Data Library, MDOT

City or Village

---- County Boundary

······ Township Boundary

---- Major Road

— Minor Road

♦ Park / Public Recreation Area

▲ Camping

Picnic Facilities

☑ Drinking Water

Restrooms / Port-A-Johns

Swimming

Showers

Miking / Trailhead

Biking

Mordic Skiing





Data Sources: State of Michigan Geographic Data Library, MDNR, NF

City or Village

---- County Boundary

---- Township Boundary

— Major Road

— Minor Road

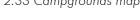
National Park Campgrounds

▲ National Forest Campgrounds

State Forest Campgrounds

State Park Campgrounds

Local Municipality Campgrounds





Camping

As leisure activities go, camping is about as democratic as it gets.

The Michigan Department of Natural Resources boasts that "you are never more than half an hour from a Michigan State Park, State Forest Campground,

A (ity of Ter.ts. Crel and Tere! State Lark Agris of Terb

2.34 Orchard Beach State Park in Manistee Township

Photo: UpNorth Memories by Don Harrison State Recreation Area, or State trail system," so just about anyone in need of a getaway can pack up a few subsistence items and start communing with the great outdoors in short order. It's affordable, kid- and petfriendly, and so therapeutic that entire intervention programs have been built around it.

Lake Michigan's varied shoreline and the region's abundance of inland lakes, rivers, streams, woodlands, bluffs, and trails make it a year-round destination for outdoor enthusiasts of all types. And at the end of the river rafting or the bicycle riding, those enthusiasts need a place to rest their heads—and a bite to eat, and maybe a few supplies or souvenirs, making an attractive campground into a community economic driver.

State campgrounds within Benzie and Manistee Counties are maintained and managed by the MDNR The Platte River campground, federally managed as part of the Sleeping Bear Dunes National Lakeshore, is at the junction of M-22 and the Platte River, where archaeological evidence suggests that humans may have been taking a summer holiday since 600 B.C. Numerous private and quasi-public campgrounds dot the area, but it is interesting to note that the region hosts no state campgrounds at all in the recreation-focused area west of US-31—a potentially overlooked income source.

Boat launches

The eight Great Lakes states registered 4.3 million boats in 2003—one third of all US recreational vessels—and Michigan's 1,000,000 boats led the region. Forty-two percent of them belonged to residents of coastal counties.

To preserve public access to our 3,000 miles of coastline, Michigan's state legislature began earmarking fishing license funds to purchase water frontage in 1939. Since then, marine fuel taxes and boat registration fees paid by recreational boaters have funded the construction of over 1,200 boat launching facilities. In the Lakes to Land region, the launches offer access to Lake Michigan, rivers, and inland lakes for watercraft ranging from kayaks to yachts. In addition to these State-designated launches, there are many additional inland lake road-end boat launch areas maintained by the Benzie and

Manistee County Road Commissions.

Such maintenance is money well spent. A Great Lakes Recreational Boating study conducted by the US Army Corps of Engineers in 2003-2008 found that an average Great Lakes boat owner spends about \$3600 per year, including equipment, insurance, fees, gas, food, and lodging. Applying that figure to the statistic above, it is reasonable to estimate that recreational boating is a \$72 million enterprise in the Lakes to Land region. The same study appraises its contribution to Michigan personal income at \$1.3 billion, to the overall economy at \$1.9 billion, and to statewide employment at 51,000 jobs.



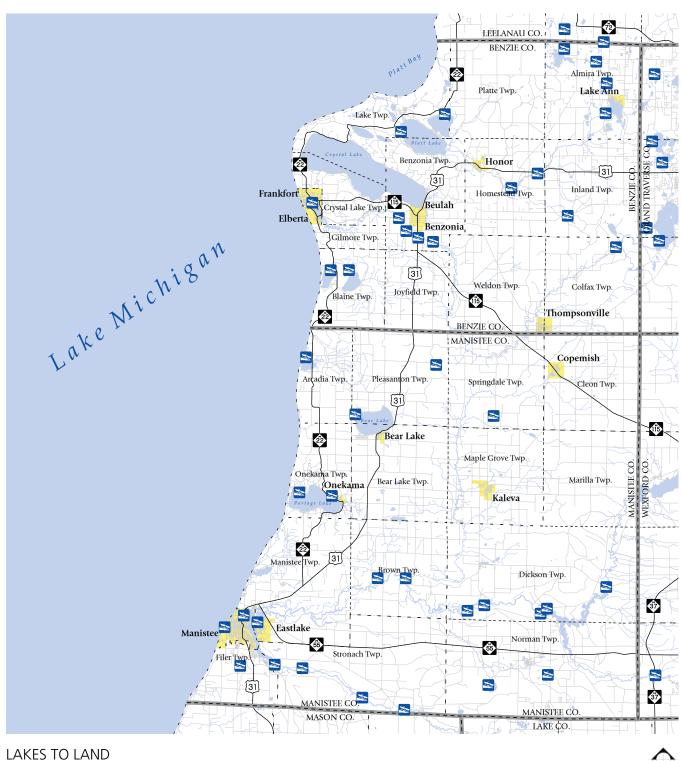
2.36 Bear Lake boat launch circa 1920s

Photo: UpNorth Memories

2.35 Table of boating economic impacts

	Lakes to Land Region*	State of Michigan	Great Lakes basin
Registered boats	19,071	953,554	4,282,507
Trip and craft sales	\$780 million	\$3.9 billion	\$19 billion
Personal income added	\$260 million	\$1.3 billion	\$6.5 billion
Economic value added	\$380 million	\$1.9 billion	\$9.2 billion
Jobs	1,027	51,329	246,117

^{*} calculated by taking 42% of state number and dividing by 21 (2 of 42 total coastal counties)





Boat Launch Ramps

State Designated Boat Access Site

City or Village

County Boundary

Township Boundary

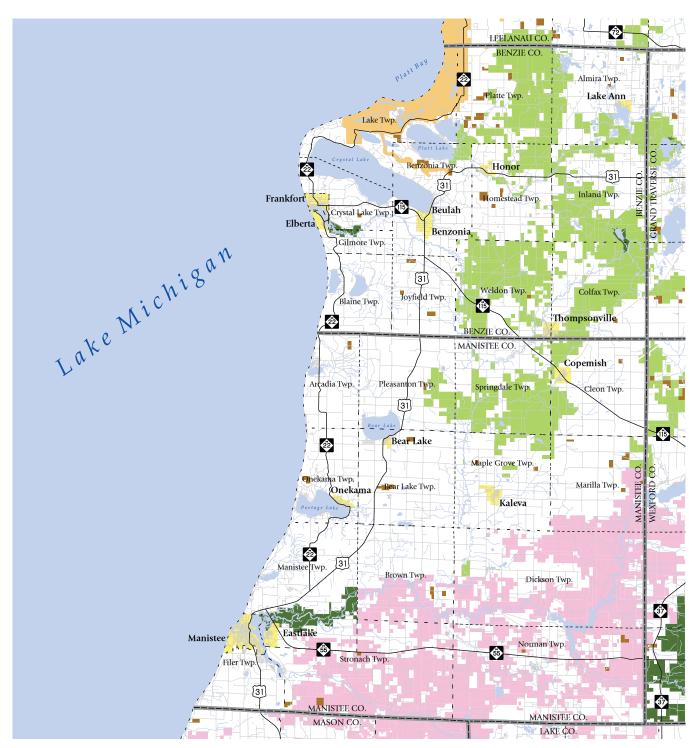
Major Road

Minor Road



2.37 Boat launch ramps map





LAKES TO LAND

Lands Open to Public Hunting

Data Sources: State of Michigan Geographic Data Library, MDNR

City or Village

County Boundary

Township Boundary

—— Major Road —— Minor Road Open to Public Hunting:

US Forest Service
National Park Service
Commercial Forest Act Lands
State Forest Land
State Wildlife/Game Areas



2.38 Lands open to public hunting map



Hunting

Want to hunt deer, elk, rabbit, hare, squirrel, pheasant, grouse, woodcock, quail, crow, coyote, opossum, porcupine, weasel, skunk, woodchuck, turkey, or waterfowl? There's a license for that.

The Department of Natural Resources, responsible for fish and wildlife management, regulations, and habitat protection, is primarily funded through two mechanisms: the direct sale of hunting and fishing licenses, and the leveraging of those proceeds for use in the federal Wildlife and Sport Fish Restoration (WSFR) project. The WSFR program, which turned 75 in 2012, levies a tax of 10% to 11% on sporting arms, ammunition, bows, arrows, and crossbows and then returns that money to state conservation departments (in Michigan, the MDNR) through 3-to-1 matching grants. So, every \$1 spent on a hunting license yields \$4 in conservation funding.

It's a system that many like because it directly ties the cost of preserved land to its use. But it is also a system in which land conservation for all reasons is vulnerable to changes in hunting behavior. The chart below shows that sales for all licenses have declined steadily over the past five years, both numerically and as a share of the overall population. The magnified rate of return provided by the WSFR program also works in reverse: for every \$1 lost in hunting license sales, MDNR must make up a \$4 budget shortfall. This has led the department to urge all who are interested in conservation to buy a license—whether you plan to hunt or not.



2.39 Jake turkeys in Onekama Photo: Al Taylor

2.40 Table of hunting licenses sold by year

_	o lable of florining		, ,						
		2006	2007	2008	2009	2010	2011	Change 2006- 2011	% change 2006- 2011
	Bear ^b	9,457	9,516	10,180	8,953	8,975	9,020	-437	-4.6%
ō	Deer	734,089	724,198	733,993	<i>7</i> 25,186	697,454	691,181	-42,908	-5.8%
type □	Elk♭	204	166	355	366	227	154	-50	-24.5%
l e	Fur harvester	24,024	24,387	24,148	23,331	24,411	25,813	1 <i>,</i> 789	7.4%
icen	Small game	295,349	293,659	273,262	266,549	261,032	256,175	-39,174	-13.3%
	Turkey	132,764	127,772	124,570	127,120	125,093	114,139	-18,625	-14.0%
Hunting	Spring turkey	125,933	121,487	118,021	120,769	115,101	106,880	-19,053	-15.1%
Ιŧ	Fall turkey	21,951	20,877	20,561	20,758	27,310	20,905	-1,046	-4.8%
ľ	Waterfowl	60,403	58,866	58,040	58,214	56,688	55,724	-4,679	-7.7%
	All types	814,003	800,921	805,299	798,256	772,114	763,059	-50,944	-6.3%
	MI population	10,082,438	10,050,847	10,002,486	9,969,727	9,883,640	9,876,187	-206,251	-2.0%
Lic	censes per capita	0.0807	0.0797	0.0805	0.0801	0.0781	0.0773	-0.003	-4.3%

Source: Brian J. Frawley, MDNR.

^aWithin each license type, a person is counted only once regardless of the number of licenses purchased.
^bA restricted number of licenses were available, and these licenses were distributed using a random drawing.
^cSome but not all of turkey hunting licenses were distributed using a random drawing.

dTotal for all types does not equal sum of all license types because people can purchase multiple license types.

Trout streams

One of the region's major recreational draws is the wealth of opportunities for fishing, both in Lake Michigan and in its inland lakes, rivers, and streams.

The map displayed in Figure 2.41 identifies the designated trout streams in Benzie and Manistee counties. Viable trout streams are generally defined by three characteristics: coarse soils, limited development (including limited pavement and other impervious surfaces), and an abundance of groundwater. State-designated Blue Ribbon Trout Streams meet even stricter criteria: they support excellent stock of wild resident trout, permit fly casting while remaining shallow enough to wade in, produce diverse insect life, and have excellent water quality.

Trout are good indicators of water quality in general because of their reliance on benthic macroinvertebrate diversity—the bugs, larvae, and other organisms that live on the bottom of a body of water. These creatures thrive in streams with high levels of dissolved oxygen, and this means clean, cold water for two reasons: water's ability to hold dissolved oxygen decreases as temperature increases, and the bacteria in organic waste can quickly consume all available dissolved oxygen. When present, aquatic macroinvertibrates help maintain the water quality by

eating bacteria and decayed plants, then become a source of food themselves for the resident fish population.

The Platte River from Maple City Road to Honor and Bear Creek upstream of Nine Mile Road both have Blue Ribbon designations. The Platte River stretch hosts the state's fish hatchery, which raises chinook and coho salmon and produces coho eggs for the entire upper Great Lakes. Despite Bear Creek's modest name, its flows are similar to the Little Manistee and Pine Rivers, and the tributary provides the Manistee River system with its wild runs of steelhead trout and salmon.

2.41 Benthic macroinvertebrates



Mayfly



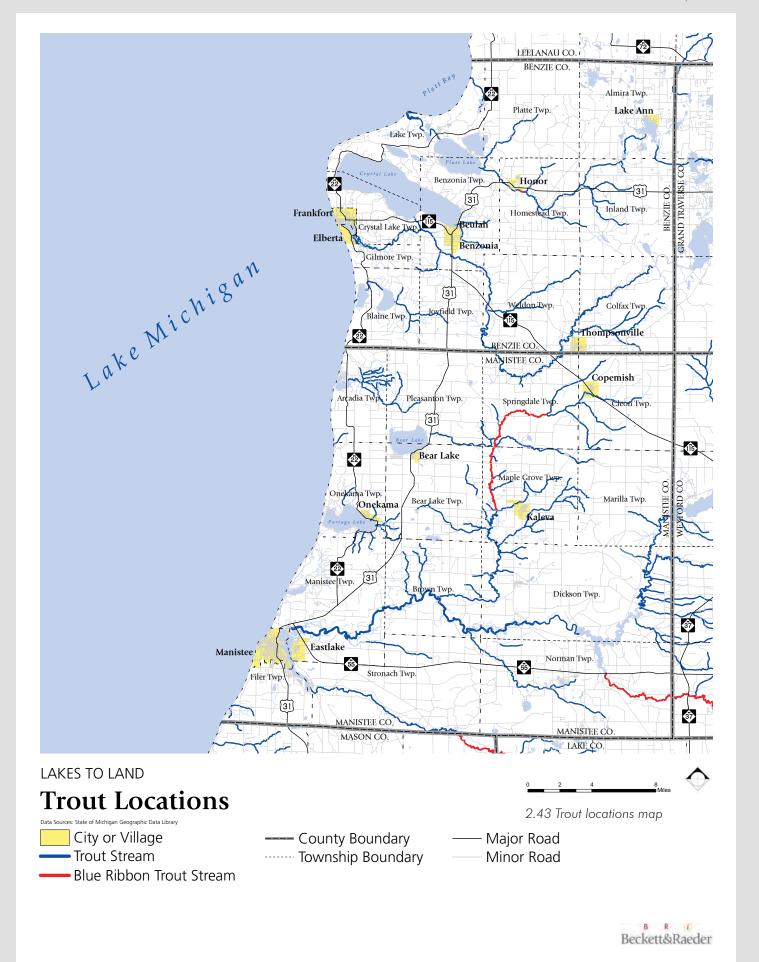
Dragonfly



Caddisfly



2.42 Steelhead trout
Photo: Cheri and Tony Barnhart





Recreational trails

However many worthy benefits a trail might provide, its raison d'etre can often be boiled down to one word: fun.

The Michigan Statewide Trails Initiative of 1992 defines a trailway as "a land corridor passing through the community or countryside...accommodating a variety of public recreation uses."

Recent research casts trails in the role of community superhero, providing economic, environmental, recreational, health, and even safety benefits. They offer transportation alternatives to the car. They are exercise opportunities that lead directly to better medical outcomes. They're sites of chance meetings with neighbors and wildlife. They can provide a buffer between natural areas and inhabited ones. They draw in visitors from other communities. Their activity can enliven an area that would otherwise look desolate enough to invite crime.

But however many worthy benefits a trail might provide, its raison d'etre can often be boiled down to one word: fun. Michigan's citizenry comes together in myriad ways to identify, create, and maintain an extensive and varied trail network. For example, our 6,200-mile web of snowmobile trails, 181 miles of which run through Benzie and Manistee counties, is one of only three such systems in the country. Half of the system is on private lands while the other half is distributed among federal, state, and other public lands; all utilize grant program grooming tractors for maintenance. The 22-mile-long Betsie Valley Trail that follows the abandoned Ann Arbor Railroad bed is another collaborative example: owned by the Michigan Department of Natural Resources, it is maintained by Benzie County and supported by the not-for-profit Friends of the Betsie Valley Trail corporation. The Shore to Shore Riding and Hiking Trail that cuts across the northeast corner of Benzie County was established in 1964 by the Michigan Trail Riders Association, and the only "riding" to be done on this journey between Oscoda on Lake Huron and Empire on Lake Michigan is on a horse—neither motors nor bicycles are welcome. The Grand Traverse Regional Land Conservancy has made trails an integral part of its land stewardship mission. And the federally-managed North Country Trail is a footpath that traverses seven states between New York and North Dakota; the Huron-Manistee is one of the 10 national forests it touches on in its 4,600 mile journey.

2.45 Table of trail miles

	Benzie	Manistee	Total
Snowmobile	63.13	118.68	181.81
Equestrian	15.36	0	15.36
Nonmotorized	60.01	64.91	124.96
North Country Trail	0	33.21	33.21
GTRLC	14.71	2.07	16.79



Cultural Resources

Though the land itself provides plenty of amusement for many, over the years the people of the region have built, preserved, and accrued a wealth of cultural endeavors with which to supplement their entertainment.

Those inclined toward the visual arts may like to visit the works at the Oliver Art Center and the Crystal Lake Art Center, or wait until the art fairs arrive in Frankfort and Bear Lake. For a little free anytime cultural pick-me-up, peek into the Frankfort post office at the car ferry mural funded by the Works Progress Administration in 1941.

Those who prefer the auditory delights can be serenaded by the Benzie Community Chorus and make the summer rounds of Concert in the Park venues. In the theatrical hub of Frankfort, you

can attend the Lakeside Shakespeare Theatre, Benzie County Players, and Frankfort Garden Theater.

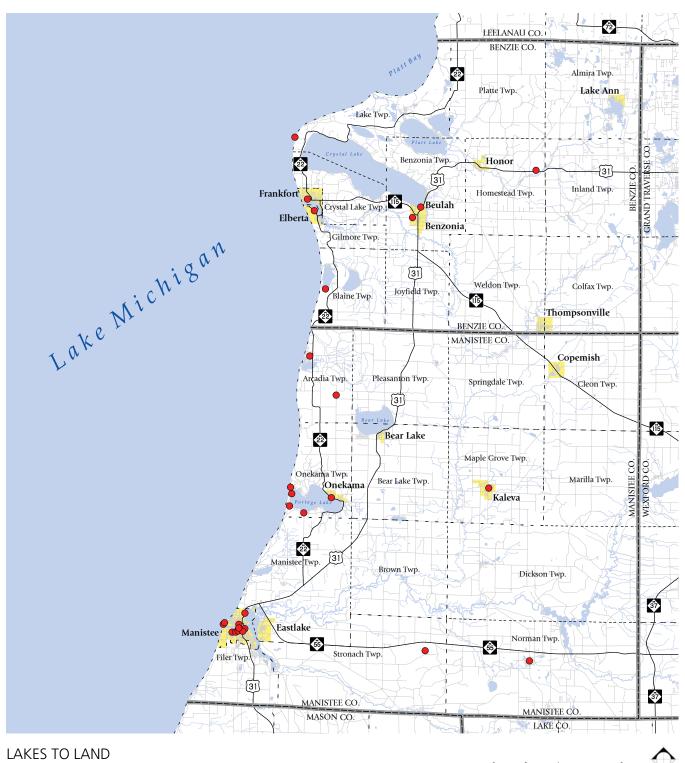
Your culture can come packaged with a little education at the Arcadia Historical Society, or it can come packaged in the 60,000 bottles used to build the house that now hosts the Kaleva Historical Society in Manistee County. Both Benzie and Manistee counties offer public libraries and branches. Even a little hotel stay can come with a side of history at the lumber-town-turned-resort called Watervale Inn—or it can make history the main attraction as in the old-west-themed Rockin' R Ranch in Bear Lake. There you'll find horseback

riding, hayrides, sledding, carriage rentals, and of course a saloon.

For fun that's a little less formal, hometown festivals Arcadia Daze and Bear Lake Days are celebrated in July while

Onekama hosts Onekama Days in August and the Manistee County Fair in September. You can get a head start on sampling the region's dining options at the Taste of Benzie festival in Elberta. Catch a movie in Honor at the Cherry Bowl Drive-In, open every summer since 1953, and if you're in the car anyway, defy a little gravity at the Putney Road Mystery Spot in Blaine.

Even a little hotel stay can come with a side of history.

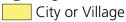


Historic Sites

Data Sources: State of Michigan Geographic Data Library, MSHDA



Registered Historic Site

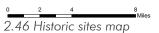


---- County Boundary

---- Township Boundary

—— Major Road

— Minor Road











2.47 Historic site photos Top: The Frankfort Land Company House, Frankfort (Benzie County)

Middle: The Manistee County Courthouse Fountain, Onekama Village (Manistee County)

Bottom: The William and Ursula Quimby Homestead, Arcadia Township (Manistee County)

Photos: Michigan State Housing Development Authority "Historic Sites Online"

Historic sites

"[T]he task is to breathe the breath of life into American history for those to whom it has been a dull recital of facts—to recreate for the average citizen something of the color, the pageantry, and the dignity of our national past."

So spoke Verne Chatelan, chief historian for the National Parks Service at the 1935 passage of the Historic Sites Act. Since then, the 1966 National Historic Preservation Act has broadened both the definition and the scope of historic designation, giving official recognition and benefits access at all levels of government and in the private sector. Historic sites connect a geographic location to itself across time. They offer those who behold them an opportunity to broaden our definition of "community," beyond those souls who happen to be living in a particular place right now to the sum all those who have passed through—an act which, when conceived in reverse, lets our own souls become part of a community which will outlive us many hundreds of times over.

The Frankfort Land Company House imagined itself in just such a way in 1867: the two-story Italianate was the first stylish house in Frankfort, built for the company officials tasked with developing the town. "No building in Frankfort is more closely connected to the establishment of the city," says the building's National Register entry, adding that the lavish structure also "advertised the company's confidence in the town's economic potential."

The Manistee County Courthouse Fountain in Onekama Village Park has twice been solemnly dedicated to the community. In 1887, the ornate public sculpture was purchased to decorate the lawn of the new Victorian Gothic courthouse. After a 1950 fire destroyed the building, the Portage Lake Garden Club obtained the fountain and moved it to the Village Park to memorialize the deceased servicemen of Onekama Township.

The William and Ursula Quimby Homestead is neither lavish nor ornate, called an "ordinary farmhouse" even by its Register entry. But it sheltered a truly extraordinary Arcadia Township neighbor: their daughter Harriet Quimby, who became the first licensed female pilot in 1911 and successfully completed the first female solo flight over the English channel in 1912.

Lighthouses

The outsize role of waterborne trade in the history of Michigan—and the Lakes to Land region in particular—afforded lighthouses the equally outsize role of trying to keep that trade from becoming deadly.

Colonial lighthouses came under federal control in 1789, when President George Washington created the U.S. Lighthouse Establishment. No lighthouses were constructed in Michigan until 1925, when the light at Fort Gratiot was lit. The first lights on Lake Michigan shone from Chicago Harbor and St. Joseph in 1832.

By 1838, the Manitou Passage had been established as the fastest and most protected route to the Straits from the south, but it was still so treacherous it furnished an entire underwater preserve with shipwrecks. The South Manitou Light was lit in 1838 to mark the west side of the passage's entry. By the time the Point Betsie Light Station joined it in 1858 to guide navigation into the passage from the east, the South Manitou Light was ready for reconstruction.

Just south of the passage was the Lake Betsie harbor at Frankfort, the most northern improved harbor on Michigan's west coast and an excellent refuge at which to wait for optimum passage conditions. Private funds had first improved the harbor, but by 1867 the traffic volume warranted the attentions of the Army Corps of Engineers. The next six years saw a new channel dug and dredged to accommodate the largest ships of the day, a pair of piers and revetments built, and the construction of the Frankfort Pierhead Light.

Meanwhile, lumberers on the south side of the Lakes to Land region had discovered the tremendous potential of the Manistee River for transporting their product out of the state's interior and began lobbying for improvements to the harbor. An Army Corps of Engineers study confirmed the need in 1861 and a lighthouse was built in 1870—and again in 1872, after the first one fell victim to Michigan's coast-to-coast Great Fire of the previous year.







2.48 Lighthouse photosTop: Point Betsie lighthouseMiddle: Frankfort North LightBottom: Manistee North Pierhead

Lighthouse



LAKES TO LAND

Lighthouses

Data Sources: State of Michigan Geographic Data Library

City or Village

---- County Boundary

----- Township Boundary

—— Major Road

Minor Road



- 1 Point Betsie Lighthouse
- 2 Frankfort North Light
- 3 Manistee North Pierhead Lighthouse





Demographics

Demographics are the statistics of a population: gender, age, ethnicity, income, employment, housing, education, etc. Taken together, they try to paint a picture that gives a generalized answer the question, "Who lives here?"

The answer to that question is central to the planning process because it is impossible to create a plan that will serve a community well without knowing about the people who comprise that community. Planning strategies vary based upon a population's current characteristics, and on the ways in which the population is projected to change. For example, a community experiencing an increase in new families

should be planned differently than one with an aging population. The former may place a priority on new single-family housing, new schools, extension of infrastructure, playgrounds and parks, etc., while the latter may be more concerned with issues of mobility and accessibility, emergency services, health care, and accommodating senior housing and assisted living.

It is impossible to create a plan that will serve a community well without knowing about the people who comprise it.

Population and housing

In the "snapshot" of a community that demographic information presents, data about population and housing form the outline.

Population

The most basic piece of demographic information is the population count. This static number gives us a sense of scale which is necessary to understand and address the population's needs. Many of the inputs and outputs of a municipal system are based on inputs and outputs of individual bodies (clean water, food, human waste, trash), so the size of the services needed are tied directly to the size of the community.

Taken over time, population statistics become trends. These provide a basis for limited future forecasting and also offer a more robust comparison among communities. For example, we see that although the population growth rate of all 16 communities combined was 2.13%, the growth rate among individual communities ranged from a 36% loss of population from the Village of Onekama to an almost 20% gain in Lake Township. Moreover, comparing the participating communities to the larger populations within which they reside, we see that the growth rate did not keep pace with the national rate of 9.71% or the combined Benzie/ Manistee county rate of 4.28%, but it did avoid Michigan's fate of population loss. The Lakes to Land citizens, then, made up a greater percentage of Michiganders in 2010 than they did in 2000 (0.143% versus 0.139%), but a smaller percentage of the combined Benzie/Manistee County areas (33.4% versus 34.1%).

Households

The second most basic piece of demographic data, the molecular

structure in which the atoms of population reside, is the household. The US Census Bureau defines a "Household" as follows:

A household consists of all the people who occupy a housing unit. A house, an apartment or other group of rooms, or a single room, is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters; that is, when the occupants do not live with any other persons in the structure and there is direct access from the outside or through a common hall.

A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household. The count of households excludes group quarters. There are two major categories of households, "family" and "nonfamily."

Households function as discrete economic units because their basic inputs and outputs are intertwined. American households have been in flux over the past halfcentury or so as people have reacted to increased wealth, relaxed social mores, and heightened mobility by changing the basic relationships that construct their lives: people stay single longer, have fewer children, and no longer assume that

they will live with those children in their own old age.

This situation is represented by consistent ratcheting downward of household size. Between 2000 and 2010, the number of households in the participating communities grew 5.7% while the population grew only 2.13%., yielding a 3% decrease in household size from 2.55 persons per housing unit to 2.47 persons per housing unit. This percentage was consistent throughout the Benzie/Manistee county area and in Michigan overall, which gained over 86,000 households even as its population declined. Households size decreased nationally, too, although less dramatically at just -0.85%—from 2.67 persons per housing unit to 2.65 persons per housing unit.

In some states, however, the 2010 census marked the first increase in household size in many years. Conventional wisdom attributes this in a large part to the doubled-edged Great Recession. First, high unemployment



A seasonal resident of Pleasanton Township?

2.50 Table of population, households, and housing units

			Population	1	ŀ	Household	S	H	ousing Un	its
		2000	2010	Change	2000	2010	Change	2000	2010	Change
	Lake Twp*	635	759	19.5%	318	387	21.7%	1,106	1,271	14.9%
∠	Crystal Lake Twp*	960	957	-0.3%	414	438	5.8%	1,051	1,240	18%
County	Gilmore Twp*	850	821	-3.4%	341	360	5.6%	439	477	8.7%
၂ ပိ	Village of Elberta**	457	372	-18.6%	190	173	-9%	237	229	-3.4%
<u>e</u> .	Blaine Twp*	491	551	12.2%	215	234	8.8%	431	504	16.9%
Benzie	Joyfield Twp*	777	799	2.8%	286	313	9.4%	338	404	19.5%
ğ	Village of Honor	299	328	9.7%	129	135	4.7%	153	186	21.6%
	City of Frankfort	1,513	1,286	-15%	665	601	-9.6%	873	942	7.9%
	Arcadia Twp*	621	639	2.9%	280	296	5.7%	545	574	5.3%
County	Pleasanton Twp*	817	818	0.1%	344	365	6.1%	623	694	11.4%
1 0	Bear Lake Twp*	1,587	1,751	10.3%	639	696	8.9%	916	1,031	12.6%
	Village of Bear Lake**	318	286	-10.1%	132	118	-10.6%	161	169	5%
Manistee	Manistee Twp*	3,764	4,084	8.5%	1,188	1,270	6.9%	1,391	1,598	14.9%
ar	Onekama Twp*	1,514	1,329	-12.2%	603	634	5.1%	1,117	1,289	15.4%
<	Village of Onekama**	647	411	-36.5%	239	205	-14.2%	315	338	7.3%
All Participating Communities				2.13%			5.7%			13.7%
Benz	rie and Manistee Counties			4.28%			7.6%			13.5%
	Michigan			-0.55%			2.3%			7.0%
	United States			9.71%			10.7%			13.6%

* Includes the totals of any villages (incorporated or unincorporated) within the township

** Village totals not included in overall total because they are already included in their township's total

Source: US Census Bureau, ESRI Business Analyst

rates which rest disproportionately on younger adults has given them less opportunity to leave "the nest." Second, the mass transfer of home ownership from individuals to lending institutions during the foreclosure crisis resulted in a smaller number of available housing units over which to spread the population, an effect which is particularly pronounced in some geographic areas.

Housing Units

The total number of housing units in the participating communities grew 13.7% between 2000 and 2010, despite the fact that the total population grew only 2.13% and the number of total households grew 5.7%. While the number of total housing units typically exceeds the number of total households due to vacant housing units, we see in Figure 2.48 that many of the Lakes to Land communities have two or even three times as many housing units as households. This is because the "vacant" classification used by the census does not distinguish between

units which are for sale or rent and those which are used as seasonal, vacation, or second homes. In 2010, the total vacancy rate for housing units in the United States was 11.4%, and 14.6% in Michigan. Vacant housing units for seasonal, recreational, or occasional use made up 3.5% of the national total of housing units in 2010, and 5.8% of the state total. Among the participating communities, however, 43.1% of housing units are vacant and 34.8% of all housing units are for seasonal/recreational/occasional use. Growth in housing units among the participating communities, then, has been driven primarily by construction of seasonal, recreational, and second homes rather than primary residences.

A look at individual Lakes to Land communities can provide even more striking examples as communities which saw their populations decrease experienced seemingly paradoxical growth in housing units. A third of the Village of Onekama's population, representing just under 1/6 of its households, departed between 2000

and 2010, yet there were 7.3% more houses at the end of the decade than at the beginning. The City of Frankfort and the Village of Bear Lake both also lost households while gaining housing units; Crystal Lake Township, Blaine Township, Joyfield Township, Manistee Township, Onekama Township, and the Village of Honor all saw the number of housing units grow at least twice as fast as the number of households. Only in Lake Township and Arcadia Township did housing units grow more slowly than households, and it is worth noting that resident households already accounted for a fairly small proportion of housing units in both communities (30% and 51% respectively).

It is only in these numbers that we find a representation of a fundamental aspect of the Lakes to Land region: seasonal residents. Because the guiding principle of the census is to count people at their "usual residence," this group is not reflected in the population count, and yet their presence affects and often drives many parts of the Lakes to Land economy



There is a well-documented "aging" trend in the population of the United States that is more acute in Michigan and particularly in northern Michigan.

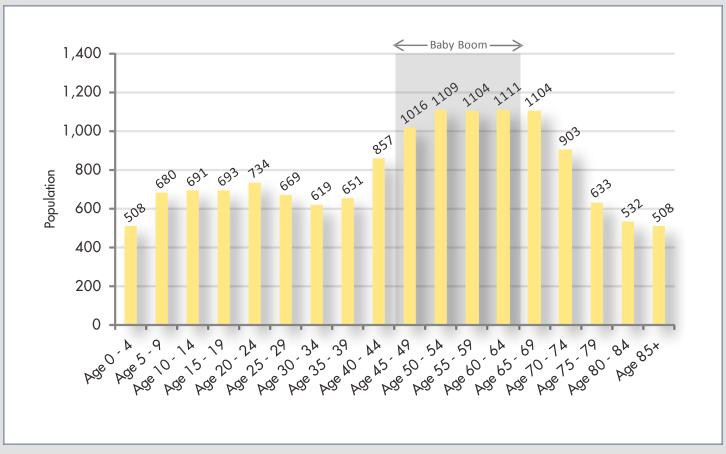
Those born during the Baby Boom of 1946 to 1964 have already entered or are approaching retirement age, raising the median age of the population. Nationally and statewide, the number hovers at just under 40 years of age, with Michigan's median age about a year and a half older than America's. When looking at Benzie and Manistee counties, however, that median jumps nearly a decade to 46.2 and 47.1 years respectively—and two-thirds of the Lakes to Land communities have median ages that are older still (Figure 2.49). Only in the Village of Honor is the median age younger than it is statewide and nationally.

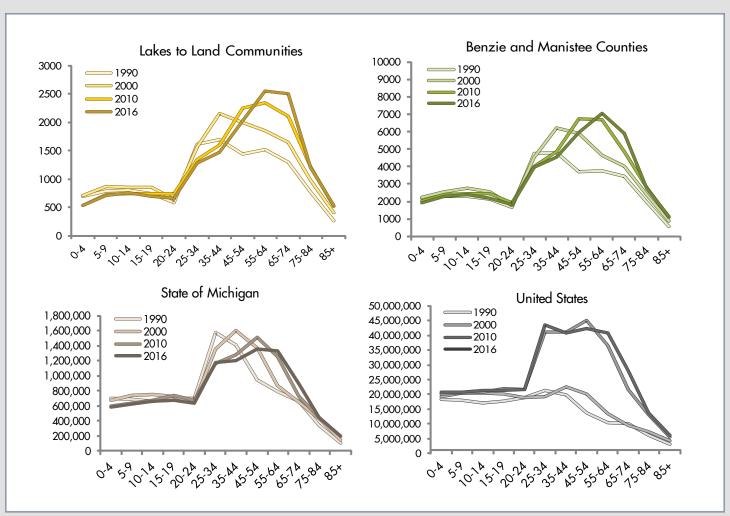
In Figure 2.50, we see that the population "peak" is mostly contained within the Baby Boom age ranges of 45-64. Almost a third (30.7%) of the citizens of the Lakes to Land communities are within this age range, and another quarter (26.1%) are older. The bottom four graphs in Figure 2.50 reproduce the imaginary line that runs across the bar chart for the Lakes to Land communities, the Benzie/Manistee county area, the State of Michigan, and the United States, repeated at four different points in time. In each line, the "Baby Boom bump" is visible as it moves through the age ranges; we can see that this concentration becomes more pronounced as the population focus narrows from national to state, state to region, and region to participating communities.

This is important to know in addressing the needs of each community. It signals a need for age-appropriate housing and greater attention to universal access in design. More advanced life support and paramedic services may be needed, while the demand for schools is likely to be low. Fewer jobs may be needed if a large percentage of the population subsists on retirement income.

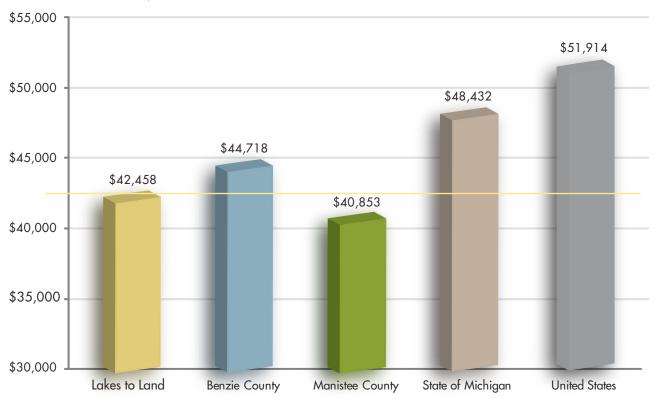
2.51 Table of median ages and ages 65+

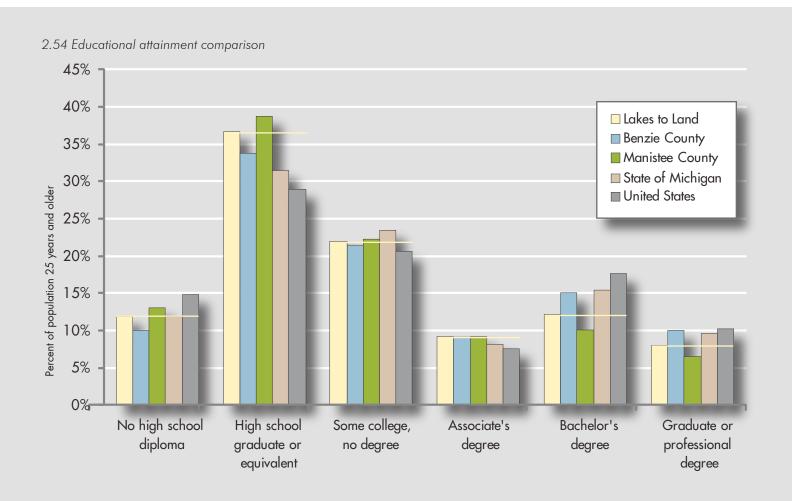
	Median Age	% Population Aged 65+
Lake Twp	64.4	48.5%
Arcadia Twp	56.1	31.9%
Crystal Lake Twp	55.4	31.2%
Onekama Twp	55.2	29.9%
City of Frankfort	54.6	36.1%
Village of Onekama	54.4	28.5%
Blaine Twp	53.3	31.4%
Pleasanton Twp	50.0	27.9%
Gilmore Twp	48.6	22.9%
Village of Elberta	47.8	21.5%
Manistee County	47.1	20.7%
Benzie County	46.2	20.6%
Joyfield Twp	45.0	18.4%
Bear Lake Twp	44.4	20.2%
Manistee Twp	44.0	19.4%
Village of Bear Lake	40.6	18.4%
Michigan	38.9	13.8%
United States	37.2	13.0%
Honor (village)	36.8	20.4%











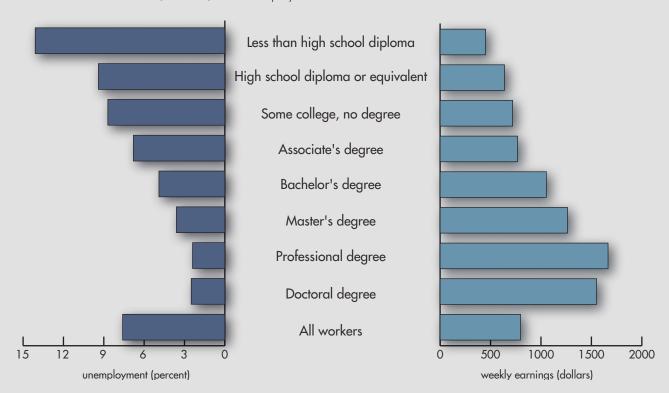
Education and income

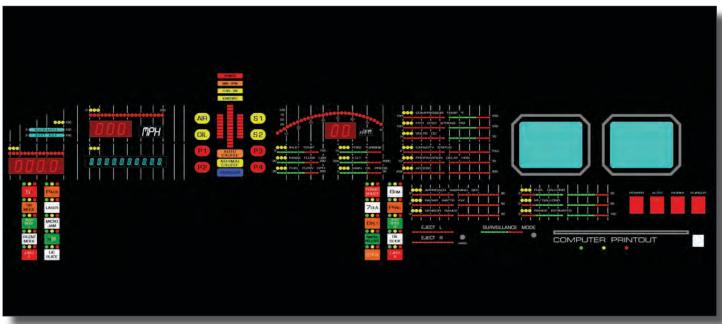
There is a direct correlation between educational attainment and income.

The chart in Figure 2.51 shows the median household income for the Lakes to Land region, Benzie County, Manistee County, the state of Michigan, and the United States, and the chart in Figure 2.52 displays the educational attainment for the population ages 25 and up for each of those groups. To see the relationship between education and income at each level, a line indicating the value of the Area of Influence relative to the other groups has been drawn. We can see that at the bachelor's degree level and above, the graphs for education and income are quite similar, indicating a positive correlation between earnings and income. On the other end of the scale, we see that the graphs depicting a high school education or less depict the converse: the groups with lower percentages of population educated at that level are the groups with higher median incomes.

This rather unscientific comparison is borne out in Figure 2.53, which shows the 2011 unemployment rate and median weekly earnings for each of eight levels of education and the overall workforce. Here it is clearly illustrated that education is not only correlated with earnings but also with having a job at all. For those with less than a high school diploma, the unemployment rate is 14.1%, nearly twice the rate of all workers, and getting a job only yields \$451 per week—just above the federal poverty threshold for a family of four.

2.55 Educational attainment, income, and unemployment in the L2L communities





Credit: Dave Metlesits

Dashboards

Data dashboards are tools designed to convey assessment metrics in a visual, quick-tounderstand format.

The Prosperity Index

moves past description

Statistics provide a good way to compare one population to another. By selecting a measurement and comparing its value in different places, we can draw conclusions about those places in relation to one another: where the educational attainment levels are lagging, for example, or where median income levels indicate the presence of well-paid jobs. When trying to compare the overall snapshot of one community

to another, however, the sheer volume of numbers can almost immediately become overwhelming to anyone who is not a professional statistician.

to assessment. Enter the data dashboard, a graphic representation of the community's vital statistics. The following pages show the population, population growth, housing ownership, education levels, household income, and types of work in Benzie County, Manistee County, the State of Michigan, and the United States, as well as a quick-reference list of additional statistics related to each of those categories.

The Prosperity Index moves past description to assessment. By combining individual measurements, we can ask and answer questions such as,

"Are market forces creating most of the jobs?"

"What kind of jobs are they?"

"How plentiful are jobs?"

"What kind of jobs will the education level of our workforce

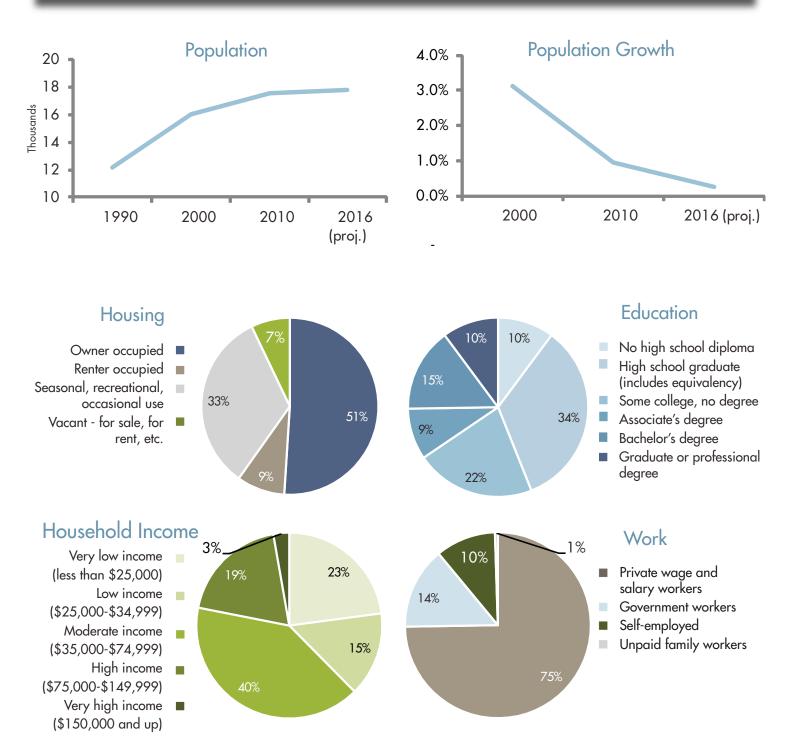
support?"

"Are the jobs that we have keeping our residents out of poverty and providing for their children?" "Is the government keeping our

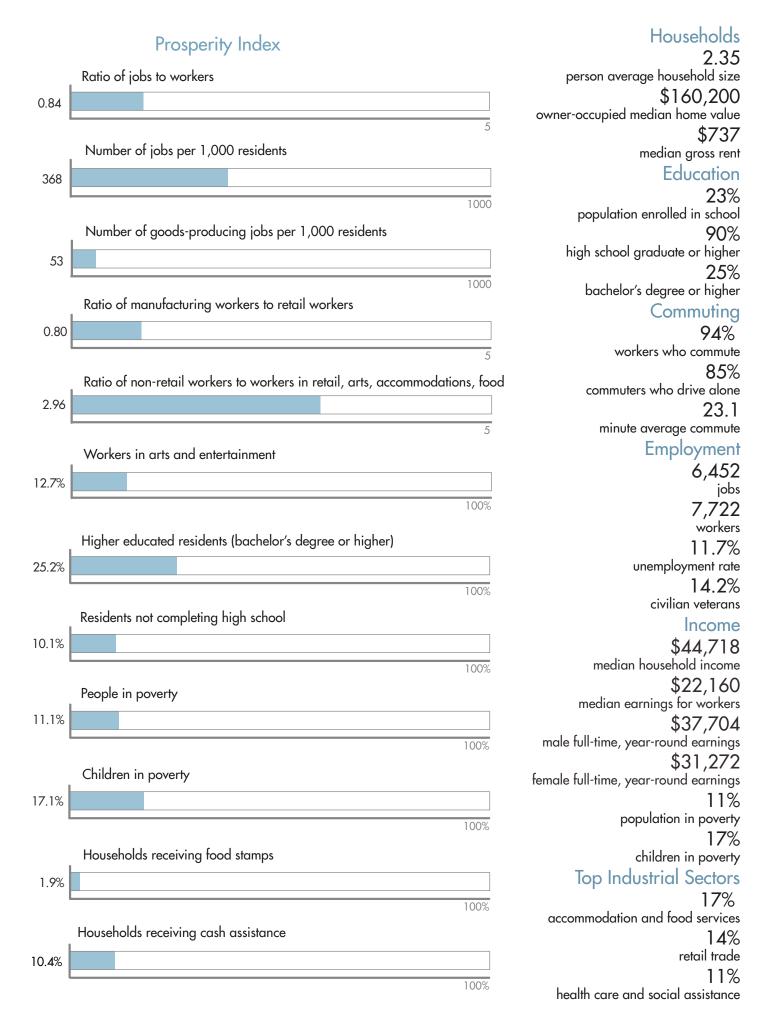
residents and children out of poverty?"

Of course, these answers arrive in the form of a single number. To contextualize that number, it is depicted on a bar graph and a colored band indicating its value is carried forward for comparison on the following bar graphs. (It's easier to look at than to explain, we promise.) The Community Dashboard presented in Tab 4 retains these contextual bands.

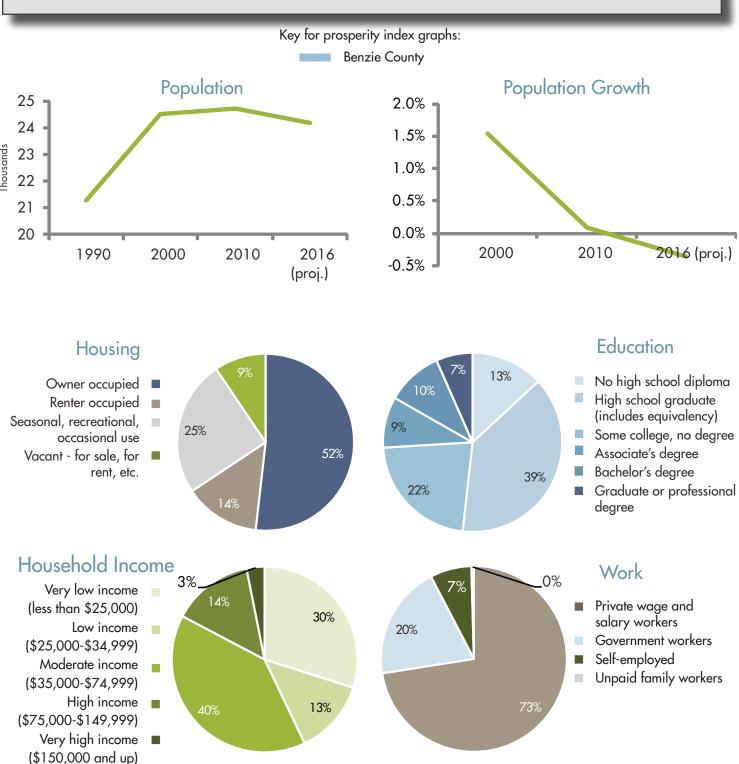
Benzie County Dashboard



Classifications modified from HUD guidelines, using the state median income of \$48,432.



Manistee County Dashboard



Classifications modified from HUD guidelines, using the state median income of \$48,432.

Prosperity Index

Ratio of jobs to workers	
Number of jobs per 1,000 residents	5
Number of goods-producing jobs per 1,000 residents	1000
Ratio of manufacturing workers to retail workers 1.31	1000
Ratio of non-retail workers to workers in retail, arts, acco	
Workers in arts and entertainment 5.1%	5
Higher educated residents (bachelor's degree or higher) 6.8%	100%
Residents not completing high school 3.1%	100%
People in poverty 3.2%	100%
Children in poverty	100%
Households receiving food stamps	100%
Households receiving cash assistance	100%
4.2%	100%

Households

2.2

person average household size

\$124,000

owner-occupied median home value

\$627

median gross rent

Education

19%

population enrolled in school

87%

high school graduate or higher

17%

bachelor's degree or higher

Commuting

95%

workers who commute

83%

commuters who drive alone

21

minute average commute

Employment

10,646

jobs

9,846

workers

11.6%

unemployment rate

15%

civilian veterans

Income

\$40,853

median household income

\$21,443

median earnings for workers

\$41,134

male full-time, year-round earnings

\$27,479

female full-time, year-round earnings

13.2%

population in poverty

17.6%

children in poverty

Top Industrial Sectors

15%

retail trade

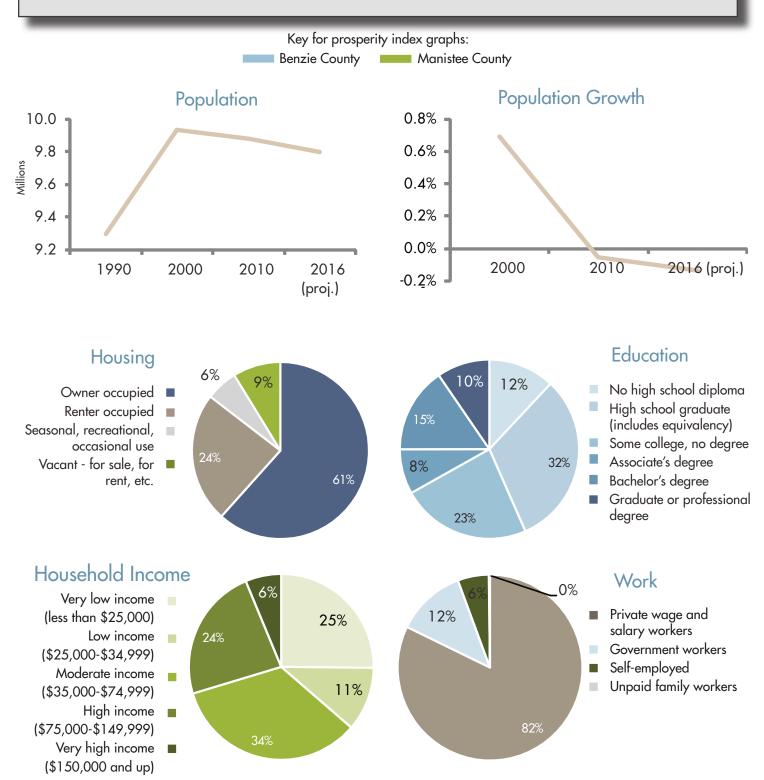
13%

health care and social assistance

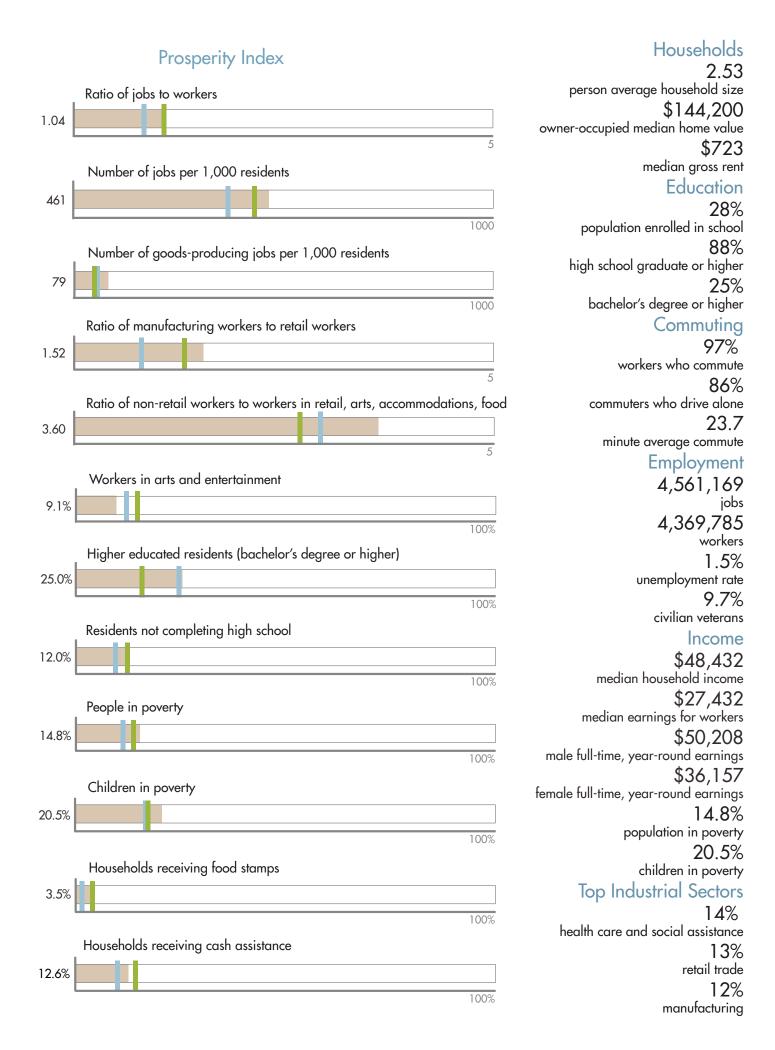
12%

public administration

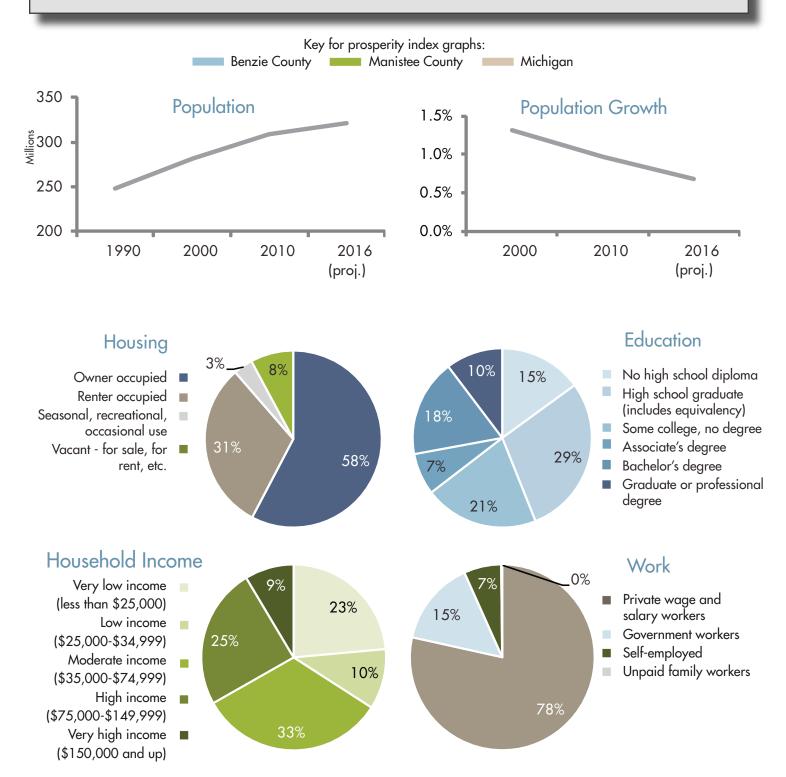
State of Michigan Dashboard



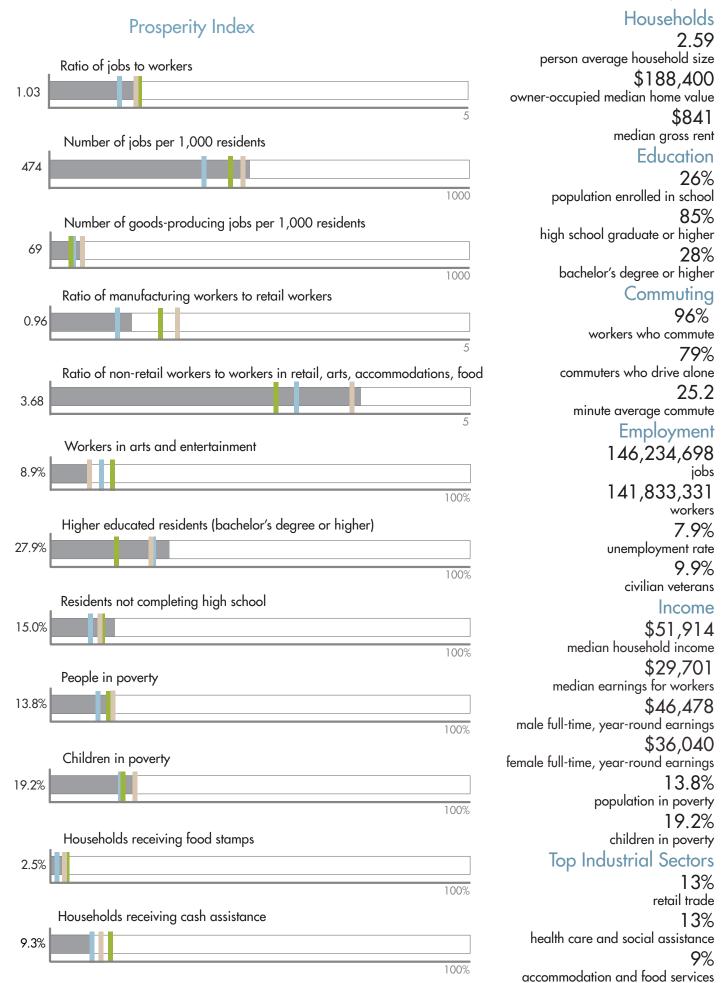
Classifications modified from HUD guidelines, using the state median income of \$48,432.



United States Dashboard



Classifications modified from HUD guidelines, using the national median income of \$51,914







County Plans

Master plans are written at all levels of government—community-specific, regional, and statewide. A county master plan contains many of the same attributes found in a plan for a single community, and its preparation follows the same process.

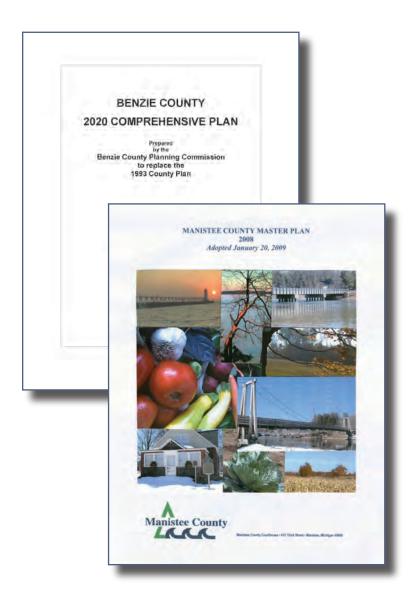
One difference is that the focus sweeps over municipal boundaries to consider factors that affect the county as a whole. Both Benzie and Manistee Counties have written county master plans that take a regional view within their respective boundaries.

Benzie County's Master Plan was prepared in 2000, and Manistee County's Master Plan was prepared in 2009. No matter what level of government the master plan is being prepared for, it is influenced by the conditions within the community at the time the plan is drafted, public interests of the day, and the issues that extend beyond the municipal boundaries but have a significant impact locally. Despite the fact that the plans were written nearly ten years apart and the vastly different economic and societal conditions that existed at the time of their preparation, there are commonalities in planning strategies.

The commonalities between the Manistee and Benzie County Master Plans speak to a commitment to rural scenic character, a land use strategy that guides development towards existing population centers, and a desire for coordination of planning with neighbors. Two themes strongly articulated in both plans are the preservation of views, wetlands, rivers, streams, and the Lake Michigan shoreline, and an emphasis on retaining rural scenic character by preserving lands for

forestry, agricultural, and low density residential use. Natural resources and environmental protection are also strong key components of both plans. In addition, both plans call for coordination of planning between municipalities and neighboring regions in order to obtain efficiencies in services.

The largest difference between the Manistee County and Benzie County Master Plans lies in the type of plan: the Manistee County Master Plan is service-oriented, while the Benzie County Master Plan is a growth management tool. They also differ in how they deal with local government sovereignty in that Benzie County is focused on regionalism rather than Manistee's emphasis on the sovereign right of local governments to plan individually. Another difference is in how their strategies are articulated. The Manistee County Master Plan has a series of goals and objectives that are categorized by topic. Benzie County Master Plan also has goals and objectives found in associated "Background Reports," but they are summarized in eight "fundamental principles." The fundamental principles and associated policies of the Benzie County Plan are what most of the communities in the county use as their guiding basis for decisions as the "Background Reports" have been unavailable. Both plans lay out an articulated path for the future development of their respective county.



No matter what level of government the master plan is being prepared for, it is influenced by the conditions within the community at the time the plan is drafted, public interests of the day, and the issues that extend beyond the municipal boundaries but have a significant impact locally.

Benzie County Planning History

The history of the county plan involves active citizenry looking to plan for the county on a regional scale. Because regional planning and collaboration among communities are "best practices" in planning, the functions of planning and zoning were, until recently, housed at the county level. Rather than individual townships taking on those administrative duties, they were performed by a county planning commission, a county planner, and a county zoning administrator. This scale lends itself to a comprehensive approach: as planning and zoning issues are considered, their impact on the county as a whole was considered.

When the county decided to discontinue zoning on a regional scale, individual townships tried to take on that role by quickly adopting the county master plan and zoning ordinance. However, they soon found that the plan wasn't suited to their individual needs and further realized that the data contained in it needed updating with the 2010 census data. Therefore, communities took the opportunity presented by the Lakes to Land collaboration to write updated, individual master plans tailored to their own unique needs.

Referencing the county plan is important in the sense that it provides the historical backbone to continued scenic rural preservation goals and other regional planning initiatives. Policies that the county established in the plan, such as concurrency in infrastructure development, open space and agricultural preservation, and economic development geared toward established urban cores, are still seen in individual master plans. The county plan provided the framework that is still being adhered to today; such consistency among planning efforts makes for good planning practice. It is hoped that as the individual communities offer more detailed visions of their preferred

futures, these visions will be reflected in subsequent county planning efforts.

Manistee County Planning History

In Manistee County, professional planning services have been provided by a professionally staffed planning department for decades. The planning department works with communities in developing master plans, administering zoning, and facilitating solutions to a myriad of problems. Also of key importance is their use of Geographic Information Systems (GIS), a specialized software program used to convey spatial data in map form, to aid communities and decision makers.

While planning in the County is decentralized, the use of the County Planning Commission and a professional planner provides local master plans and regulatory tools with review and coordination to help achieve some regional consistency. In fact, a number of Manistee County communities over the years have formed joint planning commissions and prepared joint master plans. As mentioned in Tab 1, these include Pleasanton Township, Bear Lake Township, and the Village of Bear Lake as well as Onekama Township and the Village of Onekama. Currently, a number of watershed planning efforts are also underway that cross municipal boundaries to focus on the single issue of ensuring the highest integrity of water quality possible within the County.

Manistee County understands that closely coordinated planning which seeks to ensure collaboration and coordination between municipal neighbors, while maintaining local autonomy, is essential to ensuring continued prosperity for County residents. In fact, the Lakes to Land Initiative was born from just a few Manistee County residents.

KEY STRATEGIES

Benzie County 2020 Comprehensive Plan

- The Benzie Co. Master Plan has a growth management focus. Policies are geared toward defining land use development patterns and practices guiding new development and services to specific areas of the County in order to manage development and maintain a rural scenic character.
- Benzie Co. Master Plan focuses on regional land use planning, emphasizing land use patterns and policy for the county as a whole while promoting integration of individual municipal boundary lines.
- Economic development, character, transportation, land use issues, natural resources, and environmental protection are topics that are encompassed within the scope of where and how to place development within the County, utilize the transportation system efficiently and install infrastructure improvements that builds on exiting systems. Efficiencies in land use patterns and services are key components to the success of the plan. Benzie County maintains a Recreation and Cultural Plan within the county.
- Urban Service Districts are mapped out to indicate where new public services may be extended to accommodate new development.
- Rural scenic character preservation is a key focus of the plan. Policies
 that call for the development of corridor plans, buffer screening,
 conservation easements, design guidelines, night sky policies, and
 additional design guidelines are aimed at aiding in this goal.
- Eight guiding fundamental principles are articulated followed by 4 strategies: balanced growth, environmental protection, protection of the visual character of the landscape, and protection of the visual character of small towns.

Manistee County Master Plan, 2008

- The Manistee County Master Plan is geared toward building the capacity
 of public services and investment—the development and enhancement
 of programs, plans, and facilities in order to actualize their vision.
- Public services that would be created or enhanced include recreation, housing, economic development, natural resources, infrastructure, and transportation. These topics collectively work to actualize the desired end result of the Master Plan. For example, the Manistee County Plan calls for the creation of a recreation plan and recreation department, alternative energy program, economic development programming, and solid waste management program. Capacity building of this type would aid in creating recreational opportunities and management of those programs, achieve greater alternative energy production, protection of the environmental and natural resources, and expand and grow the economic base.
- In Manistee County, community-specific land use planning is preferred, honoring local planning efforts. It does point to a few general regional land use goals, such as compact development forms and coordination of planning efforts among municipalities.
- The Plan calls for nine categories of goals with associated objectives to achieve the goals.

2.60 County Plan summary table

	Manistee County Goals
ECONOMY / BALANCED GROWTH	 Increase opportunities for business in the county. Encourage the Alliance for Economic Success and the Greater Manistee Area Chamber of Commerce to diversify the industrial base to create more job opportunities and to create specialty groups. Increase the ability of Manistee County to attract and retain technology-based businesses. Link economic development goals and objectives with those of the Little River Band of Ottawa Indians to provide broader, unified economic development programs. Coordinate a collaborative planning program among the county, local units of government within the county, and adjoining counties.
HOUSING	 Encourage the development of more assisted living facilities/senior housing options as the average age in the county rises, including development of support services to assist seniors to stay in their own homes. Encourage housing options for a variety of income levels. Discourage blight and nuisance housing areas.
PROTECTION OF NATURAL RESOURCES AND ENVIRONMENT	 Encourage the remediation of environmentally contaminated lands which have a potential for damaging rivers, streams and groundwater. Advocate for the creation and long term maintenance of a county-wide solid waste management program Advocate for the maintenance of Manistee County's natural resources and the beauty of its landscape. Encourage local governments to develop guidelines and criteria which protect natural features and sensitive areas. Advocate for county-wide alternative energy programs and projects.
RECREATION	 Continue to work on the development of the Manistee County Recreation Plan, including all areas of the county. Encourage universal accessibility to all recreation sites. Increase recreational opportunities for all ages. Advocate for a Manistee County parks program including the preservation of open spaces for recreation purposes.
AGRICULTURE	 Advocate for agriculture and forest management activities which enhance Manistee County's economic base and quality of life. Advocate that designated agricultural areas in the county remain primarily agricultural or low density residential.
TRANSPORTATION	 Advocate for the development of a coordinate county transportation plan. Advocate for the awareness of the importance of our local airport for all travelers in the county. Monitor projects and proposals to assess the maintenance of safe and efficient routes in and through the county while respecting the rural character. Advocate for expansion of deep water port facilities linking to air, rail, highway connections, and warehousing and distribution facilities. Advocate for the continued study of the railroad relocation project.
INFRATRUCTURE	 Advocate for the development of a county infrastructure plan. Advocate for the effective and efficient location of public facilities and delivery of public services.
LAND USE / VISUAL CHARACTER	 County master planning will respect the goals and land use plans of local government, including the Little River Band of Ottawa Future growth will occur in existing and planned growth centers such as the City of Manistee and population centers as identified in each local government plan.

Benzie County Principles and Strategies

The principal land use issue in Benzie County is not whether to grow, it is where, when and in what manner can growth occur without undermining the integrity of the scenic natural character of the County and the economy built around it.

1. Scenic character should be preserved or enhanced wherever feasible in the County

- 2. Natural resources in the County should be protected from inappropriate use or conversion.
- 3. 3. The pristine natural environment of the County should be protected from degradation.
- 4. An economy built on renewable natural resources is sustainable and should continue to be the principal economic base for the future.
- 5. Future development should primarily take place in a compact development pattern.
- 6. Future land use, zoning, land division and public infrastructure decisions should be made consistent with this Plan.
- 7. A strong effort should be made to achieve improved intergovernmental cooperation within Benzie County
- 8. The vision in this Plan must be achieved without violating protected property rights.

Balanced Growth Strategy

Preservation of scenic character in Benzie County is both dependent on and supports most of the economic base in the County. The scenic character is comprised of the natural environment, farms, and the built environment. Thus, protecting scenic character, the natural environment, and economic development must proceed together—or one or the other (or both) will suffer. The solution lies in pursuit of a balanced growth policy. Balanced growth will require housing not only for seasonal residents, retirees, or two income commuter families, but also for the elderly, young families, and other persons on low fixed incomes. New businesses will be needed to meet the needs of the growing seasonal and permanent populations.

Environmental Protection Strategy

The other side of the balanced growth strategy is the environmental protection strategy. This term embraces protection of renewable natural resources like agricultural and forest land, as well as the air, water, and other sensitive natural features in the County (like wetlands, floodplains and sand dunes) The greatest threat to these resources is from poorly planned or sited new development. Residential development poses the greatest threat because there is so much more of it over a much wider area.

STRATEGIES

FUNDAMENTAL

PRINCIPLES

Strategy to Protect the Visual Character of the Landscape

County citizens have strongly indicated that they do not want growth to spoil the scenic character of the landscape. They do not want it to take on a suburban or urban character. They want the forested, lake, and riverine landscapes to be preserved for the benefit of present and future generations. Almost everyone feels a right to see, enjoy, and help protect these resources. As a result, protection of the unique rural character of the County must be a fundamental part of all future planning and development decisions.

Strategy to Protect Visual Character of Small Towns

The physical features of the city of Frankfort and the villages in Benzie County are a critical component of the rural scenic character of the County. New development that is encouraged to take place in and adjacent to these small towns must both complement and fit with the existing character, or it will damage the scenic character of the community and the County.

Strategy to Address Issues of Greater than Local Concern

The fundamental principles presented in this Chapter recognize that intergovernmental cooperation is critical to implementation of the strategies in this Plan.

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LAKES TO LAND REGIONAL INITIATIVE

Community Engagement

Figures, Maps, Tables

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Lakes to Lana REGIONAL INITIATIVE You Are Invited!!! **Community Vision Session**







6:30 p.m.



Outreach

Once upon a time, master planning was believed to be the province of professionals and only minimally subject to public opinion. Toward the middle of the 20th century, however, "the public" made some changes to that system.

As a practice, city planning took off under the City Beautiful movement of the early 1900s. The theory was that an orderly, aesthetically pleasing public setting could induce citizens themselves to be more orderly and harmonious. Physical plans with ornate street layouts and elaborate civic centers were produced by these design professionals, often paid for by the business community. After the Depression radically shifted just about everyone's priorities away from aesthetic concerns to financial ones, the City Efficient movement strove to root out graft and create smooth bureaucratic systems which could carry out the municipal functions of a nation urbanizing at a breakneck pace.

The seismic demographic and technological changes that occurred after World War II caused the now-well-established profession of planning to use every tool at its disposal to accommodate them. Combining physical and systems planning yielded some extremely bold innovations, with mixed results—the national Interstate highway system, for example, in contrast to urban renewal.

But no massive alteration to a densely populated area can avoid making a deep impact on the individual lives being lived in that space, and this is where the top-down model of planning met its match. As homes were razed and neighborhoods bisected to make room for the freeways, public meetings filled with citizens who not only did not care for the plan under consideration, but also did not care for the fact that such dramatic and irreversible consequences for their own lives were being dropped on them. Journalist Jane Jacobs combined her background on the urban beat with her fury over being displaced from her home to write the 1960 critical examination of planning that eventually ushered in a sea change to the profession, "The Death and Life of Great American Cities."

Though it is generally true that planners' professional training gives them a wider variety of municipal tools and information than the average citizen, it is now fundamentally understood that the direction of a community's progress is always best guided by its members.

The leadership team

The first community members to "get engaged" with the Lakes to Land Regional Initiative were the ones who would eventually make up the backbone of the collaboration.

At its very earliest stage, this sprawling collaboration began as a meeting of just four minds. Onekama Township supervisor David Meister and planning commission chair Dan Behring worked with Alliance for Economic Success director Tim Ervin on the Portage Lake Watershed Forever plan, which brought Onekama Township and the Village of Onekama together so successfully that they decided to work together further in the preparation and adoption of a joint master plan. Now thoroughly convinced of the merits of collaboration, the Onekama Community Master Plan advocated using the M-22 corridor as a focus for economic development, and that brought Meister, Behring, and Ervin to the doorstep of Arcadia Township planning commission chair Brad Hopwood. The three communities wrote an M-22 Economic Development Strategy together in 2010.

Realizing the potential of the regional assets identified in the report and knowing that Arcadia Township's master plan needed updating, Hopwood and Ervin decided to reach out to adjacent communities to assess their willingness to participate in a broader initiative. After "many meetings" over my kitchen table," said Hopwood, the original M5 partnership of Arcadia, Bear Lake, Blaine, Crystal Lake, and Gilmore Townships solidified. The first members of what would become the Lakes to Land Leadership Team were identified either through their roles in the community (many are planning commission members, elected officials, or professionals in a field related to land use, such as real estate) or identified themselves as having an interest in serving the collaboration. Their first tasks were to name the initiative, define the potential Area of Influence, decide which team member would contact each adjacent community, and establish a timetable for other communities

As new communities joined the initiative, the requirements for admission were simple: their elected bodies were asked

to execute an "Agreement to Partner" resolution, and the community was asked to furnish two people to serve on the Leadership Team. Throughout the initiative, Leadership Team members met on a monthly basis to update each other on the collaborative process.

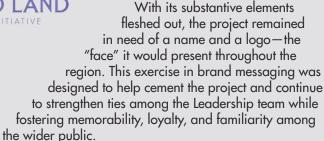
In addition to providing a forum for communication and connection, the meetings also served as an educational avenue as the team members began blazing the trail through uncharted cooperative territory. Topics for discussion included the purpose of master planning, engagement with neighboring communities, stakeholder analysis, and methods of public outreach. Guest presentations were made by agencies such as the Grand Traverse Regional Land Conservancy and the Northwest Michigan Council of Governments.

The Leadership Team's engagement extended to the best in-depth citizen planning training in the state. By giving these committed community members the most up-to-date tools and knowledge to effectively advocate for highquality community planning decisions, the Lakes to Land Regional Initiative provides a benefit to participating communities that will long outlast the project duration. Links to the Michigan Association of Planning annual conference and the organization's Planning and Zoning Essentials basic training program were made available on the Lakes to Land website, and an educational committee was formed to organize training opportunities such as participation in Michigan State University Extension's Citizen Planner course on Fundamentals of Planning and Zoning. Each community sent multiple representatives to this seven-week course aimed at providing a basic skill set to land use decision makers, particularly elected and appointed officials. Leadership Team members' participation was funded by the Lakes to Land grants.

Naming the Initiative







Through multiple brainstorming sessions and the use of the online tool SurveyMonkey, many different names and tag lines were suggested and debated. In offering the "Lakes to Land" moniker, one team member noted that the region is comprised of rolling green topography and scenic views of forests, farms, and fields, edged on one side by the Lake Michigan shore and dotted throughout with the inland lakes which are at the heart of many of its communities. The rest of the Leadership Team coalesced around this suggestion with relative ease, bestowing the project with the official name of "Lakes to Land Regional Initiative" and the immediate nickname of "L2L."

While the initial goal was to brand the initiative and as a consequence the region, Leadership Team members wisely understood that undertaking a proper regional branding would require participation from diverse groups such as local chambers of commerce, business associations, and elected officials. This was outside the scope of the project at hand, but groundwork has been laid with the effort to name the first regional collaborative

the State of

Michigan.













What makes this project unique? How will it benefit area stakeholders? Why should they get involved?



3.2 Web screenshots The Lakes to Land pages on Facebook (top), Twitter (middle), and the world wide web (bottom)



Communication strategies

The Leadership Team's primary communication goals were to facilitate stakeholder participation and garner broad support for the project. They also recognized the importance of elevating the project's visibility, reinforcing positive relationships with decision-makers, and creating a sustainable platform for ongoing coverage through positive media relationships.

Determining that the use of a consistent and positive message was essential to the success of these goals, the team distilled that message by identifying and answering the questions at its core: What makes this project unique? How will it benefit area stakeholders? Why should they get involved? Having clearly articulated answers to these questions was essential to persuading communities that it is in their best interest to work together, and that doing so reinforces their own identities. The process also helped create synergy and momentum, much-needed ingredients in the quest to elicit as much participation in the master planning process as possible.

Face-to-face outreach

Even though it sometimes seems like a new form of communication is born every minute these days, and even though the Lakes to Land team tried to use just about all of them, the most effective method of communication in our outreach efforts was often good old one-on-one, face-to-face contact. The role of leadership team members as community ambassadors was critical in identifying and communicating with neighboring communities and key stakeholders throughout the region. An early decision to make the Initiative as inclusive as possible offered them the opportunity to reach out to neighboring communities directly, calling and meeting with individuals throughout the region to educate them about the benefits of the Initiative. In addition, the Beckett & Raeder team undertook other types of personal communication initiatives that

included speaking at the Benzie County Water Festival and individual planning commissions, holding informal meetings with residents, and a presentation at the professional planning conference hosted by the Michigan Association of Planning. The goal of the outreach effort was never to recruit but rather to inform and educate with the hopes that communities would see the benefit of joining the Initiative. It was largely through this face-to-face contact that the collaboration grew from five communities to 16 in just a few short months.

During the development of the individual master planning process, community leaders identified key stakeholders, then personally encouraged them to attend planning commission meetings and work sessions in order to hear their opinions and allow them to weigh in during the formation of the master plan. One community member expressed that they felt they had knocked on every door in the community, personally inviting the resident inside to attend the meetings.

Further, in an effort to create a collegial environment and begin to collaborate professionally, invitations to regular Leadership Team meetings were extended to professional planners and zoning administrators in both Benzie and Manistee Counties, representatives from the Michigan Department of Natural Resources, and a Michigan State University Extension Land Use expert. Other entities were invited to give educational presentations at the meetings, such as the Heartland Center for Leadership Development. Meetings also occurred with the Michigan Economic

Development Corporation Community Assistance Team Specialist to discuss economic development tools and applicability for the region. As a nod to the significance of the Initiative and in an effort to learn from this ground-breaking process, Governor Rick Snyder designated key government employees from various departments to study the Initiative and to collaborate with the region. These individuals were in contact with the Alliance for Economic Success, team members, and the consultants.

Communication tools

To keep the momentum of the project going and continue to engage the public, the Lakes to Land team developed magnets and brochures listing all the ways to keep in touch with the project: a centralized phone number, a United States Postal Service address, a new website, and Facebook and Twitter accounts. Press releases to news outlets covering the geographic area from Manistee to Petoskey were issued by the Alliance for Economic Success at the beginning of the initiative and at strategic points throughout the process to keep the public updated.

The Lakes to Land website (www. lakestoland.org) was created to maintain open lines of communication among active members of the project team, residents of the region, and other interested folks. This was particularly critical in light of the wide spectrum of technological sophistication and infrastructure available throughout the region, making a centralized repository for project-related information necessary. The collaborative nature of the project meant that it was imperative to build a site robust enough to serve the dual

objectives of creating a cohesive whole and maintaining each community's unique identity.

It was decided early on that the site would feature a page for each individual community in addition the blog, the "about" description of the project, a calendar of events, and an archive of news releases related to the project. Each community's page presented a short excerpt of its history from this report, updated information related to the scheduling or results of its vision session, and any available links to previous plans or municipal websites. To the initial regionallyfocused content mentioned above, several more pages were added at the Leadership Team's request: a catalog the entire library of work products and resources, a repository for documents specific to the Leadership Team, and an open comment forum for exchange of ideas.

Metrics show that as of this writing, 1,975 people have racked up 9,687 page views on the website. The highest pageview numbers were driven by subscribers, people who signed up for the mailing lists and received an email linking directly to each new post as it was published. The largest concentration of visits came from the Manistee area (881), followed by Traverse City (598) and Grand Rapids (266). While most were from Michigan, visits also came from across the country: 141 from Hialeah (FL), 84 from Honolulu, 73 from Chicago, and a dozen scattered cities along the California coastline. All entries from the website were also posted to the project's Facebook and Twitter accounts (www.facebook.com/lakestoland and twitter.com/lakestoland).

Information meetings

The public kickoff of the project occurred at two informational meetings on May 24 and 25, 2012. Between the two sessions—one in Benzie County and one in Manistee County approximately 100 attendees were introduced to the Initiative. The purpose of the informational meetings was to educate the citizens about the project, extend an invitation to neighboring communities to join, discuss funding sources, and give a detailed explanation of the expected process and benefits. It was also hoped that the meeting would explain the planning process, prepare the communities for their vision sessions, and generate excitement for the project. Brochures and magnets were distributed, and the dates for the vision sessions were announced.

Farmers' meetings

As the process of writing the new master plans began in earnest, two townships chose to host a forum dedicated specifically to understanding the needs of their agricultural communities. Blaine and Joyfield Townships each invited the general public, with a particular emphasis on the farming citizenry, to answer the question, "What can the township do to ensure that our working farms remain viable over the next 20 years?"

Both groups expressed a strong desire for fewer and more flexible regulations. Regardless of whether the context was land division, crop contents, building and equipment construction, or the lease of land for purposes other than agriculture, participants made it clear that the township's decisions had a discernible effect on their bottom line.



Arcadia Bear Lake Blaine Crystal Lake Gilmore Joyfield Pleasanton Onekama Frankfort

You are Invited!

Information Meetings Scheduled

May 23 at 7 p.m.

Onekama Consolidated Schools May 24 at 7 p.m.

Frankfort-Elberta Elementary School Gym

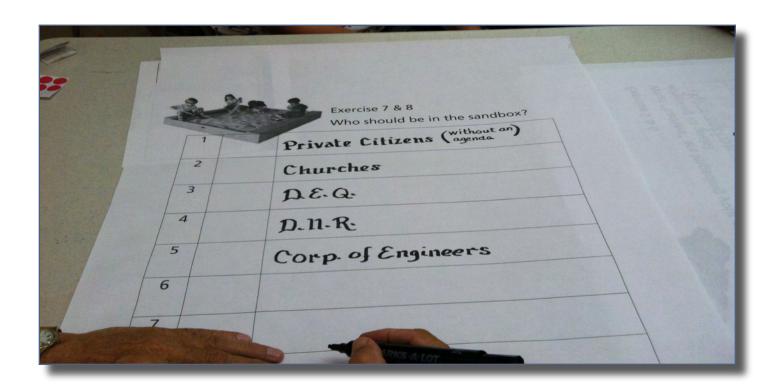
The Lakes to Land Regional Initiative is a unique joint planning effort to bring voices from throughout the region into a collaborative vision for the future. The communities will work together to prepare a series of individual Master Plans and then use them to design collaborative strategies.

Come to an information meeting to meet the leadership team members, learn about the purpose, goals, opportunities for participation, and schedule for the

3.3 Information meeting

Beckett & Raeder, Inc. gives a presentation introducing the Lakes to Land Regional Initiative to citizens.





Visioning

The heart of the collaborative initiative is the development of individual community master plans. In the preparation of a master plan, the voice of the community is heard and articulated, and getting residents of the region to the Visioning Sessions was one of the primary responsibilities of the Leadership Team.

The Leadership Team selected the days, venues, and times for the vision sessions and placed posters advertising them throughout their communities. In addition to the project's official website and social media accounts, they used wordof-mouth, personal contact lists, and their own social media outlets to publicize the meetings. Postcards were mailed to every tax payer in each participating community inviting residents to share their input at the meeting, a step that the team concluded was important to ensure contact with every person. To minimize scheduling barriers to participation, residents were advised to attend their own community's session if possible but also invited to attend other sessions. If attending another community's vision session, residents were asked to sit at a separate table to work on the exercises but invited to participate in the presentation of the results. In this manner, communities often got a first glance at issues occurring in neighboring communities. All results were kept separate.

The method for decision-making was designed to be ideal for large groups, take everyone's opinion into account, and assist in narrowing down the results to the top major issues through the use of tallying. Participants not only had the opportunity to voice their opinions to small groups but also to the larger assembly, explaining and clarifying issues. Issues were often repeated, and in many cases the participants were able to both hear and see through the tallying process the collective nature of their opinions.

Ten vision sessions were held to accommodate all communities developing master plans, including a makeup session designed to give residents from communities with less than ideal participation at the outset another opportunity to weigh in. All followed an identical format: Prior to the meeting, the facilitators placed a marker, a pen, nametags, a sign-in sheet, pre-counted voting dots, and a set of 24x36 exercise sheets on each table. Arriving

citizens were asked to sit 6-8 persons to a table, don a nametag, and sign in. (Email addresses from the sign-in sheets were added to the distribution list used for updates and new website post notices, with an opt-out available at each.) Shortly after the start time of 6:30 p.m., the session began with a presentation about the history, scope, and objective of the Lakes to Land project.

The bulk of the sessions were focused on the visioning exercises. A volunteer at each table took the role of Table Secretary, recording answers to each of the tasks assigned. In most cases, a voting exercise followed in which each participant placed a dot next to the two items s/he felt were the best responses. "Double-dotting," or voting twice for the same item, was not allowed.

At the conclusion of the exercises, each group selected a member to present its findings. Presentations to the group conveyed the top three preferred futures from exercise 9 and 10 and the strategies to achieve them identified in exercise 11. A member of the facilitation team recorded the preferred futures on 24x36 sheets as they were stated, consolidating duplicate items with some discussion about what constituted a "duplicate": is the item "more business along US-31" identical to "increased economic development," for example?

Once all responses had been recorded, the sheets were hung on a wall at eye level, usually in the vicinity of the exit. The attending citizens were thanked for their participation and then instructed to use their remaining three dots for a "collective prioritization" exercise in which they voted for the three images they preferred most out of all presented at the meeting. Again, double- or tripledotting was prohibited. The meeting officially concluded after all participants voted.

The stuff

3.4 The invitations



Community Vision Sessions

The Lakes to Land Regional Initiative is a unique joint planning effort to involve pices from throughout the region in the creation of Community Master Plans. The communities will then work together to design strategies for collaboration

Bring your voice to the Vision Session in your community and help shape the future.

If you are unable to attend the please join us at any of the

June 13

All begin at

ARCADIA TWP June 12 JOYFIELD TWP

CRYSTAL LAKE TWP

GILMORE TWP June 14

PLEASANTON TWP June 18 BLAINE TWP



COMMUNITY VISION **MAKEUP SESSION**



COMMUNITY ${f V}$ isioning ${f S}$ ession

We wish more of you in Pleasanton and Bear Lake Townships had come to the previous sessions. Luckily, the Village of Bear Lake's addition to our collaboration offers the opportunity to hold one more. Come talk with us about

Bear Lake Water P & R E Public

Road Imp Blight Er Wildlife and Fisherie

if you don't participa

6:30 р.м. о

BEAR LAKE SCHOOL

Questions? Visit www.lakesto

eeks to bring voices from throughout er to shape the future we will all share adia, Blaine, Crystal Lake, Gilmore, and d come to the previous sessions, e holding one more.

critical to creating a plan reflects our community. voice to the Vision Session.

in this process, and you know what they say rticipate, you can't complain.

2012 ат **6:30** р.м. LLEY COMMUNITY CENTER

rs Lake Road, Arcadia

即級担



Manistee Township has joined the Lakes to Land Regional Initiative, a unique collaboration in which 15 Northwest Michigan communities are using the master planning process to identify strategies for working together. Manistee Township will be updating its master plan, and you are invited to a

COMMUNITY VISIONING SESSION

to share your preferred vision for our future.

Citizen input is **critical** to creating a plan that genuinely reflects our community. Please join us.

August 22, 2012 At 6:30 P.M. MANISTEE TOWNSHIP HALL

410 Holden Street

www.lakestoland.org



visions are made of

3.5 The exercises



Participants were told that a short phrase was acceptable. This was a voting exercise.

Exercise 3 & 4

List those items that your COMMUNITY has accomplished well.

List those items that your COMMUNITY could have accomplished better.

Participants first answered the "accomplished well" question and voted on the answers, then answered the "could have accomplished better" question and voted on the answers.

Exercise 5 & 6



What "barriers" are impeding improvements in your community?

Facilitators explained that "barriers" could refer to organizations, situations, attitudes, physical attributes, power structures, etc. This was a voting exercise.



Exercise 7 & 8
Who should be in the sandbox?

Facilitators explained that responses to this question should name organizations of any size which could contribute expertise or resources to further the project's goals. This was not a voting exercise, but a tally was kept of the number of times each organization was mentioned within a session.

Exercise 9 & 10



Participants were asked to offer a description of their community after ten years of work on their preferred investments. This was a voting exercise, and the secretary was asked to record the top three vote-getters on the next page.

Exercise 11

Actions to Accomplish our 2021 vision?

(List the Actions needed to implement the top three (3) images from Exercise 8 & 5

Priority 1

Participants contributed strategies to acheive each of the three most-preferred visions from the previous exercise.

Final Exercise
Collective Priorities

Participants distributed their remaining three dots among the top preferred visions from each group. This was THE voting exercise.

Visioning Results

Bear Lake Township

The first vision session scheduled for Bear Lake Township, to be held on June 21, 2012 at Bear Lake School, 7748 Cody Street, was cancelled due to the low turnout of three residents. Fortunately, the addition of the Village of Bear Lake provided an opportunity for a makeup session aimed at the "Bear Lake Community" made up of Bear Lake Township, Pleasanton Township, and the Village of Bear Lake, held on August 16 at Bear Lake School. Twenty-two of the 36 attendees represented Bear Lake Township, or 1.3% of the township's 1751 residents.

Citizens used the words "lake" (and "multiple lakes"), "beautiful," and "lake health" to describe Bear Lake Township. They named fire/EMS services, community activities, and lake improvement as their greatest accomplishments. The top three items that could have been more successful were all physical: buildings on Lake Street, lake access with facilities, and roads. Residents cited funding, participation, and lack of communication/miscommunication as the greatest barriers to progress. They felt that the sandbox should be made up of business owners, community organizations, and property owners. A vibrant, revitalized downtown and parks and lakes access topped the list of collective priorities; these items received two to four times more votes than the next two on the list, trails for biking and walking and the improvement of property values.



3.6 Bear Lake School

3.7 Bear Lake Township, Bear Lake Village, and Pleasanton Township makeup visioning



Village of Bear Lake

The Village of Bear Lake joined the Lakes to Land collaborative after the initial round of visioning sessions, so its only session took place on August 16. The meeting was held at Bear Lake School in conjunction with the make-up session for Bear Lake and Pleasanton Townships. The six Village of Bear Lake residents in attendance comprised 2.1% of overall population.

Words used to describe the Village of Bear Lake by its residents were "stagnant," "development challenged," and "retired - mature." Residents were most proud of their school, water system, and community events such as Bear Lake Days and Sparkle. They felt that more attention could be paid to a blight ordinance, affordable sewer, and park facilities such as a restroom. Barriers to progress were money, knowledge, and participation. When asked which organizations could be potential allies to progress, the citizens named community groups, specifically the Bear Lake Promoters and the Lions, and state government. Collectively, they prioritized employment, an innovative sewer system, and being centered on recreation. The other items to receive votes were having a vital downtown, and being characterized as "multi-generational" and "beautiful."

Pleasanton Township

Sixteen residents of Pleasanton Township gathered at Bear Lake School for their community's initial vision session on June 18, 2012, and eight more arrived at the same location for a makeup session on August 16. In all, 2.9% of the township's 818 residents participated in the session.

Citizens described Pleasanton as "rural," "agricultural," and "quiet." The water quality in Bear Lake was their signature accomplishment, including watershed planning and organization and the control of Eurasian water milfoil. Pleasanton residents mentioned division in the community with some frequency. When asked what the could have been done better, "lack of cooperation among municipalities and board" was first, followed by master planning, better communication, and an accepted sewer plan; the list of barriers was topped by "inter-community discord," "polarization and divisiveness on issues," and "divisive leadership." They felt support should come from service clubs and community groups, Bear Lake Township and Village, and Michigan's environmental departments (DNR and DEQ). In a particularly direct summation of the previous exercises, residents listed their top priorities as leadership that brings the community together, a zoning ordinance that reflects the master plan, and good communication and cooperation among all groups.



3.8 Pleasanton Township visioning



3.9 Joyfield Township visioning

Joyfield Township

Joyfield Township hosted its visioning session at Blaine Christian Church, 7018 Putney Road, on June 13, 2012. There were 50 Joyfield residents in attendance, as well as two residents of Arcadia Township and two residents of Blaine Township. All participants completed the exercises with members of their own community, and the results were tallied by community. The rate of participation among Joyfield's 799 residents was 6.3%.

The most common one-word descriptions of Joyfield Township were "beautiful," "rural," and "divided." Residents felt that their community's strengths were neighborliness, land stewardship or balanced land use, and preserving scenic beauty. They said the community could have a better job of zoning and planning, planning for the future, and communication. Top barriers to improvement were miscommunication (specifically, communication prior to major issues and the complain that "government doesn't listen"), division within the community, and both personal and governmental financial struggles. Organizations which should be "in the sandbox" were the Farm Bureau, Michigan Department of Environmental Quality, and the Joyfield Township Board of Supervisors. The citizens' list of collective priorities was topped by retaining scenic character, growth in specialized agriculture, implementing zoning and planning, maintaining a rural character/environment, increasing job opportunities and supporting local business, and utilities.

Arcadia Township



3.10 Arcadia visioning 3.11 Pleasant Valley Community Center



Arcadia Township's visioning session took place at the Pleasant Valley Community Center, 3586 Glovers Lake Road. Ninety-three citizens attended the session held on June 12, 2012. In addition to those citizens, ten Arcadia residents attended a makeup session on July 11, 2012 at the Pleasant Valley Community Center and two Arcadia residents attended the visioning session in Joyfield Township. In total, 103 of Arcadia's 639 citizens participated; its 16.1% was the best among municipalities which held visioning sessions.

The top three words residents used to describe Arcadia were "peaceful," "natural" (including "nature" and "natural beauty"), and "beautiful." They felt that their community had done a good job establishing the Pleasant Valley Community Center and the fire department. They also felt that their community was successful in the "wind issue" or the "Duke energy diversion," saying they had "defeated turbines" and "avoided bad economic development." They felt that the community could improve channel dredging, calling it a "yearly hassle" and saying a "better policy" was needed. Enforcement of zoning ordinances and speed control were two other areas which residents felt could be improved. The list of barriers to improvement was led by finances, resistance to change, and communication problems. The top three organizations that should be "in the sandbox" were Camp Arcadia, the Grand Traverse Regional Land Conservancy, and the Lions Club. The citizens' top six collective priorities were channel dredging, improving outdoor activities and developing eco-tourism, M-22 improvements and streetscape, connectivity of biking and hiking trails, a fully operational harbor, and sustainable businesses on Main Street.

Blaine Township







On June 19, 2012, Blaine Township Hall at 4760 Herring Grove Road filled up with 72 citizens ready to share their vision for the township's future. Two more citizens attended the July 11 makeup session, totaling 13.4% of the municipality's 551 residents.

Blaine residents described their community as "peaceful" (adding "serene" and "tranquil"), "beautiful" (specifically "natural and seasonal beauty"), and "rural" (including "rural / agriculture"). They cited conservancy and preservation of their land and shore as their greatest accomplishment, followed by "eradicating turbine development" or "stopping the wind energy program," then zoning. Internet access, road repair, and planning and zoning topped the list of things that the community could have done better. The top two barriers to their goals were financial, both general and public, and each received three times as many votes as the item in third place, which was lack of viable, good-paying employment opportunities. The organizations which should be in the sandbox were township officials, the Michigan Department of Natural Resources, and the Benzie County Road Commission. Citizens listed maintaining the health and quality of lakes, streams, and forests, maintaining a rural community, high speed internet service, healthy and sustainable operating farms, and maintaining the scenic beauty of the township as their top collective priorities.

Crystal Lake Township

Forty-two Crystal Lake Township citizens gathered at Frankfort-Elberta High School on June 14, 2012 for their community's vision session, and two more attended the July 11 makeup session at the Pleasant Valley Community Center. Taken together, 4.5% of Crystal Lake Township's 975 residents participated.

Residents described Crystal Lake Township as "beautiful," "vulnerable," and "pristine." They listed rails to trails, water quality, and the Benzie Bus as their top achievements; zoning, citizen participation, and the RV park topped the list of things they felt the township could have done better. Barriers to the community's goals were leadership (and specifically, "leadership reflecting all taxpayers"), lack of an agreed-upon, long-term vision, and lack of opportunities to share in a common goal. They felt that it was important for the Crystal Lake Watershed Association, farmers, and the Paul Oliver Memorial Hospital to be in the sandbox. The top priorities to emerge from the exercises were maintaining rural character (including preservation and open green space), quality development resulting from a function master plan and zoning ordinance, better leadership including cooperation and communication, and the regulation of blight and pollution (light, air, noise, and water).

Gilmore Township

Gilmore Township's restored, historic Old Life-Saving Station at 1120 Furnace Ave. was the site of its community visioning session on June 14, 2012. Thirty-one of Gilmore's 821 residents attended for a participation rate of 3.7%.

The most frequent descriptions of Gilmore were "scenic," "beautiful," and "sense of community." Attendees listed land preservation of land for biking and hiking, parks, and schools as its best achievements. It could have done a better job with broadband internet service, a boat launch, and communication between the village and township. Financial restraints led the list of barriers to progress, followed by communication and lack of yearround employment. Residents felt that local government of all levels should be in the sandbox, including elected and appointed officials of the township, village, county, and state. They singled out Gilmore's planning commission and the Michigan Department of Natural Resources to round out the top three. The top collective priorities were zoning and planning enforcement, Betsie Bay improvements (clean, dredge, remove invasive species, increase docks and access), rural and natural community character preservation (specifically, maintaining the balance of uses between agricultural and single family residential), and public access to the lake with improvements in game management.



3.13 Crystal Lake Township visioning



3.14 Old Life-Saving Station 3.15 Gilmore visioning





3.16 Manistee visioning (top and bottom)



3.17 Honor visioning



Manistee Township

The last Lakes to Land visioning session was held in Manistee Township on August 22 at Manistee Township Hall. Forty-nine of the community's 4,084 residents attended for a turnout of 1.2%

Those in attendance used the words "beautiful," "deteriorating" (specifically in reference to Bar Lake) and "water" or "water lovers" to describe their home. They were most proud of services, including fire, EMS, recycling, and road maintenance. Concerns centered around Bar Lake: the outlet, observation deck, park, tables, parking, marking, water level, and public access all made the list, as well as a simple plea to "Save Bar Lake." Residents cited disagreement in leadership, funding, and government regulations as the top barriers to achieving their goals. They put themselves first in the sandbox, followed by the Michigan Department of Environmental Quality and the United States Army Corps of Engineers. Collectively, the citizens of Manistee Township prioritized the establishment of a watershed authority and cleanup of Bar Lake first, followed by commercial development along US-31 and a reduction in regulations.

Village of Honor

Like the Village of Bear Lake, the Village of Honor joined the Lakes to Land Regional Initiative after the first round of visioning had concluded. Because the community had completed a visioning session the previous year in connection with the Honor Area Restoration Project (from which the collective priorities to the right were taken), the Planning Commission opted to use a survey instrument to gather information related to the Lakes to Land master planning process. Forty-nine surveys were returned.

Residents said they most liked that Honor is friendly and small, and its location. By a large margin (56%), they most disliked its blight, including run-down homes and junk piles; vacant stores (13%) and traffic speed (11%) lagged far behind. Citizens would most like to see new development in the form of retail commercial, specifically a deli, coffee shop, and resale or antique shop, followed by single-family homes and then office commercial. Offered a choice of recreation, their support was evenly split between facilities for active recreation and those which are multi-use. Sidewalks were the most-desired new service. Residents did not want to see commercial design requirements for their buildings, but slightly more residents approved of annexing property for future development than disapproved. Citizens also wanted to see growth of green energy and sustainable business policies, and support for a new blight ordinance was overwhelming (84%).

Collective priorities

The ultimate goal of spending a whole intense summer conducting visioning sessions was to bring the individual voices of citizens together to hear what they said in unison.

Five hundred residents spoke clearly. This is what was on their minds:

Arcadia	Channel dredging	Improve outdoor activities; develop eco-tourism	M-22 improvements - streetscape
Bear Lake Township	Vibrant, revitalized downtown	Parks and lakes access	Bike and walk trails
Bear Lake Village	Employment	Innovative sewer system - destination	Recreation-centered
Blaine	Maintain health and quality of lakes, streams, forests; watershed planning	Maintain rural community ("stay the same")	High speed internet service, cable or tower, fast and affordable
Crystal Lake	Maintain rural character - preservation - open green space	Quality development: functioning master plan/ zoning	Build better leadership, cooperation, communication
Gilmore	Zoning and planning enforcement	Betsie Bay improvements: clean and dredge; remove invasives; increase docks and access	Rural, natural community character preservation; maintain balance of single family residential and agricultural
Honor	New downtown streetscape	New recreation facilities	Destination businesses for tourism
Joyfield	Retain scenic character - developed natural areas	Growth in agriculture - specialized	Implement zoning/planning
Manistee	Establish watershed authority / clean up Bar Lake / healthy Bar Lake ecosystem	Business on US-31 / commercial development	Reduce regulations
Pleasanton	Leadership that brings community together	Zoning ordinance that reflects the master plan	Master plan

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LAKES TO LAND REGIONAL INITIATIVE

Arcadia Township People and Land

ADOPTED SEPTEMBER 3, 2014

Figures, Maps, Tables

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Expectations

In terms of both actual numbers and proportion of residents, the Visioning Session in Arcadia Township had the strongest turnout of any Lakes to Land community. What's more, the over 100 citizens in attendance spoke in unconventional unison: by margins of three to one, they were proud of the Pleasant Valley Community Center, insisted on better harbor dredging, and pointed to lack of money as the single biggest obstacle to their goals.

Not at all shy about creative problem solving, Arcadians proposed a wide range of methods to achieve funding for their goals that included grants, fees, donations, projectspecific fundraisers, and tax assessments. They were also well-versed in governmental units at every level, from broad suggestions to appeal to the Michigan Department of Transportation for help revitalizing the M-22 streetscape to the specific directive to examine the potential for a public sewer system in the township. Should direct appeal by already-interested citizens fail to garner the response they were hoping for, vision session attendees were ready to recruit backup by encouraging seasonal residents to become Michigan residents in order to vote and offering to launch massive letter campaigns to politicians.

Collaboration figured largely in Arcadians' preferred future. Asked who should be "in the sandbox" to help achieve their goals, their unified voices suddenly thinned in equal support for Camp Arcadia, the Grand Traverse

Regional Land Conservancy, the Lions' Club, PVCC, the business community, and the township board and planning commission. They felt they could join forces with other Lake Michigan communities in need of dredging help and also connect with boating clubs to promote the need for it. To achieve better connectivity among nonmotorized trails, vision session participants recommended both reaching out to hiking and biking clubs and making physical connections with existing trails. Geologists, biologists, and birders could be enlisted to support and shape efforts to develop ecotourism in the community.

The following pages present "Cornerstones," or goals formulated by the Arcadia Township Planning Commission to guide future development. Each includes a set of "Building blocks," specific strategies to be implemented to achieve those goals. At the bottom is the "Foundation" that supports each Cornerstone: its linkage to the citizens' stated priorities and to the Manistee County Master Plan.

Cornerstone

Continue to provide support for Arcadia Township's four-season harbor with sufficient amenities to service multiple users and types of uses.

Arcadia Harbor is a vital resource serving multiple purposes to the residents of Arcadia as well as the region and the state. It is one of 16 Great Lakes shallow draft recreational harbors classified as a Harbor of Refuge by the US Army Corps of Engineers' Great Lakes Navigational System, providing boaters with safe haven during foul weather and offering safe, high-quality public facilities to seasonal boaters. The harbor contains a 1,100-foot federally-maintained channel, with a dredged depth of 9 feet, between Lake Michigan and Lake Arcadia, and it includes a 2,400-foot maintained pier. Shallow-draft harbors in

Michigan become blocked by sediment accumulations, a problem worsened by low lake levels in recent years. The local community has established significant infrastructure around the harbor facilities which generates income from harbor users and visitors to the area.

Arcadia Township owns and maintains Arcadia Veterans Memorial Marina. Marina amenities include water, electricity, free wireless internet access, restrooms, showers, gasoline, diesel, pump-out, ice, boat launch, long term

parking, dog run, 24-hour security, playground/park, grills, picnic tables and laundry. There are 17 season slips and 17 transient slips. Regionally, and within Arcadia, residents utilize the harbor for recreational boating, fishing, swimming, canoeing, kayaking, ice fishing, and ice boating. Shallow draft harbors also provide a spur for economic growth in the form of upscale housing and marinas, along with the attendant businesses they bring. Recreational harbors are a key element of these developments, drawing boat owners, their guests, and transient boaters from other harbors, as well as lending their ambience to help create the special atmosphere that is part of the draw of a lakefront community. The harbor is an important economic incubator

as patrons of the harbor are likely to shop locally, dine at local restaurants, and stay at local lodging establishments.

The most prevalent boat size on the Great Lakes is between 16 and 20 feet in length, representing about 28% of the Great Lakes' recreational fleet; the most popular type of boat is the 16- to 24-foot fiberglass runabout. As discussed in Tab 2, Great Lakes boat owners spend an average of \$3,600 per year on their boats. This includes \$1,400 on craft-related expenses (equipment, repairs, insurance, slip fees) and \$2,200 on trip-related expenses (gas and oil, food and refreshments, onshore entertainment,

lodging) spread out over an average of 23 boating days per season. These averages are heavily weighted toward the high percentage of mostly smaller watercraft. Owners of larger boats spend considerably more, up to \$20,000 per year for boats 41 feet and more. Average spending per boat day on trips varies from \$76 for boats less than 16 feet in length to \$275 per day for boats larger than 40 feet. The greatest trip expenses are for boat fuel (22%), restaurants and bars (17%) and groceries (14%). The majority of annual

craft expenses are for equipment (39%), maintenance and repair (29%) and insurance (14%). Owners of registered watercraft in Great Lakes states spent \$9.9 billion on boating trips in 2003 and \$5.7 billion on craft expenses, for a total of almost \$16 billion.

The direct effects on a community fortunate enough to have a boating harbor include economic activity in businesses selling goods and services directly to boaters and property values up to 30% higher than communities without Lake Michigan access. Secondary benefits include indirect effects on related industries and induced benefits from household spending of income earned directly or indirectly from boaters.



All activities associated with the Arcadia Harbor rely on the integrity of harbor. This can be measured by many factors, including the health of the Arcadia Watershed and the ability to enter and exit Lake Arcadia through the channel safely and un-encroached by the buildup of sand. Arcadians have worked diligently to maintain their harbor, addressing a number of issues and undertaking planning efforts to build the harbor infrastructure and facilities. The recreational and economic efforts undertaken and additional proposed plans for the waterfront along Lake Arcadia are directly influenced by and dependent on a fully operational four-season harbor. These efforts include improvements at Grebe Park, Arcadia Veterans Memorial Marina, and Arcadia Sunset Station and Beach Natural Area are part of a larger area master plan and community partners agreement between Arcadia Township, Grand Traverse Regional Land Conservancy, Pleasant Valley Community Center, Manistee Community Foundation, the Alliance for Economic Success, and others in a collaborative initiative to create nature-based recreational opportunities for the residents and visitors of Arcadia.

However, residents are faced with a number of issues that impede the consistent use of the harbor in all aspects that are sought. Additional work is needed to address the most fundamental aspect of the harbor operations: keeping the channel open for ingress and egress to Lake Michigan by removing the buildup of sand that accumulates yearly. Arcadia Harbor requires annual maintenance dredging of approximately 5,000 cubic yards; it was dredged in 2010 using Michigan regional dredging provision funding and currently requires yearly dredging. Not maintaining Arcadia Harbor would have many negative consequences, including devastation of the local economy, loss of local jobs, loss of destination for many transient boaters that launch their boats in Arcadia and fill the marinas, and loss of recreational and charter fishing in the area, resulting in a plummet in property values (US Army Corps of Engineers). Without a clear and safe passage through the channel, the harbor cannot provide safe refuge, boating activity is crippled, and the economic vitality of Arcadia Township is substantially impacted.

Building blocks

- 1. Establish local and regional partnerships to collaborate on the regular maintenance, including dredging, of the Lake Arcadia channel to maintain ingress/egress from Lake Michigan.
- Support local businesses that seek solutions to dredging the channel to Lake Michigan.
- 3. Seek solutions to fix engineering specification deficiencies of the pier design.
- 4. Continue to support the efforts to adequately and appropriately maintain and develop Grebe Park, Arcadia Municipal Marina, and the Pine Street Boat Launch.
- 5. Continue to explore and support opportunities to enhance Arcadia Camp Ground, the Marina, and the First Street waterfront business corridor.
- 6. Form a steering committee and conduct a public visioning session for prioritized redevelopment sites such as Arcadia Camp Ground.
- 7. Work closely with the appropriate entities to address water quality issues, fisheries, invasive species removal, access management, and general watershed management best practices.

Manistee County master plan goals	Economy: increase job opportunities	Encourage a variety of housing types and choices	Eliminate land contamination and protect surface and groundwater quality	Protect agricultural areas by focusing growth in areas with infrastructure
Arcadia collective priorities	Channel dredging	Improve outdoor activities and develop eco-tourism	M-22 improvements and streetscape	Biking and hiking trails; connectivity

Cornerstone

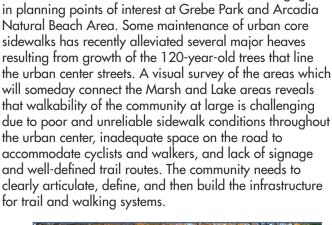
Develop world-class trail systems that are interconnected and universally accessible.

The desire for improved walkability, connectivity, and barrier-free movement throughout the township and beyond is of great importance to Arcadia Township residents. Developing a well-defined and well-constructed trail system is essential for residents to fully utilize the natural and built environment. As evidenced in a community recreation brainstorming meeting, enjoyment of the natural environment is a significant pastime of, and provides economic opportunity for, many Arcadians. Walking, biking, and other forms of nonmotorized transportation require supporting infrastructure such as maintained sidewalks with sufficient curb cuts, road striping, and a network of signage that navigates the user throughout the trail system in a safe manner. Developing the trail system route and determining the type of transportation modes is the first step to reaching the goal of walkability.

The potential for a thoroughly walkable community linking natural resources, economic centers, and places where

Building blocks

- 1. Review and work in partnership with the Arcadia Township Recreation Committee.
- 2. Work collaboratively with partners to develop a regional trail system linking multiple points of interest.
- 3. Assess and consider campaigning to become a M-22 Heritage Route linking the already designated sections of M-22 into Manistee County.
- 4. Survey and assess the functionality and integrity of the existing sidewalks in the Township.
- Conduct a wayfinding campaign to provide visual cues necessary to direct residents throughout the trail systems and community at large.
- 6. Review, assess, and update local ordinances to include trail system strategies.
- 7. Promote and enhance the Pleasant Valley Community Center as the Welcome Center/Trail Hub.
- 8. Conduct a street survey, in partnership with the Manistee County Road Commission, to understand the needs for accommodating trail system needs on the existing street system.



residents live, play and work is very favorable. Arcadia Township is collaborating with the Grand Traverse Regional

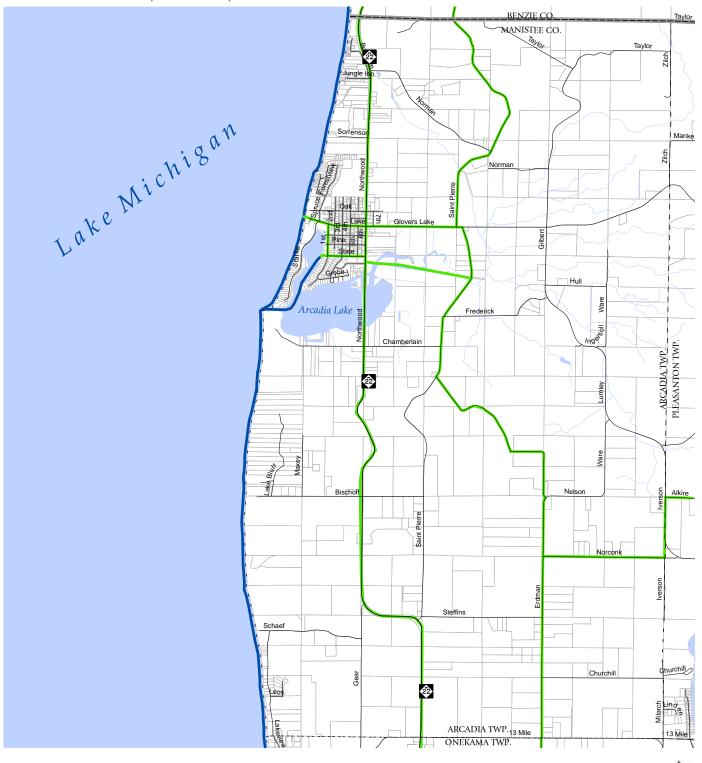
Land Conservancy to develop Arcadia Marsh-located just

southeast of the harbor and lakes area - and is engaged



Manistee County master plan goals	Economy: increase job opportunities	Encourage a variety of housing types and choices	Eliminate land contamination and protect surface and groundwater quality	Protect agricultural areas by focusing growth in areas with infrastructure
Arcadia collective priorities	Channel dredging	Improve outdoor activities and develop eco-tourism	M-22 improvements and streetscape	Biking and hiking trails; connectivity

4.1: Nonmotorized transportation map



LAKES TO LAND

Arcadia Township Proposed Non-Motorized Pathways

Parcel Boundary
—— Non-Motorized Pathway
—— County Boundary
—— Non-Motorized Water Route
—— Road

Note; Pathways along M-22 take advantage of a wider shoulder and/or will be built adjacent to M-22.



Cornerstone

Provide an atmosphere that promotes and supports economic development opportunities.

Placemaking is at the heart of the economic development strategy in Arcadia Township. Placemaking is the development of spaces which offer attractive cultural, social, and natural resource amenities based on regional assets. These places provide professional and social infrastructure to support citizens' endeavors and offer a lifestyle that suits their desires. Factors considered in the development of Arcadia Township's goals included leveraging and building on community assets, diversifying its economic base in order to attract and retain talented, well-educated workers, and understanding its role in the region.

Natural resources are among the most significant assets the Township has to offer: its land, water, and vistas. Harnessing the economic benefits of these outdoor attributes and directly linking them is key to the economic engine of the township, as is building on other natural resource opportunities. The agriculture community has always been important to economic prosperity in Arcadia Township, and support of it is a deeply rooted value of the residents.

Tourism, building a location that is attractive for new residents, and retaining current residency are all central to Arcadia's economic strategy. The economy is fed by visitors who stop in the township to gaze at the breathtaking scenery from one of the many ridgelines of Lake Michigan, eat at the local restaurants, shop at the retail stores, and seek lodging. There is a need to define the commercial areas within the community, specifically the M-22 corridor, Lake Street, and First Street. Land use regulations and physical infrastructure improvements are proposed to assist in this effort. Linking the economic activities and community assets in a well-defined and developed trail system is essential to tie all the elements together into a cohesive whole.

Making the type of "place" people want to visit, move to, or recreate in will involve strategies centered on developing and utilizing the natural resources and defining the physical space in which these activities occur. With that said, maintaining the rural scenic character by being stewards of the natural resource assets is seen as partnering in the economic development of the Township.



Building blocks

- 1. Develop community and economic development tools that are available within the State of Michigan and elsewhere.
- 2. Assess adopting a Development Rights Ordinance with the expressed purpose of becoming eligible to participate in the Agriculture Preservation Fund Program, which would help fund the purchase of Development Rights Agreements for interested members of the agricultural community.
- 3. Implement applicable aspects of the 2010 M-22 Economic Development Strategy, specifically the strategies that call for streetscape improvements to create a sense of place and character, zoning revisions that encourage collections of stores rather then strip units, walkability, and connectivity throughout the community and region.
- 4. Continue to leverage natural resource assets, in partnership with the Recreation Plan, as part of the Arcadia economic development strategy.
- 5. Establish in the Zoning Ordinance a waterfront business district that includes Grebe Park, Arcadia Beach, Arcadia Camp Ground and the Arcadia Municipal Marina as one cohesive economic unit and linking it with the historic business district on Lake Street.
- 6. Seek out economic development strategies and opportunities to further develop business corridors of the Township.
- 7. Encourage and assist development of Camp Arcadia and other existing businesses.
- 8. Encourage and assist development of agriculture vitality strategies.
- 9. Revise the home occupation regulations in the zoning ordinance to ensure that they meet the needs of the community.
- 10. Explore the possibility of installing a sanitary sewer system for some of the township.
- 11. Review the Michigan Economic Development Corporation Redevelopment Ready Communities Best Practices guide to determine if it is appropriate for Arcadia to become certified as a Redevelopment Ready Community.

Manistee County master plan goals	Economy: increase job opportunities	Encourage a variety of housing types and choices	Eliminate land contamination and protect surface and groundwater quality	Protect agricultural areas by focusing growth in areas with infrastructure
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Photo: Up North Memories by Don Harrison

Cornerstone

Support efforts that are aimed at protecting, managing, enhancing, and providing appropriate access to the natural resources within the township.

In a township with such an abundance of natural resources, the way in which they are managed, cared for, and protected is critical to ensuring that future generations have the same opportunities to utilize those resources as have benefitted past generations. In Arcadia, natural resources provide the economic and recreational opportunities that attract and retain residents. The spectrum of uses ranges from agriculture and timber to beach bathing, bird watching, and night sky viewing. Maintaining the environment to continue the very essence of residents' way of life is ingrained in every effort undertaken to plan for the township, and this stewardship is laced with the rationale that planning methods should be respectful of property rights.

Efforts to restore and enhance Arcadia Marsh and Arcadia Natural Beach Area are on-going and require continued support. These and similar planning and redevelopment efforts are geared toward enhancing the recreational opportunities for the community while also developing nature-based tourism and placemaking as the basis for the economic development strategy within the township.

The Arcadia Watershed is a very important natural resource that is in need of focused attention, and the township recently convened a Leadership Team to spearhead the development of an Arcadia Township Watershed Plan. Watershed planning will be essential to understanding key factors such as protecting wildlife habitat and improving natural resources, giving citizens an active voice in protecting and restoring natural resources important to the community, providing a framework and rationale to pursue funding opportunities, and providing a focused data collection and analysis methodology. In 2012, Lake Arcadia was the subject of an updated Michigan Department of Natural Resources fish count; this type of effort needs to be enhanced and built upon. In addition, factors such as road access management into the undeveloped portions of the watershed, preserving the scenic rural character of the township, and the management of the watershed and associated lands are all natural resource enhancement and management issues that folks in Arcadia Township wish to address.

Building blocks

- 1. Support the Arcadia Marsh, Grebe Park, Arcadia Beach, and Arcadia Dunes projects as well as others as they become available.
- 2. Support partnerships with entities that help enhance the Natural Resource Protection and Management goals.
- 3. Consider developing a Scenic Rural Preservation Plan.
- 4. Assess and consider Arbor Day Foundation standards to become a "Tree City USA."
- 5. Consider commissioning a migratory bird/waterfowl assessment by a trained avian scientist.
- 6. Develop and improve road access and stormwater management standards.
- 7. Support the development of Dark Sky strategies and policy.
- 8. Support the development of an Arcadia Watershed Plan.

Manistee County master plan goals	Economy: increase job opportunities	Encourage a variety of housing types and choices	Eliminate land contamination and protect surface and groundwater quality	Protect agricultural areas by focusing growth in areas with infrastructure
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Cornerstone

Expand opportunities that promote cohesion, stability, and well-maintained neighborhoods.

The Township of Arcadia has a distinct urban core located in a well-defined geographical area that is close to the business corridors, waterfront, and public and semi-public buildings (Fire Hall, Township Hall, Arcadia Township Museum, Pleasant Valley Community Center, Arcadia Branch Library, Post Office, parks). The neighborhoods in the urban center of the township are a gem in the rough. A traveler wandering the streets will gaze upon tree-lined streets with historical houses and sidewalks and will have easy access to places to work, play, dine, and shop. That same traveler will also see homes in need of repair, zoning ordinance enforcement issues, sidewalks that need replacing, and aging trees in need of trimming and replacement. The community would like to grow a concentrated effort to help residents find opportunities to reinvest in their neighborhoods.

Neighborhood planning has many benefits and fits in with the placemaking agenda of the township by working toward re-developing the neighborhoods in which future residents will want to live. Clean, affordable, quality housing stock, walkability, and a charm unique to Arcadia are the characteristics residents and future residents would like to see in their neighborhoods. Arcadia Township Historical Museum has a volunteer who is conducting an architectural survey of each house in the urban center and documenting historical details and distinctive assets of the dwellings. By making the neighborhoods an important planning focus, the community can seek investment and funding opportunities, address their unique needs, highlight distinctive assets, strengthen the interactions of the neighbors, and develop the capacity for new leadership within the community.

Building blocks

- 1. Seek funding sources to assist neighborhoods with the maintenance and rehabilitation of existing homes.
- 2. Ensure that future development within the township urban core takes place in a grid-like pattern that promotes walkability and connectivity.
- 3. Encourage sidewalk maintenance and extension, and seek out opportunities to fund improvements.
- 4. Seek opportunities to ensure that the community has many affordable housing options to meet the needs of all age groups.
- 5. Conduct a comprehensive assessment of the infrastructure (roads, electricity, broadband, natural gas, above and below ground utilities, etc.) to answer questions such as, "What infrastructure exists in the Township?", "What are the deficiencies?" and "What opportunities exist to make improvements?"
- 6. Seek models and suggestions of Historic Preservation methods for the neighborhoods.

Manistee County master plan goals	Economy: increase job opportunities	Encourage a variety of housing types and choices	Eliminate land contamination and protect surface and groundwater quality	Protect agricultural areas by focusing growth in areas with infrastructure
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People and Places

How many people? How long did they go to school? What do they do? What activities can be supported by the land itself? And where can we go shopping around here, anyway?

Population

Population is both an indicator and a driver of economic growth. An increase in people creates a larger economic and customer base on which the business environment can draw, and areas of bustling economic activity attract people looking to share in its benefits. After a robust growth spurt that brought Arcadia Township's population from 523 to 621 during the 1990s, it continued a slightly more subdued climb through the last decade to maintain a positive growth rate even as the population of Michigan slid downward. Arcadia is projected to hold on to those gains and add another dozen or so residents through 2016.

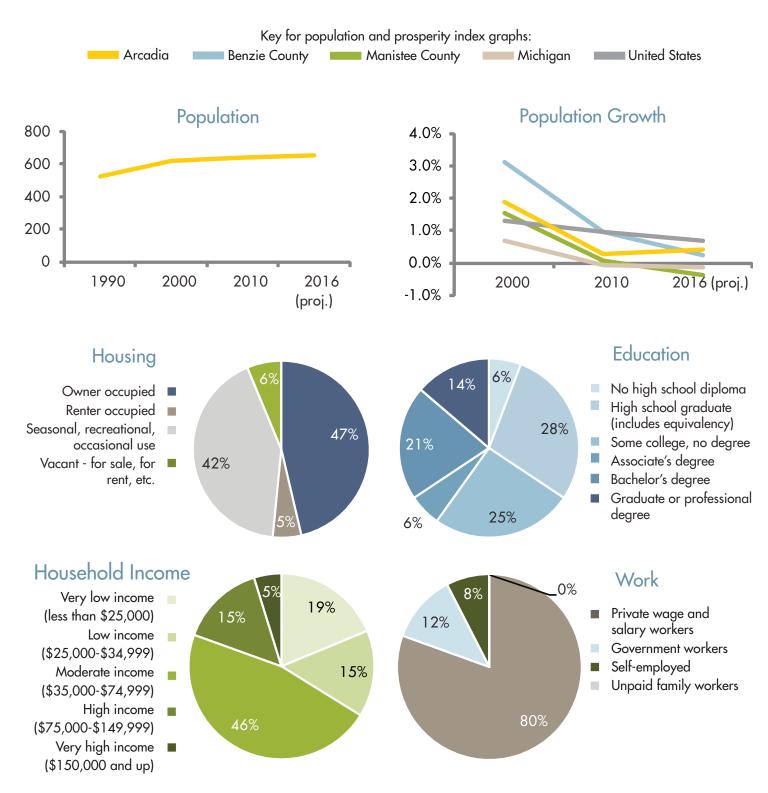
Housing

Home is where the heart is, and where all your stuff is, and probably where the people you call family are too. On a community level, it's much the same: housing data may be about buildings, but it tells us much about the actual people we call neighbors.

Arcadia's 574 housing units provide the shelter for its 272 households. Astute observers may note that that represents about 2.1 houses per household, and that is correct: in this community, there just about as many houses for seasonal or recreational use (242 homes, or 42% of all housing units) as there are occupied by the people who own them (266 homes, 46%). A detailed discussion follows under "Seasonal Housing." Just 5.2% are renter-occupied, a figure that is in line with other Lakes to Land townships but only 1/6 of the national rate. Arcadia's vacancy rate of 7.1% is the third lowest in the region.

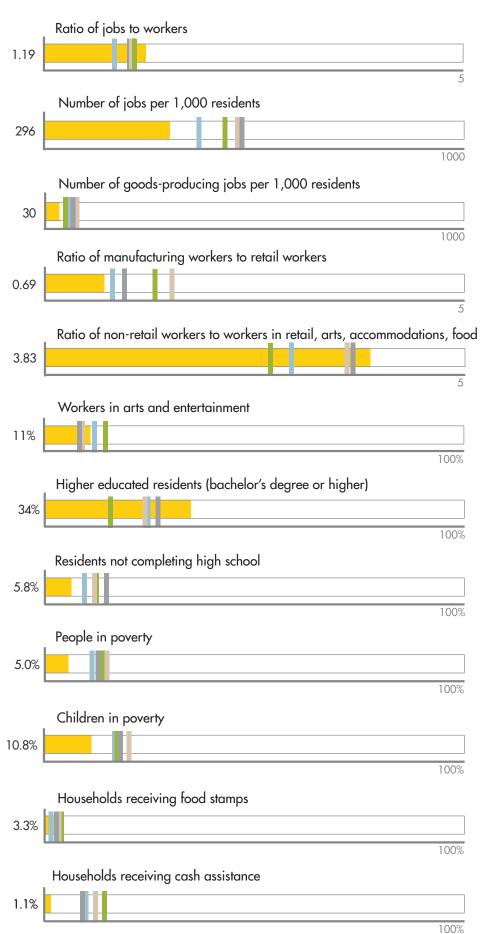
The largest share of Arcadia's housing stock was built before 1939 (157 homes, or 30%). The decades after that saw increases ranging from 16 to 39 homes per year until the end of the century, when a boom of 59 houses in the 1980s and 106 houses in the 1990s dramatically expanded the housing stock. Another 74 houses have been added since the turn of the millennium. By and large, Arcadians own their homes outright: the 35% of housing units with a mortgage is the lowest among all L2L communities. The

Demographic Dashboard



Classifications modified from HUD guidelines, using the state median income of \$48,432.

Prosperity Index



Households

1.99

person average household size

\$164,600

owner-occupied median home value

(not available)

median gross rent

Education

10%

population enrolled in school

94%

high school graduate or higher

35%

bachelor's degree or higher

Commuting

95%

workers who commute

76%

commuters who drive alone

28.2

minute average commute

Employment

189

jobs 1*5*9

workers

• ----/

9.7%

unemployment rate

13%

civilian veterans

Income

\$48,269

median household income

\$15,556

median earnings for workers

\$53,438

male full-time, year-round earnings

\$30,000

female full-time, year-round earnings

5.0%

population in poverty

10.8%

children in poverty

Top Industrial Sectors

40%

accommodation and food services

15%

public administration

10%

health care and social assistance

median home value of \$164,600 is one position above the regional median.

Most of the homes (79%) are heated with bottled, tank, or liquid petroleum (propane) gas. Another 12% are heated by wood, and the remaining homes stave off the northern Michigan winter with electricity or fuel oil.

Education

The residents of Arcadia are a well-educated bunch. Over a third of the adults older than 25 have at least a bachelor's degree (34.3%), a higher proportion than in the aggregated populations of Benzie County, Manistee County, the state of Michigan, or the United States. It is

also the second highest proportion in the Lakes to Land region. Conversely, just 5.8% of Arcadians have not earned a high school diploma—the third lowest in the region, and lower than all four aggregate benchmarks.

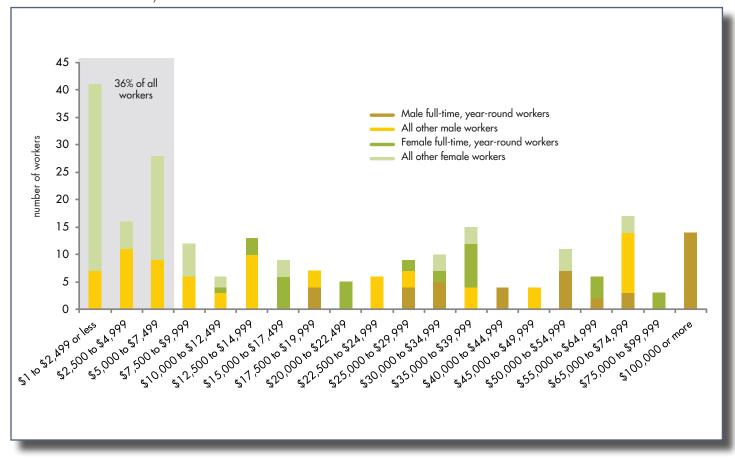
The percentage of Arcadians who are currently enrolled in school is just 10%, which is the second lowest in the region and less than half of state and national percentages. This is a consequence of Arcadia's relatively high median age of 61.4 years. Among Lakes to Land communities, it is second only to Lake Township, and the old age dependency ratio (number of people aged 65+ / number of people aged 15-64) is also the second highest at 78. This means that the number of elderly persons is equal to 78% of

the number of persons who are of workforce age. By contrast, this ratio is 22% in Michigan and 21% nationally.

Income

Arcadia is becoming a place of choice for high income earners of the region. Male, full-time, year-round workers have a higher median income in Arcadia than in any other Lakes to Land community at \$53,438. It is a whopping 178% of the median income for their female counterparts, the largest discrepancy in the region. The \$30,000 median annual earnings for female full-time, year-round workers is still in the top third among L2L communities, and overall median annual household income is the fourth highest at \$48,269.

4.3: Number of workers by income



But median earnings for ALL workers, not just full-time, year-round workers, are just \$15,556—the second lowest in the entire region. At that salary, it would take 3.1 earners per household to equal the median income, yet the average household size in Arcadia is the third lowest in the region at 1.99. What gives? Table 4.3 suggests that the answer lies with female workers earning less than \$7,500, a group that makes up fully 25% of the entire workforce (36% when combined with male workers earning less than \$7,500). The relatively high household income suggests that these workers are sharing households with at least one person who has much higher earnings.

The poverty rate is low in Arcadia Township: 5% for all persons and 10% for persons under 18. This is about half the rate of county, state, and national benchmarks, and it is tied with Gilmore and Elberta as the second lowest rate in the region for all persons. Accordingly, public assistance is also low: the percentage of households receiving food stamps is the second lowest in the region at 3.3%, and just 1.1% of households receive cash assistance.

A quick estimate of a community's "net worth" can be obtained by dividing its major assets (checking and savings accounts, stocks, bonds, mutual funds) by its major liabilities (home and car loans). The higher the ratio of assets to liabilities, the better insulated the community will be from quick changes in the economy. In Arcadia and eight other Lakes to Land communities, the ratio is 2.93. This figure is higher than that of Benzie County, Michigan, and the United States (2.58, 2.65, 2.41) but lower than Manistee County and the remaining Lakes to Land communities (range: 2.95-3.23).

4.4: Net Worth

Assets		
	Checking Accounts	\$1,326,339
	Savings Accounts	\$3,056,953
	U.S. Savings Bonds	\$105,503
	Stocks, Bonds & Mutual Funds	\$7,981,516
	Total	\$12,470,311
Liabilities		
	Original Mortgage Amount	\$3,548,462
	Vehicle Loan Amount 1	\$703,077
	Total	\$4,251,539
Net Worth		
	Assets / Liabilities	2.93

Occupations

This section discusses the occupations and professions in which the residents of Arcadia Township work, whether or not they conduct that work within the township's boundaries.

Thirty percent of Arcadia's workforce listed their occupational field as "educational services, health care, and social assistance." Overall, this field had the third highest median annual earnings at \$58,875; a breakdown of this figure revealed that median earnings for males in the "health care and social assistance" sector were a startling \$163,333 while median annual earnings for females were just \$39,167.

Construction was the second most popular industry, employing 26 persons or 16% of the workforce, and arts, entertainment, recreation, and accommodation was third with 17 workers (11%). The best-paid occupations overall were the group of professional, scientific, management,

administrative, and waste management services, with a median annual income of \$80,417.

Arcadia has the second highest proportion of workers in nonretail fields to those in retail, arts, accommodation, and food services; it has the third lowest percentage of workers in the latter field overall. Although it is not a direct comparison, we can get a sense of the disparity in wages between non-retail workers and those in retail, arts, accommodations, and food service by multiplying the median earnings in each industry by the number of workers in that industry, then dividing the resulting weighted earnings for each category (non-retail and retail, arts, etc.) by the number of workers in it. This average of weighted median earnings, shown in Table 4.4, estimates that non-retail workers in Arcadia earn almost five times as much as workers in retail. arts, accommodation and food service. This ratio is about 2:1 in the case of national, state, and county

benchmarks, which is why it is used as an indicator of prosperity; the specific wages in this area make it a particularly robust one for Arcadia.

Retail and Business Summary

This section discusses the businesses and jobs within Arcadia Township's borders, whether or not the proprietors and employees are also Arcadia residents.

The business summary generated by Esri counts 43 businesses employing 189 people in the township. Although relatively few Arcadian residents work in the accommodation and food service field, it is the most common industry group for those who are employed in the township. Its 75

employees make up almost 40% of the pool, and its 8 businesses represent the greatest concentration of companies in any field.

The next greatest number of employees work in public administration (15%), followed by health care and social assistance (10%). Construction had the second greatest number of businesses with 7, employing a total of 15 people (8% of all employees); the four businesses dedicated to retail trade followed with 14 employees.

The table in 4.6 is designed by ESRI to provide a snapshot of retail opportunity by presenting the fullest picture possible of both supply and demand. Supply is calculated by combining the Census of Retail Trade, a portfolio of demographic and business databases, and the Census

Bureau's Nonemployer Statistics data to estimate total sales to households by businesses within the study area. To estimate demand, ESRI combines annual consumer expenditure surveys from the Bureau of Labor and Statistics with its own proprietary Tapestry Segmentation system (Tab 2), yielding a fairly tailored picture of the purchases likely to be made by the inhabitants of the study area

We can then arrive at the Retail Gap by subtracting the supply from the demand. A negative number, shown in red on the chart, signifies an oversupply or surplus, while the positive numbers shown in green indicate leakage of sales which are presumably being conducted outside the community.

4.5: Non-retail earnings vs. earnings in retail, art, accommodation, food service

Industry	Workers	Median earnings	Weighted median earnings
Non-retail			
Construction	26	\$28,750	\$747,500
Manufacturing	9	\$28,125	\$253,125
Transportation and warehousing, and utilities	9	\$63,125	\$568,125
Professional, scientific, management, administrative waste management services	5	\$80,417	\$402,085
Educational services, and health care and social assistance	48	\$56,875	\$2,730,000
Other services, except public administration	14	\$30,000	\$420,000
Public administration	7	\$7,917	\$55,419
Total	118		\$5,176,254
Average of weighted median earnings		\$43,867	
Retail, art, accommodation, food			
Retail trade	13	\$11 <i>,</i> 250	\$146,250
Arts, entertainment, recreation, accommodation food services	17	\$ <i>7,</i> 188	\$122,196
Total	30		\$268,446
Average of weighted median earnings		\$8,948	

Insufficient data for workers in finance/insurance/real estate and wholesale fields resulted in the removal of those 11 workers from this analysis.

Source: US Census.

4.6: Retail marketplace summary

		Demand	Supply		Leakage	
	NAICS	(Retail	(Retail		/ Surplus	
Industry Group	Class.	Potential)	Sales)	Retail Gap	Factor	Businesses
Motor Vehicle & Parts Dealers	441	\$1,168,959	\$620,023	\$548,936	30.7	1
Automobile Dealers	4411	\$940,683	\$0	\$940,683	100.0	0
Other Motor Vehicle Dealers	4412	\$144,133	\$620,023	-\$475,890	-62.3	1
Auto Parts, Accessories & Tire Stores	4413	\$84,143	\$0	\$84,143	100.0	0
Furniture & Home Furnishings Stores	442	\$102,872	\$0	\$102,872	100.0	0
Furniture Stores	4421	\$74,681	\$0	\$74,681	100.0	0
Home Furnishings Stores	4422	\$28,191	\$0	\$28,191	100.0	0
Electronics & Appliance Stores	4431	\$121,717	\$0	\$121,717	100.0	0
Bldg Materials, Garden Equip. & Supply Stores	444	\$222,171	\$0	\$222,171	100.0	0
Bldg Material & Supplies Dealers	4441	\$167,537	\$0	\$167,537	100.0	0
Lawn & Garden Equip & Supply Stores	4442	\$54,634	\$0	\$54,634	100.0	0
Food & Beverage Stores	445	\$851,263	\$147,840	\$703,423	70.4	1
Grocery Stores	4451	\$719,636	\$0	\$719,636	100.0	0
Specialty Food Stores	4452	\$58,936	\$147,840	-\$88,904	-43.0	1
Beer, Wine & Liquor Stores	4453	\$72,691	\$0	\$72,691	100.0	0
Health & Personal Care Stores	4,464,461	\$215,193	\$0	\$215,193	100.0	0
Gasoline Stations	4,474,471	\$1,055,143	\$2,818,280	-\$1,763,137	-45.5	1
Clothing & Clothing Accessories Stores	448	\$106,704	\$0	\$106,704	100.0	0
Clothing Stores	4481	\$71,992	\$0	\$71,992	100.0	0
Shoe Stores	4482	\$16,670	\$0	\$16,670	100.0	0
Jewelry, Luggage & Leather Goods Stores	4483	\$18,042	\$0	\$18,042	100.0	0
Sporting Goods, Hobby, Book & Music Stores	451	\$75,371	\$0	\$ <i>75,</i> 371	100.0	0
Sporting Goods/Hobby/Musical Instr Stores	4511	\$46,171	\$0	\$46,171	100.0	0
Book, Periodical & Music Stores	4512	\$29,200	\$0	\$29,200	100.0	0
General Merchandise Stores	452	\$727,435	\$0	\$727,435	100.0	0
Department Stores Excluding Leased Depts.	4521	\$383,490	\$0	\$383,490	100.0	0
Other General Merchandise Stores	4529	\$343,945	\$0	\$343,945	100.0	0
Miscellaneous Store Retailers	453	\$115,040	\$0	\$115,040	100.0	0
Florists	4531	\$13,012	\$0	\$13,012	100.0	0
Office Supplies, Stationery & Gift Stores	4532	\$51,875	\$0	\$51,875	100.0	0
Used Merchandise Stores	4533	\$11,268	\$0	\$11,268	100.0	0
Other Miscellaneous Store Retailers	4539	\$38,885	\$0	\$38,885	100.0	0
Nonstore Retailers	454	\$18,773	\$0	\$18,773	100.0	0
Electronic Shopping & Mail-Order Houses	4541	\$301	\$0	\$301	100.0	0
Vending Machine Operators	4542	\$10,796	\$0	\$10,796	100.0	0
Direct Selling Establishments	4543	\$7,676	\$0	\$7,676	100.0	0
Food Services & Drinking Places	722	\$631,105	\$1,256,525	-\$625,420	-33.1	3
Full-Service Restaurants	7221	\$349,864	\$1,073,141	-\$723,277	-50.8	2
Limited-Service Eating Places	7222	\$219,234	\$0	\$219,234	100.0	0
Special Food Services	7223	\$32,495	\$0	\$32,495	100.0	0
Drinking Places - Alcoholic Beverages	7224	\$29,512	\$183,384	-\$153,872	-72.3	1

Commuting

It's a real estate truism that the three most important factors considered by buyers are location, location, and location, yet the traditional measure of housing affordability—surely another consideration hovering near the top of the list-makes no allowance at all for location. The Center for Neighborhood Technology set out to redefine "affordability" to more accurately reflect the proportion of a household's income that is committed to housing costs, including those incurred while getting to and from that aforementioned location. CNT describes its Housing and Transportation Affordability Index this way:

"The traditional measure of affordability recommends that housing cost no more than 30 percent of income. Under this view, three out of four (76 percent) US neighborhoods are considered "affordable" to the typical household. However, that benchmark ignores transportation costs, which are typically a household's second largest expenditure. The H+T Index offers an expanded view of affordability, one that combines housing and transportation costs and sets the benchmark at no more than 45 percent of household income. Under this view, the number of affordable neighborhoods drops to 28 percent, resulting in a net loss of 86,000 neighborhoods that Americans can truly afford."

CNT's map has been steadily expanding its coverage since its inception in 2008 and now includes 337 metropolitan areas in the United States. Manistee County has not been analyzed, but Benzie County was considered part of the Traverse City metropolitan area and its neighborhoods are among those that disappear from the affordability map: while the H+T Index shows the average housing cost to be less than 30% of household income for the whole county, the addition of transportation costs to the equation puts the share of household income spent on those two combined items over 45% for all places in the county. For most people, housing is not affordable.

At 28.2 minutes, Arcadians' average commute is longer than any other in the region and also longer than the average commute in Benzie County, Manistee County, Michigan and the United States. Figure 4.7 shows the Arcadia "workshed," or the geographic area within this average commute, and we can see that it covers a large proportion of the two-county area. A long commute is tough. Everyone who has ever had one knows it subjectively, and a growing body of empirical evidence is pointing to its detrimental effects on happiness, health, and wealth: its costs are rarely fully compensated by our salaries, the minutes spent behind the wheel come at the cost of minutes spent on exercise and meal preparation, and people with long commutes are frankly just less happy than those with shorter ones. About 95% of Arcadian workers have some sort of commute.

While the length of a commute may have the greatest effect on the commuter, it's the method of commuting that has the greatest effect on the environment, and here the news is more encouraging: A sizable portion of commuters carpool (12%), and the 8% of Arcadia's commuters who

walk represent about three times the rate of walkers in aggregated county, state, and national commuting data. Just 76% of Arcadian workers who commute do so by driving alone, a circumstance which maximizes the output of vehicle emissions per commuter. This is in the bottom half of the Lakes to Land communities and fewer than any of the aggregated populations (nationally, the rate is just under 80%).

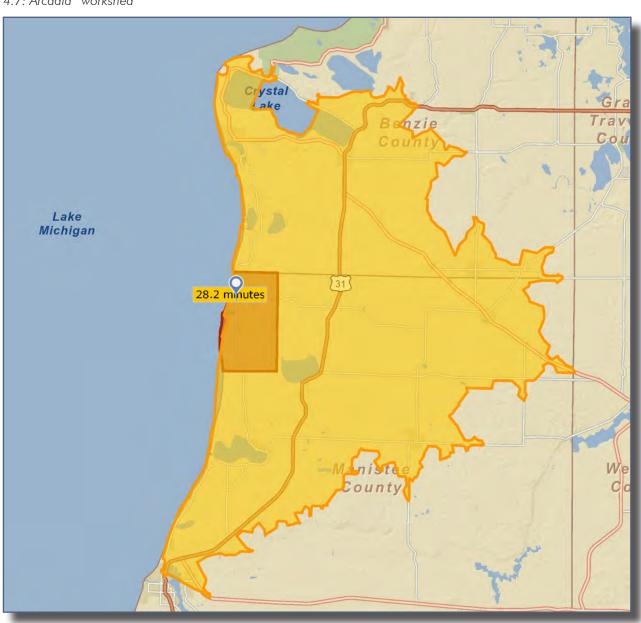
Agricultural Influence

Of the 11,745 acres of land that make up Arcadia Township, 2,386 (20%) have an existing land use category of "Agriculture." This land represents 61 of the 1,024 parcels (6%) in the township. Another 1,324 acres (11%) comprising 26 parcels (3%) are "Natural Resource Related." Overall, then, about 31% of the land and 9% of the parcels are devoted to "value-added" land practices.

The 2010 Census, however, does not capture any agriculture in Arcadia, as none of the 159 persons who make up the township's civilian employed population listed "agriculture, forestry, fishing, hunting, and mining" as his or her industry. The Business Summary generated by ESRI records just one business within the township's borders bearing the North American Industrial Classification System (NAICS) code for "Agriculture, Foresry, Fishing, and Hunting," and it cites a grand total of one employee.

Issues of succession, or passing the farm on to the next generation, while nationally known, also play a significant role in Arcadia. Retiring farmers may still farm their land during their retirement, and thus are

4.7: Arcadia "workshed"



4.8: Arcadia Bluffs Golf Course (left), Sunset Station (right)



unaccounted for in the Census data while they wait for the next generation to take over the business.

Seasonal / Tourism

The entire Lakes to Land region is affected to varying degrees by a seasonal economy. An abundance of parks and recreation activities combines with the temperate summer weather to create a magnetic pull felt by most inhabitants of the state from spring to fall, and then formidable weather joins a lack of critical mass in economic activity to produce an edge of desolation through the winter months.

Arcadia Bluffs is a world-class golf course built in 1999 that offers games, dining, and lodging from April through November. Golf Digest named it to both its ranking of the 100 greatest public courses in the United States and to its general ranking of the 100 greatest courses in the country.

There are plenty of people who want to spend much more time in Arcadia than a few rounds of golf, though—maybe even enough to call it home for a season. Housing that is "for seasonal or recreational use" is technically considered "vacant" by the US Census because its rules dictate that a household can only be attached to one primary housing unit, but these homes provide a measure of investment by the seasonal population that cannot be replicated



elsewhere. A high percentage of seasonal/recreational use homes provides concrete evidence of the value of the area for those purposes. It also provides a measure of a portion of the community which will have a somewhat nontraditional relationship with the community at large: seasonal residents may not have kids in the school system or have the ability to attend most government meetings, but they do pay taxes and take a vital interest in goingson. In some ways, knowing the percentage of seasonal/recreational housing in a community is the most reliable measure of the accommodations the community must make to include its "part-time" population in its decision-making framework.

In Arcadia Township, there are nearly as many homes classified as seasonal / recreational use as there are owner-occupied homes (42.2% and 46.3% respectively). This proportion is high even compared with Benzie and Manistee counties' aggregated percentages of 33.1% and 24.9%, and it represents a substantive departure from the state and national benchmarks of 5.8% and 3.5%.



4.9: Building M-22. Photo: Arcadia Area Historical Society

Infrastructure

For planning purposes, infrastructure is comprised of "the physical components of interrelated systems providing commodities and services essential to enable, sustain, or enhance societal living conditions."

These components, which come together to form the underlying framework that supports our buildings, movements, and activities, usually include our power supply, water supply, sewerage, transportation avenues, and telecommunications. Successful infrastructure is often "experientially invisible," drawing as little attention in its optimum condition as a smooth road or a running faucetuntil it's not, and then it likely has the potential to halt life as we know it until the toilet flushes again or the lights come back on.

It seems we all know the feeling. The American Society of Civil Engineers' 2013 "Report Card for America's Infrastructure" gave us a D+ (takeaway headline: "Slightly better roads and railways, but don't live near a dam"). The Michigan chapter of the ASCE surveyed our state's aviation, dams, drinking water, energy, navigation, roads, bridges, stormwater, public transit, and wastewater and collection systems in 2009 and gave us a D. Clearly, there is room for improvement all over.

But it's expensive. The ASCE report came with a national price tag of \$3.6 trillion in investment before 2020. If this were evenly distributed among the 50 states, it would mean about \$72 billion per state—almost half again as much as Michigan's entire annual budget. The combination of the essential nature of infrastructure with its steep price tag highlights a need for creative problem-solving in this area precisely the aim of the Lakes to Land Regional Initiative.

Roads

The State of Michigan's Public Act 51, which governs distribution of fuel taxes, requires each local road agency and the Michigan Department of Transportation to report on the condition, mileage, and disbursements for the road and bridge system under its jurisdiction. The Pavement Surface Evaluation and Rating (PASER) system used to report on the condition is a visual survey conducted by transportation professionals that rates the road surface from 1 to 10; roads rated 5 and above are considered to be at least "Fair."

Figure 4.10 depicts all of the roads with PASER ratings of "poor" (1-4) in Benzie and Manistee Counties. The Arcadia Township close-up in the inset reveals poor conditions on Glovers Lake Road, 13 Mile Road, and along the road between the township's eastern border and Glovers Lake Road which is known by turns as Lumley, Ware, Frederick, and Gilbert Road.



Trails and regional connections

As can be seen in Figure 4.11, there are not presently any local or regional non-motorized trails in Arcadia Township. It's an absence noted by the citizens, who made the creation of biking and hiking trails their fourth highest priority at the visioning session, and the planning commissioners who formulated that priority into a Cornerstone. The preferred methods of accomplishment as articulated in the Building Blocks include surveying existing sidewalk conditions,

conducting a street survey to assess concurrent trail system needs, launching a wayfinding campaign, and promoting the Pleasant Valley Community Center as a trail hub. Neighboring Bear Lake Township's Building Blocks include a suggestion for partnership with Onekama, Pleasanton, and Arcadia Townships to form the beginning of a sub-regional network.



Power supply

Electricity for Arcadia Township homes and businesses is available from Consumers Energy Company (Jackson). Superior Energy provides natural gas services to many Township residents. While not available throughout the Township, the primarily populated areas are served and future connections are possible. Service from "alternative energy suppliers" is also available through Michigan's Electric Customer Choice program.

Public Act 295 of 2008 requires Michigan electric providers' retail supply portfolio to include at least 10% renewable energy by 2015. The Michigan Public Service Commission's 2012 report estimates renewables to make up 4.7% of the energy supply that year. Figure 4.12 shows the US Environmental Protection Agency's analysis of renewable energy potential in the Lakes to Land region.

Water and sewer

Arcadia Township is not served by public water and sanitary sewer systems; water supply and sewage disposal are dependent upon well and septic systems. This isn't necessarily an issue in the greater township, where parcels are large enough for and soils are compatible with well and septic systems. However, challenges are encountered in Arcadia's small village

setting, which has a density of 4 to 6 homes per acre on lots occupying 6,000 to 9,000 square feet. Here, specific dimensional requirements related to siting well and septic systems, such as isolation distances from adjacent systems and the built environment, may take up so much of a parcel that the lot is rendered unbuildable. Some commercial lots are also so small that after meeting parking requirements and siting well and septic systems, there may be little room for the business. Future growth of the Township in the commercial and village areas may be dependent on further investigation into how water and sanitary sewage issues are resolved.

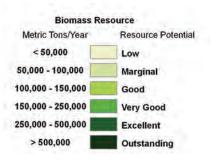


4.12: Renewable energy potential



	Wind Reso	urce
Pow	er ss W/m²	Resource Potential
1	0-200	Poor
2	200-300	Marginal
3	300-400	Fair
4	400-500	Good
5	500-600	Excellent
6	600-800	Outstanding
7	>800	Superb



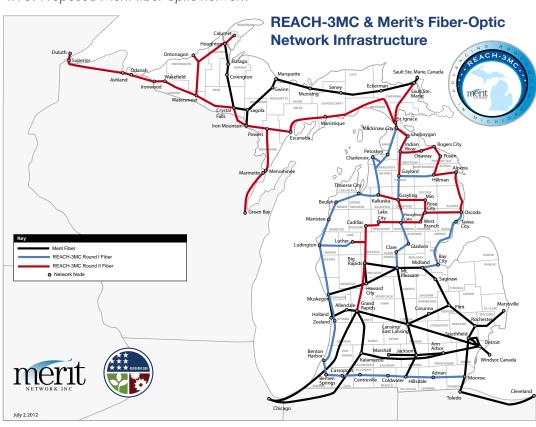




Solar Resource kWh/m2/day	Resource Potential
< 3.5	Moderate
> 3.5 - 4	Moderate
>4-5	Good
> 5 - 6	Very Good
> 6	Excellent

EPA Tracked Sites

- Abandoned Mine Land
- Brownfield
- RCRA
- Federal Superfund
- O Non-Federal Superfund



4.13: Proposed Merit fiber-optic network

Telecommunications

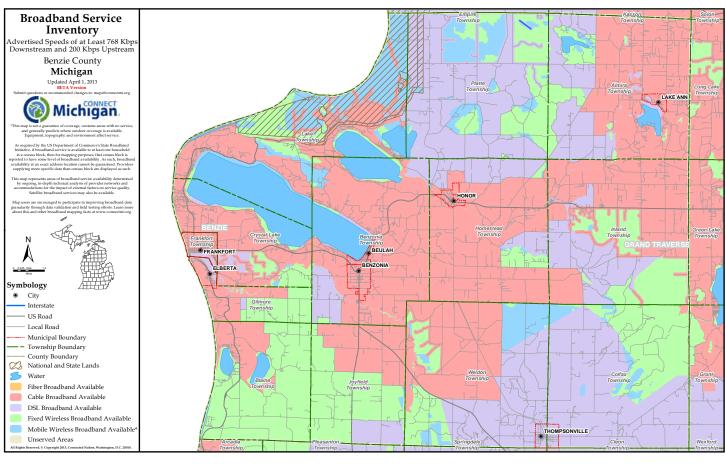
Connect Michigan, our arm of the national agency dedicated to bringing broadband access to every citizen, calculates that such success has already been achieved in 97% of households in Benzie and Manistee Counties. Figure 4.13 further shows that the remaining unserved areas are mostly in the counties' inland areas rather than in the Lakes to Land communities.

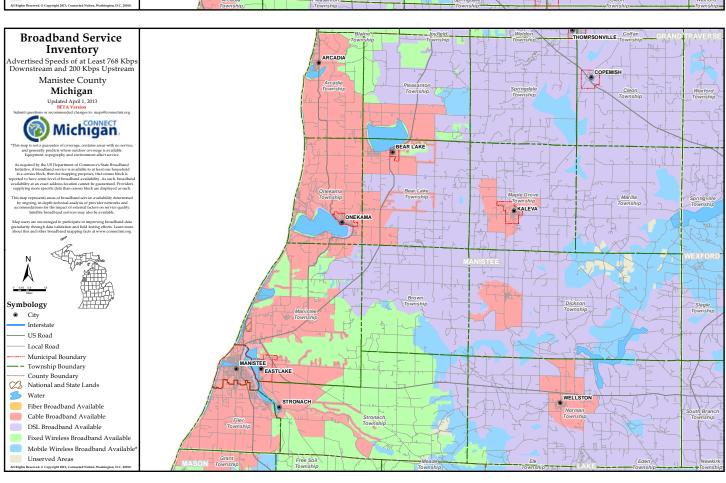
Still, improved broadband access came up in several of the visioning sessions, including Arcadia's. There is certainly room for improvement, particularly in terms of increased speed, provider choice, and types of platforms available. In January 2010, Merit Network was awarded American Recovery and Reinvestment Act funds to launch

REACH-3MC (Rural, Education, Anchor, Community, and Healthcare—Michigan Middle Mile Collaborative), a statewide fiber-optic network for "community anchor institutions" such as schools and libraries. The completion of the line between Manistee and Beulah, serving the Lakes to Land region, was announced on December 28, 2012.

What does this mean? Besides extending leading-edge direct service to organizations that serve the public, the REACH-3MC network uses an open access model that welcomes existing and new internet service providers to join. By constructing the "middle mile" between providers and users, the REACH-3MC cable removes a significant barrier to rural broadband by absorbing up to 80% of an internet service provider's startup costs.

4.14: Broadband service inventory in Benzie and Manistee Counties





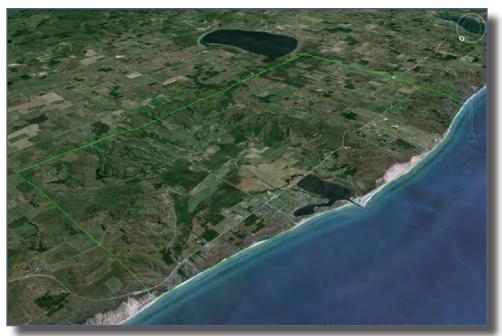


Photo: Google Earth

Land

Arcadia Township has some of the most distinctive topography in the region—and, probably, the world.

The fiery curve of steep slopes toward the top of Figure 4.16 depict the outer edges of a glacier's gouge. Its great, icy runoff tumbled down the ridges to land in wooded wetlands lining the back of the newly-formed basin, strands sliding down paths of least resistance on their journey toward the freshly-carved Lake Michigan bay.

The water level receded, exposing the low-lying bowl into which the lake and village that share Arcadia's name are nestled. Sediment deposited by the creeks on their way to the open water met sand driven landward by the prevailing westerly winds, separating Lake Michigan from the inland waters and sending them seeping northward along the ridge. Michigan's famous pine forest began to take root.

It would be to that forest that the next wave of earth-shapers looked most keenly. By the time Henry Starke arrived to set up his lumber mills, the trapped pool of water had been christened Bar Lake; after a couple of decades, Starke dredged the channel that transformed the lake at Arcadia into a safe harbor for ships and vessels. The creeks were given names like Lucker, Van Bushkirk, Tondu, Bowens, and

Schimke as they and their cargo of trout traveled by, landing in the wooded wetlands at the base of the inland slopes and coming together to finish their journey as one. Roads and rails were added to the repertoire of surface cover. Society had been firmly imprinted on the land—"land use" had superseded "topography."

By the early 20th century, the land began to make itself heard again. The trees waned, taking the fortunes and populations they had sparked with them. Fires extinguished nearly all the manufacturing plants, and drought destroyed nearly all the edible plants. The relentless Lake Michigan waves deposited sand back into the harbor faster than either citizens or industry could afford to remove it.

The population of Arcadia today is about two-thirds what it was at the close of the community's industrial age. Nearly half of the land area is connected directly to the people, either as residential parcels or sites of the leisure activities so prized across the region. Another 40% is respected on its own merits: forest, agriculture, natural resources.

Land Dashboard

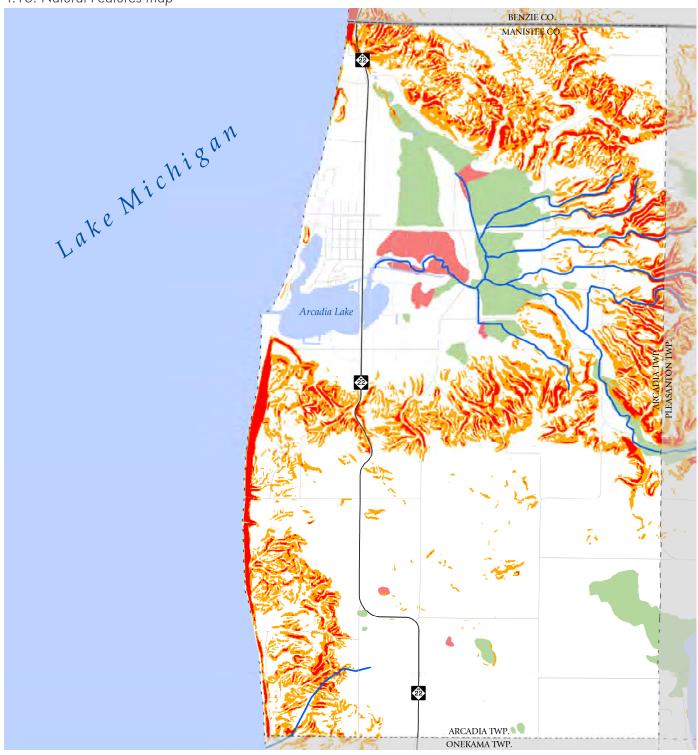
Percentages indicate proportion of total land area except where noted

	TOPOGR	APHY		
Elevation		Slopes		Critical dunes
	0-1 degrees:	3,124 acres	27%	
Low: 575 feet above sea level	1.1-5 degrees:	3,654 acres	31%	_
High: 1,025 feet above sea level	5.1-9 degrees:	1,839 acres	16%	0 acres
Range: 450 feet	9.1-16 degrees:	1,828 acres	16%	
Ů	16.1-80 degrees:	605 acres	5%	

		WATER
Lakes	Rivers	Wetlands
248.3 acres 2%	32 miles 0.3% Trout Streams: 14.3 miles 44% of river length	Emergent (characterized by erect, rooted aquatic plants with green/soft stems, excluding mosses and lichens): 169 acres 1.4% Lowlands, Shrub, Wooded (characterized by low elevation and woody vegetation): 807 acres 7%

		PUBLIC LAND USE	E	
Roads	Regional Trails	Conserved Land	State Land	Federal Land
53.8 miles 0.5%	0.66 miles 0.01%	GTRLC: 832 acres 7%	Commercial Forest Act: 84 acres 0.7%	0 acres

4.16: Natural Features map



LAKES TO LAND

Arcadia Township Natural Features

---- County Boundary
----- Township Boundary

—— Major Roads

— Minor Roads

Wetland Type:
Lowland, Shrub, or Wooded
Emergent
Trout Stream

Slope Degree:9.1 - 16 16.1 - 50



Land use

The land use section of this master plan provides an analysis of existing land use conditions and a proposed future land use development scenario. It contains two distinct maps: the existing land use map and future land use map.

The existing land use map depicts how the property within the jurisdiction is currently developed. It shows how the land is actually used, regardless of the current zoning, lack of zoning, or future land use map designation—it is what you see happening on the property.

The future land use map of a master plan is a visual representation of a community's decisions about the type and intensity of development for every area of the municipality. These decisions, represented by the community's land use categories, are based on a variety of factors and are

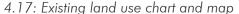
guided by the goals developed earlier in the master planning process—the Cornerstones and Building Blocks presented earlier in this plan. Although the future land use map is a policy document rather than a regulatory document, meaning that it is not legally binding once adopted, it is used to guide the creation of the zoning ordinance and the zoning map, and it supports land use decisions about variances, new development, and sub-area planning. That makes it perhaps the most important part of your master plan, as it defines how community land uses should be organized into the future.

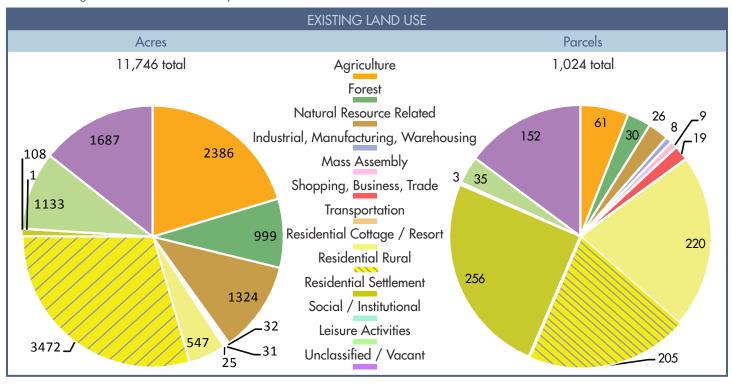
A part of the development of the future land use map is a discussion of the major land use related issues facing the community, how they interrelate with the Cornerstones and Building Blocks, and strategies

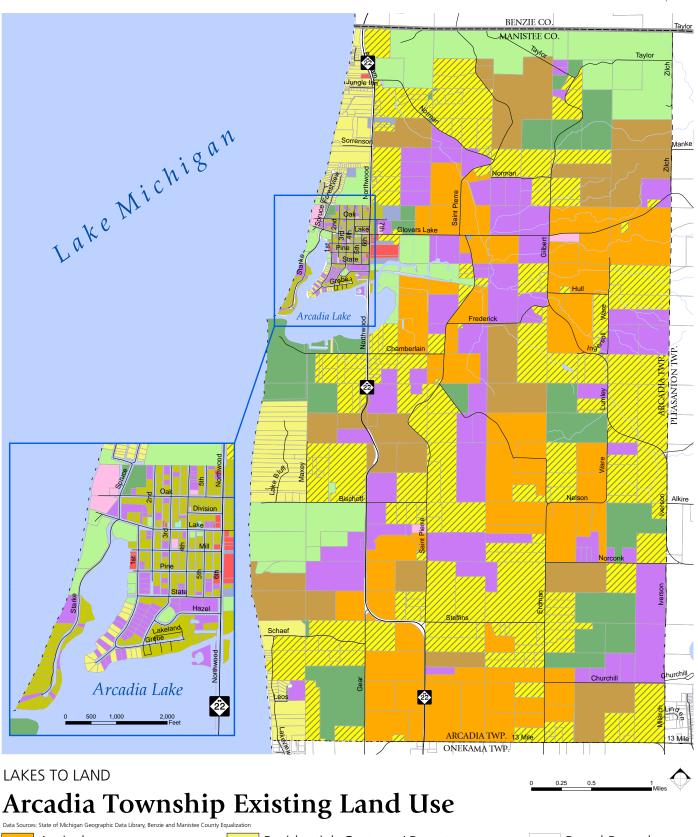
that may be undertaken to achieve the desired future land use. But at the heart of planning for future land use is a picture of how the physical development of the community will take shape. Simply put, this section describes how, physically, the community will look in 15 to 20 years.

Factors considered when preparing the future land use map include:

- Community Character. How will the land uses promote that character?
- 2. Adaptability of the Land. What physical characteristics (wetlands, ridges, lakes, etc.) need to be considered when planning for future development? How do the land uses for those areas reflect the uniqueness of the land?
- Community Needs. What additional housing, economic development, infrastructure, or other needs should the community







Data Sources: State of Michigan Geographic Data Library, Benzie and Manistee County Equalization

Agriculture
Residential, Cottage / Resort
Residential, Rural
Residential, Settlement
Leisure Activities
Shopping, Business, or Trade
Mass Assembly
Natural Resources
Unclassified / Vacant

Parcel Boundary
County Boundary
Township Boundary
Road



Updated: 05-30-13

- consider planning for?
- 4. Services. How are we ensuring that existing infrastructure is used efficiently, and that new infrastructure is planned for areas where new development is anticipated?
- 5. Existing and New Development. How will new development in the community relate to existing development?

Existing and future land use maps are both different from a zoning map, which is the regulatory document depicting the legal constraints and requirements placed on each parcel of land. The parcels are classified into zoning districts, which are based on the future land use map. When owners want to develop or use their property in ways that do not conform to the zoning map, the planning commission uses the future land use map and the master plan to consider whether the proposed development conforms to existing regulations and policy.

Three land use concerns in Arcadia, and the subsequent strategies to deal with those concerns, include the following:

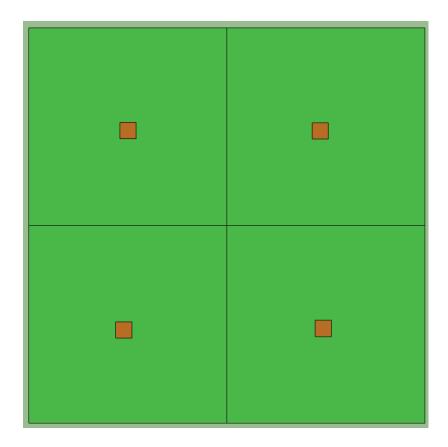
- How to grow the light industrial corridor along M-22 and Lake Street so that Arcadia is creating the type of place its citizens envision;
- How to address specific residential sub-areas of the community in a thoughtful, logical, and meaningful manner in order to achieve regulatory mechanisms that shape each unique area;
- 3. How to preserve scenic rural character.

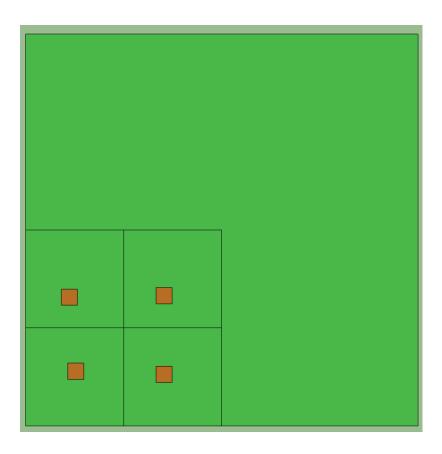
Rural scenic character preservation

Scenic rural character in Arcadia evokes the feelings of an understanding of the unique characteristics of the community and the people who live here. In a nut-shell, it is what makes Arcadia Arcadia. So when asked, "What is scenic rural character?" a respondent might answer, "It's the orchards lining M-22," or, "It's the views of Arcadia Marsh as it flows through Lake Arcadia into Lake Michigan," or, "It's the folks who farm their land and sell it at their fruit and vegetable stands," or, "It's the dirt roads with trees gently swaying in the warm summer wind." While the notion of scenic rural character is somewhat elusive, the Township wants to ensure that keeping the rural scenic character is tangible, definable, and measurable. While an agricultural economy is one of the primary methods of preserving rural character, it is not the only method. In Arcadia, agriculture speaks to its history but not necessarily to the future, especially large-scale agricultural operations that require large tracts of land. More practically, agriculture in Arcadia will take the form of smaller fruit operations with value-added components. With that said, the increasing residential development moving to Arcadia for the rural scenic character will need to balance the challenges of rural living with their expectations. This master plan calls for balancing rural scenic character preservation with increasing development pressures. In many cases, it will not be"what" is developed but "how" it is developed that will dictate the success or failure to preserve the rural scenic character. Producing a Rural Scenic Character

Preservation Plan is one first step in the right direction to ensuring that the "how" is done in a manner reflective of the values of the community. In regard to land use development, an eye toward efficient use of land where open space is valued, large lots do not become fragmented, and clustering of development towards higher density areas is a preferable approach to achieving the goals of rural scenic character preservation and development.

Very specifically, residential development patterns need to reflect conservation based design methods. One such method is to move away from minimum lot size standards towards density-based zoning. Minimum lot size standards means that you are required to have a minimum amount of land for development of a single dwelling within a zoning district. (i.e. Minimum lot size = 10 acres, meaning 1 home on a 10 acre lot). Whereas in density based zoning, the number of single-family homes is based on a formula that considers the entire land area. (i.e. 1 home per 10 acres, meaning the lot size doesn't matter as long as it is one home per 10 acres). Density based zoning relies upon a total permissible number of dwelling units that may be built upon any given parcel of land. For example, a 40-acre parcel with a density of 1 dwelling unit per 10 acres would allow 4 dwelling units to be built on the 40 acre parcel. Notice that there isn't a minimum lot size required. As long as there is room for septic and well, the lots could be as small as 1.5 or 2 acres, but this is left to the discretion of the property owner and the limitation of existing infrastructure.





4.18: Density-based zoning
Top: A 40-acre
parcel with 1 home
per 10 acres under
standard zoning
Bottom: A 40-acre
parcel with 1 home
per 10 acres under
density-based
zoning

The dwelling lots would only occupy 25% or less of the total land area. This scenario results in greater density with even greater open space preservation for agricultural or recreational purposes than under the traditional minimum lot size scenario.

Sliding scale zoning (establishes a schedule that dictates the number of lots on a parcel but doesn't necessarily dictate lot size), clustering development (simply grouping of the dwelling lots in the most developmentally desirable portion of the parcel) and the use of density bonuses (additional lots are allowed if certain stipulations or conditions are met) are all tools that the community could use in its zoning ordinance framework to yield the benefits of density based zoning.

The ultimate goal is to increase the ability to preserve rural scenic character while still accommodating residential development pressures and support agricultural practices. This master plan supports creative and innovative methods to achieve such a balance.

The benefits of density-based zoning are:

- The landowner is able to develop portions of the land, receive monetary compensation, and also be sympathetic to the natural assets found on the property. Portions of the land may be preserved in permanent conservation easements allowing farming, timber, or passive recreation.
- Infrastructure (road and utility)
 cost is significantly decreased due
 to clustering of homes in a single
 area.

- Provides for access management by providing shared access, which limits number of driveways along a roadway.
- 4. Cost of Community Services (CSS) is greater for residential land uses vs. agricultural land uses
- 5. High residential density in rural areas requires jobs and services which are often not present.
- Clustering of homes allows for use of community well and septic systems if desired for cost savings.

Growing Economic Development Opportunities Along M-22

The area reserved for light industrial development along M-22 is both home to residents and a stopping point for travelers passing through, providing auto related services, lodging, retail, and recreation. This growing corridor is an important piece of Arcadia's development, and it has the potential to either draw people in or to detract from all that Arcadia has to offer. How this area looks and functions as an economic generator and opportunity is very important. It has always been the goal to develop the corridor as a place where individuals can work and live, often on the same parcel, providing economic opportunities for residents of the Township. In order to develop this growing corridor, special attention must be given to the design concept (what we want it to look like), access to M-22, parking demands, architecture, character, and streetscape amenities. In addition, tying each piece of the corridor into an integrated whole is important to ensure compatibility with the historic business district, neighborhoods, and the natural assets of the community. Street-based

frontage standards, design guidelines and use standards are components that should be created to assist in developing the M-22 corridor.

There are some non-conforming uses within the area that have historically been successful. It is the intent of this master plan to continue to allow those uses while encouraging them to meet leading practice standards for the development of the township as a whole. The community and this master plan support the non-conforming uses and encourage, within the scope of the zoning ordinance, their continued prosperity. While warehousing or storage is a prevalent use in the area, this master plan does not support warehousing and storage within the 400' feet from the centerline of M-22 east and 400' north and south from the centerline of Glovers Lake Road.

This master plan envisions the commercial area located 400' from the centerline of M-22 as an area reserved for light industrial uses that are well buffered and isolated from residential uses. In fact, these light industrial uses are not intended to be seen from M-22 and shared access drives (including an interior roadway) are proposed to ensure minimal curb cuts to M-22 while providing access to interior lots. Signage and other advertising aspects will be kept to a minimum with limited lighting and size requirements. This area is not only intended to be home to the many specialized trades businesses that exist in Arcadia but to also provide an incubator for future endeavors.

Because walkability is so important in the township, it is critical that the area between the buildings and moving lanes of M-22 be used effectively. Therefore, the design of the public and private frontages must be thought of as a single, cohesive physical element. This space is made up of two zones: the private and public frontage. Visually these two zones must function together and be seen as one. Pedestrians walking throughout the township must feel buffered from the traffic of M-22 in order for the goal of walkability to be achieved and the rural scenic character preserved, while at the same time, commercial development must be encouraged.

The following suggestions are given to assist in buffering the impact of traffic for pedestrians who are walking and biking along the public portion of the corridor:

- Provide a planning strip between the sidewalk and the roadright-of-way that is generous and green, lined with street trees, streetlights, benches, and wayfinding signage;
- Provide curbside parking, if possible;
- Provide a public sidewalk of sufficient width for two people to pass each other comfortably (i.e. five to six feet);
- Provide bicycle lanes and informational kiosks.

The following suggestions are given to assist buffering the impact of traffic for pedestrians who are walking and biking along the privately owned portion of the corridor:

- Provide front stoops, canopies, and/or porches;
- Provide front yards;
- Provide frontage plants and trees;

What Arcadia Township DOES want in the development of the M-22 corridor:

- Retail that supports a local and regional framework.
- Commercial development that first occurs on sites in the geographical center of the community, nearest the largest crossroad locations and population centers (nodal development), such as Glovers Lake Road and M-22
- Clustered development which allows multiple uses on one piece of property but is located in the rear of the property utilizing a shared access point, includes landscaping to buffer the use and/or enhance the corridor, has rear parking, incorporates walkability in the site design, and has the appropriate amount of parking spaces without developing a sea of unused impervious asphalt.
- Single use development that is located in the rear of the property, utilizes
 any shared access points of neighboring uses, includes landscaping to
 buffer the use and/or enhance the corridor, has rear parking, and incorporates walkability in the site design.
- Warehousing and storage to be at least 400' from the centerline of M-22 and north and south of Glovers Lake Road.
- Ground-mounted, non-lit signage with shared users displayed.
- Development that is in keeping with the historic and maritime character of the Township.
- Consideration of the look of the corridor and how the functionality of the
 public and private space affects non-motorized transportation uses and
 people's use of the space. Installation of quality landscaping, streetscape
 amenities including lights, benches, sidewalks, planters, etc.

What Arcadia Township does NOT want in the development of the M-22 corridor:

- Free-standing stores surrounded by asphalt parking lots with many driveways, high intensity illumination of lights, and limited landscaping;
- Signs that are inappropriate as a result of their size and character;
- Buildings that are not visually interesting nor in keeping with the character of the community;
- Uses that may degrade the natural environment, including Arcadia Marsh;
- Roadways that are edged with no, or too narrow, sidewalks and/or pathways, have little or no pedestrian amenities, and are not designed for multi-modal transportation methods (bikes, walking, cars);
- Public areas of the corridor devoid of streetscape amenities such as benches, lights, landscaping;
- Intersections with multi-phased signals that may have two or even three left-turn pockets, widening the crossing distance even more at busy intersections:
- A long, undifferentiated corridor dominated by retail uses and commercial activities that detracts from the rural scenic character of the community and does not encourage the placemaking strategy of this master plan;
- General ugliness as the natural vegetation is replaced with little to no landscaping and the built infrastructure takes on a harsh character that has no permeability.

4.19: Deed restrictions vs. zoning

	Arcadia Zoning Ordinance	Point Arcadia Subdivision Restrictive Deed	Point Subdivision Restrictive Deed	Camp Arcadia L.L.C. Restrictive Deed
Use	Single Family Residential, Two Family Residential, Marinas, Family Day Care, Adult Foster Care, Places of Worship/ Assembly, Educational Establishments	Single Family Residential	Single Family Residential	Single Family Residential, Camp Related
Setbacks	Resort Residential, Star- Key Point Subdivision, Camp Arcadia: Front: 25' Side: 10' Rear: 25' Waterfront: 100' Point Arcadia, Point Arcadia Subdivision Front: 25' Side: 10' Rear: 25' Waterfront: 50'	Front: 45' Side: 10' Rear / Waterfront: 100', except a few lots 65' & 75'	Front: No requirement Side: 5' Rear: No requirement	Front: 25' Side: 10% of lot width Rear: 25'
Minimum Lot Size	Resort Residential: 20,000 sq. ft. Point Arcadia: 12,000 sq. ft.	No requirement	No requirement	No requirement
Other	 Fences are allowed Accessory buildings are allowed Additional uses are allowed 	 No fences No out buildings Must submit a site plan to corporation 	 Accessory structures are allowed but may not be used for housing or residential purposes. Easements of feet in width from the property line on the roadside and side property line exist for various infrastructure. 	 No detached garages, doors must not face street No tree clearing without approval Must complete work in 6 months

- Provide low walls, fences, or hedges at the back of the sidewalk;
- Provide grade elevation changes at frontage.

The M-22 corridor will continue to have a scenic rural character as development will occur in the rear of the lots, ample vegetative buffering will block or soften the view of the development, uses will be clustered to leave open space which includes space for non-motorized transportation, and visual clutter will be kept at a minimum. Uses that front M-22 will have parking in the rear, integrated sidewalks and paths, landscaping, and other design features.

Sub-area planning

The master plan recognizes the unique and historical aspects of Point Arcadia, Star-Key Point, Camp Arcadia and the historic Arcadia neighborhoods. Each sub-area has its own unique regulatory challenges based on the its distinct identity. Each area was built at a different point in history and for a different purpose.

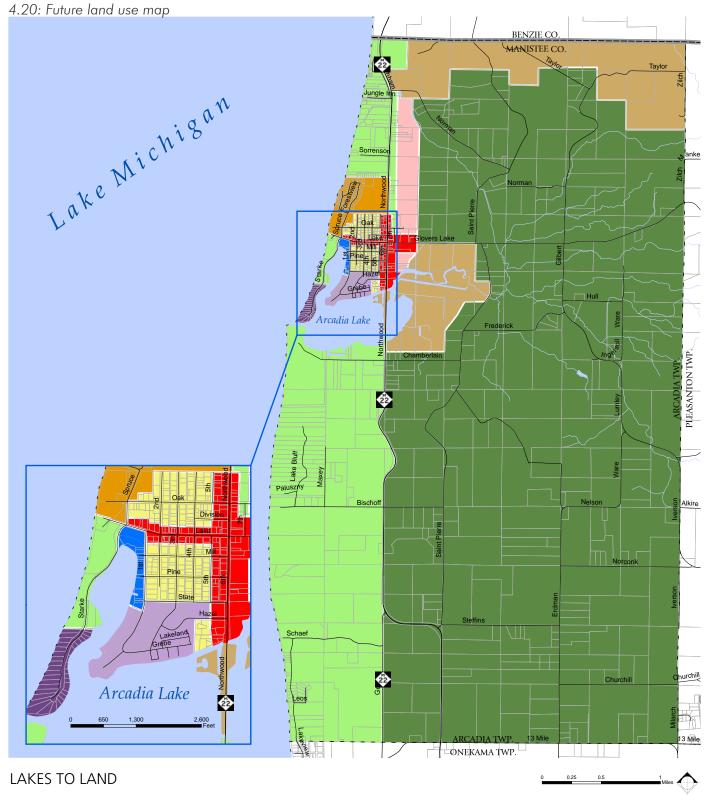
This master plan calls for the establishment of four new Future Land Use categories to address each area's special, unique needs. With an understanding of the limitations of these areas to meet current zoning requirements, the township desires to facilitate the historical patterns of land use and development despite nonconformity with existing zoning rules. This goal may be achieved through flexible zoning regulations, applicable only to these areas, or a part of the area, predicated on sections 502 and 503 of the Michigan Zoning

Enabling Act (special land use, and planned use development) and aligned with existing conditions found within each sub-area.

Camp Arcadia is a camp with an associated single-family residential development. Due to the age of the camp, it has non-conforming uses and dimensional characteristics; however, the development pattern of the Camp is in keeping with typical camp environments and is supported by this master plan. Currently, meeting current zoning requirements proves very difficult, as dimensional and use requirements of the zoning ordinance are difficult to meet or not applicable to the development of a "camp." For the Camp Arcadia area, a special Sub-Area Plan would allow for investigation into crafting a framework for approval of various principal and accessory uses as well as dimensional requirements under the umbrella of a broad-based special land use permit. Coupled with the flexibility inherent in a planned unit type mechanism, the township is looking to create a comprehensive set of land use designations that allows for developmental flexibilities within the defined perimeter of the subject areas.

Point Arcadia and Star-Key Point are residential subdivisions that currently have use and dimensional requirements written within their deed and covenants that meet or exceed the current Zoning Ordinance requirements. Both areas are unique in that they front Lake Michigan and Lake Arcadia. The Star-Key subdivision is notable in that the subdivision fronts two bodies of water. Thus, space is at a premium, making home improvements and/or additions difficult. Currently, Star-Key Point Road is a dirt one-track path located within the boundaries of the subdivision platted road. Multiple uses have, over time, encroached into the platted road. The entire area is in need of a survey to determine exact locations of property lines and roads. Point Arcadia is the township's typical suburban, larger-lot residential subdivision located next to the historic neighborhoods of Arcadia. Well and septic may be located within this area more easily than in other places near the Village core. The subdivision is not well integrated into the historic neighborhoods of Arcadia, and the development of methods to create a seamless transition from one area to another is important to creating cohesive neighborhoods.

Part of the Sub-Area Plan is an analysis of the deed restrictions/ covenants and by-laws. In most cases, the deed restrictions/covenants are more restrictive on land uses and dimensional requirements than the Arcadia Township Zoning Ordinance. A deed restriction or covenant is a document that details what the property owner can and cannot do on the property. The covenant "runs with the land," meaning that current and future owners of the property are subject to the covenant requirements. Articles and by-laws are homeowners' association documents that dictate a number of mandatory obligations and restrictions which are only imposed upon those members who belong to the association. Not all people who live in a subdivision are members of the association, and those who aren't do not have to abide by the articles and by-laws of the association that is in place for their development. All individuals who own land in



Arcadia Township Future Land Use





Updated: 08-13-14

Preserve

the subdivision must abide by the restrictive deed and covenants.

The community is working to maintain the historic character of the existing neighborhoods. Future development of vacant parcels will have a grid street pattern that connects to the existing street network. Other infrastructure improvements include building, maintaining, and/or reopening alleys. In order to encourage re-investment, the township should consider aligning the dimensional requirements of the zoning ordinance to the actual dimensions of the existing neighborhood to ensure that what is found today may be replicated in future development and redevelopment. The township recognizes that dimensions of many existing lots do not easily, if at all, accommodate well and septic systems per the State health code. Rather than making them non-conforming, they can be regulated in a manner that will allow future development on vacant parcels and redevelopment of existing lots, subject to the State of Michigan Health Department approvals and with minimal setback standards.

Future land use categories

There are 10 categories, also referred to as "classifications" or "designations," contained on the Future Land Use map. Seven of the categories are residential classifications, and three are commercial. The intent of the future land use strategy is to plan for future land use density and intensity that fits the historical patterns of existing development while also considering the community's natural resources. In addition, the future land use strategy calls for understanding

not only existing land use patterns but also the current dimensional and design characteristics. The township can use this information to build future regulatory mechanisms that will advance development expectations to make it easier to develop and re-develop. Because Arcadia has a number of unique neighborhoods and commercial areas that draw on different characteristics and were originally developed in different ways, at different times, and based upon different standards, this master plan calls for creating future land use categories that identify and support those unique characteristics and circumstances with an eye towards cohesiveness, connectivity and character development. A "one size fits all" regulatory approach was not found to be appropriate. Unique, distinct but definitely Arcadian is how the future land use plan approaches the development of the different subareas of the township.

The following future land use categories by land use type are:

RESIDENTIAL

Residential Settlement Rural Residential Rural Agriculture Point Arcadia Star-Key Point Camp Arcadia

ENVIRONMENTALLY SENSITIVE

Preserve

ECONOMIC DEVELOPMENT

Light Industrial Marina Business

Residential Settlement

This land use category describes the historic neighborhoods of Arcadia and is designed to promote their continuation. The homes represent traditional nineteenth-century architecture. Homes are arranged close to the street with rear garages accessed by an alley. Arranged in a grid configuration, the streets are wide enough for on-street parking but close enough to maintain an intimate neighborhood character. Trees and sidewalks line the streets, alleys provide rear entry to garages located in the backyard, and front porches beckon neighbors to sit and talk. A church may be found in the middle of the neighborhood along with neighborhood parks. Within walking distance to businesses, civic, and recreational amenities, the Residential Settlement area is the premier place to live for individuals looking for a more urban environment within view of Lake Michigan and other natural resource amenities.

Rural Residential

This area of the township contains single- and two-family homes, for year-round and seasonal use, located on large lots. Some lots are used for farming and/or timber management, and many are along Lake Michigan. This area also encompasses existing smaller residential lots located along Lake Michigan shoreline. It is the intent of this designation to continue these uses while encouraging slightly larger lots in order to maintain well and septic integrity, private road standards to ensure emergency service access, greater protection of the Lake Michigan shoreline including views, and rural and scenic character preservation. Some agricultural commercial endeavors are allowed. It is also the intent of this designation to continue to support and promote agricultural opportunities. Other uses customarily found within a rural area are allowed, in keeping with the scenic rural preservation of the township. Single-family residential development will continue, attracting seasonal and permanent residents. Density based zoning opportunities are available for single family residential development.

Rural Agriculture

The Rural Agricultural area of the Township is the agricultural heart of the community. Farming and timber management are encouraged and promoted. Single-family homes located on large lots may also be found. Rural scenic character preservation is of great importance in this area. The night sky viewing and views of the region from ridgelines towards

Pleasant Valley, Lake Arcadia, and Lake Michigan that happen here are important to the township. Also of great importance are high water quality for the streams and tributaries of Lake Arcadia, habitat protection, and wildlife conservation. Density based zoning opportunities are available for single family residential development.

Point Arcadia

Point Arcadia future land use category encompasses an area of the Township built to accommodate single-family residential development on lots that can support a larger footprint home while also ensuring well and septic systems installation. It is the intent of this area to remain single family residential and continuing to develop as stipulated in the Pointe Arcadia deeds and by-laws.

Star-Key Point

Star-Key Point is a peninsula between Lake Michigan and Lake Arcadia. The

Star-Key Point subdivision comprises 37 lots on privately-owned Star-Key Point Road. The subdivision is regulated by deed restrictions enforced by the Star-Key Point Homeowners Association. The area is unique in that each lot has either Lake Michigan or Lake Arcadia frontage. It is envisioned that this area continues to maintain the unique character of a two-lake frontage neighborhood while promoting environmental protection and public health, safety, and welfare. Future development of the Star-Key Point area must adhere to the lot boundaries shown on the subdivision plat.

Camp Arcadia

The "Camp Arcadia" future land use designation accommodates the historic Camp Arcadia and its associated single-family residential neighborhood. The Lutheran Camp Association (LCA) and the Arcadia Cottage Colony Association (ACCA) govern what is commonly called Camp Arcadia. LCA



is the organization that owns and operates the traditional camp while ACCA is steward of the cottages that were developed on privately owned lots. While Camp Arcadia is made up of multiple lots owned by different property owners, all parties belong the LCA and, if applicable, ACCA. These two entities regulate land use within Camp Arcadia. The Camp Arcadia future land use designation is meant to allow the continued use and future development of Camp Arcadia. The intent of this area is to allow the camp to grow. The Camp is comprised of single-family dwellings, assembly halls, meeting spaces, camp store and kitchens, amphitheater, and out buildings used for traditional camp purposes. This historic camp has offered a religion-based camp experience for thousands of families since its inception.

Preserve

This is land that, due to its location, unique characteristics, and natural

resources, is planned for open space and environmental protection purposes with some recreational and possible farming applications. Preserve includes land currently held in conservation easements, owned by the Township and/or land designated as potential for future open space and/or conservation purposes. Attributes found within the area, such as the integrity of the night sky, topography, views, water quality, air quality, ambient noise, wildlife, and habitat are encouraged to be maintained, restored, and protected from future development within the Township.

Preserve land is an integral part of the township's placemaking strategy as it is this area that will draw visitors to shop and play once in Arcadia. This land will be used for future recreation, regional and local trail connections, protection of wildlife and associated habitats, watershed and viewshed protection, and to adds to the character of the township. Future land use considerations include taking care

in the development of adjacent lands to ensure environmental protection and stewardship. When possible, connectivity to local and regional nonmotorized trails will be encouraged.

Light Industrial

The Light Industrial corridor expands approximately 1.5 miles along M- 22 between Norman Road to just past Glovers Lake Road to its south. It is bordered on the south and north by Preserve and to the east by Rural Agriculture. The Light Industrial classification area begins 400' from the centerline of M-22 extending eastward 1320' from the centerline of M-22. The land area between the road and the start of the Light Industrial area is Resort Residential. The Light Industrial ribbon of land is reserved for uses such as car washes, agricultural related businesses, veterinarians, business contractors (painters, plumbers, electrical, cement, heating, air conditions, fencing), community recreational facilities,



warehousing, lumber yards, and body shops as examples. While some of these uses may be permitted by right and others may require special land use approval, the intent is to provide a place in the Township where traditionally-considered light industrial uses have a place. The expectation is to ensure that these types of uses are accessible to M-22 but developed in such a way as to be well screened from views utilizing landscaping treatments, hours of operations compatible with adjacent residential areas, signage that is in keeping with the character of the community, and the general maintenance of the property that is above reproach.

As warehousing, storage (particularly boats and other recreational vehicles),

and truck and heavy equipment repair are dominant activities in the area, special attention is needed to ensure that the visual clutter that comes with these activities is kept at a minimum. In essence, the township embraces the maritime character that outdoor storage of boats lends to the atmosphere and wants to encourage the entrepreneurs of light industrial endeavors, but wishes to ensure that property is kept orderly and to prevent the look of abandonment and blight that might be associated with areas with this type of high-intensity land use. Future development of the area is encouraged to implement environmental protection measures which will provide good stewardship to the Arcadia Watershed and additional screening mechanisms to ensure that

the uses do not contribute to visual clutter or degradation of the character of the Township.

Business

The Business future land use category is the heart of Arcadia. Located on what could be considered a traditional main street that leads to Lake Arcadia, the Business area is the major thoroughfare to Arcadia Natural Beach Area and Lake Michigan. It is also a historical gem? With some two-story buildings, civic buildings, parks, historical architectural facades, sidewalks, and mixed uses, the Business area is an example of a downtown that is replicated in new development throughout the country. This is the street where you can see the latest community activities posted on



the Township Hall kiosk, have a picnic or play tennis at the park, drop your mail off at the post office, visit your family doctor, and then walk a short distance down the street and spend the rest of the day at the beach.

The current Business area exists solely on the west side of M-22, but this future land use category is expanded eastward to include the intersection of M-22 and Glovers Lake Road. The enlargement of this area would create connections between the existing historic business area and the Pleasant Valley Community Center, an increasingly important place for civic and recreational engagement. In addition, this category would include already developed businesses that exist at the intersection of M-22 and Glovers Lake Road. Nodal development of this type looks to keep higher density commercial development at points of high traffic intersections and close to higher population densities.

Future development of the area will look to replicate and enhance the historical architectural façade details that are found elsewhere in the area. In addition, the township supports mixed-use, two-story buildings that allow for individuals to live on the top floor and work on the bottom floor. Future development will also be encouraged to provide housing options that support low to moderate income individuals.

Marina

The Marina future land use area is directly adjacent to Arcadia Lake and Arcadia Beach Natural Area and is where Grebe Park, Mill Street and Pine Street boat launches and Veterans Memorial Marina are located. This area is home to the community's private and public marinas, boat launches, a fish cleaning station, and campground areas and includes several historic residential structures that reflect the character of the unincorporated Village's maritime past. It is envisioned that this area will build upon these assets centered upon its maritime character in order to create and support economic development opportunities in adjoining districts and throughout the community. Linking this area to the Business District is essential to create a seamless link where the synergy of the two areas can feed upon each other creating a lively, vibrant, and economically prosperous downtown area.

Uses in this area should focus on open spaces with recreational components as well as a limited select type of small business development that supports a maritime culture. Land adjacent to the water will be primarily reserved for open space protection in order to maintain the littoral character and views of Arcadia Lake. With that said, existing and limited unimposing new structures may be used to promote water based economic development initiatives but it is not desirable that residential or dense commercial development occur directly adjacent to Arcadia Lake or Arcadia Beach Natural Area on Lake Michigan. Parking and lighting regulations will serve the area adequately but will be in keeping with Dark Sky standards and best practice watershed protection measures.

Zoning

The Michigan Planning Enabling Act of 2008 requires the inclusion of a

zoning plan in the master plan. The zoning plan calls attention to changes that need to be made to the current zoning ordinance in order to align the zoning ordinance with the new master plan. Specifically, the zoning plan looks to show the relationship between the future land use map and the zoning map, and to suggest ordinance revisions to strengthen that relationship. The changes suggested are necessary in order to help implement specific aspects of the master plan.

The zoning plan in Figure 4.21 suggests the establishment of 11 zoning districts to reflect the future land use map. Zoning districts contain the legal requirements used to determine how parcels of land are to be used. Note that there are significant areas along the shoreline of Lake Michigan that are designated High Risk Erosion Areas by the State of Michigan. Development in these areas must meet State of Michigan High-Risk Erosion standards, most notably setback standards regardless of local zoning regulations. The suggested zoning districts are:

P Preserve
VR Village Residential
RR Rural Residential
R-AG Rural Agriculture
PA Point Arcadia
SP Star-Key Point
CA Camp Arcadia
B Business
LI Light Industrial
M Marina

These zoning districts, and the regulations that accompany them, work together to strengthen the relationship between the Future Land Use map and the Cornerstones of this master plan.

4.21: Zoning chart

PROPOSED ZONING DISTRICTS	USES (general)	SETBACKS	MINIMUM LOT SIZE	NOTES
VILLAGE RESIDENTIAL VR	Residential	FRONT 10' SIDE 8' REAR 25'	Without sewer/ water 7500 sq. ft. With sewer/water 6000 sq. ft.	Enhance the front yard averaging and encroachment standards and develop other flexibility standards to ensure that the current historic neighborhood character is replicable. One such tool to consider is a Form Based Code for this specific area.
RURAL RESIDENTIAL RR	 Residential Agriculture & Related Uses Child/Adult Care Facilities Some General Commercial 	FRONT 25' or 133' from the center of the paved portion of M-22 SIDE 10' REAR 25' WATERFRONT 50' ordinary high water mark	No minimum. Based on Conservation Design Methods	Encourage clustering of residential development with the remaining land preserved for open space by using a density schedule and/or Planned Unit Development. Incentivize the various residential development options.
RURAL AGRICULTURE R-AG	ResidentialAgriculture & Related UsesChild/Adult Care FacilitiesSome General Commercial	FRONT 50' or 133' from the center of the paved portion of M-22 SIDE 20' REAR 50'	No minimum. Based on Conservation Design Methods	Promote residential development that is sympathetic to rural scenic character preservation and that is understanding of agricultural practices.
POINT ARCADIA PA	Residential	FRONT 25' except lots 33'-40' = 45' SIDE 5' REAR/WATERFRONT 100' except lots 58, 59, 64, 65 = 75' and lots 60, 61, 62, 63 = 65'	30,000 sq. ft.	Work with the Pt. Arcadia Home Owners Association and Valley Cove Home Owners Association to understand their development needs and limitations in order to develop the Point Arcadia zoning designation.
STAR-KEY POINT SP	Residential	FRONT 10' SIDE 5' WATERFRONT 50'	30,000 sq. ft.	Note that there are areas of Star-Key Point that are designated High Risk Erosion Areas by the State of Michigan. Development in these areas must meet State of Michigan High-Risk Erosion standards, most notably setback standards regardless of local zoning regulations

PROPOSE ZONINC DISTRICT	USES	SETBACKS	MINIMUM LOT SIZE	NOTES
CAMP ARCADIA CA	 Single or Two Family Residential Camp Activities and their associated buildings 	FRONT 25' SIDE 10% of lot width REAR 25'	30,000 sq. ft. to ensure adequate isolation distances for well and septic. (unless a community system is installed)	Develop specific land use regulations and site plan review guidelines to address the uniqueness of Camp Arcadia.
BUSINES B	 Residential Marinas Retail Personal Service Establishments Food Establishments Professional Office/ Service Places of worship/ gathering Lodging 	FRONT up to 12' SIDE 5'; 0' if stormwater does not drain on adjoining property REAR 12'	No minimum required	Develop architectural guidelines for the buildings, streetscape guidelines to create an unified look throughout the community (benches, plantings, banners, street lights, color schemes, etc.) and use requirements. Consider developing a Form Based Code for this area.
LIGHT INDUSTRI, LI	 Professional Office/Service Auto Related Warehousing/Storage/ Start up buisness Educational Adult Foster Care Facilties Contractors supplies and facilities 	FRONT 50' SIDE 20'; if abutting a residential zone or master planned for residential, 50' REAR 50'; if abutting a residential zone or master planned for residential, 75'	140' width 1 acre	The area spanning 400' from the centerline of the paved portion of M-22 to 1,320' from the centerline of the paved portion of M-22 and 400' from the centerline of the paved portion of Glovers Lake Road north and south
MARINA M	 Parks Boat Launches Retail Professional offices Lodging Restaurants 	FRONT 5' SIDE 10' REAR 5'	30,000 sq. ft. if served by infrastructure, 6,000 sq. ft.	Encourage the use of the development of a maritime character in the architecture and streetscape elements.
PRESERV P	Open SpaceFarmingLimited Recreation	N/A	N/A	Develop environmental stewardship standards to ensure that adjacent development is sympathetic to the Preserve lands.

Action Plan

The overall success of the Arcadia Township Master Plan will be determined by how many of the recommendations have been implemented.

This linkage between master plan acceptance and its eventual implementation is often the weakest link in the planning and community building process. All too often we hear that familiar phrase, "The plan was adopted and then sat on the shelf." The plan is cited as the failure, but the real culprit was the failure to execute or implement the plan.

Implementation of the Arcadia Township Master Plan is predicated on the completion of the tasks outlined in the Action Plan.

4.22: Action plan

DECOM	A A EN IDED IN A DI EN A EN ITATION I CEDATECIA CO	212 2212
RECOM	MENDED IMPLEMENTATION STRATEGY 20	013 - 2018
Action Item	Description	Responsible Party
Blue and green non-motorized trail plan	Work through the L2L Regional Initiative to prepare a non-motorized trail plan.	Planning Commission
Sanitary sewer project analysis and feasibility study	Commission the preparation of an analysis and feasibility study for the installation of a sanitary sewer system.	Planning Commission and Board of Trustees
Watershed plan	Develop a Watershed Plan.	Watershed Subcommittee of the Planning Commission and Board of Trustees
Streetscape improvements	Prepare a streetscape improvement plan for the commercial areas of the Township.	Planning Commission and Parks and Recreation Committee
Pleasant Valley Community Center regional trail hub	Work to establish the PVCC as a regonal trail hub where blue and green trail information is available and other amenities are established to meet the needs of the users.	Planning Commission and the Pleasant Valley Community Center

Appendix A

Sources and Data

Sources

Tab 2 - by Page

- 26. United States Geological Survey. "USGS Water Science school: the effects of urbanization on water quality: phosphorous." Last modified March 2013. http://ga.water.usgs.gov/edu/phosphorus.html
- 31. Michigan Department of Environmental Quality. "Cadillac district watersheds with approved watershed plans." Last modified August 21, 2012. http://www.michigan.gov/deg/0,1607,7-135-3313_3682_3714_31581-96473--,00.html
- 34. Michigan Department of Environmental Quality. "State and Federal Wetland Regulations." Undated. http://www.michigan.gov/deq/0,4561,7-135-3313_3687-10801--,00.html
- 34. Ducks Unlimited. "Ducks Unlimited Received 11 Great Lakes Restoration Initiative Grants for Conservation in Michigan." 2011 Conservation Report. http://www.ducks.org/media/Conservation/GLARO/_documents/_library/_conservation/_ states/2011/Michigan_Report2011.pdf
- 35. National Parks Service. "A Nationalized Lakeshore: The Creation and Administration of Sleeping Bear Dunes National Lakeshore." Theodore J. Karamanski. 2000. http://www.nps.gov/history/history/online_books/slbe/. Photo: http://www.nps.gov/slbe/images/20060901164502.JPG
- 38. Michigan Department of Environmental Quality. "Sand Dune Protection." Undated. http://www.michigan.gov/deq/0,4561,7-135-3311_4114_4236---,00.html
- 40. M-22. "About Us." February 2009. https://m22.com/?category_name=about-us
- 42. MichiganHighways.org. "Historic Auto Trails." Last modified March 2013. http://www.michiganhighways.org/indepth/auto_trails.html
- 42. Schul, Dave. "North American Auto Trails." Last modified October 1999. http://academic.marion.ohio-state.edu/schul/trails/trails.html
- 43. County Road Association of Michigan. "Michigan's County Road Commissions: Driving Our Economy Forward." Undated (circa 2008). http://www.micountyroads.org/PDF/econ_broch.pdf
- 43. Michigan Traffic Crash Facts. "Reported Traffic Crashes by County in Michigan." 2011. http://publications.michigantrafficcrashfacts.org/2011/quick_2.pdf
- 43. Michigan Traffic Crash Facts. "Crash Rate Per Licensed Driver by Age of Driver in All Crashes." 2011. https://s3.amazonaws.com/mtcf.pubs/2011/veh_17.pdf
- 43. Michigan Department of Transportation. "North Region Winter Level of Service for 2011-2012." Approved October 2011. http://www.michigan.gov/documents/mdot/MDOT_LoS_map_North_08-09_FINAL_255162_7.pdf
- 46. United States Army Corps of Engineers. "Great Lakes Navigation System: Economic Strength to the Nation. Last modified March 2013. http://www.lre.usace.army.mil/Portals/69/docs/Navigation/GLN_Strength%20to%20the%20Nation%20Booklet 2013v2_final2w.pdf
- 46. United States Army Corps of Engineers. "Great Lakes Harbors." Arcadia, Frankfort, Manistee, Portage Lake entries all last modified April 2013. http://www.lre.usace.army.mil/Missions/GreatLakesNavigation/GreatLakesHarborFactSheets.aspx
- 47. RRHX: Michigan's Internet Railroad History Museum. "The Evolution of Michigan's Railroads." Undated. http://www.michiganrailroads.com/RRHX/Evolution/EvolutionProjectDescription.htm
- 50. Airnav.com. "Airports." Updated May 2013. http://www.airnav.com/airport/KMBL; http://www.airnav.com/airport/KKKS; http://www.airnav.com/airport/7Y2

- 50. The Rotarian. "Soaring on a Shoestring," Karl Detzer. December 1939, Volume LV No. 6, p. 16-18. Accessed via books. google.com.
- 53. Annals of the American Academy of Political and Social Science. "Educational Value of Public Recreation Facilities," Charles Mulford Robinson. March 1910, Vol. 35, No. 2, pp. 134-140. http://www.jstor.org/stable/1011260
- 53. Southwick Associates, for the National Fish and Wildlife Foundation. "The Economics Associated with Outdoor Recreation, Natural Resources Conservation and Historic Preservation in the United States." October 2011. http://www.trcp.org/assets/ pdf/The Economic Value of Outdoor Recreation.pdf
- 57. Michigan Department of Natural Resources, Parks and Recreation Division. "Michigan Public Boat Launch Directory." Undated during the Engler administration (1991-2003). http://www.michigan.gov/documents/btaccess_23113_7.pdf
- 57. Great Lakes Commission, for the United States Army Corps of Engineers. "Great Lakes Recreational Boating's Economic Punch." December 2008. http://www.glc.org/recboat/pdf/rec-boating-final-small.pdf

http://www.lre.usace.army.mil/kd/ltems/actions.cfm?action=Show&item_id=6197&destination=ShowItem

Great Lakes Recreational Boating report in response to PL 106-53, Water resources development act of 1999, US Army Corps of engineers, Dec. 2008

- 60. Michigan Department of Natural Resources. "Value of Wildlife to Michigan." Undated. http://www.michigan.gov/ dnr/0,4570,7-153-10370 30909 43606-153356--,00.html
- 60. Michigan Department of Natural Resources. "75th anniversary of Pittman-Robertson Act is a perfect time to celebrate hunters' role in conservation funding." August 2012. http://www.michigan.gov/dnr/0,4570,7-153-10366 46403-284662--,00.html
- 67. Interlochen Public Radio. "Art Around the Corner Frankfort's Post Office Mural." February 2012. http://ipr.interlochen. org/art-around-corner/episode/18226
- 68. National Parks Service National Register of Historic Places. "Telling the Stories: Planning Effective Interpretive Programs for Properties Listed in the National Register of Historic Places bulletin," Ron Thomson and Marilyn Harper. 2000. http://www.nps. gov/nr/publications/bulletins/pdfs/interp.pdf
- 68. National Parks Service National Register of Historic Places. Database. Varying dates. http://nrhp.focus.nps.gov/ natreghome.do?searchtype=natreghome
- 69. Michigan Lighthouse Conservancy. "The United States Lighthouse Service." Last modified June 2011. http://www. michiganlights.com/lighthouseservice.htm
- 69. terrypepper.com. "The Lighthouses of Lake Michigan." Last modification date varies; July 2004-January 2007. http://www. terrypepper.com/lights/lake_michigan.htm
- 78. United States Bureau of Labor Statistics. "Education Pays." March 2012. http://www.bls.gov/emp/ep_chart_001.htm
- 79. Esri. "Tapestry Segmentation Reference Guide." 2012. http://www.esri.com/library/brochures/pdfs/tapestrysegmentation.pdf
- 84. Metlesits, Dave. "Season 1-2 dash in Photoshop" (illustration of KITT car dashboard from "Knight Rider"). April 2007. http://davemetlesits.deviantart.com/gallery/10189144?offset=24#/dvkxfu

Tab 4 – by Subject

Cornerstones

US Army Corps of Engineers, Detroit District. "Great Lakes Harbor Fact Sheets: Arcadia Harbor." Accessed March 2013. http://www.lre.usace.army.mil/Missions/GreatLakesNavigation/GreatLakesHarborFactSheets/ArcadiaHarbor.aspx

Economics

United Stated Department of Labor Bureau of Labor Statistics. "Industries at a Glance. Manufacturing: NAICS 31-33." Data extracted February 2013. http://www.bls.gov/iag/tgs/iag31-33.htm

United Stated Department of Labor Bureau of Labor Statistics. "Industries at a Glance. Retail Trade: NAICS 44-45." Data extracted February 2013. http://www.bls.gov/iag/tgs/iag44-45.htm

ReferenceForBusiness.com. "Service Industry." Accessed March 2013. http://www.referenceforbusiness.com/management/Sc-Str/Service-Industry.html

Esri. "2011 Methodology Statement: Esri Data—Business Locations and Business Summary." March 2012. http://www.esri.com/~/media/Files/Pdfs/library/whitepapers/pdfs/esri-data-business-locations.pdf

University of Washington West Coast Poverty Center. "Poverty and the American Family." 2009. http://depts.washington.edu/wcpc/Family

United States Department of Labor Bureau of Labor Statistics. "Highlights of Women's Earnings in 2009." June 2010. http://www.bls.gov/cps/cpswom2009.pdf

Commuting

Center for Neighborhood Technology. "H+T Affordability Index." Data extracted March 2013. http://htaindex.cnt.org/about.php; http://htaindex.cnt.org/map/

Slate.com. "Your Commute Is Killing You," Annie Lowrey. May 2011. http://www.slate.com/articles/business/moneybox/2011/05/your_commute_is_killing_you.single.html (studies cited: http://www.gallup.com/poll/142142/wellbeing-lower-among-workers-long-commutes.aspx; http://www.sciencedirect.com/science/article/pii/S1353829205000572; http://ideas.repec.org/p/zur/iewwpx/151.html)

Traffic Counts

Michigan Department of Transportation. Average daily traffic map. 2011. http://mdotwas1.mdot.state.mi.us/public/maps_adtmaparchive/pdf/2011adt/AADT_STATE_FrontPg-2011_29x30_NO_INSETS.pdf

Michigan Department of Transportation. Traffic monitoring information system. Built October 2007; data extracted March 2013. http://mdotnetpublic.state.mi.us/tmispublic/

Infrastructure

PEI Infrastructure Investor. "What in the world is infrastructure?" Jeffrey Fulmer. July / August 2009, p 30–32.

American Society of Civil Engineers. "Report Card for America's Infrastructure." 2013. http://www.infrastructurereportcard.org/

The Economist. "D (for dilapidated) plus: Slightly better roads and railways, but don't live near a dam." April 6, 2013. http://www.economist.com/news/united-states/21575781-slightly-better-roads-and-railways-dont-live-near-dam-d-dilapidated-plus

Michigan.gov. Mi Dashboard. Data extracted March 2013. http://www.michigan.gov/midashboard/0,4624,7-256-59631---,00.html

Michigan Transportation Asset Management Council. "PASER Collection." Accessed March 2013. http://www.mcgi.state.mi.us/MITRP/Educ_Training/PASERCollection.aspx

Michigan Department of Licensing and Regulatory Affairs, Public Service Commission. "Michigan Service Areas of Electric and Gas Utilities." Data extracted March 2013. http://www.dleg.state.mi.us/cgi-bin/mpsc/electric-gas-townships.cgi?townsearch=p*

Michigan Department of Licensing and Regulatory Affairs, Public Service Commission. "MPSC Issues Annual Report on Renewable Energy." February 2013. http://www.michigan.gov/mpsc/0,4639,7-159-16400_17280-295134--,00.html

United States Environmental Protection Agency. "Michigan Renewable Energy Maps." Data extracted March 2013. http://www.epa.gov/renewableenergyland/maps_data_mi.htm

Connect Michigan. "My ConnectView" interactive map. Data extracted March 2013. http://www.connectmi.org/interactive-map

Merit Network. "Merit's ARRA Projects: REACH-3MC Fiber-Optic Network Update." February 2013. http://www.merit.edu/documents/pdf/reach3mc/REACH-3MC_Project_Overview.pdf

Land

United States Geological Survey. "The National Map." Accessed March 2013. http://nationalmap.gov/

United States Department of Agriculture Forest Service, Northern Research Station. "Michigan Surficial Geology." Accessed March 2013. http://www.ncrs.fs.fed.us/gla/geology/images/mi-surfgeo.gif

United States Geological Survey. "Classification of Wetlands and Deepwater Habitats of the United States: Emergent Wetland." Last modified February 2013. http://www.npwrc.usgs.gov/resource/wetlands/classwet/emergent.htm

Michigan Department of Environmental Quality. "The Sand Dunes Program." Accessed March 2013. http://www.michigan.gov/deq/0,4561,7-135-3311_4114_4236-9832--,00.html

Data

US Census Bureau, American Community Survey 2006-2010, Selected Social Characteristics (DP02), Selected Economic Characteristics (DP03), and Selected Housing Characteristics (DP04)

Subject	Arcadia	
555/25	Estimate	Percent
POPULATION		
1990	523	NA
2000	621	1.87%
2010	639	0.29%
2016 (proj.)	655	0.42%
HOUSING OCCUPANCY		0.1270
Total Housing Units	574	574
Owner-occupied	266	46.3%
Renter-occupied	30	5.2%
Seasonal/Recreational/Occasional use	242	42.2%
Vacant - For Sale, For Rent, etc.	36	6.3%
EDUCATIONAL ATTAINMENT		0.070
Population 25 years and over	466	466
Less than high school	27	5.80%
High school graduate and equivalency	133	28.50%
Some college, no degree	119	25.50%
Associate's degree	27	5.80%
Bachelor's degree	96	20.60%
Graduate or professional degree	64	13.70%
Percent high school graduate or higher	(X)	94.20%
Percent bachelor's degree or higher	(X)	34.30%
SCHOOL ENROLLMENT	(71)	04.00%
Population enrolled in school	65	10.17%
CLASS OF WORKER		10.17 /0
Civilian employed population 16 years+	159	159
Private wage and salary workers	128	80.50%
Government workers	19	11.90%
Self-employed	12	7.50%
Unpaid family workers	0	0.00%
Private sector jobs	88.1%	0.0070
INCOME AND BENEFITS (IN 2010	00.170	
INFLATION-ADJUSTED DOLLARS)		
INFLATION-ADJUSTED DOLLARS) Total households	272	272
Less than \$10,000	4	1.50%
\$10,000 to \$14,999	17	6.30%
\$15,000 to \$24,999	30	11.00%
\$25,000 to \$34,999	41	15.10%
\$35,000 to \$49,999	53	19.50%
\$50,000 to \$74,999	74	27.20%
\$75,000 to \$99,999	21	7.70%
\$100,000 to \$149,999	19	7.00%
\$150,000 to \$199,999	6	2.20%
\$200,000 or more	7	2.60%
Median household income (dollars)	48,269	(X)
Very low income	51	18.8%
Low income	41	15.1%
Moderate income	127	46.7%
High income	40	14.7%
Very high income	13	4.8%
rery mgm mcome	110	 -1 .0 /0

Per capita income	28,124	(X)
Median earnings for workers (dollars)		(X)
Median earnings for male full-time,	53,438	(X)
vear-round workers (dollars)	,	ľ <i>'</i>
Median earnings for female full-time,	30,000	(X)
year-round workers (dollars) POVERTY		
All families	(X)	3.30%
All people	(X)	5.00%
Under 18 years	(X)	10.80%
Receiving food stamps	9	3.30%
Receiving cash assistance	3	1.10%
INDUSTRY		
Civilian employed population 16	159	159
years and over		
Agriculture, forestry, fishing and	0	0%
hunting, and mining		
Construction	26	16%
Manufacturing	9	6%
Wholesale trade	4	3%
Retail trade	13	8%
Transportation and warehousing, and	9	6%
utilities		
Information	0	0%
Finance and insurance, and real	7	4%
estate and rental and leasing		
Professional, scientific, and	5	3%
management, and administrative and		
waste management services		
Educational services, and health care	48	30%
and social assistance		
Arts, entertainment, and recreation,	17	11%
and accommodation and food services		
Other services, except public	14	9%
administration		
Public administration	7	4%
Manufacturing to retail jobs	0.69	
Non-retail :	115	
Retail, arts, accommodations, food	30	
Non-retail to retail, arts, acc., food	3.83	

Population 16 years and over			
In labor force	EMPLOYMENT STATUS	1,00	1,00
Civilian labor force 176 35.90% Employed 159 32.40% Unemployed 17 3.50% Armed Forces 0 0.00% Not in labor force 176 176 Percent Unemployed (X) 9.70% Jobs per 1,000 residents 249 Non-service jobs per 1,000 residents 249 COMMUTING TO WORK 249 Workers 16 years and over 149 Drove alone 108 72.50% Carpooled 20 13.40% Public transit (except taxi) 0 0.00% Walked 11 7.40% Cohrer means 3 2.00% Worker swho commute 142 95.30% Commuters who drive alone 76.06% Mean travel time to work (minutes) 28.2 (X) HOUSEHOIDS BY TYPE Total households 272 272 Average family size 2.25 (X) VETERAN STATUS Civilian population 18 years + 477 477	Population 16 years and over		
Employed			
Unemployed			
Armed Forces			
Not in labor force	Unemployed		
Civilian labor force			
Percent Unemployed (X) 9.70% Jobs per 1,000 residents 249 Non-service jobs per 1,000 residents 249 COMMUTING TO WORK Workers 16 years and over 149 149 149 Drove alone 108 72.50% Carpooled 20 13.40% Public transit (except taxi) 0 0.00% Walked 11 7.40% Other means 3 2.00% Workers who commute 142 95.30% Commuters who drive alone 76.06% Mean travel time to work (minutes) 28.2 (X) HOUSEHOLDS BY TYPE Total households 272 272 Average household size 1.99 (X) Average family size 2.25 (X) VETERAN STATUS Civilian population 18 years + 477 477 478 Arab 0 0.00% Czech 0 0.00% Czech 0 0.00% Czech 0 0.00% Czech 0 0.00% English 97 17.90% French Canadian 4 0.70% Greek 0 0.00% Greek 0			64.10%
Jobs per 1,000 residents	Civilian labor force	176	
Non-service jobs per 1,000 residents 249	Percent Unemployed		9.70%
Non-service jobs per 1,000 residents 249	Jobs per 1,000 residents	249	
Workers 16 years and over	Non-service jobs per 1,000 residents	249	
Workers 16 years and over	COMMUTING TO WORK		
Carpooled 20 13.40% Public transit (except taxi) 0 0.00% Walked 11 7.40% Other means 3 2.00% Worked at home 7 4.70% Workers who commute 142 95.30% Commuters who drive alone 76.06% Mean travel time to work (minutes) 28.2 (X) HOUSEHOLDS BY TYPE 28.2 (X) Total households 272 272 Average household size 1.99 (X) Average family size 2.25 (X) VETERAN STATUS VITTERAN STATUS 477 477 Civilian population 18 years + 477 477 477 477 477 Civilian veterans 61 12.80% 44 47.60% Arab 0 0.00% 542 542 American 41 7.60% 44 7.60% 47 17.90% French (except Basque) 7 17.90% French (except Basque) 7 1.30% 7	Workers 16 years and over		
Public transit (except taxi) 0 0.00% Walked 11 7.40% Other means 3 2.00% Worked at home 7 4.70% Workers who commute 142 95.30% Commuters who drive alone 76.06% Mean travel time to work (minutes) 28.2 (X) HOUSEHOLDS BY TYPE Total households 272 272 Average household size 1.99 (X) Average tamily size 2.25 (X) VETERAN STATUS Total population 18 years + 477 477 Civilian veterans 61 12.80% ANCESTRY Total population 542 542 American 41 7.60% 4 Arab 0 0.00% 0.00% Czech 0 0.00% 0.00% English 97 17.90% French (except Basque) 7 1.30% French Canadian 4 0.70% 4.40% Hungarian 2 0.40%	Drove alone	108	72.50%
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Walked 11 7.40% Other means 3 2.00% Worked at home 7 4.70% Workers who commute 142 95.30% Commuters who drive alone 76.06% Mean travel time to work (minutes) 28.2 (X) HOUSEHOLDS BY TYPE Total households 272 272 Average household size 1.99 (X) Average family size 2.25 (X) VETERAN STATUS Civilian population 18 years + 477 477 Civilian veterans 61 12.80% ANCESTRY Total population 542 542 American 41 7.60% Arab 0 0.00% Czech 0 0.00% Dutch 16 3.00% English 97 17.90% French (except Basque) 7 1.30% French Canadian 4 0.70% German 184 33.90% Irish 81 14.90%<	Public transit (except taxi)	0	0.00%
Other means 3 2.00% Worked at home 7 4.70% Workers who commute 142 95.30% Commuters who drive alone 76.06% Mean travel time to work (minutes) 28.2 (X) HOUSEHOLDS BY TYPE 272 272 Total households 272 272 Average household size 1.99 (X) Average family size 2.25 (X) VETERAN STATUS 2.25 (X) Civilian population 18 years + 477 477 Civilian veterans 61 12.80% ANCESTRY 542 542 American 41 7.60% Arab 0 0.00% Czech 0 0.00% Danish 17 3.10% Dutch 16 3.00% English 97 17.90% French (except Basque) 7 1.30% French Canadian 4 0.70% Greek 0 0.00% </td <td>Walked</td> <td>11</td> <td>7.40%</td>	Walked	11	7.40%
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Polish 38 7.00% Portuguese 0 0.00% Russian 0 0.00% Scotch-Irish 13 2.40% Scottish 23 4.20% Slovak 0 0.00% Subsaharan African 0 0.00% Swedish 25 4.60% Swiss 4 0.70% Ukrainian 0 0.00% Welsh 2 0.40%	ANCESTRY Total population American Arab Czech Danish Dutch English French (except Basque) French Canadian German Greek Hungarian Irish Italian	542 41 0 0 17 16 97 7 4 184 0 2 81 21	542 7.60% 0.00% 0.00% 3.10% 3.00% 17.90% 0.70% 33.90% 0.00% 0.40% 14.90% 3.90%
Portuguese 0 0.00% Russian 0 0.00% Scotch-Irish 13 2.40% Scottish 23 4.20% Slovak 0 0.00% Subsaharan African 0 0.00% Swedish 25 4.60% Swiss 4 0.70% Ukrainian 0 0.00% Welsh 2 0.40%	ANCESTRY Total population American Arab Czech Danish Dutch English French (except Basque) French Canadian German Greek Hungarian Irish Italian Lithuanian	542 41 0 0 17 16 97 7 4 184 0 2 81 21	542 7.60% 0.00% 0.00% 3.10% 3.00% 17.90% 1.30% 0.70% 33.90% 0.00% 0.40% 14.90% 3.90% 4.40%
Russian 0 0.00% Scotch-Irish 13 2.40% Scottish 23 4.20% Slovak 0 0.00% Subsaharan African 0 0.00% Swedish 25 4.60% Swiss 4 0.70% Ukrainian 0 0.00% Welsh 2 0.40%	ANCESTRY Total population American Arab Czech Danish Dutch English French (except Basque) French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian	542 41 0 0 17 16 97 7 4 184 0 2 81 21 24	542 7.60% 0.00% 0.00% 3.10% 3.00% 17.90% 1.30% 0.70% 33.90% 0.40% 14.90% 3.90% 4.40% 3.00%
Scotch-Irish 13 2.40% Scottish 23 4.20% Slovak 0 0.00% Subsaharan African 0 0.00% Swedish 25 4.60% Swiss 4 0.70% Ukrainian 0 0.00% Welsh 2 0.40%	ANCESTRY Total population American Arab Czech Danish Dutch English French (except Basque) French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish	542 41 0 0 17 16 97 7 4 184 0 2 81 21 24 16 38	542 7.60% 0.00% 0.00% 3.10% 3.00% 17.90% 1.30% 0.70% 33.90% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00%
Scottish 23 4.20% Slovak 0 0.00% Subsaharan African 0 0.00% Swedish 25 4.60% Swiss 4 0.70% Ukrainian 0 0.00% Welsh 2 0.40%	ANCESTRY Total population American Arab Czech Danish Dutch English French (except Basque) French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese	542 41 0 0 17 16 97 7 4 184 0 2 81 21 24 16 38 0	542 7.60% 0.00% 0.00% 3.10% 3.00% 17.90% 1.30% 0.70% 33.90% 0.00% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00%
Slovak 0 0.00% Subsaharan African 0 0.00% Swedish 25 4.60% Swiss 4 0.70% Ukrainian 0 0.00% Welsh 2 0.40%	ANCESTRY Total population American Arab Czech Danish Dutch English French (except Basque) French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian	542 41 0 0 17 16 97 7 4 184 0 2 81 21 24 16 38 0	542 7.60% 0.00% 0.00% 3.10% 3.00% 17.90% 1.30% 0.70% 33.90% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00%
Subsaharan African 0 0.00% Swedish 25 4.60% Swiss 4 0.70% Ukrainian 0 0.00% Welsh 2 0.40%	ANCESTRY Total population American Arab Czech Danish Dutch English French (except Basque) French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish	542 41 0 0 17 16 97 7 4 184 0 2 81 21 24 16 38 0 0	542 7.60% 0.00% 0.00% 3.10% 3.00% 17.90% 1.30% 0.70% 33.90% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 0.00%
Swedish 25 4.60% Swiss 4 0.70% Ukrainian 0 0.00% Welsh 2 0.40%	ANCESTRY Total population American Arab Czech Danish Dutch English French (except Basque) French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish Scottish	542 41 0 0 17 16 97 7 4 184 0 2 81 21 24 16 38 0 0	542 7.60% 0.00% 0.00% 3.10% 3.00% 17.90% 1.30% 0.70% 0.00% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 0.00% 4.40% 4.20%
Swiss 4 0.70% Ukrainian 0 0.00% Welsh 2 0.40%	ANCESTRY Total population American Arab Czech Danish Dutch English French (except Basque) French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish Slovak	542 41 0 0 17 16 97 7 4 184 0 2 81 21 24 16 38 0 0 0 13 23	542 7.60% 0.00% 0.00% 3.10% 3.00% 17.90% 1.30% 0.70% 33.90% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 2.40% 4.20% 0.00%
Ukrainian 0 0.00% Welsh 2 0.40%	ANCESTRY Total population American Arab Czech Danish Dutch English French (except Basque) French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish Scottish Slovak Subsaharan African	542 41 0 0 17 16 97 7 4 184 0 2 81 21 24 16 38 0 0 0 13 23 0	542 7.60% 0.00% 0.00% 3.10% 3.00% 17.90% 1.30% 0.70% 33.90% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
Welsh 2 0.40%	ANCESTRY Total population American Arab Czech Danish Dutch English French (except Basque) French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish Slovak Subsaharan African Swedish	542 41 0 0 17 16 97 7 4 184 0 2 81 21 24 16 38 0 0 13 23 0	542 7.60% 0.00% 0.00% 3.10% 3.00% 17.90% 1.30% 0.70% 33.90% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 0.00% 0.00% 4.20% 0.00% 0.00% 4.60%
	ANCESTRY Total population American Arab Czech Danish Dutch English French (except Basque) French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish Scottish Slovak Subsaharan African Swedish Swiss	542 41 0 0 17 16 97 7 4 184 0 2 81 21 24 16 38 0 0 13 23 0 0 25 4	542 7.60% 0.00% 0.00% 3.10% 3.00% 17.90% 1.30% 0.70% 33.90% 0.00% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 0.00% 0.00% 4.20% 0.00% 0.00% 4.60% 0.70%
West Indian (excluding Hispanic) 0 0.00%	ANCESTRY Total population American Arab Czech Danish Dutch English French (except Basque) French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish Scottish Slovak Subsaharan African Swedish Swiss Ukrainian	542 41 0 0 17 16 97 7 4 184 0 2 81 21 24 16 38 0 0 0 13 23 0 0 25 4	542 7.60% 0.00% 0.00% 3.10% 3.00% 17.90% 1.30% 0.70% 33.90% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
	ANCESTRY Total population American Arab Czech Danish Dutch English French (except Basque) French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish Scottish Slovak Subsaharan African Swedish Swiss Ukrainian Welsh	542 41 0 0 17 16 97 7 4 184 0 2 81 21 24 16 38 0 0 13 23 0 0 2 5 4	542 7.60% 0.00% 0.00% 3.10% 3.00% 17.90% 1.30% 0.70% 33.90% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%

OCCUPATION		
	49.60%	+/-10.3
arts occupations	17.0070	
Service occupations	8.80%	+/-5.1
Sales and office occupations	20.40%	+/-8.1
Natural resources, construction, and	11.50%	
maintenance occupations		,
Production, transportation, and material	9.70%	+/-4.6
moving occupations		
VALUE		
Owner-occupied units	264	264
Median home value (dollars)	164,600	(X)
MORTGAGE STATUS	,	
Owner-occupied units	264	264
Housing units with a mortgage	91	34.50%
Housing units without a mortgage	173	65.50%
GROSS RENT		
Occupied units paying rent Median rent (dollars)	0	0
Median rent (dollars)	-	(X)
HOUSE HEATING FUEL		
Occupied housing units	272	272
Utility gas	0	0.00%
Bottled, tank, or LP gas	215	79.00%
Electricity	15	5.50%
Fuel oil, kerosene, etc.	9	3.30%
Coal or coke	0	0.00%
Wood	33	12.10%
Solar energy Other fuel	0	0.00%
Other fuel	0	0.00%
No fuel used	0	0.00%
YEAR STRUCTURE BUILT		
Total housing units	517	517
Built 2005 or later	32	6.20%
Built 2000 to 2004	42	8.10%
Built 1990 to 1999	106	20.50%
Built 1980 to 1989	59	11.40%
Built 1970 to 1979	39	7.50%
Built 1960 to 1969	32	6.20%
Built 1950 to 1959	34	6.60%
Built 1940 to 1949	16	3.10%
Built 1939 or earlier	157	30.40%

Notes for US Census Bureau, American Community Survey 2006-2010, Tables S2403, S2404, B20005 (following pages)

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

The methodology for calculating median income and median earnings changed between 2008 and 2009. Medians over \$75,000 were most likely affected. The underlying income and earning distribution now uses \$2,500 increments up to \$250,000 for households, non-family households, families, and individuals and employs a linear interpolation method for median calculations. Before 2009 the highest income category was \$200,000 for households, families and non-family households (\$100,000 for individuals) and portions of the income and earnings distribution contained intervals wider than \$2,500. Those cases used a Pareto Interpolation Method.

Industry codes are 4-digit codes and are based on the North American Industry Classification System 2007. The Industry categories adhere to the guidelines issued in Clarification Memorandum No. 2, ""NAICS Alternate Aggregation Structure for Use By U.S. Statistical Agencies," issued by the Office of Management and Budget.

While the 2006-2010 American Community Survey (ACS) data generally reflect the December 2009 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2000 data. Boundaries for urban areas have not been updated since Census 2000. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Explanation of Symbols:

- 1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
- 2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
 - 3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
 - 4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
- 5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
- 6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
- 7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
 - 8. An '(X)' means that the estimate is not applicable or not available.

Margin of Error

> +/-43 +/-16

+/-109 +/-16 +/-109 +/-109 +/-109 +/-109 +/-3 +/-5 +/-6 +/-109 +/-7 +/-109 +/-4 +/-3 +/-7 +/-109 +/-109 +/-109 +/-5 +/-109 +/-5 +/-109 +/-40 +/-28 +/-32 +/-21 +/-6 +/-19 +/-7 +/-3 +/-109 +/-4 +/-109 +/-109 +/-109 +/-109 +/-4 +/-4 +/-109 +/-109 +/-5 +/-109 +/-4 +/-109 +/-109

B20005: SEX BY WORK EXPERIENCE IN THE PAST 12 MONTHS BY EARNINGS IN THE PAST 12 MONTHS (IN 2010 INFLATION-ADJUSTED DOLLARS) FOR THE POPULATION 16 YEARS AND OVER

2006-2010 American Community Survey 5-Year Estimates

2006-2010 American Community	Estimate	Margin of		Estimate
	45 -	Error		
Total:	490	+/-80		
Male:	241	+/-42	Female:	249
Worked full-time, year-round	43	+/-18	Worked full-time, year-round	34
n the past 12 months:	0	/ 100	in the past 12 months:	
No earnings	0	+/-109	No earnings	0
With earnings:	43	+/-18	With earnings:	34
\$1 to \$2,499 or loss	0	+/-109	\$1 to \$2,499 or loss	0
\$2,500 to \$4,999	0	+/-109	\$2,500 to \$4,999	0
\$5,000 to \$7,499	0	+/-109	\$5,000 to \$7,499	0
\$7,500 to \$9,999	0	+/-109	\$7,500 to \$9,999	0
\$10,000 to \$12,499	0	+/-109	\$10,000 to \$12,499	1
\$12,500 to \$14,999	0	+/-109	\$12,500 to \$14,999	3
\$15,000 to \$17,499	0	+/-109	\$15,000 to \$17,499	6
\$17,500 to \$19,999	4	+/-5	\$17,500 to \$19,999	0
\$20,000 to \$22,499	0	+/-109	\$20,000 to \$22,499	5
\$22,500 to \$24,999	0	+/-109	\$22,500 to \$24,999	0
\$25,000 to \$29,999	4	+/-7	\$25,000 to \$29,999	2
\$30,000 to \$34,999	5	+/-5	\$30,000 to \$34,999	2
\$35,000 to \$39,999	0	+/-109	\$35,000 to \$39,999	8
\$40,000 to \$44,999	4	+/-5	\$40,000 to \$44,999	0
\$45,000 to \$49,999	0	+/-109	\$45,000 to \$49,999	0
\$50,000 to \$54,999	7	+/-8	\$50,000 to \$54,999	0
\$55,000 to \$64,999	2	+/-5	\$55,000 to \$64,999	4
\$65,000 to \$74,999	3	+/-4	\$65,000 to \$74,999	0
\$75,000 to \$99,999	0	+/-109	\$75,000 to \$99,999	3
\$100,000 or more	14	+/-10	\$100,000 or more	0
Other:	198	+/-38	Other:	215
No earnings	121	+/-30	No earnings	133
With earnings:	77	+/-26	With earnings:	82
\$1 to \$2,499 or loss	7	+/-7	\$1 to \$2,499 or loss	34
\$2,500 to \$4,999	11	+/-9	\$2,500 to \$4,999	5
\$5,000 to \$7,499	9	+/-9	\$5,000 to \$7,499	19
\$7,500 to \$9,999	6	+/-5	\$7,500 to \$9,999	6
\$10,000 to \$12,499	3	+/-5	\$10,000 to \$12,499	2
\$12,500 to \$14,999	10	+/-12	\$12,500 to \$14,999	0
\$15,000 to \$17,499	0	+/-109	\$15,000 to \$17,499	3
\$17,500 to \$19,999	3	+/-5	\$17,500 to \$19,999	0
\$20,000 to \$22,499	0	+/-109	\$20,000 to \$22,499	0
\$22,500 to \$24,999	6	+/-7	\$22,500 to \$24,999	0
\$25,000 to \$29,999	3	+/-4	\$25,000 to \$29,999	0
\$30,000 to \$34,999	0	+/-109	\$30,000 to \$34,999	3
\$35,000 to \$39,999	4	+/-5	\$35,000 to \$39,999	3
\$40,000 to \$44,999	0	+/-109	\$40,000 to \$44,999	0
\$45,000 to \$49,999	4	+/-6	\$45,000 to \$49,999	0
\$50,000 to \$54,999	0	+/-109	\$50,000 to \$54,999	4
\$55,000 to \$64,999	0	+/-109	\$55,000 to \$64,999	0
\$65,000 to \$74,999	11	+/-15	\$65,000 to \$74,999	3
	0	+/-109	\$75,000 to \$74,999 \$75,000 to \$99,999	0
\$75,000 to \$99,999				

S2403: INDUSTRY BY SEX AND MEDIAN EARNINGS IN THE PAST 12 MONTHS (IN 2010 INFLATION-ADJUSTED DOLLARS)
FOR THE CIVILIAN EMPLOYED POPULATION 16 YEARS AND OVER

2006-2010 American Community Survey 5-Year Estimates	Year Estir	nates										
	악	Total		Male	Fer	Female	Median	Median earnings	Median	Median earnings:		Median earnings:
	Estimate Rror	Margin of Fror	Estimate	Margin of Frror	Estimate	Margin of Frror	Estimate	Margin of Fror	Estimate	Margin of Frror	Estimate	Margin of Fror
Civilian employed population 16 years and over	159	+/-40	%6'29	+/-10.6	42.1%	+/-10.6	30,469	+/-8,271	39,375	١/-14,129		-
Agriculture, forestry, fishing and hunting, an	0	+/-109		*		*		* *	ı	*		*
Agriculture, forestry, fishing and hunting	0	+/-109		*		*		* *		*		**
Mining, quarrying, and oil and gas extract	0	+/-109	_	* *		*		*	_1	*	_	* *
nstruction	26	+/-13	100.0%	+/-53.5	%0.0	+/-53.5	28,750	+/-11,002	28,750	+/-11,002		**
Manufacturing	6	L-/ +	%0:0	6'06-/+	100.0%	6'06-/+	28,125	+/-18,330	-	*	28,125	+/-18,330
Wholesale trade	4	/-/ +	100.0%	+/-100.0	0.0%	+/-100.0		*	-	* *		**
Retail trade	13	+/-11	46.2%			+/-29.1	11,250	- 1	2,500-	* * *	21,250	+/-22,633
Transportation and warehousing, and utiliti	ത	+/-10	%2'99	+/-28.9	33.3%	+/-28.9	63,125	+/-41,773	66,250	+/-12,358	ı	*
Transportation and warehousing	6	+/-10	%2'99	+/-28.9	33.3%	+/-28.9	63,125	+/-41,773	66,250	+/-12,358		**
	0	+/-109		l		*	ı			*		**
Information	0	+/-109		**	-	**	_	**	-	*		**
Finance and insurance, and real estate and rental and leasing:	7	+/-10	%0'0	+/-100.0	100.0%	+/-100.0	2,500-	* * *	_1	*	2,500-	* * *
Finance and insurance	0	+/-109		*		*		* *		* *		**
Real estate and rental and leasing	7	+/-10	%0.0	+/-100.0	100.0%	+/-100.0	2,500-	* * *		*	2,500-	* * *
Professional, scientific, and management, a nd administrative and waste management s	2	9-/+	40.0%	6'05-/+	%0.09	-/-50.9	80,417	+/-65,539	ı	*	ı	*
Professional, scientific, and technical services	2	9-/+	40.0%	6'05-/+	%0.09	6'09-/+	80,417	+/-65,539	ı	* *	-	* *
Management of companies and enterpris	0	+/-109		* *		* *	,	* *	1	*		* *
nd support and waste man	0	+/-109		*		*		*		*		*
ices, and health care and s	48	+/-25	26.3%	+/-20.3	43.8%	+/-20.3	56,875	+/-21,068	107,813	+/-96,956 37,917	37,917	+/-13,419
ocial assistance: Educational services	50 50	+/-19	85.0%	+/-21.3	15.0%	+/-21.3	65,833	+/-50,382	66,250	+/-33,935		*
Health care and social assistance	28	+/-18	35.7%	+/-18.1	64.3%	+/-18.1	55,000	+/-11,832	163,333	+/-42,270	39,167	+/-24,443
, and acc	17	+/-10	41.2%	+/-35.0	28.8%	+/-35.0	7,188	+/-9,664	2,500-	* * *	8,750	-/-7,779
Arts, entertainment, and recreation	0	+/-109		*		*		*		* *		*
rvices		+/-10	41.2%			+/-35.0	7,188	+/-9,664	2,500-	* * *	8,750	+/-7,779
ot public administration	14	+/-10	%9'82	+/-27.2		+/-27.2	30,000	+/-46,019	43,750	+/-44,139		*
Public administration	7	9-/+	42.9%	+/-48.0	57.1%	+/-48.0	7,917	+/-2,572		*	299'9	+/-5,677
PERCENT IMPUTED												
Industry	6.3%	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)

S2404: INDUSTRY BY SEX AND MEDIAN EARNINGS IN THE PAST 12 MONTHS (IN 2010 INFLATION-ADJUSTED DOLLARS) FOR THE FULL-TIME, YEAR-ROUND CIVILIAN EMPLOYED POPULATION 16 YEARS AND OVER 2006-2010 American Community Survey 5-Year Estimates

2006-2010 American Community Survey 5-Year Estimates	ear Estima	les										
	Total	<u>8</u>	Male	ile	Female		Aedian e	Median earnings (d	_	earnings (Median earnings	earnings (
	Estimate	Margin of Fror	Estimate	Margin of Frror	Estimate	Margin of E	Estimate	Margin of Fron	dollars) Estimate	stimate Fror	dollars) Estimate	Estimate Front
Full-time, year-round civilian employed popul ation 16 years and over	77	7	25.8%		44.2%	_	38,750	4	53,438	+/-14,504 30,000	30,000	+/-15,786
Agriculture, forestry, fishing and hunting, and mining:	0	+/-109		*		*	*	*		*		*
Agriculture, forestry, fishing and hunting	0	+/-109	-	*		* *	*	**		*		**
Mining, quarrying, and oil and gas extraction 0		+/-109	-	* *		* *	*	*	1	* *		* *
Construction		9-/+	%	+/-100.0	\neg	+/-100.0 1	19,688	+/-19,235	19,688	+/-19,235		*
Manufacturing	5	+/-5	%0.0	+/-100.0	%	+/-100.0 1	7,083	+/-23,829		*	17,083	+/-23,829
Wholesale trade		L-/ +	100.0%	+/-100.0	0.0%	+/-100.0	*	*	_	**	-	**
Retail trade	5	+/-5	%0.0	+/-100.0	100.0%	+/-100.0 2	22,083	+/-11,983	ı		22,083	+/-11,983
Transportation and warehousing, and utilities:6		/-/ +	100.0%	+/-100.0 0.0%		+/-100.0 6				+/-12,358		* *
Transportation and warehousing	9	L-/ +	100.0%	-100.0	%0.0	+/-100.0 66,250		+/-12,358	66,250	+/-12,358		*
Utilities		+/-109		*		* *	*	**	ı	* *		*
Information	0	+/-109	_	*		* *	*	**		* *		*
Finance and insurance, and real estate and r	0	+/-109	_	*		* *	*	*		*		*
ental and leasing:				-						11		
Finance and insurance		+/-109		*		* *	*	*		*		*
Real estate and rental and leasing	0	+/-109				\neg		*		*		*
Professional, scientific, and management, a nd administrative and waste management se		9-/+	40.0%	+/-50.9	%0.09	+/-50.9 80	80,417	+/-65,539		*		*
rvices:												
Professional, scientific, and technical servi	2	9-/+	40.0%	+/-50.9	%0'09	8 6:05-/+	80,417	+/-65,539	-	*		*
Management of companies and enterprises 0		+/-109	-	*		* *	*	**	1	*		*
Administrative and support and waste mana 0	0 1	+/-109		*		* *	*	*		*		* *
gement services	24	1	15 20/	0 AC / .	700/	0 70 / 1	200	, / 80 F14	106 87E	, EE 100 36 7E0	36 750	10010
cial assistance:		0 - /+	0, N.					+-0,00-7-		+/-33,166,	00,1,00	0 2,2 -/+
Educational services	7	2-/+	57.1%	+/-52.5	42.9%	+/-52.5	107,813 -	+/-175,805		*		* *
Health care and social assistance	24	+/-15	41.7%	+/-25.4	58.3%	+/-25.4 5	56,250	+/-82,206	163,333	+/-42,270	37,500	+/-3,150
Arts, entertainment, and recreation, and acco	9	<i>L-/</i> +	%0.03	+/-50.0	20.0%	+/-50.0 3;	33,750	+/-49,308		* *		*
mmodation and food services:				1			1	1		1		1
Arts, entertainment, and recreation		+/-109						k	_	k :		k :
Accommodation and food services		/-/+			. 0			+/-49,308		*		* :
Other services, except public administration	7	8-/+	%			0	52,813	+/-12,440	52,813	+/-12,440		* :
Public administration	-	+/-3	%0.0	+/-100.0	100.0%	+/-100.0 -	*	*		*		*
PERCENT IMPUTED												
Industry	6.5%	(X)	(X)	(X)	(X)	(X)) (X)	(X)	(X)	(X)	(X)	(X)

Esri Business Analyst

Financial Expenditures			
·			
Arcadia township_3			
Arcadia township, MI (2610103320)			
Geography: County Subdivision			
	Spending	Average	
	Potential Index	Amount Spent	Total
Assets			
Market Value			
Checking Accounts	78	\$4,435.92	\$1,326,339
Savings Accounts	80	\$10,223.92	\$3,056,953
U.S. Savings Bonds	88	\$352.85	\$105,503
Stocks, Bonds & Mutual Funds	71	\$26,694.03	\$7,981,516
Annual Changes			
Checking Accounts	47	\$118.53	\$35,441
Savings Accounts	77	\$290.16	\$86,759
U.S. Savings Bonds	380	\$8.77	\$2,622
Earnings			
Dividends, Royalties, Estates, Trusts	82	\$785.64	\$234,906
Interest from Savings Accounts or Bonds	76	\$672.75	\$201,151
Retirement Plan Contributions	69	\$920.65	\$275,275
Liabilities			
Original Mortgage Amount	57	\$11,867.77	\$3,548,462
Vehicle Loan Amount 1	89	\$2,351.43	\$703,077
Amount Paid: Interest			
Home Mortgage	62	\$2,789.32	\$834,008
Lump Sum Home Equity Loan	71	\$89.33	\$26,711
New Car/Truck/Van Loan	76	\$153.80	\$45,987
Used Car/Truck/Van Loan	90	\$142.19	\$42,515
Amount Paid: Principal			
Home Mortgage	70	\$1,340.96	\$400,947
Lump Sum Home Equity Loan	72	\$116.80	\$34,923
New Car/Truck/Van Loan	76	\$816.67	\$244,185
Used Car/Truck/Van Loan	92	\$675.93	\$202,102
Checking Account and Banking Service	70	\$18.79	\$5,619
Charges Finance Charges, excluding Mortgage/Vehicle	71	\$168.74	\$50,453

Business Summary				
Justific 33 - Juli III il 				
rcadia township_3				
rcadia township, MI (2610103320)				
ieography: County Subdivision				
3 1 3 3				
Oata for all businesses in area		Arcadia		
		township, MI		
otal Businesses:		(261 43		
otal Employees:		189		
otal Residential Population:		644		
mployee/Residential Population Ratio:		0.29		
mployeo/residential repulation ratio.		0.27		
	Businesses		Employees	
y NAICS Codes	Number	Percent	Number	Percent
griculture, Forestry, Fishing & Hunting	1	2.3%	1	0.5%
ining	0	0.0%	0	0.0%
tilities	0	0.0%	0	0.0%
onstruction	7	16.3%	15	7.9%
anufacturing	1	2.3%	3	1.6%
holesale Trade	0	0.0%	0	0.0%
etail Trade	4	9.3%	14	7.4%
otor Vehicle & Parts Dealers	1	2.3%	5	2.6%
urniture & Home Furnishings Stores	0	0.0%	0	0.0%
ectronics & Appliance Stores	0	0.0%	0	0.0%
dg Material & Garden Equipment & Supplies Dealers	0	0.0%	0	0.0%
ood & Beverage Stores	1	2.3%	2	1.1%
ealth & Personal Care Stores	0	0.0%	0	0.0%
asoline Stations	1	2.3%	5	2.6%
lothing & Clothing Accessories Stores	0	0.0%	0	0.0%
port Goods, Hobby, Book, & Music Stores eneral Merchandise Stores	0	0.0%	0	0.0%
iscellaneous Store Retailers	1	2.3%	2	1.1%
onstore Retailers	0	0.0%	0	0.0%
ransportation & Warehousing	1	2.3%	3	1.6%
ansportation a wateriousing	1	2.3%	1	0.5%
nance & Insurance	0	0.0%	0	0.0%
entral Bank/Credit Intermediation & Related Activities	0	0.0%	0	0.0%
ecurities, Commodity Contracts & Other Financial Investments &	0	0.0%	0	0.0%
ther Related Activities Isurance Carriers & Related Activities; Funds, Trusts & Other Financial				
surance Carriers & Related Activities; Funds, Trusts & Other Financial	0	0.0%	0	0.0%
eal Estate, Rental & Leasing	1	2.3%	1	0.5%
ofessional, Scientific & Tech Services	4	9.3%	8	4.2%
egal Services	1	2.3%	2	1.1%
anagement of Companies & Enterprises	0	0.0%	0	0.0%
dministrative & Support & Waste Management & Remediation	1	2.3%	1	0.5%
ervices ducational Services	0	0.0%	0	0.0%
ealth Care & Social Assistance	3	7.0%	19	10.1%
rts, Entertainment & Recreation	1	2.3%	3	1.6%
commodation & Food Services	8	18.6%	75	39.7%
ccommodation	5	11.6%	12	6.3%
ood Services & Drinking Places	3	7.0%	63	33.3%
ther Services (except Public Administration)	5	11.6%	10	5.3%
utomotive Repair & Maintenance	2	4.7%	4	2.1%
ublic Administration	3	7.0%	29	15.3%
nclassified Establishments	2	4.7%	6	3.2%
otal	43	100%	189	100%

Appendix C

Documentation

A complete packet has been assembled that includes

"Intent to plan" notices
Draft distribution notices
Public hearing notices
All received comments
Meeting minutes related to consideration of comments
Public hearing meeting minutes

A copy of this packet is on file at Arcadia Township Hall.

The documents are also available at

www.lakestoland.org/arcadia-2/master-plan/

As required by Michigan Public Act 33 of 2008, the Michigan Planning Enabling Act, the signed resolution adopting this master plan is on the inside cover.



Figures, Maps, Tables

M-c
M-7
M-7
M-11



Priority Sharing

The original scope of work for the collaboration, designed at the very beginning of the process, was focused on respecting and honoring the individuality and unique qualities of communities while developing opportunities for partnership and collaboration.

Given their potential utility to other communities, the appendix includes a generic copy of the resolutions that Lakes to Land governing bodies were asked to consider and pass to signify grassroots acceptance and understanding of Lakes to Land goals and principles. Just as Lakes to Land began within a collaborative framework, a culmination was envisioned in which all of the participating communities brought their completed master plans—whether written with Lakes to Land or independently—together to share their content and discuss the potential for implementation partnerships. The event was to be called a "Convention of Communities," and would be both a working session and a celebration of the successful master planning process.

But it's hard to accurately predict the conditions at the end of a pioneering undertaking. The Leadership Team's monthly meetings over the course of the year and a half spent writing the master plans forged some deep and personal connections among the communities' planning commissioners and leaders, and excitement to share in each others' work built as the drafts neared completion. There is a long, quiet administrative stretch between when a planning commission completes its draft and when it is formally and finally adopted, and the Leadership Team wanted to capitalize on and spread some of the enthusiasm before it dissipated. Accordingly, they invited planning commissioners and appointed and elected officials from all of the participating communities as well

as the Little River Band of Ottawa Indians to a "Priority Sharing Meeting" on June 27, 2013. Fifty-nine people, including a couple of members of the public, attended. This unprecedented gathering of community planners and leaders was exciting and dynamic, occurring at the right time under the right circumstances—a situation that could hardly be planned even by the best planners.

The meeting opened with a locallysourced, zero-waste feast of pizza and veggies organized by Crystal Lake Township leadership team member Sharron May. In preparation for the meeting, communities were asked to choose five priorities that could serve as an initial step to advance their goals and vision, and the consultant team presented the full list of 69 priorities before consolidating them into ten categories in order to indicate potential alliances. Demonstrating both the value and effect of momentum, Tim Ervin of Manistee Alliance for Success introduced a new grant awarded to the Initiative by the Michigan Department of Treasury for implementation and explained that the grant was written to target support for zoning and the development of an Agriculture Innovation District—both common themes that had emerged through the collaborative goal-setting process.

Ten posters, one for each theme and its associated priorities, were affixed to the wall. Participants were given









5.1 Shared Community Priorities table

AGRICULTURE				
Blaine	Consider developing an agriculture vitality strategy			
Pleasanton	Develop agriculture -based economic development.			
REDUCE BLIGHT				
Crystal Lake	Ordinances should be adopted and enforced from nuisances such as blight, noise, air, smoke, light and water pollution			
Joyfield	Multi-township household dump day			
Gilmore	Blight			
Honor	Development of a blight/junk ordinance.			
Bear Lake Twp	Develop an enforcable blight and junk ordinance and take steps to implement it			
Bear Lake Village	Eliminate blight			
IMPROVE COMM	UNICATIONS			
Crystal Lake	Improve communication and cooperation between Crystal Lake Township and its citizens and other local units of government.			
Manistee	Reinstitute semi-annual meetings with neighboring townships			
Manistee	Expand/Use Web Page and Facebook to promote Manistee and link to CVB, Chamber & AES			
ECONOMIC DEVE	LOPMENT			
Crystal Lake	Encouraged development in locations with public services and consistent with the density, character, and development in the area and our Cornerstones			
Elberta	Historic Life Saving Station Preservation			
Joyfield	Growth in light industry/small business (training, zoning issues)			
Manistee	Work with Main Street/DDA to recruit more business options			
Manistee	Promote Guidebook for Economic Development/Job Creation			
Honor	Develop design guidelines that expresses the community's vision for achieving a desired Village character.			
Arcadia	Implement commercial streetscape improvements.			
Manistee Twp.	Continue to welcome construction of large retail stores in the township			
Bear Lake Village	Revitalize downtown			



INFRASTRUCTURE:	EXPAND AND IMPROVE		
Elberta	Sewer/Water infrastructure		
Joyfield	Infrastructure - wireless, natural gas		
Joyfield	Township roads - assessment, upgrades, trails		
Blaine	Develop a road improvement plan to cover maintenance, site plans (private roads) and good communication and coordination with MDOT and County Road Commission.		
Gilmore	Technology		
Arcadia	Project analysis and feasibility study of installing a sanitary sewer system.		
Arcadia	Utilize and develop the facilities at the Pleasant Valley Community Center t the local and regional trail hub.		
Frankfort	Create and Improve Way-finding signage and Enhance the commercial corridor through traffic controls and improved pedestrian/non-motorized access and off street parking.		
Frankfort	Adopt Energy Independence Plans, including community energy generation and reduction in grid-based energy based on fossil fuels.		
Bear Lake Village	Affordable sewer		
Onekama	High-speed Internet infrastructure		

M-22 SCENIC HIGHWAY			
Gilmore	M-22 Scenic Highway Designation		
Onekama	M-22 corridor/ Scenic Heritage route		

LAI AND RECREA	TION OPPORTUNITIES AND IMPROVE EXISTING FACILITIES
Honor	Purchase the vacant properties along South Street for the purpose of developing a public access point to the Platte River.
Elberta	Penfold Park Marina (dredging, raised boardwalk/fishing deck, kayak/canoe launch, connect to Betsie Valley Trail)
Elberta	Elberta beach park development (parking, picnic tables, restrooms, changing area, play area/landscaping)
Elberta	Elberta Dunes South (trail signs, benches, lookout platforms, natural-history signage, promote year round activities, self-composting style permanent restrooms)
Frankfort	Create new standards for public facilities in recreational destinations and develop public private partnership(s) to build these facilities
Manistee Twp.	Provide more access to the Big Manistee River
Bear Lake Twp.	Develop a parks and recreation plan.
Bear Lake Village	Community Center
Bear Lake Village	Park Facility/Public Restrooms
Bear Lake Village	5 year Recreation Plan



Crystal Lake	Review and revise Rural Preservation Zoning District of the Zoning Ordinance			
Blaine	Develop a scenic view protection plan			
Blaine	Simplify PUD process			
Elberta	Zoning Ordinance critique and revision			
Gilmore	Funding to incorporate zoning revisions and provide for legal review of zoning ordinance.			
Gilmore	Rural scenic charioteer preservation.			
Honor	Revisions to the zoning ordinance.			
Pleasanton	Update the Zoning Ordinance.			
Frankfort	Update Parking regulations and standard			
Frankfort	Develop Zoning Ordinance(s) for Alternative and Renewable Energy collection, storage and use along with conservation standards that will bring about the reduction in energy demand.			
Manistee Twp.	Require buffers & connections between different land use districts			
Manistee Twp.	Streamline permitting processes			
Onekama	Zoning ordinance rewrite			
	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -			
IN THE PARTY OF TH	Protection of "Natural Resources" (watershed, agriculture, etc.)			
Onekama	Protection of "Natural Resources" (watershed, agriculture, etc.)			
Onekama TRAILS SYSTEM	Protection of "Natural Resources" (watershed, agriculture, etc.) S: LAND AND WATER			
Onekama TRAILS SYSTEM	Protection of "Natural Resources" (watershed, agriculture, etc.) S: LAND AND WATER Trail Systems			
Onekama TRAILS SYSTEM Gilmore	Protection of "Natural Resources" (watershed, agriculture, etc.) S: LAND AND WATER			
Onekama TRAILS SYSTEM Gilmore Honor	Protection of "Natural Resources" (watershed, agriculture, etc.) S: LAND AND WATER Trail Systems Develop a non-motorized transportation route through the Village linking the Village to the Sleeping Bear Dunes National Lakeshore.			
Onekama TRAILS SYSTEM Gilmore Honor Pleasanton	Protection of "Natural Resources" (watershed, agriculture, etc.) S: LAND AND WATER Trail Systems Develop a non-motorized transportation route through the Village linking the Village to the Sleeping Bear Dunes National Lakeshore. Develop a multi-user trail system throughout the Township that also connects to			
Onekama TRAILS SYSTEM Gilmore Honor Pleasanton Arcadia	Protection of "Natural Resources" (watershed, agriculture, etc.) S: LAND AND WATER Trail Systems Develop a non-motorized transportation route through the Village linking the Village to the Sleeping Bear Dunes National Lakeshore. Develop a multi-user trail system throughout the Township that also connects to regional trail systems.			
Onekama TRAILS SYSTEM Gilmore Honor Pleasanton Arcadia Bear Lake Twp.	Protection of "Natural Resources" (watershed, agriculture, etc.) S: LAND AND WATER Trail Systems Develop a non-motorized transportation route through the Village linking the Village to the Sleeping Bear Dunes National Lakeshore. Develop a multi-user trail system throughout the Township that also connects to regional trail systems. Development of blue and green non-motorized transportation trails. Develop trail systems throughout the community and provide linkages to			
Onekama	Protection of "Natural Resources" (watershed, agriculture, etc.) S: LAND AND WATER Trail Systems Develop a non-motorized transportation route through the Village linking the Village to the Sleeping Bear Dunes National Lakeshore. Develop a multi-user trail system throughout the Township that also connects to regional trail systems. Development of blue and green non-motorized transportation trails. Develop trail systems throughout the community and provide linkages to regional trail systems.			
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Onekama TRAILS SYSTEM Gilmore Honor Pleasanton Arcadia Bear Lake Twp. Onekama	Protection of "Natural Resources" (watershed, agriculture, etc.) S: LAND AND WATER Trail Systems Develop a non-motorized transportation route through the Village linking the Village to the Sleeping Bear Dunes National Lakeshore. Develop a multi-user trail system throughout the Township that also connects to regional trail systems. Development of blue and green non-motorized transportation trails. Develop trail systems throughout the community and provide linkages to regional trail systems. Bike/ hiking pathway/ trail plan Trails / bridge over Betsie River			
Onekama TRAILS SYSTEM Gilmore Honor Pleasanton Arcadia Bear Lake Twp. Onekama Joyfield	Protection of "Natural Resources" (watershed, agriculture, etc.) S: LAND AND WATER Trail Systems Develop a non-motorized transportation route through the Village linking the Village to the Sleeping Bear Dunes National Lakeshore. Develop a multi-user trail system throughout the Township that also connects to regional trail systems. Development of blue and green non-motorized transportation trails. Develop trail systems throughout the community and provide linkages to regional trail systems. Bike/ hiking pathway/ trail plan Trails / bridge over Betsie River			
Onekama TRAILS SYSTEM Gilmore Honor Pleasanton Arcadia Bear Lake Twp. Onekama Joyfield WATER QUALIT Crystal Lake	Protection of "Natural Resources" (watershed, agriculture, etc.) S: LAND AND WATER Trail Systems Develop a non-motorized transportation route through the Village linking the Village to the Sleeping Bear Dunes National Lakeshore. Develop a multi-user trail system throughout the Township that also connects to regional trail systems. Development of blue and green non-motorized transportation trails. Develop trail systems throughout the community and provide linkages to regional trail systems. Bike/ hiking pathway/ trail plan Trails / bridge over Betsie River			
Onekama TRAILS SYSTEM Gilmore Honor Pleasanton Arcadia Bear Lake Twp. Onekama Joyfield WATER QUALIT	Protection of "Natural Resources" (watershed, agriculture, etc.) S: LAND AND WATER Trail Systems Develop a non-motorized transportation route through the Village linking the Village to the Sleeping Bear Dunes National Lakeshore. Develop a multi-user trail system throughout the Township that also connects to regional trail systems. Development of blue and green non-motorized transportation trails, Develop trail systems throughout the community and provide linkages to regional trail systems. Bike/ hiking pathway/ trail plan Trails / bridge over Betsie River Y Incorporate water quality and storm water MDEQ BMP's into land use planning and zoning processes.			





5.2 Volunteer card



four sticker "dots" and asked to vote for the four topics they considered to be of the highest priority. As indicated by the table below, the topics that received the greatest number of votes were trail systems, infrastructure, and economic development. Each participant was also given a card with all ten of the priorities listed and asked to provide their names, contact information, and their top three choices of topics on which

they would like to work. Based on that selection, they convened with other interested parties at the table marked with that topic's letter for a discussion about that issue. In this way, the meeting both created a communication mechanism for future committee work and began to foster the relationships required to build it.

In many ways, the Priority Sharing Meeting accomplished much of

what was hoped would be done at the Convention of Communities by providing a forum to view and discuss the collaboration as a whole with fresh plans in hand, and by presenting the collaboration to a wider audience. Accordingly, later discussions among the Leadership began exploring the best format for the collaboration's next steps with an eye toward turning the Convention of Communities into an event meant for a future purpose.

5.3 Regional Collective Priorities table

REGIONAL COLLECTIVE PRIORITIES	
Priority	Votes
Trail Systems: Land and Water	31
Infrastructure: Expand and Improve	29
Economic development	28
Special Regulations / Zoning	25
Reduce Blight and Nuisances	23
Recreation: Expand Opportunities and Improve Facilities	19
Water Quality	16
Agriculture	15
M-22 Scenic Highway	9
Improve Communications	7



Collaboration

As the project's focus began to shift from planning to implementation, it became clear that the structure of the collaboration may also need to adapt.

Planning commissions are designated by Michigan law as the principal authors of a master plan, and so the candidates for members of a planning collaborative were relatively easy to identify. Implementation, on the other hand, is best practiced with all available hands. The preliminary work committees suggested at the Priority Sharing Meeting represented a possible pool of participants, but need a firmer formation and leadership.

Items that rose to the top of the collaboration's immediate needs included a new organizational structure to replace the one that had been guided by the project's initial documents, the capacity to assume responsibility for that structure without the constant oversight of consultants, and partnerships with state agencies, foundations, and other entities who could assist with the implementation. An important step toward capacity building came with the training of 23 of the planning commissioners serving

jurisdictions within the collaboration through the Michigan State University Extension Citizen Planner program. Those who took the class reported learning a great deal about planning in general and also had yet another opportunity to interact with other planning commissioners, sharing strategies and forming relationships.

Being armed with knowledge is important, but putting that knowledge to use is what L2L is all about. With the master plans written, communities are faced with the charge of implementing them. After several meetings and discussions, a core group of Lakes to Land leaders with the help of Manistee Alliance for Economic Success recommended creation of a 501(c)(3) as the appropriate structure under which to organize the collaboration's future efforts towards implementing the newly adopted master plans. Much of the work at developing this backbone entity is still being determined, but it is assured that the philosophy is based

on a community collective action model. The desire is to help communities collaborate and co-generate knowledge in order to achieve community change. This organization would be a framework for cross sector implementation and collaboration, providing a backbone of support services to L2L participants to help implement and achieve their priorities and goals. The entity would be a hub for a collective action model that would develop and "connect the dots" between public agency, private foundation, academic and other resources and master plan priorities, including those involving multiple jurisdictions.

The application and supporting documentation has been prepared and the official filing with the Internal Revenue Service is anticipated in 2014.

The implementation arm of the L2L Initiative is also faced with a larger question centered on the involvement of partners. Many, such as the Michigan

Department of Natural Resources, had very clearly-outlined procedures for any given community to request grant funds and other assistance, but no procedures at all to accommodate a request shared among many communities. This represented more of an opportunity than an insurmountable hurdle, especially given the gubernatorial administration's overall emphasis on collaboration as evidenced by a complete restructuring of the state's revenue sharing program to reward communities that could demonstrate wise use of resources through shared services. However, it is always challenging to make broad changes to business-as-usual in a large bureaucracy, and several methods of

communication were bandied about: Would it be better to have the agency present all its options and then try to fit one as closely as possible? Or should L2L representatives lay their case on the table and ask the agency to design a procedure around it? Would it be better to talk to a number of partners at once to garner a "big-picture" discussion, would one-on-one meetings allow for more attention to detail? Meetings have been held with regional representatives from the Michigan Department of Natural Resources, Michigan Department of Environmental Quality, and the Michigan Department

"The master plan is not the most valuable thing that has come from this. Building relationships has been the biggest value. The network is being built from the citizens up."

of Agriculture and Rural Development, and both the "backbone entity" and the implementation partners are learning together how to collaborate to fulfill each others' goals. This is a process that will no doubt continue into the future.

At the time of this writing, the above mentioned questions continue to be a topic of discussion and action among the Leadership Team members, a roster that has swelled over the last two years to include the Little River Band of Ottawa Indians as well as additional planning commissioners and other officials who have taken an interest in the project as it has grown. Even as attention to the master planning

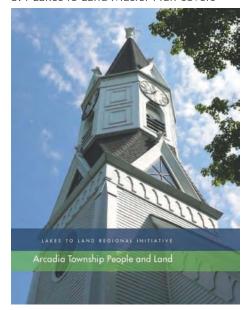
process is waning to a narrow focus on adoption procedures, the collaborative structure that produced an unprecedented nine coordinated plans, woven together with shared geography and concerns, continues to hum with anticipation. Work has begun on launching a food innovation district, designating an M-22 scenic byway, and new protections for the Arcadia Lake watershed. With the assistance of the Executive Office, a meeting has been held with State department leadership to review the process, results, and priorities of the L2L. In addition, L2L is also on the agenda for

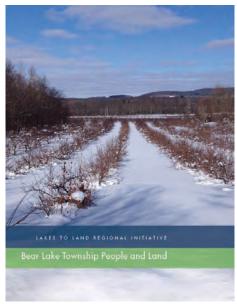
the October Annual Meeting of the Council of Michigan Foundations.
Foundations will learn about L2L and, more importantly, have an opportunity to become part of a collective action framework for implementation.
Another

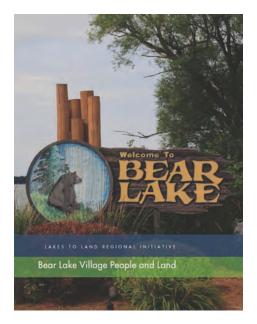
implementation grant opportunity is being developed that would design a water and land trail system within the region, connecting with trails outside of the region and look at ways that L2L participants can better manage and develop recreational assets.

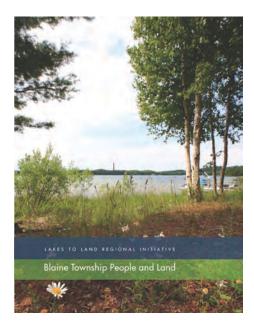
Even as these steps toward tangible progress are underway, it is also appropriate to reflect on a passage from the April 2014 minutes of the L2L Leadership Team: "The master plan is not the most valuable thing that has come from this. Building relationships has been the biggest value. The network is being built from the citizens up."

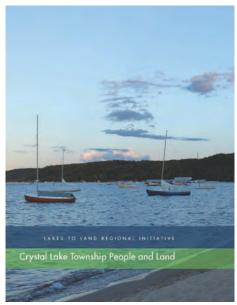
5.4 Lakes to Land Master Plan covers

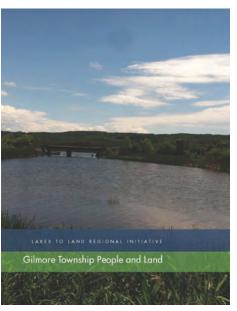


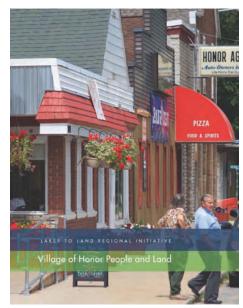


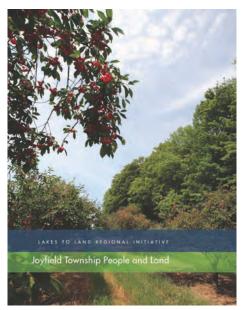


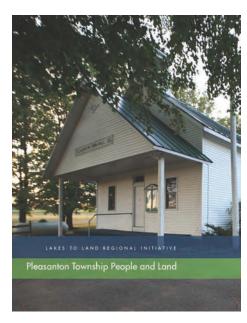












TOWNSHIP OF ARCADIA COUNTY OF MANISTEE, STATE OF MICHIGAN

Arcadia Township Planning Commission Resolution Approving New Arcadia Township Master Plan

WHEREAS, the Michigan Planning Enabling Act (MPEA) authorizes municipal planning commissions to prepare a "master plan" pertinent to the future development of the municipality; and

WHEREAS, the Arcadia Township Planning Commission has prepared a draft master plan for Arcadia Township as part of a regional planning collaboration known as the Lakes to Land Regional Initiative, to update and replace the 2004 Arcadia Township Master Plan; and

WHEREAS, on September 12, 2013 the Arcadia Township Board authorized the distribution of the draft new Arcadia Township Master Plan to the general public and the various entities as required by the MPEA, for review and comment purposes; and

WHEREAS, the proposed new Arcadia Township Master Plan was made available to the various entities and the general public as required by the MPEA, and a public hearing thereon was held by the Planning Commission on July 2, 2014 pursuant to notice as required by the MPEA; and

WHEREAS, the July 2, 2014 public hearing was recessed to and continued at a regular meeting of the Planning Commission on August 6, 2014, to further consider comments and several minor revisions to the proposed Master Plan; and

WHEREAS, the Planning Commission finds the proposed Master Plan as submitted for and revised pursuant to the public hearing is desirable and proper, and furthers the land use and development/preservation goals and strategies of the Township:

NOW, THEREFORE, the Arcadia Township Planning Commission hereby resolves to approve the proposed new Arcadia Township Master Plan as submitted for and revised pursuant to the public hearing, including all of the text, charts/tables, maps, and descriptive and other matter therein intended by the Planning Commission to form the complete Master Plan, including the Arcadia Township Future Land Use map, and recommends final adoption of same by the Arcadia Township Board.

CERTIFICATE

I hereby certify the foregoing resolution was adopted by a majority of the members of the Arcadia Township Planning Commission by a roll call vote at a regular meeting of the Commission held on September 3, 2014, in compliance with the Open Meetings Act.

Grea Wisner

Arcadia Township Planning

Commission Secretary

Mothin by Hopwood second Wisner

ARCADIA TOWNSHIP

MANISTEE COUNTY, STATE OF MICHIGAN

Township Board Resolution Approving New Arcadia Township Master Plan

WHEREAS, on July 2, 2014 the Arcadia Township Planning Commission held a public hearing on the proposed new Arcadia Township Master Plan developed as part of a regional planning collaboration known as the Lakes to Land Regional Initiative, to update and replace the 2004 Arcadia Township Master Plan, and continued that public hearing at its next regular meeting on August 6, 2014 to further consider comments and several minor revisions to the proposed Master Plan, in accordance with all applicable procedures set forth in the Michigan Planning Enabling Act (MCL 125.3801 et. seq.); and

WHEREAS, pursuant to the public hearing and further discussion at its regular meeting on September 3, 2014 the Arcadia Township Planning Commission on that date adopted a resolution approving the proposed new Arcadia Township Master Plan as submitted for and revised pursuant to the public hearing, including all of the text, charts/tables, maps and descriptive and other matter therein intended by the Planning Commission to form the complete Master Plan, including the Arcadia Township Future Land Use map, and recommending final approval/adoption of same by the Arcadia Township Board; and

WHEREAS, the Arcadia Township Board has previously by resolution asserted its right to approve or reject a Master Plan approved by the Planning Commission; and

WHEREAS, the Township Board has reviewed the proposed new Master Plan approved by the Planning Commission, and now desires to formally express its approval of same;

NOW, THEREFORE, the Arcadia Township Board hereby resolves to approve and adopt the new Arcadia Township Master Plan as approved and recommended to the Township Board by the Planning Commission on September 3, 2014, including the Future Land Use map incorporated therein, as an update and replacement of the existing 2004 Arcadia Township Master Plan, effective this September 11, 2014.

CERTIFICATE

I hereby certify that the foregoing Resolution was adopted at a regular meeting of the Arcadia Township Board held on September 11, 2014 in accordance with the Open Meetings Act of the State of Michigan.

Patrice C. Wisner, Clerk Arcadia Township

Gatur C. Wisner