

Chapter 5: Smart Growth – the Preferred Scenario

The strategy chosen for the future development of Muskegon County was the Smart Growth scenario. This scenario was chosen based on public comments that the business as usual scenario continued inefficient development in the community and the perception that the zoning build out scenario allowed for “too much” development. More specifically, participants supported the Smart Growth scenario because it:

- Preserves rural character and limits sprawl
- Emphasizes cooperation
- Uses existing infrastructure
- Protects open space
- Emphasizes urban redevelopment

The selection of the Smart Growth scenario reflects the public’s desire to make the best use of existing infrastructure, plan for limited infrastructure expansion in order to minimize utility costs, and preserve agricultural and open space lands.

Preferred Scenario: Smart Growth

Urban sprawl is a concern in Muskegon County. When asked if their community “has sprawl” participants responded that it does:

- 70% of Fruitport Township respondents felt their community has sprawl
- 52% of Norton Shores respondents indicated the same
- Half of the participants who have lived in the area from 11 to 20 years responded that their community “has sprawl”

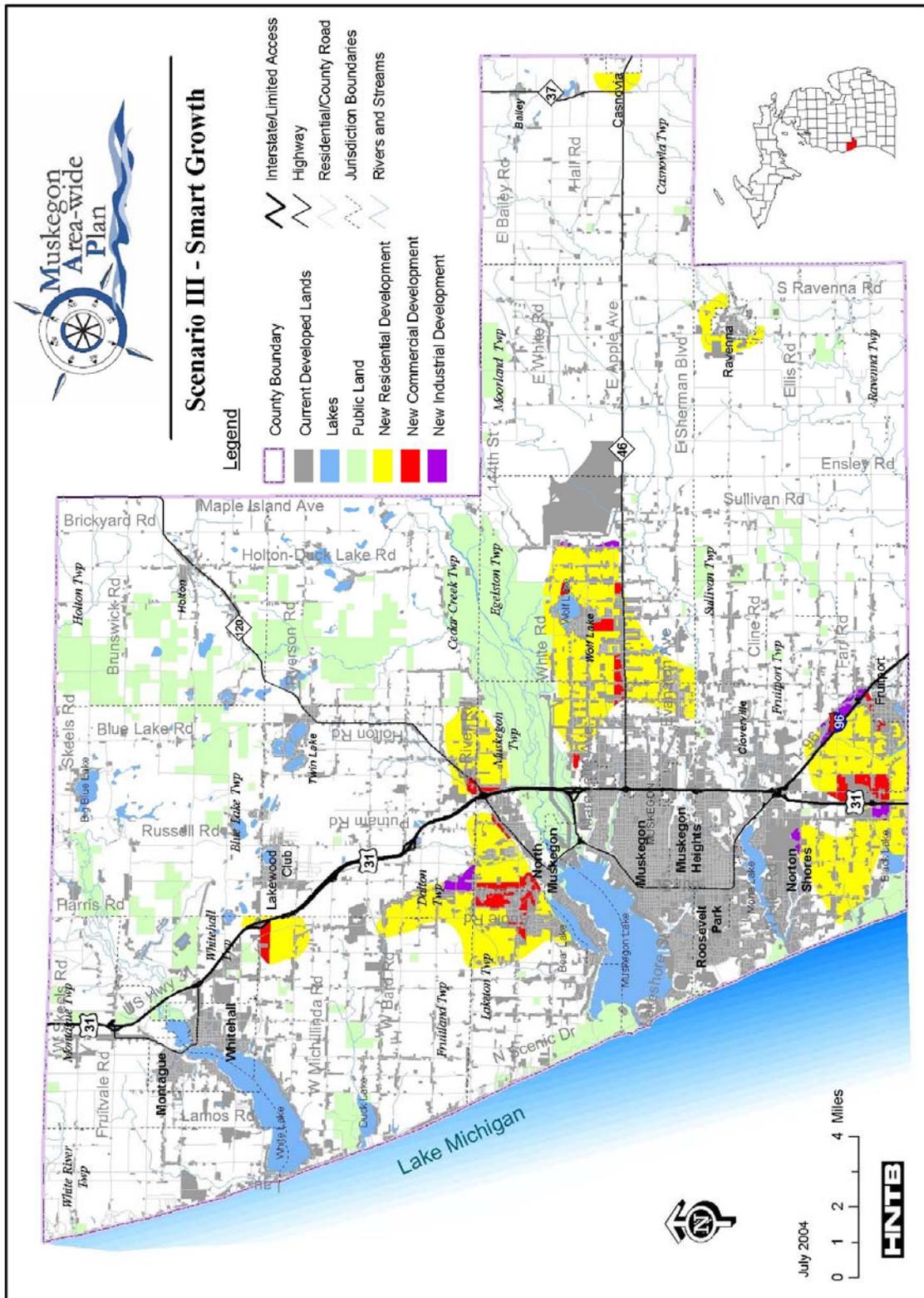
The combined reactions from the Community Forums indicated that:

- There was too much sprawl
- There was a need to preserve open space and farmland
- Increased densities were needed
- Redevelopment of existing areas was needed
- There was a need to develop around existing infrastructure due to the impacts to existing infrastructure of sprawling development and the cost of new infrastructure.

When asked if density should be higher than what the current trends have been, 43 percent agreed that density should be higher, with 22 percent strongly agreeing.

Under the Smart Growth scenario, 18,356 acres of land are developed (new development). Residential uses account for 88 percent of the new development, or 16,153 acres. Commercial uses are 1,652 acres and industrial uses 550 acres. Map 5.1 shows the planned pattern of residential, commercial, and industrial development.

Map 5.1: Smart Growth Scenario



The existing infrastructure has capacity to accommodate growth within existing service areas. The County-owned wastewater treatment plant currently operates at 76 percent of capacity. The City of Muskegon water treatment plant currently operates at 33 percent of its 28 million gallons per day (MGD) capacity (average flow), with plans to expand to 40 MGD capacity. At peak daily flow, the plant reaches 74 percent of its capacity currently. Muskegon Heights also maintains a water treatment and distribution system, their system has an average daily flow of 3 MGD.

Some infrastructure improvements are already planned. Upgrading the City of Muskegon water treatment facility to a capacity of 40 MGD is one planned infrastructure improvement. In the transportation realm, infrastructure improvements to 2015 include:

- US 31 project to add a west bound to south bound loop ramp
- Grand Haven Road reconstruction with drainage improvements, widening from two to three lanes
- Shoreline Drive East project to create a new four lane divided roadway
- Harvey Street reconstruction with drainage improvements, widening from two to five lanes
- Giles Road resurfacing, adding a center turn lane and drainage improvements
- Pontaluna Road reconstruction with drainage improvements, widening from two to four lanes
- Grand Haven Road reconstruction from three to five lanes
- Whitehall Road reconstruction, widening from two to five lanes north of Giles Road

Another issue related to smart growth is the retention of agricultural land, parks, and open space. The value of the agricultural land in the county can be measured in terms of the farm revenues produced in the county. Muskegon County ranks second in the state in cucumber production and fifth in the state in blueberries. The market value of agricultural products sold in the county was \$46,301,000 according to the 2002 Census of Agriculture. The net cash income from farming activities in the county was \$7,040,000. The harvested acres of berries in the county grew from 56 acres in 1997 to 94 acres in 2002, showcasing the popularity and importance of berry farms to the county.

More generally, the following findings have been made in studies documenting the value of agricultural lands, parks, and open space:

- Corporate CEOs say quality of life for employees is the third-most important factor in locating a business, behind only access to domestic markets and availability of skilled labor.
- Across the nation, parks, protected rivers, scenic lands, wildlife habitat, and recreational open space help support a \$502-billion tourism industry.

Smart Growth background

“Smart growth” means different things to different people. There is no single definition of smart growth; its meaning depends on context, perspective and timeframe. The common thread among different views of smart growth is development that revitalizes central cities and older suburbs, supports and enhances public transit, promotes walking and bicycling, and preserves open spaces and agricultural lands.

Smart growth does not mean no growth; rather, it seeks to revitalize the already-built

environment, fosters efficient development at the edges of the region while creating more livable communities.

Smart growth meets the key goals of sustainable development through community design. Focusing new housing and commercial development within already developed areas requires less public investment in new roads, utilities and amenities. Investment in the urban core can reduce crime, promote affordable housing and create vibrant central cities and small towns.

By coordinating job growth with housing growth, and ensuring a good match between income levels and housing prices, Smart Growth aims to reverse the trend of longer commutes, particularly to bedroom communities beyond the region's boundaries. People who live within easy walking distance of shops, schools, parks and public transit have the option to reduce their driving and therefore, pollute less than those living in car-dependent neighborhoods (Association of Bay Area Governments).

"Smart Growth means using comprehensive planning to guide, design, develop, revitalize and build communities for all that: have a unique sense of community and place; preserve and enhance valuable natural and

cultural resources; equitably distribute the costs and benefits of development; expand the range of transportation, employment and housing choices in a fiscally responsible manner; value long-range, regional considerations of sustainability over short term incremental geographically isolated actions; and promote public health and healthy communities" (APA).

Smart Growth is seen as the antidote to sprawl, which is defined to include:

- Low density/Floor Area Ratio (FAR)
- Unlimited outward extension
- Skipped-over (leapfrog) development
- No attempt at clustering, mixing of uses, or center establishment
- Resource-consuming development
- Automobile-dominated transportation (Burchell 1998)

Smart Growth is pro-business, pro-equity, pro-environment, and pro-quality of life. These are, in sum, bipartisan issues (Michigan Land Use Institute).

Figure 5.2: Traditional Development Pattern



Figure 5.3: Suburban Sprawl Development Pattern



Sprawl occurs as personal choices are made based on apparent benefits. The combined effect of these choices is often self-defeating and contrary to their original purpose. Nevertheless, it is useful to list the apparent “benefits” of sprawl as perceived by some individuals as they make these personal decisions. Some of the apparent benefits of sprawl are as follows:

- Allows unlimited use of the automobile
- Relieves inner-suburban and urban congestion
- Reduces suburban-to-suburban travel times
- Provides physical distance from urban problems
- Guarantees increasing property values and good public services (Burchell 2001)

The Smart Growth movement is not just about fighting sprawl, but also proposing development that better utilizes existing infrastructure and is environmentally responsible, fiscally sound, and socially equitable. Smart Growth provides a new opportunity to address persistent challenges facing low income inner-city neighborhoods and older suburbs by redirecting growth and investment back into existing communities (Betty Weiss 2001)

The principles of Smart Growth include:

- Create a range of housing opportunities and choices
- Create walkable neighborhoods
- Encourage community and stakeholder collaboration
- Foster distinctive, attractive places with a strong sense of place
- Make development decisions predictable, fair, and cost effective
- Mix land uses
- Preserve open space, farmland, natural beauty and critical environmental areas
- Provide a variety of transportation choices
- Strengthen and direct development towards existing communities
- Take advantage of compact building design
(Smart Growth Network)

Disagreement, Partial Agreement, and Agreement

There are some Smart Growth elements that provoke disagreement, some which can garner partial agreement among interest groups, and some elements on which there is a general consensus. Table 5.4 summarizes these elements.

Table 5.4: Smart Growth Concepts: Areas of Disagreement, Partial Agreement, and Agreement

<i>Disagreement</i>	<i>Partial Agreement/Disagreement</i>	<i>Agreement</i>
Placing limits on the outward extension of further growth.	Promoting compact, mixed-use development.	Preserving large amounts of open space and protecting the quality of the environment.
Financing the additional infrastructure needed to deal with growth and maintain existing systems properly.	Creating significant financial incentives for local governments to adopt “Smart Growth” planning.	Redeveloping inner-core areas and developing infill sites.
Reducing dependency on private automotive vehicles, especially one-person cars.	Adopting fiscal resource sharing among localities.	Removing barriers to urban design innovation in both cities and new suburban areas.
	Deciding who should control land-use decisions.	Creating a greater sense of community within individual localities and neighborhoods and a greater recognition of regional interdependence and solidarity.
	Adopting faster project application approval processes, providing developers with greater certainty and lower project carrying costs.	
	Creating more affordable housing in outlying new-growth areas.	
	Developing a public-private consensus-building process.	

(Anthony Downs, 2001)

Fiscal Benefits

In numerous studies, planners and engineers have hypothesized that there are two related ways in which urban form can influence the public capital and service-delivery costs associated with development, economies of scale and economies of geographic scope. These theories, when combined, suggest that more compact development can reduce the costs of capital and operations for government (Muro and Puentes, March 2004).

Research by the Real Estate Research Corporation, and others, documents that compact growth can be as much as 70 percent cheaper for governments than equivalent volumes of scattered growth. It simply costs less to provide infrastructure (such as streets, schools, flood control or sewers) and often services (such as police or fire protection) to denser, more contiguous households than to far-flung, low-density communities (Katz, 2003)

At the regional scale, cooperative growth management can encourage more compact development patterns, protecting farmland and open space from sprawl (APA, 1998).

Locally, the fiscal impacts can be measured in terms of the cost savings of the Smart Growth scenario over the Business as Usual scenario. The Smart Growth scenario has the potential to save \$5.18 per \$100 of County Equalized Value (CEV) for Muskegon County taxpayers. This would save the average homeowner \$4,450 over the 20 year planning period, or \$220 per year in taxes to pay for the improvements to water, sewer, roads, and fire protection. Additionally, householders could experience savings of \$100 per year in fuel expenses due to reduced vehicle miles traveled. The fiscal impacts are further discussed later in this chapter.

Estimated Annual Fiscal Benefits to Muskegon County Taxpayers

County Equalized Value		\$4,840,137,970
	Potential Savings	Potential Savings per \$100 CEV
Water	\$67,320,000	\$1.39
Sewer	\$178,200,000	\$3.68
Roads	\$3,200,000	\$0.07
Fire service	\$1,950,000	\$0.04
TOTAL	\$250,670,000	\$5.18

The first barrier to implementation is often local regulations that do not permit mixed uses, provide for transportation options, or allow small lots or upper story residential uses. Other barriers can include market conditions, development and process costs, financing, and [lack of] community involvement (APA, 1998).

There are solutions to the obstacles to implementation of Smart Growth strategies. Table 5.5 summarizes some of those solutions.



“Communities should be shaped by choice, not by chance. We can keep on accepting the kind of communities we get, or we can learn how to get the kind of communities we want” – Richard Moe

Table 5.5: Smart Growth Concepts: Strategies, Obstacles, and Solutions

<i>Strategy</i>	<i>Obstacle</i>	<i>Solution</i>
Efficient Use of Land Resources	Excessive lot-area dimensions	Revise setback requirements; minimum lot sizes
Small-lot infill development Infill development on large lots	Inflexible subdivision and lot-area requirements	Average lot size for whole development, allow flexibility to preserve natural features
Coordinated development	Coordinated development not addressed	Specific development plans; master plans
Better use of deep lots	Excessive frontage and multiple access requirements	Midblock lanes; interior block cluster development; flag lots
Less land for streets	Excessive street design standards	Adopt “skinny” street standards
More efficient use of parking areas	Excessive parking requirements	Reduce minimum parking ratios; set parking ratio maximums; acknowledge on-street parking; encourage shared parking
Full Use of Urban Services		
Achieving planned densities	Underbuilding; no support for density goals	Minimum density standards
Attached units	Lot sizes not in proportion to unit sizes	Reduce lot-size requirements; allow single-family attached in all residential zones
Attached units	Lot-area dimension requirements	Revise setback requirements
Accessory units	Excessive minimum unit size; density maximums too low	Allow accessory units
Mixed Use		
Mixed-use buildings	Single-use zoning; separation of uses	Allow home occupations and live/work units; density bonus for mixed-use commercial/residential buildings
Mixed-use neighborhoods	Single-use zoning; separation of uses	Limited commercial in residential zones; allow multi-family residential in commercial zones; limited retail in industrial zones
Healthy commercial districts	Single-use zoning; proximity	Community shopping centers with street connectivity; main street districts
Transportation Options		
Multimodal streets	Street design standards overemphasize autos	Revise street standards; promote “skinny” streets

Transit, bike, and pedestrian connectivity	Physical barriers or out-of-direction travel	Cul-de-sac and block-length maximums; internal connectivity standards; sidewalk requirements
Transit-supportive development	Transit-supportive development not addressed	Mandate transit-oriented development along transit corridor
Detailed, Human-Scale Design		
Compatibly designed buildings	Too abrupt transitions between zones	Density transitioning; mid-block zoning district lines; building height limits
Compatibly designed buildings	No design guidelines for new buildings	Incorporate compatibility guidelines for new infill construction
Pedestrian-friendly streetscapes (commercial)	Street standards emphasize cars; design discourages walking	Building orientation; parking lot placement; allow shared access; 50% 80% frontage rule; etc.
Pedestrian-friendly streetscapes (residential)	Street standards emphasize cars; design discourages walking	Require sidewalks; limit setbacks; garage placement; lighting; utility placement; etc.
Quality architectural design	No incentives to provide amenities	Density bonuses for amenities
Implementation		
Examining the development review process	Onerous procedures for variances, conditional uses	Allow administrative approval for minor adjustments
Examining the Planned Unit Development (PUD) process	Onerous PUD requirements	Improved PUD regulations
Flexibility in the design review process	Discretionary design review process; vague standards	Dual-track design review process

Without updating planning requirements and providing a certain amount of coordination and guidance among local jurisdictions, achieving any level of smart growth is next to impossible. This is particularly true in states with strong home-rule governments and different local planning requirements, as in Michigan, Connecticut, and Massachusetts. (APA, 2002).

Smart Growth in Michigan

In Michigan, Governor Jennifer Granholm created a land use leadership council based in part on the premise that rapid metropolitan decentralization “is hampering the ability of this state and its local governments to finance public facilities and service improvements” and is “creating a strain on the efficient provision of public services” (Executive Order No. 2003-4, February 27, 2003).

The Michigan Land Use Leadership Council was comprised of state representatives and senators, local government officials, homebuilders, business leaders, citizens, environmentalists, land-based industry representatives, social justice advocates, real estate agents, and others. The directors of state departments such as agriculture, consumer and industry services, environmental quality, natural resources, history, arts, and library, and transportation served on the Council as non-voting members (Michigan Land Use Leadership Council, 2003).

The purpose of the Council was to:

1. Identify the trends, causes, and consequences of unmanaged growth and development
2. Provide recommendations to the governor and the legislature regarding ways to minimize the negative economic, environmental, and social impacts of current land use trends; promote urban

revitalization and reinvestment; foster intergovernmental and public-private partnerships; identify growth and development opportunities; protect the state’s natural resources; and, better manage the cost of public investments in infrastructure (Michigan Land Use Leadership Council, 2003).

The key recommendations to emerge from the Council were aligned with the Smart Growth Principles outlined by the Smart Growth Network, which have been referenced throughout the Muskegon Area-wide Plan (Michigan Land Use Leadership Council, 2003).

These recommendations have broad support as indicated by a survey conducted statewide in 2003 by Michigan State University. The survey demonstrated that nearly 60 percent of Michigan residents supported increased land use planning and regulation. Also, three quarters of residents are very or somewhat concerned about local urban sprawl. The study further went to find that 92 percent agreed the state should encourage local governments to work together to manage growth, 86 percent supported restricting development to protect farmland, and 86 percent supported restricting development to protect environmentally sensitive areas (Michigan Land Use Leadership Council, 2003).

The availability of tools for implementing Smart Growth is critical to the success of the community’s efforts. Tools provided at the state and federal level often involve policies, tax incentives, and grant programs. The following programs are among the tools for implementing Smart Growth in Michigan:

Brownfields Redevelopment

In 1995, Michigan passed a law that limited the liability for brownfields clean-up only to those parties responsible for contamination.

Three years later, then Governor Engler passed the Clean Michigan Initiative, a \$675 million environmental bond that facilitated redevelopment. In 2000, the state passed tax credits and additional proposals to ease brownfields redevelopment.

Tax-Free Renaissance Zones

Michigan has thirty-four Renaissance Zones (comprising 164 geographic areas) around the state designated as virtually tax free for any business or resident presently in, or moving into, a zone. They are designed to provide selected communities with the most powerful market-based incentive—no taxes—to spur new jobs and investment. The zones range in size from five to 3,000 acres.

The taxes affected by the program include nearly all the state and local taxes levied on business activity: Single Business Tax (SBT), state personal income tax, six-mill state education tax, local personal property tax, local real property tax, local income tax and utility users tax.

The duration of the zone designation ranges from 10 to 15 years, starting from January 1, 1997. In all cases, the tax relief will be phased out in 25% increments over the last three years of the program.

Right to Farm Act

The Michigan Right to Farm Act, P.A. 93, was enacted in 1981 to provide farmers with protection from nuisance lawsuits. This state statute authorizes the Michigan Commission of Agriculture to develop and adopt Generally Accepted Agricultural and Management Practices (GAAMPs) for farms and farm operations in Michigan. These voluntary practices are based on available technology and scientific research to promote sound environmental stewardship and help maintain a farmer's right to farm.

Farmland and Open Space Preservation Act

The Farmland and Open Space Preservation Act enables a farm owner to voluntarily enter into a development rights agreement with the State. The agreement is designed to ensure that the land remains in an agricultural use for a minimum of 10 years and ensures that the land is not developed in a non-agricultural use. In return for maintaining the land in an agricultural use, the land owner may be entitled to certain income tax benefits, and the land is not subject to special assessments for sanitary sewer, water, lights or non-farm drain projects.

Smart Growth in Muskegon County

Certain principles of Smart Growth are already under way in Muskegon County, particularly in terms of urban infill and redevelopment projects. These initiatives meet the principle of directing development toward existing communities and in terms of farmland protection efforts that meet the principle of preserving open space, farmland, natural beauty, and critical environmental areas.

Renaissance Zones are one of the tools being used in Muskegon County to direct development toward existing communities. As described previously, Renaissance Zones are areas in the cities of Muskegon and Muskegon Heights designated as virtually tax free. The tax relief will be phased out in 25% increments over the last three years of the program.

Several infill development and building conversion projects are planned, under way, or completed in Muskegon County:

- Amazon Building: Conversion to apartments
- Conversion of the Shaw Walker Building into the Watermark Lofts
- Muskegon Boiler Works (pending): convert Boiler Works building to artist's lofts
- City of Whitehall considering moving city services into the heart of downtown to preserve the Whitehall Bank Building and increase foot traffic downtown
- Redevelopment of the Muskegon Mall into a mixed-use combination of residential, office, and retail developments in a city center or historic "main street" design

Another local initiative has been the establishment of the Muskegon County

Farmland/Open Space Preservation Program which would work to voluntarily protect local farmland using state and federal grant money. The program has the eventual goal of purchasing the development rights of 35,000 acres (about half the farmland in the county) so that the prime agricultural soils are preserved for food production and open/green space.

How Far?

At the public meeting in September, 2004 members of the steering committee and general public participated in a visual choice survey. The purpose of the survey was to determine the level to which residents of Muskegon County wished to implement various Smart Growth principles. This choices poll was intended to:

- Develop an understanding of how much participants supported the concept of each principle
- Develop a consensus on the intensity of the principles as applied to Muskegon County
- Introduce innovative development solutions from other areas

Participants were asked to select their preference for the degree to which a concept is implemented as presented on each slide, basing their response to the concept presented in each image, not the policy ramifications or cost. Each slide was presented from a minimal approach through moderate approach, to an aggressive approach for implementation. Preferences were selected using an electronic voting system.

The results of the survey helped determine the extent to which Smart Growth principles would be integrated into the implementation strategies.

Generally residents voted for a moderate level of implementation. In terms of

housing choice, or the range of housing options that should be available in Muskegon County, the participants believed that housing choice should occur at the township level. This means that each township should have a range of housing options available, rather than having certain types of housing available only in particular areas of the county. Participants felt that walkability was important to connect subdivisions to schools, retail areas, and employment areas in the rural parts of the county and that it was important to be able to walk to the grocery store, pharmacy, video store, corner store or a place of worship in the cities and villages.

Most participants felt that the various jurisdictions in the county partner effectively on low level issues, or issues that lack significant importance or commitment of resources. The participants felt, however, that it is important for the jurisdictions to change their zoning and subdivision regulations to encourage the use of Smart Growth principles. This will require significant collaboration among jurisdictions. Participants also felt that local governments should have standards which encourage the development of distinct areas with a sense of place, but they do not support development of strict architectural controls or establishing architectural review.

Participants felt that it was most appropriate to mix land uses in suburban areas to give those areas more character and access to services. They felt that development should occur in mixed-use cluster developments.

Participants were very supportive of initiatives that protect farmland. They indicated that they would support an increase in mileage to preserve natural resources and agricultural areas. They also believed that development should not occur in rural natural resource areas. This suggests that stringent farmland and natural

resource protections regulations and programs would be acceptable locally.

Participants indicated that in both rural and suburban/urban areas they would be willing to use multiple forms of transportation if they were available in the county including walking, biking, carpooling, and taking the bus. Alternative forms of transportation should be incorporated into the transportation plans for the county.

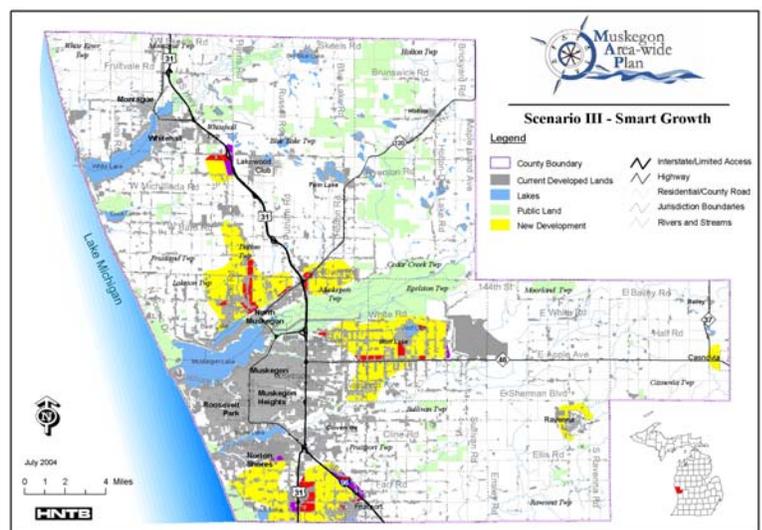
In terms of directing development toward existing communities, participants believed that there should be a county-wide coordinated plan to steer growth to areas with existing utilities and community facilities. They also believed that new growth should be precluded unless it is served by utilities and community facilities.

Smart Growth Implications for Muskegon County

The potential impacts of the Smart Growth scenario were evaluated in the areas of land use, transportation, fire services, water treatment, wastewater treatment, and parks.

Land Use

The Smart Growth scenario development pattern would address concerns related to farmland protection, average lot sizes, and



Map 5.6: Smart Growth Scenario

infrastructure development by concentrating growth near existing urban areas and rural villages. These shifts would be accomplished through policy changes that would require the development and adoption of new zoning ordinances and Planned Unit Development (PUD) ordinances that allow for smaller lot sizes, encourage cluster development, and provide for non-motorized transportation linkages.

The development would occur near existing development in the Townships of Muskegon, Laketon and Dalton, the Wolf Lake area, and the villages of Lakewood Club, Ravenna, and Casnovia.

Open space is preserved in the Smart Growth scenario by directing growth toward existing urbanized areas and away from environmentally sensitive lands and prime farmland. The open space areas include protected federal and state lands, and rural areas in the outlying townships.

Any type of development will consume either agricultural land or forested land in Muskegon County. Development that is clustered rather than stripped out along roadways may consume more agricultural land or forested land, but will ultimately provide greater protection of biodiversity by not segmenting habitats and preserving tracts of farmland that are viable for agricultural production. Stripped out development often threatens the viability of habitats and farmland production. Under this scenario, 13,808 acres of forested land are converted for development. Agricultural lands and open space would also be affected, though to a lesser extent. Approximately 4,200 acres of farmland and open space would be converted to development under this scenario.

The calculations presented assume the same density that Muskegon County has currently. It is only the location of development that is

altered to provide for smarter growth. The amount of impacted forest and farmland could be minimized if policies that increase density in development and in redevelopment areas are implemented.

Transportation

The transportation system is especially sensitive to the geographical spread and spatial relationship of development areas. Low density developments spaced far apart present the illusion of reduced traffic congestion, but that is true only for the most local of streets. Generally, traffic congestion is an issue on arterials and major collector roadways, and these facilities are not affected by local street conditions. In other words, the congestion on major roadways is unchanged, but people have driven further (expending more time, fuel and resources) to get to them.

Taking these factors into account, the Smart Growth scenario involves a savings of 62 percent of vehicle miles traveled per day over the Business as Usual scenario. Under the Business as Usual scenario, Muskegon County would witness an increase in vehicle miles traveled of 900,000, whereas under the Smart Growth scenario the number of additional vehicle miles traveled is 557,000. It also provides for the lowest total regional travel time, lowest total regional fuel usage (saving \$6 million per year in fuel costs) and has the fewest air pollution impacts from mobile sources. The fuel savings amount to approximately \$100 per household per year.

The Smart Growth scenario benefits public investment levels since it has the most limited number of miles of roads to construct and maintain. It provides for “system” improvements to better service local needs. This development scenario is also the most efficient of the three for snow removal.

The Smart Growth scenario also provides for the greatest opportunity for providing transportation choice in terms of transit and non-motorized options. It provides a predictable growth pattern that facilitates long range transportation improvement planning. Bus routes have a greater potential for success in terms of ridership if there is a density capable of supporting the service.

Fire Service

There are fifteen fire departments in Muskegon County, served by 21 fire stations. One of those departments is the DNR fire station, which does not, as a rule, fight structural fires.

The standards for fire departments depend on whether the department is staffed with career fire fighters or volunteers. The National Fire Protection Association has developed standards for both types of departments. Career departments have both time and staffing objectives. The first engine company of the fire department should arrive within four minutes and/or the first full alarm assignment should arrive within eight minutes. While the four minute standard may not always be achievable, the eight minute standard must be met. A first responder should arrive on the scene within four minutes at an emergency medical incident. The fire department is expected to meet these standards 90 percent of the time.

Engine companies should be staffed with a minimum of four on-duty personnel at all times. Tactical hazard units (in jurisdictions with such units), should be staffed with five to six on-duty members. Ladder or truck companies should be staffed with a minimum of four on-duty personnel at all times. A first responder (EMT) with an automatic external defibrillator should arrive within four minutes 90 percent of the time. For departments with Advanced Life Support (ALS) units, the ALS Company

should arrive within eight minutes 90 percent of the time.

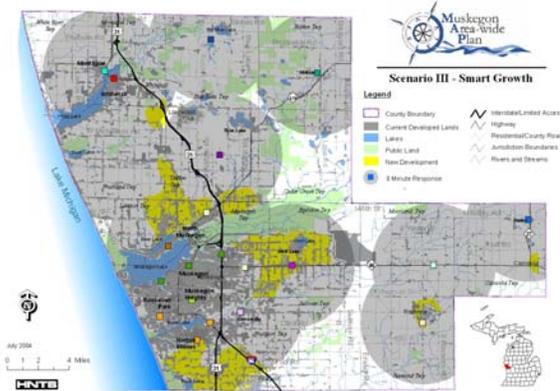
Most of the career departments in Muskegon County have an average response time between three and five minutes. The City of Muskegon, Norton Shores, and Fruitport departments report average response times of four minutes or less. These departments meet the response time standard. Norton Shores has the best Insurance Standards Organization (ISO) rating of the county departments. Its rating was recently upgraded to 4. The City of Muskegon department has an ISO rating of 9, the City of Muskegon Heights has a rating of 6, and Fruitport has a rating of 5. ISO ratings are on a scale of 1 to 10, with 1 being the best rating possible.

Map 5.7 shows the areas that are within eight minutes of a fire station, assuming 30 mph average travel speed and “crow flies” travel routes. Only two percent of the new development in the Smart Growth scenario lies outside of an eight minute fire response time. Since nearly all of the new development is within an existing service area, no new stations would be needed – no capital investment would be needed. This saves \$1,950,000 in capital costs associated with fire station construction and fire trucks that would be needed under the Business as Usual scenario.

Compliance with staffing standards is more difficult to determine for a specific department since the required number of firefighters and companies is determined by what the local department needs to meet the time standard. Engine companies should have four on-duty personnel at all times. Assuming an eight-hour shift, this would mean each station needed 12 staff members to cover a day. Most likely, the existing fire departments, between full time and part time staff, are appropriately staffed to handle the

growth. However, adequate staffing needs to be determined locally.

Map 5.7: Fire Response



Water Treatment

Under the Smart Growth scenario only six percent of the new development is outside of the planned future service area.

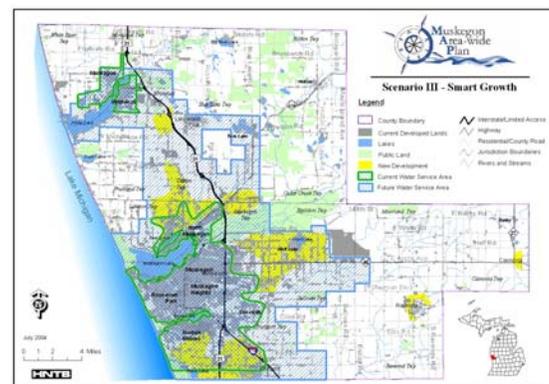
This would result in the equivalent of 570 households on private wells, or the equivalent of 0.14 million gallons per day (MGD) of water flow. While private wells do not pose the public health risks that septic systems can pose, there is still concern about the potential for contamination of individual wells. Having city water also brings the ability to have fire hydrants located near development, providing additional public safety.

The Smart Growth scenario would eliminate the need to construct 150 miles of water lines over the Business as Usual scenario, for a cost savings of \$67,320,000 (rough estimate), assuming all new developments were to be served with water.

Expanding the water treatment system to the planned service area from the current area would require \$3 to \$25.1 million, based on estimates for the White Lake Water

Authority from Prein & Newhof. The Montague/Whitehall system is planning to add capacity to meet the projected 2025 demand of 5.33 MGD. The three alternatives under consideration include groundwater wells east of US 31, surface water from Lake Michigan, or connecting to the Muskegon County Northside System. The Muskegon County system is planning expansions north along Whitehall Road from River Road to Riley-Thompson Road. These system expansions will allow for most of the development in this scenario to be on municipal water, rather than on private wells.

Map 5.8: Water Service Area



Wastewater Treatment

In the Smart Growth scenario only five percent of new development would be outside of the planned sewer service area.

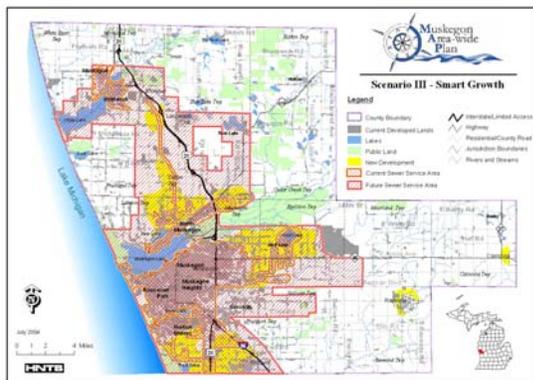
This level of development outside the service area would result in 532 households using septic systems, putting .13 MGD of septic effluent in the ground. In order to service all new development with sewer under the Business as Usual scenario, investments of \$178,200,000 (rough estimate) would be needed. This expenditure is saved by concentrating development into the planned sewer area and investing a more modest amount into improvements to the existing system.

According to a 2004 Prein & Newhof study, the 2020 estimated daily flow is 35.3 million gallons. This is based on the West Michigan Shoreline Regional Development Commission (WMSRDC) population projections and a planning standard of 100 gallons per person per day. It also accounts for Sappi Fine Papers increasing their flow from 13 MGD currently to 17 MGD.

The planned sewer network will provide service to most of the new development; however, there are significant issues to be addressed within the current distribution system in existing parts of the developed area. The planned improvements total \$37.2 million. Phase I improvements include replacing pump stations, eliminating pump stations and providing a central pump station, upgrading and rehabilitating pump stations, and a new force main. Phase II improvements include constructing a new pump station, optimizing the existing wastewater treatment facility, and headworks improvements.

Septic system failure is a significant concern because the effluent can contaminate private wells and pose public health risks. Generally, it is preferable for urban density development to occur in sewer serviced areas.

Figure 5.9: Sewer Service Area



Parks

Muskegon County is blessed with abundant parks and natural areas. The county has 12,500 acres of federal lands in the Manistee National Forest.

The county also has more than 2,600 acres of state land in three state parks and the Hart-Montague Trail State Park. The Hart-Montague Trail is a paved 22-mile path with scenic overlooks and picnic areas. The park portion of the trail is approximately 22 acres. The county is also home to a large portion of the Muskegon State Game Area, with 8,600 acres in the county. With state park lands included (but not the State Game Area), there are 25 acres of park land in Muskegon County for every 1,000 residents. With the State Game Area, there are 71 acres of park and recreation land for every 1,000 residents of Muskegon County.

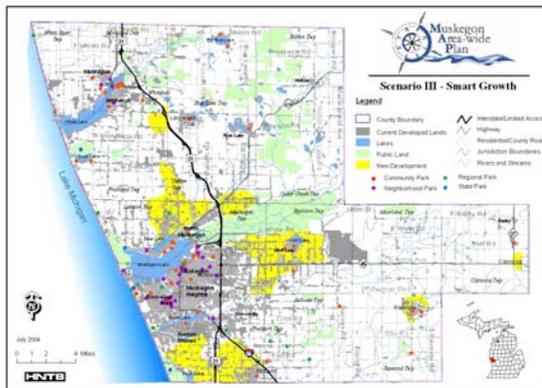
County parks are also abundant in Muskegon County. There are 12 county parks encompassing more than 740 acres, not including the Muskegon County Wastewater Treatment facility lands which are used for recreation purposes. This translates to four acres of county park land for every 1,000 residents of Muskegon County. If Muskegon County did not have the wealth of state and federal parks and recreational areas, the county would likely need to add approximately 100 acres of park land by 2020 to accommodate population growth at the same level of service of four acres per 1,000 people. However, since there are ample recreation opportunities in the county, the need to provide for additional opportunities is unlikely.

Eight of the townships operate parks: Egelston, Muskegon, Fruitport, Laketon, Casnovia, White River, Fruitland, and Holton.

Local parks are also available in most Muskegon County cities and villages. Local

parcs account for more than 875 acres in the county. This translates to a level of service of five acres per 1,000 people in the county. To maintain this level of service for the 2020 population, an additional 128 acres of park land would be needed. While there are abundant park and recreation opportunities in the county, local parks fulfill needs that state and federal lands typically do not, such as parks that are accessible to children and teens without adult transportation and recreation equipment such as playgrounds and athletic fields for children. Therefore, some additional local park land may be needed to accommodate the growing needs of the areas that experience population gain.

Figure 5.10: Parks



Applying Smart Growth to the MAP Goals

The vision and goals of the Muskegon Area-wide Plan (MAP) can be achieved through the application of Smart Growth principles. In the remainder of the section, each vision and its goals are related to the Smart Growth principles that achieve the vision or goal.

Land Use and Growth

Vision 1:

Encourage and promote land use and growth patterns that sustain and improve

quality of life in Muskegon County, while maintaining a strong sense of place, community, and responsibility.



Goals:

- Develop integrated and coordinated land use planning in rural areas to revitalize small towns, link natural resource protection with residential development and maintain working landscapes (*agricultural, natural resource tourism, forestry etc.*).
- Develop policies to ensure land is available to provide employment opportunities, variety of housing types, open space and natural areas, and access to goods and services based on future projected needs.
- Limit adverse impacts on environmentally sensitive lands by encouraging redevelopment and by increasing densities in cities, where necessary and desired.
- Identify strategies that will manage growth and support reinvestment in urban areas *and* promote rural viability.
- Encourage compatible land use plans between adjacent jurisdictions by updating land use plans, zoning ordinances and regulations.

These goals relate to the following Smart Growth principles:

- **Create a range of housing opportunities and choices:** Policies that encourage a variety of housing types provide opportunity and choice for a variety of needs and populations.
- **Preserve open space, farmland, natural beauty, and critical environmental areas:** Preserving open spaces and natural areas by ensuring land is available for open space and limiting the adverse impacts on environmentally sensitive lands by encouraging redevelopment achieves this principle.
- **Strengthen and direct development towards existing communities:** Encouraging redevelopment and managing growth in a manner that supports reinvestment in urban areas will shift the development focus toward existing communities, strengthening them and preserving rural areas for agriculture and open space uses.
- **Encourage community and stakeholder collaboration:** Achieving the plan goal of encouraging compatible land use plans between adjacent jurisdictions will require collaboration between the municipalities, the county, WMSRDC, and the residents of the communities.

Natural Resources, Open Space and the Environment

Vision 2:

Protect and preserve natural, resources and continually improve the quality air, water, and land resources found in Muskegon County.



Goals:

- Protect and valuable farm and forest lands, wetlands, surface and ground water resources, wildlife habitat, and opportunities for passive and active recreation.
- Develop polices and regulations to address the quantity and quality of water resources.
- Link natural resource protection with development to reduce the loss of important natural resources and open spaces in urban and rural areas.
- Mitigate environmental and human health impacts to important natural resources.
- Foster increased environmental sensitivity and voluntary stewardship through public-private partnerships, federal-state-local cooperation, and public education and outreach.
- Protect the watershed and shoreline of Lake Michigan; inland lakes of Muskegon County.

These goals relate to the following Smart Growth principles:

- **Preserve open space, farmland, natural beauty, and critical environmental areas:** Protecting environmentally sensitive areas and farmland will achieve this Smart Growth principle.

- **Encourage community and stakeholder collaboration:** Policy and regulation development will require partnerships at the local, regional, and state level to be able to improve the local water quality. Stewardship efforts will require significant collaboration to coordinate and implement across the county.
- **Foster distinctive, attractive places with a strong sense of place:** The Lake Michigan shoreline, inland lakes, and public lands provide Muskegon County with a unique local character. Initiatives that protect those natural resources will ensure the continued appeal of Muskegon County to future generations.

Economy and Jobs

Vision 3:

Promote economic development and diversity that ensures access to jobs, goods, and services throughout the Muskegon County.



Goals:

- Encourage partnerships with government, local organizations and businesses to help achieve local and

regional economic development goals.

- Work collaboratively to encourage economic diversity throughout the region and reduce competition between communities.
- Enhance and retain “human capital” in the region, fostering a skilled, educated labor force.
- Develop strategies for the redevelopment of brownfields, adaptive reuse of existing structures and in-fill development in urban and rural areas.
- Retain and expand existing agriculture businesses to maintain synergy and a diversified economy.
- Promote natural resource based tourism and the county’s quality of life as an economic development tool.
- Infrastructure
- Develop a county-wide approach to improving and maintaining infrastructure, transportation, public facilities and community services.

These goals relate to the following Smart Growth principles:

- **Encourage community and stakeholder collaboration:** Partnerships between government, business, and organizations encourage broad participation in the development of the community.
- **Foster distinctive, attractive places with a strong sense of place:** Reducing the competition between communities and encouraging diversity will help to create unique communities within Muskegon County, strengthening the county’s unique character as a place to live, work, or visit.
- **Make development decisions predictable, fair, and cost**

effective: Brownfields redevelopment and infill development are easier for developers and more likely to occur when the developers know what to expect in terms of permitting, requirements, and other matters. Time is money and reducing the amount of time needed to process developments through the regulatory process can increase the likelihood of quality development in urban areas.

- **Mix land uses:** Brownfields redevelopment and infill development can be quality mixed use developments that encourage 24 hour use of areas of the community. In order to make this type of development possible, it may be necessary for jurisdictions to revise their zoning codes to encourage, or even allow, mixed use development.
- **Preserve open space, farmland, natural beauty, and critical environmental areas:** Adding value to the local forested, open, and agricultural lands through tourism and agribusiness help to make them financially sustainable without being sold for development. This form of “home grown” economic development can also create jobs for people with a variety of skills. Using a county-wide approach to infrastructure, transportation, and public facilities will encourage development in the existing urbanized areas, rather than sprawling development that consumes farmland and open space. Brownfields redevelopment and infill development also encourage farmland and open space protection by bringing new development into existing urban areas.
- **Strengthen and direct development towards existing**

communities: Redevelopment of brownfields and infill development, along with using a county-wide approach to infrastructure, transportation, and public facilities will direct development into the existing urbanized areas, and existing communities because those are the locations that have infill opportunities, likely brownfields, and existing services.

Infrastructure

Vision 4:

Develop a county-wide approach to improving and maintaining infrastructure, transportation, public facilities and community services.



Goals:

- Prioritize water and wastewater facility improvements consistent with the distribution of the region’s population and employment while emphasizing water conservation and re-use.
- Provide safe and efficient alternate modes of transportation to reduce auto dependence and promote high air quality.
- Maintain and improve the exiting transportation system to provide

safe and efficient mobility and access.

- Provide infrastructure systems in both urban and rural communities utilizing existing infrastructure capacity where it exists before developing new infrastructure.

These goals relate to the following Smart Growth principles:

- **Encourage community and stakeholder collaboration:** In order to accomplish the infrastructure goals, coordination and collaboration will be needed between the municipalities, county, state, utility companies, and property owners throughout the county.
- **Preserve open space, farmland, natural beauty, and critical environmental areas:** Directing development toward existing infrastructure will allow for appropriate urban and rural land uses, allowing for the protection of prime farmland, valuable open spaces, and natural areas such as forests, wetlands, and recreation areas.
- **Provide a variety of transportation choices:** By providing safe and efficient alternative modes of transportation in an effort to improve the local air quality, the county will have a greater variety of viable transportation choices including pedestrian and bike options, and bus service.
- **Strengthen and direct development towards existing communities:** Focusing development where infrastructure such as water, sewer, and transportation corridors exist directs development into existing

communities where those services are available.

- **Take advantage of compact building design:** Utilizing infrastructure capacity where it currently exists works to encourage compact building design because it enables more development to occur in the area that is served rather than extending utilities to allow growth outside of the currently developed area. Alternative modes of transportation allow people to live in more compact areas when less land is consumed for roadways and parking.

Quality of Life

Vision 5:

Promote high quality of life by recognizing Muskegon County for its diversity, environmental, educational, arts, cultural and recreational assets.



Goals:

- Promote coordination and enhancement of arts, cultural, recreational and historic resources in the county.
- Develop a regional strategy to improve and maintain access to high quality educational services throughout the county, including

elementary, secondary and alternative schools.

- Develop partnerships between government and non-government organizations to improving the health of the environment and individuals
- Improve access to healthcare services and develop strategies to maintain Muskegon County as a regional healthcare provider.

These goals relate to the following Smart Growth principles:

- **Encourage community and stakeholder collaboration:** Community collaboration will be reinforced through efforts to coordinate and enhance arts, cultural, recreational, and historic activities in the county. A regional strategy for educational services will also encourage collaboration beyond the Intermediate School District. Partnerships for environmental and individual health will also reinforce the principle of collaboration.
- **Foster distinctive, attractive places with a strong sense of place:** Muskegon County's natural, cultural, and recreational resources are what make it a unique and special place. Coordinating and enhancing the resources in the county will further develop that sense of place and encourage support for the distinctive places that make Muskegon County special.