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SHAPING THE FUTURE OF NORTHEAST MICHIGAN:
UTILIZING THE DELPHI METHOD TO INFORM PLANNING
SCENARIO CONSTRUCTION

presented by

Joshua Ryan Watkins

has been accepted towards fulfillment
of the requirements for the

_____M.S._____   degree in   _____Geography_____

Kenneth E. Grey

————————————————————————
Major Professor's Signature

24 AUGUST 2010

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SHAPING THE FUTURE OF NORTHEAST MICHIGAN:
UTILIZING THE DELPHI METHOD TO INFORM PLANNING SCENARIO CONSTRUCTION

By

Joshua Ryan Watkins

A THESIS

Submitted to
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In partial fulfillment of the requirements
for the degree of

MASTERS OF SCIENCE

GEOGRAPHY

2010

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ABSTRACT
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UTLIZING THE DELPHI METHOD TO INFORM PLANNING SCENARIO CONSTRUCTION

By

Joshua Ryan Watkins

Spatial planning should be a source of inspiration that empowers communities to confront conflicting worldviews and generate shared visions of an intentional future. Yet contemporary planning has become entrenched in minimalist mindsets that induce overly technocratic actions of limited spatial scales. In an era of economic regionalization, such "anti-planning" comes at great detriment to a community's ability to regionally align plans and leverage investments.

This thesis advocates for an embrace of communicative collaboration in regional planning. It presents the results of a scenario planning project – four participant informed visionary scenarios – and further demonstrates how scenario planning is a process of communicative collaboration that is capable of generating and disseminating new perceptions of relational space.

A process for explicitly utilizing scenarios, communicatively and collaboratively, within regional planning organizations and stakeholder networks is presented. A framework for a regional governance mechanism that collaboratively generates a consensus derived set of prioritized regional strategies is articulated. Further, a technique for developing regionally collaborative plans involving numerous stakeholders is proposed.

This thesis is dedicated

DEDICATION

This thesis is dedicated to Kenneth Corey. If not for your guidance I would still be wondering blindly within the weeds.

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ACKNOWLEDGEMENTS

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CHAPTER ONE: INTRODUCTION

"My aim is not to discover universals, but to find the conditions under which something new is produced (Hillier 2007: 18)."

Context

It is the essential task of public planning to build a bridge from mindsets entrenched within "present individualism" to mindsets that take into account "community futures" (Myers 2007: 60). The Northeast Michigan Council of Governments (NEMCOG) is a nine county regional planning body in rural Northeast Michigan that in many ways epitomizes the difficulties - and potential benefits - of transitioning to more inclusionary and long term planning strategies, that proactively seek to empower intentional community futures. NEMCOG is working closely with the Michigan State University Center for Community and Economic Development in adapting and transitioning their planning techniques to improve their efficacy in implementing responsive long term planning. This research project seeks to further aid in that effort.

Research Question

What are the ideal future characteristics of Northeast Michigan's human capital assets, infrastructure, natural resource utilization, and tourism industry, and what factors will be influential to the actualization of those ideal future characteristics?

Research Outcome

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Research Outcome

The primary objective in answering this project's research question was to produce a set of NEMCOG specific visionary scenarios. NEMCOG is a block of nine Northeast Michigan counties: Alcona; Alpena; Cheboygan; Crawford; Emmet; Montmorency; Oscoda; Otsego; and Presque Isle (see Figure 1.1). A vision is a description of an ideal situation at a future time, often derived by involving large and representative groups of stakeholders to collaborate in creating shared visions of the future (Hopkins and Zapata 2007: 2). A scenario is a story set in the future that depicts how the world has changed to create a hypothetical future. By identifying the issues and factors that are shaping communities, scenarios emphasize a process of change (Hopkins and Zapata 2007: 9). By focusing attention to the future in the context of processes of change, communities can be active agents in creating their own ideal futures. A visionary scenario depicts how processes of change create a shared vision of an ideal future.

I believe that the creation of visionary scenarios induces a process of social collaboration and learning. Such collaborative processes create a foundation of shared meaning and understanding of both where a community is, and more importantly, where it wants to go. A visionary scenario, more so than either a vision or scenario alone, generates shared perceptions of normative futures that incorporate chronologies of causation allowing for the "backcasting" necessary to plan actions that ultimately create better futures.

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The Delphi Method has been selected as the optimal research technique for gauging the region's stakeholders' perceptions of ideal futures and influential factors to those futures, informing the creation of visionary scenarios. The Delphi Method is a survey technique that uses written responses to aggregate judgments and to exchange information anonymously - in order to improve the quality and representativeness of decision making (Delbecq *et al.* 1986: 83). Each questionnaire builds upon the previous through the abstracting of participant responses to be released within the subsequent questionnaires. This process anonymously exposes the entire participant panel to diversity of thought, and allows for reflection and response without being dependent upon physical proximity or interaction.

This research project used the Delphi Method as a means of scenario planning. The administration of the Delphi Method answered this project's research question and informed the construction of visionary scenarios through three means: 1) through participant generated narratives of ideal future visions; 2) through the abstraction of participants' narrative visions into distinct ideal future conditions; and 3) through participant identification of the external and internal factors they believe will be influential to the fulfillment of those ideal future conditions in the short, medium, and long term.

That scenario planning process generated and disseminated shared visions of the future through three means: 1) through exposure to other participants' perceptions of ideal futures; 2) through exposure to other participants' selection of ideal future conditions

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and articulations of the external and internal factors they believe will influence its fulfillment; and 3) through exposure to the depiction of participant selected ideal futures and influences within visionary scenarios.

Each of these three means represents original and unique contributions to the understanding and conceptualization of Northeast Michigan as a distinct regional and relational space. New understandings and conceptualizations created through collaborative group endeavors, like the three means listed above, were not preexisting and waiting to be exposed, but created through the processes communicative interaction (Healey 2006a: 256). Thus, through articulating and exchanging perceptions of ideal futures for Northeast Michigan, the *Shaping the Future* project is creating and disseminating shared visions of the future for the region.

NEMCOG

NEMCOG consists of A

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Figure 1.1 County map o

NEMCOG

NEMCOG consists of Alcona, Alpena, Cheboygan, Crawford, Emmet, Montmorency, Oscoda, Otsego, and Presque Isle counties. Refer to Figure 1.1 below.

Figure 1.1: County map of Michigan. NEMCOG is outlined within border.
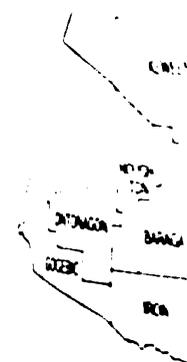
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CHAPTER TWO: REGIONALIZATION

In the aftermath of World War Two, a new global economic order could be seen emerging. While much academic attention has been placed on the burgeoning financial order spurred by the emergence of the World Bank and IMF, just as important was the emerging international division of labor. The 1950s could be considered the waning heyday of the Western or "Developed" World's unchallenged success at exploiting their early comparative advantages in mass production Fordist manufacturing. Concurrently, a large swathe of the world's Developing Economies were pursuing debt financed economic and industrial policies, many in the name of autarky, which utilized growth-pole and import substitution strategies (Scott 1998: 105).

By the late 1970s, oil shocks, rampant inflation, a recession and shift off the gold standard in the United States, all helped to induce soaring interest rates across the globe. High interest rates brought the now massive private debt burden of the Developing World to a crisis point. The IMF and World Bank moved in to "rescue" struggling countries from their untenable debt burdens, while implementing structural adjustment programs that would be the harbinger of Neoliberalism. As Neoliberal philosophy and policy spread, four phenomena would set the stage for understanding the international division of labor of the 21st Century:

1, the crisis of the late 1970s and early 1980s exposed the cracks in an import substitution model of industrialization, overly dependent upon outside capital, and gave

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the upper hand to neo-classical economic arguments of "purely" free markets, global entry, and export driven growth theory;

2, Developing Countries which maintained tighter fiscal policies were placed in a strong position, leading to the emergence of newly industrialized countries (NICs), particularly the so-called Asian Tigers;

3, the number of multinational corporations (MNCs) began to expand greatly, rapidly spreading branch plant manufacturing to the Developing World;

4, this spread has led to both losses of manufacturing jobs in much of the Developed World and increasing dichotomies within the service sector between high-paid high-skilled and low-wage unskilled employment opportunities (Corey and Wilson 2006: 8).

Twenty years of Neoliberal policies and employment shifts across the globe have created a global mosaic of regionally divided divisions of labor, of varying territorial scope, both within the Developed World and the Developing World. It cannot be assumed that domestic or even "local" economic interconnections are always more "logically" and functionally interdependent than cross-border ones (or those between Developed and Developing). It is not a stretch to argue that the economic integration between New York City and London is more elaborate and entrenched than that between New York City and rural up-state New York. It would be no greater leap to assume that the technical division of labor between a MNC based in Silicon Valley, California and the global manufacturing region of the Pearl River Delta in southern China may be stronger than any relationship between that same MNC and manufacturing

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entities in California's rural Great Valley - even though they may be located only a few miles away.

While it is easy to overstate this *The World Is Flat* phenomenon, put simply, distances between places are not as large of a barrier to certain relations anymore, and relative proximity between places is not as large an indicator of functional economic correspondence or interdependency. The world is increasingly being broken into regions that represent divisions of labor between knowledge, growth and agglomeration, and comparative advantages. These regions develop dense networks of internal and interconnected economic and social relations that build functional hives of relational activity.

The duality of simultaneous globalization and regionalization is explained well by Alan Scott in *Regions and the World Economy: The Coming Shape of Global Production, Competition, and Political Order:*

> *"Above all, and in spite of the great spatial extension of markets occasioned by globalization, the locational structure of production and work still by and large resists any universal tendency to geographic entropy. On the contrary, because production and work depend upon myriad detailed exchanges dealings, flow, and webs of association that cannot be sustained effectively over long distances, selected groups of firms and individuals persistently coalesce out on the landscape to form dense regional complexes of economic and social activity (Scott 1998: 4)."*

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Thus, a regional economy should be understood as a functioning economic geography in which economic and social activity is dense enough to share a common economic future (U.S. Economic Development Administration 2009: 122). Agglomeration and clustering of economic activity is representative of established, and often desired, relational networks within regional economies. Each of these relational webs of activity houses individual patterns of evolving nodes and networks of activity, along with varying intensities of connectivity.

Relational networks of connected elements are inherently unstable and fluid – boundaries are indeterminate and frequently challenged, transgressed, and extended (Hillier 2007: 58). Thus, while spatial scales of agglomeration and clustering are often pointed to as positive characteristics or growth factors of regional economies, a regional economy does not have to be defined by a single spatially "contained" industrial cluster, and thus exist at varying geographic scales. As such, there is growing recognition that political boundaries should no longer be viewed as able to "contain" the relational reach of social activity or economic production and distribution chains (Healey 2006b: 534).

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CHAPTER THREE: REGIONAL PLANNING

Contemporary Minimalists

Regionalization has intensified the complexity of the relations composing regional economies, which in turn demands practicing regional planners and economic developers adapt to a rapidly fragmented multi-stakeholder environment through experimentation, longer term and more inclusive planning techniques and projects. Uri Avin in *Using Scenarios to Make Urban Plans* (2007) stresses that the "mission for public comprehensive planning is to decide how best to influence the future" (Alvin 2007: 108). When conceptualizing a mandate of determining "how best to influence the future", placing efforts explicitly in relation to the future seems to be the rational choice. Yet many planning practitioners and academics have taken the stance that in order to best influence the future, planning must narrowly focus its efforts upon the present, measurable, and known. While planning has a tradition of framing plans and planning efforts in the long term, of 25 years or more, contemporary planning has embraced more minimalist, short term, and pragmatic visions and techniques (Corey and Wilson 2006: 65).

Practicing planners' methodological narrowing of focus upon the present, not surprisingly, coincided with an increasingly ability to gather and analyze data representative of the present. James A. Ogilvy in *Creating Better Futures: Scenario Planning as a Tool for a Better Tomorrow* (2002) lays out a sweeping argument stressing that contemporary planning's embrace of minimalist planning agendas and techniques

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is a result of the profession's simultaneous embrace of positivism - to the determent of shaping communities toward an intentional future. Dowell Myers in *Promoting the Community Future in the Contest with Present Individualism* (2007) supports this conclusion, tracing the move away from future oriented planning back to planning academics embrace of the social sciences (Myers 2007: 59).

Learning, education, and experience shape mindsets and behavior. Planning academia's embrace of social science has led to technocratic practicing planning behaviors interested in measurement, the attempted tinkering with physical space through zoning, and cumulative overreliance upon empirical data driven activities. This type of mindset lends itself to minimalist action rooted in short term time horizons, and stands in direct opposition to innovation, experimentation, and quick adaptation.

While an entire generation of practicing planners steeped in a positivist tradition of cautious action is currently leading America's practicing planning institutions, the age of regionalization has come upon us. Regions and regional economies are no longer seen as measurable one-to-one causal relationships, but webs of immeasurably dense social, industrial, and institutional relations. Further, regions are places in which a coexistence of diverse relations exists - linking people and place to external environs - but not necessarily with those in the same place (Healey 2003: 237).

A region's relations are now far too complex to quantify (Healey 2007a: 31). The respected balance between study and action focused upon the physically measurable objects of a region, and that of the immeasurable processes, relations, power

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geometries, and decision making structures, now seem out of balance. Planning systems in place today are the construct of the perception of a self-contained local economy and homogenous society, not open and globally reaching economic and social relationships (Healey 2006a: 4). This leaves the practicing planner, dependent upon a positivist technocratic approach, with an out of date toolkit and mindset - at the whim of an uncertain and accidental future.

The legacies of an arguably overly positivist mindset, can lead to a reflexive narrowing of focus at times when conditions demand a more nuanced and multi-dimensional conceptualization of space and how to proactively impact the relations of which it is comprised. Kenneth Corey and Mark Wilson reflect upon this in *Urban and Regional Technology Planning: Planning Practice in the Global Knowledge Economy*:

> "in this era of rapid change the inertia from the past is a legacy on planning professional's mindset and behavior that is likely to operate to impede new and flexible response and leadership, especially on the parts of practicing planners, economic developers, and citizen planners (Corey and Wilson 2006: 210)."

Bold Visionaries

Minimalist and "pragmatic" mindsets or actions do not have the power to inspire the re-conceptualization of what space could or should be. Three of the most celebrated practicing planners of the twentieth century not only preached against adherence to minimalist "traditional" planning techniques and processes, but advocated that future

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oriented ideal articulations of space could produce tangible outcomes and better futures (Fishman 2003: 23). Between 1890 and 1930 three planners - Ebenezer Howard, Frank Lloyd Wright, and Le Corbusier - each took on the challenge of answering the question of "what is the form and function of the ideal city of the twentieth century (Fishman 2003: 21)?"

Each envisioned, designed, and advocated for their visions of the ideal future for urban form and their perceptions of its embedded societal structures. The visionary designs scaled beyond the city and included its hinterlands - the region - and used complete articulations of ideal future end-states to stress their views of how to begin reforming the present to build toward that ideal and intended future. Ebenezer Howard designed and publicized the Garden City – a model of decentralized, natural, and communal living, Frank Lloyd Wright the Broadacres - advocating individualism and the nuclear family, and Le Corbusier the Radiant City – an industrialized, bureaucratic, and centralized mega-city.

Robert Fishman in "Urban Utopias: Ebenezer Howard, Frank Lloyd Wright, and Le Corbusier" provides an excellent description of each of the three ideal future cities:

> "He [Ebenezer Howard] wanted to build wholly new cities in the midst of unspoiled countryside on land that would remain the property of the community as a whole. Limited in size to 30,000 inhabitants and surrounded by a perpetual greenbelt, the Garden City would be compact, efficient, healthful, and beautiful. It would lure people away from the swollen cities like London and their dangerous concentrations of wealth and power; at the same time, the countryside would be

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His [Wright] planned city, which he called Broadacres, took decentralization beyond the small community to the individual family home. In Broadacres all planned cities larger than a county seat have disappeared. The center of society has moved to the thousands of homesteads that cover the countryside. Everyone has the right to as much land as he can use, a minimum of an acre per person. Most people work part-time on their farms and part-time in the small factories, offices, or shops that are nestled among the farms. A network of superhighways join together the scattered elements of society. Wright believed that individuality must be founded on individual ownership. Decentralization would make it possible for everyone to live his chosen lifestyle on his own land...

For him [Le Corbusier], industrialization meant great cities where large bureaucracies could coordinate production. Whereas Wright thought that existing cities were at least a hundred times too dense, Le Corbusier thought they were not dense enough. He proposed large tracks in the center of Paris and other major cities be leveled. In place of the old buildings, geometrically arrayed skyscrapers of glass and steel would rise out of parks, gardens, and superhighways. Those towers would be the command post for their region. They would house the technocratic elite of planners, engineers, and intellectuals who would bring beauty and prosperity to the whole society...their subordinates were relegated to satellite cities at the outskirts (Fishman 2003: 24-25)."

While perhaps more commonly interpreted as architectural designs, each of these three

discordant visions for an ideal future were intended to be a showcase for the radical

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social and economic transformations the men saw the designs to represent (Fishman 2003: 22). Correspondingly, each design was accompanied with volumes of writings on detailed programs of political, social, and economic reforms that were manifest in the "alternative future societies" the designs depicted (Fishman 2003: 23). All three of the men rejected their eras contemporary interpretation of the role of a planner, and refused to adapt themselves to what planning commissions, bankers, politicians, and other authorities of their time considered attainable (Fishman 2003: 22).

Ivory Tower Views

Yet the ideal futures created by Howard, Wright, and Corbusier are indicative of two significant failings of twentieth century planning that continue to persist: too much focus upon "physical space" and a failure to better include public participation in planning processes. While the three above mentioned planners' embrace of long term, socially transformative, and future oriented planning continues to impact planning to this day, a different, albeit related, planning paradigm emerged to dominate the twentieth century. By the 1960s, planning academia had embraced the so-called "modernist project" as the dominant theoretical foundation of planning (Beauregard 2003: 108). According to Robert A. Beauregard in "Between Modernity and Postmodernity: The Ambiguous Position of U.S. Planning" the four principles of the modernist project are:

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2) guide state decision making with technical rather than political rationality;

3) produce a coordinated and functional urban form organized around collective goals;

4) use economic growth to create a middle class society (Beauregard 2003: 108)."

Inherent within the four principles is the embrace of the notion - reflective of Howard, Wright, and Corbusier's similar inclinations - that an absolute physical space existed which could be controlled to produce intended outcomes. The concept of absolute space stems from Newton, and stresses that space itself is real and contains all objects within its domain - existing independently of relationships between objects or actors (Mandanipour 2001: 158). Through design, regional economics, land-use management and policy analysis, absolute space could be manipulated in empirically justifiable ways to create intentional social and economic outcomes. Planners were not "men or women of action" though, rather they were to provide utilitarian understandings, reason, and knowledge that would free elected officials of their ideologies through allowing the "universals" of a industrial society to be discovered and exploited (Beauregard 2003: 112). Thus the planning paradigm that would come to dominate the twentieth century embraced the Howard, Wright, and Corbusier notion that the manipulation of absolute space could be used as a form of social engineering.

From a planner's perspective, citizens were assumed to broadly share common interests (Healey 2006a: 25). Therefore, like Howard, Wright, and Corbusier's futures, the modernist project operated from a platform of assuming there was universal agreement on how society should progress and what was in the public's best interests. Steady

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economic growth was believed to be able to gradually erase class distinctions and build toward a conflict free society (Beauregard 2001: 113). The overarching contention being that the techno-rational methods of planners would linearly move society toward an inevitable future (Hillier 2007: 99).

Yet expertise and democracy are inherently in tension as two methods of deliberation (Hopkins and Zapata 2007: 6). By the 1970s, the elitist and exclusionary nature of technocratic planning was being challenged as non-representative. Theorists began questioning the very nature of scientific knowledge and the ability of planners to assume facts and societal values, instead advocating for planning processes that were inclusionary, interactive, and empowering (Healey 2006a: 27). Yet the 1980s saw the rise of Neoliberalism and its grounding in neo-classical economics. While a subset of theorists continued advocating for more inclusionary planning, the 1980s were dominated by the adoption of planning as policy analysis – both before policies were administered and assessing their performance over time (Healey 2006a: 28).

Policy analysis has remained a major focus of planning into the present. It has coincided with the regionalization of the global economy. As such, local elected officials have become increasingly interested in capital accumulation as a means of economic growth, often placing planners in the position of becoming the nexus between policy and capital, eroding the desired neutrality of the modernist project (Beauregard 2003: 115). Growth policies are targeted toward and assessed at the local level, not in relation to a regional economy (Corey and Wilson 2006: 106). This has resulted in a peculiar form of non-

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planning, where planners are involved in individual projects, but fail to place those projects into a broader framework of development (Beauregard 2003: 115). Perhaps most importantly, as planners shift from project to project, their activities operate nearly completely outside the realm of public debate, as decisions about subsidies, industrial investment, and infrastructure are deemed technical, not public, decisions are the sole domain of expert technical planners (Beauregard 2003: 115).

Contemporary Communicative Collaboration

A unifying theme has emerged, calling for the adaptation of planning models through the incorporation of multi-stakeholder communication structures that improve collaboration, coordination, and responsiveness. In a fragmented and intensely relational regional environment, planning structures are unable to "manage" the evolution of place through only traditional regional economics or mere land-use planning (Healey 2003: 239). It is meaningless to consider space independently from the social processes and practices of which it is a dimension (Hillier 2007: 10). The concept of relational space holds that space is no more than relations between objects, and has no independent existence of its own outside of those relationships (Mandanipour 2001: 158). This view directly challenges the presumption that absolute space exists, which can be manipulated into producing intended social and economic outcomes.

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In what could be called a paradigm shift, *collaborative* planning structures are increasingly being pointed to as innovative means of *communicatively* creating long term planning in a seemingly unmanageably complex contemporary environment. Collaborative planning is the adoption of a regional planning governance within which formal governments and representative stakeholders both have a role in the structuring of challenges, building relations through consensus and learning that develop social, intellectual, and political capital to promote coordination and mutual understanding (Healey 2006a: 200). Collaborative planning embraces the fragmentation of place through emphasizing and facilitating means of communication amongst normally disjointed stakeholders. Thus the facilitation of communication has emerged as a mechanism of long term responsive planning. Communicative planning theory's major emphasizes are best articulated by Patsy Healy in *Collaborative Planning: Shaping Places in Fragmented Societies* (Healey 2006a: 28):

- all forms of knowledge are socially constructed and can be disseminated through a variety of means;

- individual values are not derived in isolation, but learned in social contexts through interaction;

- people are diverse and have heterogeneous values that can be oppressed through relational power geometries that dominate public discourses;

- the management of shared space needs to be accountable to all viewpoints and work to disseminate shared ownership of knowledge and reasoning;

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- through consensus building, ideas can be developed and shared which have the capacity to enduringly coordinate actions by different actors - building cultures;

- communicative planning is both embedded in social processes and has the capacity to challenge and change them, thus context and practice are socially constituted together.

Communicative planning theory is grounded in a relational worldview that stresses different players, across different sectors of a regional web, will undoubtedly have: varying understandings and interpretations of that web; varying understandings of how that web is representative of the present; and, varying understandings of how that web is representative of a starting point for their progression toward a future. Presented with this fragmented environment, strategic spatial planning needs to focus efforts toward an enterprise of generating frames of thinking and acting over the long term (Healey 2007: 36). Planning governance has to be more than just setting narrowly defined goals, there must be a focus upon how to get others to embrace shared goals and to move in the direction of achieving those shared goals (Ogilvy 2002: 55).

Networks are comprised of three basic elements: 1) social actors; 2) social ties connecting actors; and 3) channels of communication between actors that allow the network to function (Hillier 2007: 34). Planning governance has to be more than policy formation and analysis in isolation - it has to be a communicative channel that builds relational networks capable of collaboratively forming, then aligning and supporting policy. Communication is needed to build common frames of thinking and

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understanding - building common perceptions of the present - via continuous exchanges of ideas over that present (Porter and de Roo 2007: 11).

Communication and exchange of ideas amongst diverse stakeholders is a method of uncovering not only a region's varying perceptions of the present, but also the values that are driving those perceptions. Embedding new behaviors – more congruent with contemporary complexities - within existing regional planning structures is interdependent with changing mindsets both amongst the planning agencies internally and independent stakeholders (Corey and Wilson 2006: 150).

Change is the result of a reweaving of actor's webs of belief and habits of action as a result of new experiences obtained through interaction (Tsoukas and Chia 2002: 570). Conversely, power - albeit over physical materials or discourse - is composed and reproduced through the recurring performances of networks of interaction, not unchangeable structures or institutions (Hubbard et al. 2002: 193). Therefore, the hegemonic power to dominate a give discourse or representation of knowledge is not derived from title or position per se, but through the uninterrupted flows of narrowly focused channels of communication.

Power and value laden discursive framing works to restrict vision and inhibits the exploration of discordant ways of understanding or acting (Hillier 2007: 74). The interactive exposure to diverse and contrarian understandings and values helps participants of communicative projects break path dependent behaviors and mindsets through the building of new relational channels of communication. As such, projects

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that embrace a communicative form often prove to be "eye-openers" for experienced professional planners (Schneider 1972: 497). Planners must understand the values of their community in order to best serve it (Ogilvy 2002: 149). Exposing planners and stakeholders to opposing values and perceptions interactively increases the responsiveness of professional planners to the whole of their heterogeneous communities and regions.

The shaping of place is the outcome of power struggles between various actor networks, identities, images, aspirations and values within the existing social order (Hillier 2001: 76). Communicative interaction amongst stakeholders and professional planners not only empowers divergent groups of stakeholders in planning structures, but is effective in instilling the notion that communal action is capable of building toward a common future (Grant 2007: 39). Regional planning must avoid the fragmentation that occurs when organizations pursue their own agenda of individual projects disconnected from a broader regional strategy (U.S. Economic Development Administration 2009: 24). Patsy Healey explains the strength of widely embraced strategic trajectories in *Fuzzy Planning: The Role of Actors in a Fuzzy Governance Environment*:

> "Articulating strategies is not so much about the definition and specification of goals, as the generation of a way of thinking about issues, their connections, the array of actors involved, and what they might think and do. It is not about achieving a plan or vision with a comprehensive coverage, which will inevitably end up partial and selective. It is about developing a broad angle of vision, within which people can locate themselves (Healey 2007: 37)"

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Therefore, locating interests, whether individual or institutional, in regards to a larger common understanding can align divergent interests to better progress communally in a more unified direction. Actors are able to better account for what they are doing if it is in line with prevailing social understandings and structures (de Roo 2007: 136). Further, the mutual understanding of prevailing social network structures enables people to reach common agreement and to turn this agreement into action (de Roo 2007: 136).

Mindset change, collaboration, and consensus building have all been found to be instrumental in transcending the divergent self-interest of regional stakeholders and organizations (Corey and Wilson 2006: 162). A fundamental problem in the current fragmented regionalization environment is the conflict between maximizing self interest, and maximizing what is best for the community (Voogd and Woltjer 2007: 72). Regional *economic* development in particular should no longer be viewed as a zero-sum game, as to pursue new market opportunities regional economic development must be focused on aligning, linking and leveraging regional assets to create new avenues for mutual benefit (U.S. Economic Development Administration 2009: 24). Communicative interactions which link together previously disconnected relational actor networks create new mutual understandings that enable the discovery of new intentional collaborative strategic trajectories.

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CHAPTER FOUR: SCENARIO PLANNING

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Overview

Jean Hillier in *Stretching Beyond the Horizon: A Multiplanar Theory of Spatial Planning and Governance* reminisces on the difficulties of making relationally informed collaborative plans and strategies:

> "The challenge facing practitioners is to democratically construct an artificial whole capable of synthesizing incompatible desires, recognizing agonistic tensions and deep differences and working with them (rather than ignoring them) to inclusively and collaboratively imagine how things might be otherwise (Hillier 2007: 316)."

Scenario planning is method of making communicative collaborative planning operational. There are four principles of scenario planning: 1) taking the long view; 2) thinking from the outside in; 3) including multiple perspectives; and 4) telling stories (Smith 2007: 83). In actualizing each of these four principles within a communicative collaborative endeavor, scenario planning processes and outputs serve the dual purpose of inducing individual learning, understanding, and mindset change and facilitating the generation of social learning, understandings, and mindset change. As such, scenario planning builds new relations and social capital amongst its participants.

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Scenario Planning is Communicative Collaboration

Scenario planning provides a means toward engaging and disseminating a region's divergent perceptions and future visions of place through empowering stakeholders to exchange thoughts and desires within the context of planning processes. What makes scenario planning a particularly significant method of communicative collaboration is that it can guide individuals and organizations beyond looking at the present in abeyance, toward a mandate of conceptualizing the future (Hopkins and Zapata 2007: 2). These future visions are conveyed via the production of stories set in the future called scenarios, which should be considered as informed productions of how internal and external events can actively create a possible future reality.

Thus scenarios give planning a focus on the future, while building social relations and deriving spatial planning opportunities in the present. By allowing participants to identify the issues and factors shaping communities, scenarios expose perceptions of how the world is changing in the present and how it could be changing in a future (Hopkins and Zapata 2007: 9). Such communicative collaboration can change conceptions of community futures in regards to specific projects and provide directions for aligning actions to strategies (Grant 2007: 39). Scenarios illustrate the trade offs of decision making and policy (Cummings 2007: 251).

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Facilitating reciprocity and cooperation on spatial development issues, the scenario planning process itself is just as important as the final outcome (Hillier 2007: 277). Participants are liberated from their individual, often fragmented vision of the future, and are encouraged to envision holistic causal models of plausible futures. A process of engagement and representation in planning is embraced, connecting discordant players and agencies, generating hopes, cooperation, and long term thinking (Smith 2007: 98). This type of engagement lends itself to tackling regional planning's difficulties of balancing individual short term interests and conflicting perceptions with long term, agreed upon, community-wide interests (Porter and de Roo 2007: 11).

When building consensuses across multiple stakeholders it is vital to develop a shared narrative of the past, present, *and* the future (Myers 2007: 76). Scenarios expose and are driven by divergent paradigms conceptualized by participants, and are thus one of the best tools for drawing out the social creativity of communities (Hopkins and Zapata 2007: 11). Scenario planning's communicative hypothesizing is an inclusionary means to create a holistic understanding of a specific future or many futures, since during the processes participants are encouraged to debate and reflect on the compositions and drivers of alternative futures (Avin 2007: 108). Resolution of varying worldviews is best produced by first understanding that such conflicts exist (Ogilvy 2002: 74). The debates produced while deliberating over ends and causalities work toward spreading mutual understandings of the varying interpretations of the present and desires for the future.

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Through argumentation over *what is* the present, in the context of considering alternative futures, stakeholders are able to uncover the shared hopes of the community – how they want their environs to evolve. Developing an ends, or groups of ends, helps to achieve understandings of means from which to measure the distance from the present to *what ought to be* the future (Ogilvy 2002: 183). This process encourages stakeholders to then conceptualize their individual activities in correspondence to a more communally desired future. Further, unlike empirical projections or expert warnings, there is a certain level of acceptance of a narrative future that comes with participating in its creation (Ogilvy 2002: 134).

History

Herman Kahn, while working at the RAND Corporation in the 1950s, is widely credited for popularizing the term "scenario" and for being an early advocate of using scenarios to contemplate "unprecedented problems" in the context of the future (Smith 2007: 79). Starting in the 1960s, the Royal Dutch Shell Company began incorporating scenario planning into their management and strategy practices (Ringland 2002: 4). The company gained notoriety for their use of scenario planning to better predict and navigate geopolitical environments, particularly in the turbulent 1970s (Smith 2007: 80). Today scenario planning is widely used in the business world (Hopkins and Zapata 2007: 9).

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Experimentation with scenario planning within the public sector also has been taking place since the 1960s. The earliest forms of scenario planning in the public sector, often referred to as the "preferred scenario approach", would provide a given condition or situation as a foundation from which varying futures would be projected (de Roo 2007: 111). From the resulting group of futures, a single future would be selected as "preferred". Planning interventions were then to be developed to pursue the "fulfillment" of the preferred future until agreed to be no longer realistic (de Roo 2007: 111). Once a previously selected preferred scenario was deemed no longer a possible future, a cyclical process of then creating a new group of scenarios - from which a new preferred future would be selected and aspired to - would be initiated (de Roo 2007: 111).

Forms of the preferred scenario approach remain the dominant method of scenario planning today (Hopkins and Zapata 2007: 9). While varied, some more contemporary iterations of the approach deviate from the original through the rejection of predetermined "givens" or topic focuses. Yet while remaining the dominant form the preferred scenario approach has been criticized as being exclusionary, the argument being it does a poor job of incorporating a wide group of stakeholders into the process (de Roo 2007: 111). In correspondence with the rise of collaborating planning theory and advocacy, by the 1990s new forms of scenario planning, particularly visioning, began to be embraced (Grant 2007: 40). Nuanced distinctions between the varying terms that describe different outputs of scenario futures - as distinct planning products -

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A vision is a description of an ideal situation at a future time, often derived by involving large and representative groups of stakeholders to collaborate in creating shared visions of the future (Hopkins and Zapata 2007: 2). A scenario is a story set in the future that depicts how the world has changed to create a hypothetical future. A scenario is a possible future that emphasizes a process of change, and it does not have to be considered ideal (Hopkins and Zapata 2007: 9).

More recently, particularly in the last decade, the use of alternative scenarios as a method of scenario planning has gained attention (Ringland 2002). In defining the "alternative scenario approach" there is again terminology nuances that have to be addressed, and again there is not distinction without difference. In the preferred scenario approach, a group of alternative scenarios are created with the explicit purpose of selecting a preferred scenario as the desired future out of that group of *alternatives*. The alternative futures are intentionally mutually exclusive and planning activity is intended to pursue the one single preferred future. In the alternative scenario approach, a set of mutually exclusive alternative scenarios - that may or may not include a given or topic focus - are created without the intent of preferred scenario selection. The alternative scenario approach seeks to create a range of better futures, not a blueprint for a particular future (Ogilvy 2002: 56).

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The approach stresses that outputs and process is highly context and desired outcome dependent. There are typically four alternative scenarios created with differentiated futures being dependent upon the determination of highly important and highly uncertain factors. The alternative scenarios are differentiated by factors identified during the scenario planning process, but they do not have to represent dichotomies of positive/negative and desirable/undesirable. Some advocates, most notably James A. Ogilvy, stress that the alternatives must be defined yet all remain normative in nature. He explains his reasoning in *Creating Better Futures: Scenario Planning as a Tool for a Better Tomorrow*:

> "The relational worldview supports ethical pluralism. That ethical pluralism gives meaning to the norms that guide normative scenarios. Without troubling to consider the relational worldview, normative scenarios would run the risk of depending on the same old heavy-handed morality that led utopians and their followers into so much trouble. We now know better than to trust people pushing the One True Path to the best future. But without normative scenarios that articulate the shared hopes of a community, we risk adopting a pernicious relativism where anything goes (Ogilvy 2002: 14)."

Scenario Structure

With due deference to the philosophical and theoretical considerations that go into adopting a particular scenario planning approach, that are overarching similarities in process and output. Within a scenario planning project there are several scenarios

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produced, with the logic behind the number of scenarios created being dependent upon the specific project's characteristics and mandate. A project's mandate also determines the level of inclusiveness of scenario planning, as it can be effectively implemented amongst a large number of participants or as a relatively closed process. Further, individual scenarios can depict numerous themes simultaneously, as in the case of articulating an entire regional future and causal drivers, or more narrowed to a single theme. This openness and flexibility is what makes scenario planning such a powerful tool.

The scenarios can be presented in a variety of storytelling techniques: as blue prints or scripts of action; narratives; or even fictional character driven narratives - complete with antagonists and protagonists. Scenario formats are just as diverse: written text-based; radio programs; films; or power-point presentations. The length of these futurist stories should not overwhelm the audience or clutter the mind with facts, figures, and *unintended* emotion. Their main function is to give the audience an understanding of the intentionally broadcasted end-state and casual drivers.

Through complete depictions of futures, scenarios are useful for connecting many different planning processes, which are often disconnected in a regional setting due to the diversity of stakeholders, players, and agencies (Smith 2007: 98). Further, scenario planning's ability to articulate a long term regional strategic vision helps to place stakeholders' conflicting and independent plans and agendas under a larger context - the now articulated end-state. Again this shared vision can be either narrow or grand,

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Participants

The optimal number of participants within a typical scenario planning is anywhere from 15-25 (Ogilvy 2002: 181). Through communicative learning, much more than a mode of narrowed policy discussion, a scenario planning workshop is a facilitator of mindset change (Smith 2007: 84). In order to solicit representative and even provocative ideas and values, the participant panel must embody a wide cross-section of interests, professions, and demographics (Schneider 1972: 496). Through exposure to eclectic and diverse ideas and understandings, the whole of the participant panel is both able to better inform their mental representations of the region, and empathize with the conflicting values of it.

In a regional setting of complex relations and diverse actors contributing to those relations, a core theme to scenario planning is building and increasing understandings of desired community futures. A scenario planning process and product will have the most meaning to the participants of that workshop who contributed to the process (Smith 2007: 84). Yet it is important not to use this as a justification to include only the

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Scenario planning projects can also be administered through town-hall discussions including numbers of participants ranging in the hundreds (Cummings 2007). Scenarios can be put to use throughout a large geographic area by using the media, radio, television, and pamphlets as distribution media (Cummings 2007: 252). Scenarios are effective in disseminating their meaning to an audience who were not active in their creation, but their efficacy of disseminating shared visions and building upon those visions is increased through group processes of interaction with the scenarios, as opposed to reports or recommendations (Smith 2007: 84).

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CHAPTER FIVE: METHODS

Overview

There were three distinct phases to this research project: 1) the administration of a two round Delphi survey; 2) the analysis of the results of the Delphi survey; and 3) the creation of Northeast Michigan specific visionary scenarios from the participants' narrative visions and influential external and internal factors articulated during the Delphi. The structure of this project and use of a Delphi survey was intentionally designed to generate the inputs for the creation of visionary scenarios. While commonly understood to be distinct planning techniques, the use of a Delphi framework here was a means of producing the inputs of a more typical scenario planning process. Scenario planning is a creative process and should not be rigidly structured (Avin 2007: 107). Technique and approach is context and project dependent (Avin 2007: 127). Thus it is important to stress that the Delphi survey and the creation of visionary scenarios should not be viewed as separate and unrelated activities.

The Delphi Method

The Delphi Method is a planning technique that facilities collaborative and communicative interactions. It can best be understood as a systematic process that allows for the collection of judgments/opinions concerning certain topics via written responses to survey questions that are then abstracted and exchanged amongst a group

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(Delbecq *et al.* 1986: 83). The exchange of opinion allows the group to collectively deal with complex problems through exposure, structured response refinement, and participant reflection. It is a mechanism to holistically explore interpretation, causation, and potential solutions to multifaceted issues through communicative interaction not based on physical proximity.

In order to facilitate the exchange of informed opinion amongst participants, a Delphi is organized as a multistage process. A Delphi is typically structured into two or more rounds of surveying, administered by a lead researcher or group of researchers remotely: either via physically or digitally administered surveys. The purpose of each successive round of surveying is to share, reflect upon, and expand the previous round's participant responses, working toward the ultimate overarching project goal. The design of each successive round needs to be commensurate with progressing toward answering the proposed research question(s).

Typically, the first round of survey questions are geared toward teasing out broad conceptualizations of a principal issue, as each participant contributes whatever information they believe to be relevant (Linstone and Turoff 1975: 5). This intent generally manifests into open-ended questions of personal opinion surrounding a topic. While some iterations of the Delphi Method may seek to aggregate objective facts, the Delphi Method is generally best suited to the exploration and exchange of subjective personal preference (Linstone and Turnoff 1975: 4). An exploratory Delphi's uses of open-ended sets of first round questions gives respondents the freedom to express their

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personal preferences without being overly influenced or steered by the questions or process.

Upon the completion and return of the first round questionnaires, participant responses must be abstracted and edited by the research team, to then be shared amongst the entire panel in the subsequent rounds. The goal of this abstraction is to derive from each participant response a list of distinct opinions. Each distinct opinion must reflect the intention of the respondent, but be shortened to make it quickly understandable and reviewable by all the respondents in the preceding rounds (Delbecq *et al.* 1986: 94). It is through the abstraction and release of participant responses that a Delphi facilitates the exchange of opinion throughout the entire participant panel.

The participants then have the opportunity to meditate on and respond to the content of their fellow panelists' responses, exposing themselves to the diversity of thought across the panel. As this entire process is done remotely and anonymously, participant interactions are not influenced by dominating personalities or unequal power relations with their fellow panelists, but by the substance and imaginativeness of the communicative argumentation (Delbecq *et al.* 1986: 83). This response structure encourages open and honest reactions to fellow participant responses (Sheridan 1975: 546). The abstraction and participant interaction continues until either the research team decides enough information has been gathered and disseminated to fulfill their research goal or until the Delphi reaches a predetermined final round (Hasson *et al.* 2000: 1011).

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This Study's Delphi Structure

In order to generate the intellectual input for the creation of visionary scenarios, this study probed participant opinions regarding four key categories of topics, through two rounds of Delphi surveying (from here on referred to as the First and the Second Rounds). The study's participants came from both the private - business, economic development, and planning - and pubic – government and academic – sectors. Traditional Delphi surveys typically included four rounds, yet in more contemporary studies two to three rounds are the norm (Hasson *et al.* 2000: 1011). Many Delphi projects use the first round of questioning to allow the participants to identify which topics will be elaborated upon in the subsequent rounds (Jillson 1975: 129). Yet, in order to save time and serve the project mandate it is also common for planning related Delphi projects to have pre-selected topics (Schneider 1972: 482). Correspondingly, this study pre-selected four NEMCOG relevant categories of topics, in order to keep the number of necessary Delphi survey rounds to two, while allowing the participants to determine what will be elaborated upon in the Second Round.

The First Round

In the first round of questioning the participants were emailed a digital questionnaire. Please refer to **APPENDIX F** for the complete First Round Questionnaire. The First Round Questionnaire consisted of detailed instructions, an example to aid in understanding how to best structure responses, and four open-ended questions. The open-ended questions asked participants to explain what they believed to be the ideal future states

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of the four categories of topics. Participants were free to refer to outside materials to inform their four responses. Beyond correspondence to the respective categories there were no restrictions on the content of participant responses. The four topics were: Human Capital Assets; Infrastructure; Natural Resource Utilization; and Tourism Industry.

The four First Round Questions were:

1) Please describe what you envision to be an ideal future state of Northeast Michigan's human capital assets in twenty years.

   Human capital assets include, but are not limited to: access to higher education and levels of attainment; human talent growth, retention & attraction; employment sector compositions; entrepreneurship; local access to finance; local business support structures; innovativeness; and community focused non-profit resources.

2) Please describe what you envision to be an ideal future state of the Northeast Michigan's infrastructure in twenty years.
   Infrastructure includes, but is not limited to: road; rail; air; ports; other public works; along with telecommunications, including broadband access.

3) Please describe what you envision to be an ideal future state of Northeast Michigan's natural resource utilization in twenty years.
   Natural resource utilization includes, but is not limited to: forestry; water resources; green energy production; research and development (R&D)

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capabilities; bio-sciences; bio-technologies; agriculture; animal husbandry; and conservation.

4) Please describe what you envision to be an ideal future state of the Northeast Michigan's tourism industry in twenty years.

The phrase tourism industry is intended to include, but is not limited to: traditional tourism; agro-tourism; eco-tourism; tourism advertising; regional tourism branding; hunting and fishing chartering; financing; small business support.

It is important to note the use of the term "ideal" in each of the four questions. The term ideal was used to induce the creation of normative First Round responses. Normative responses that narrate the story of a community's intentional transformation to inspire action - as opposed to "realistic" or even "pessimistic" narratives - are considered to be more effective at moving participants toward collective action and voluntary futures (Ogilvy 2002: 186). Data projections, quantitative speculation, and graphic displays can direct attention toward the future, but they are fragmented and may not fundamentally affect community/participant thinking and worldviews the way an ideal vision can (Myers 2007: 71). Indicators are simply snapshots of a time period, and are fundamentally unable to address the breadth of uncertainty surrounding their projected futures (Cummings 2007: 248). Further, data – no matter how accurate or important – will never be widely used by the public or even by untrained policy makers (Cummings 2007: 248). A holistic story that provides a community narrative of transformation from the present to an intended ideal future invites participants of the

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process, and even passive readers, to actively engage in creating that ideal future (Myers 2007: 71).

First Round Questionnaire Analysis

The First Round Questionnaire was emailed to 21 consenting participants. Of the 21 original participants, 19 completed and retuned the First Round Questionnaire via email. First Round Questionnaires returned late were accepted up until nine days after the original one week return deadline. Several participants returned their First Round Questionnaires after the one week return deadline.

As Table 5.1 shows, in total the 19 completed First Round Questionnaire responses contained approximately 12,190 words. That is about 40 double spaced pages of text. The average total length of response per participant was around 641 words in total and about a half page of double spaced text per question. The range of total response length varied from 111 words to 1,366 words.

Table 5.1 First Round Characteristics

Characteristic	Completions	Total Number of Words	Total Number of Pages	Words per Participant	Response Length per Participant	Total Response Range per Participant
First Round	19/21 Participants	12,190 Words	40 Double Spaced	641 Words	½ Page per Response (160 words)	111-1,366 words

There was a ten day intermission between the First Round response deadline and the emailed delivery of the Second Round Questionnaire. This time was built into the

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project to facilitate the abstraction of the participants' First Round narrative responses into distinct ideal future conditions to be used in the Second Round Questionnaire. I derived abstracted ideal future conditions from each participant's narrative responses through the following means: 1) I read the First Round narrative response; 2) I determined which components of the original narrative could be broken into individual conditions; 3) I rewrote the individual ideal future conditions into single sentences; 4) I grouped all rewritten conditions in accordance with the First Round question it was in response to; and 5) I ensured that each individual condition was unique through the elimination of redundant conditions.

As shown in Table 5.2 below there were a total of 56 distinct ideal future conditions identified by the participants in their First Round Human Capital Asset responses. A total of 37 distinct Infrastructure ideal future conditions were identified by participants in the First Round. Participants identified 38 distinct Natural Resource Utilization ideal future conditions in the First Round and 31 distinct Tourism Industry ideal future conditions. Each of these 162 total ideal future conditions became part of the Second Round Questionnaire.

Table 5.2 Ideal Future Conditions Derived per First Round Category

Category	Human Capital Assets	Natural Resource Utilization	Infrastructure	Tourism Industry	Total Ideal Future Conditions
Number of Ideal Future Conditions Derived From First Round Responses	56	38	37	31	162

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The Second Round

Ten days following the scheduled completion of the First Round, I emailed the 19 participants who completed the First Round Questionnaire the Second Round Questionnaire. Please refer to **APPENDIX G** for the Second Round Questionnaire in its entirety. The Second Round Questionnaire consisted of instructions, an example response, and four lists of ideal future conditions - categorized in relation to the First Round question from which they originated. Each list consisted of unique sentences, representative of distinct ideal future conditions identified within the participants' First Round responses. The original First Round narrative responses were never released in their entirety - only through abstracted and anonymous single sentence ideal future conditions.

The participants were asked to select at least one ideal future condition from each list and explain what they believed to be the external and internal factors influencing its fulfillment in the short, medium, and long term. The participants were allowed to select and respond to as many ideal future conditions as they desired. Participants could simply state their external and internal influences, use several sentences to explain them, or do a combination of both.

External influences were defined as influences acting upon the ideal future condition originating from outside Northeast Michigan (internationally, nationally, or statewide). Internal influences were defined as influences acting upon the ideal future condition originating from within Northeast Michigan. Short term was defined as 0-5 years, medium term as 5-10 years, and long term as 10-20 years. Meaning, the participants

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Second Round Questionnaire Analysis

The response deadline for the Second Round was again one week. Second Round Questionnaires returned beyond the deadline were accepted. Of the 19 participants who were emailed the Second Round Questionnaire, 13 returned a completed questionnaire.

The participants selected and provided responses to 48 of the 162 ideal future conditions generated in the First Round. There were a total of 61 Second Round participant responses as several identical ideal future conditions were selected by more than one participant. Please refer to **APPENDIX G** for participants' Second Round responses in their entirety. Further, **APPENDIX B** provides a descriptive assessment of each of the four categories Second Round responses.

Participants selected 17 total Human Capital Asset ideal future conditions. Of those 17, three identical ideal future conditions were selected by two participants each. Out of

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the 56 distinct Human Capital Asset ideal future conditions to choose from, 14 unique ideal futures were selected by the participant panel. Out of the 13 Second Round panelists, three selected their own First Round ideal future conditions to respond to in the Second Round.

There were a total of 15 Infrastructure ideal future conditions selected in the Second Round. Of those 15, two identical ideal future conditions were selected by a total of seven participants. One of the ideal future conditions selected by more than a single participant had five total participants select it, while the other had only two participants select it. Out of the 37 distinct Infrastructure ideal future conditions to choose from, 13 unique ideal future conditions were selected by the participant panel. Out of the 13 Second Round panelists, five selected their own First Round ideal future conditions to respond to in the Second Round.

A total of 14 Natural Resource Utilization ideal futures were selected by the participant panel in the Second Round. Of those 14, two identical ideal future conditions were selected by two participants each. Out of the 38 distinct Natural Resource Utilization ideal future conditions to choose from, 12 unique ideal futures were selected by the participant panel. Out of the 13 Second Round panelists, five selected their own First Round ideal future conditions to respond to in the Second Round.

Lastly, a total of 12 Tourism Industry ideal futures were selected by the participant panel. Of those 12, three identical ideal future conditions were selected by two participants each. Out of the 31 distinct Tourism Industry ideal future conditions to choose from,

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Visionary Scenario Inputs

The products of the two rounds of Delphi surveying were: 1) the 76 First Round ideal future narrative responses - four responses for each of the 19 First Round panelists; 2) the 162 distinct ideal future conditions those 19 panelists generated in their First Round responses; 3) the 61 total, and 48 individual, ideal future conditions the 13 Second Round panelists selected; and 4) the participant articulations of external and internal influences upon the fulfillment of the selected ideal future conditions in the short, medium, and long term.

These four products were the inputs for this research project's ultimate outcome: four participant informed visionary scenarios. Please refer to the following chapter, **Chapter Six: THE SCENARIO CREATION PROCESS**, starting on the following page, for an explanation of how I used the above mentioned inputs to create visionary scenarios. Further, please refer to **Appendix B, Appendix C, and Appendix D** to learn how participant selected ideal future conditions and identified external and internal influences were explicitly used in each participant informed scenario.

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CHAPTER SIX: THE SCENARIO CREATION PROCESS

The primary objective of a scenario planning project is the creation of planning scenarios. The primary objective of the creation of participant informed scenarios is to disseminate knowledge and understandings from both the scenario planning process itself and the final set of scenarios - to induce learning, understandings, and to build relations. To maximize the benefits from scenario planning demands clear articulation of, and close adherence to, a predetermined process (Ringland 2002: 145). One wants the participants to focus not on trying to understand a complex series of steps, but solely upon the issues, beliefs, and possible futures a scenario planning project seeks to explore.

Below is an illustration of the five step process this project used to convert the Second Round participant responses into visionary scenarios. The purpose of this illustration is for project accountability – enabling the reader to trace the origins of the scenarios from the participants' Second Round responses – and to stimulate informed understanding of how to transform scenario planning inputs into actual scenarios. While the illustration below is intended as a learning device, each scenario planning project is unique, and therefore generic process illustrations like the one below must be tailored to specific circumstances and intended outcomes.

Lastly, while necessarily having to be grounded in a transparent process, writing scenarios is inherently a creative endeavor, and scenario writers should not ever restrict their creativity. Generic illustrations like the one below should be used to inform oneself of scenario planning process and writing norms. These "best practices" should

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<u>The Five Steps</u>

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The Five Steps

I used a five step process to create this project's four participant informed visionary scenarios. These five steps were designed to transform the participants' First and Second Round inputs into visionary scenarios that answered this project's research question: What are the ideal future characteristics of Northeast Michigan's human capital assets, infrastructure, natural resource utilization, and tourism industry, and what factors will be influential to the actualization of those ideal future characteristics?

The way these steps are used and their outcomes must be dependent upon the style of question a project seeks to expose an answer to, and what kind of scenarios have been predetermined as the best means of showcasing that answer.

The objective of the *Shaping the Future* project was to create visionary scenarios. Therefore, my scenario planning process, survey design, and five step scenario creation process was specifically tailored to inform an eventual output of visionary scenarios. Below I have abstracted the process to serve as a generic guide toward turning *participant* generated material into scenarios.

The Five Steps are:

1. Identify the K

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3. Discern the LC

4. Create the Na

5. Contextualize

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The Five Steps are:

1. Identify the Key Response Themes

2. Articulate PEST Relationships

3. Discern the Logic of the Scenario

4. Create the Narrative

5. Contextualize the Scenario

The Five Steps Explained

Below I will explain the planning scenario construction considerations each step is designed to facilitate.

Step 1: Identify the Key Response Themes

First, what is meant by *Key, Response,* and *Theme* must be understood.

By *Response* I am referring to what the participants have articulated as their response to the project's questions. Even more directly: what are the participants telling you?

In the *Shaping the Future* project there was a two part, albeit interconnected, research question: *What are the ideal future characteristics of Northeast Michigan's human capital assets, infrastructure, natural resource utilization, and tourism industry, and what factors will be influential to the actualization of those ideal future characteristics?*

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The participants' answers to this two part question are easily recognized as their Second Round responses: their selection of ideal future conditions and the external and internal influences that they identified as being influential to their fulfillment.

Key and *Theme* are interconnected determinations. By *Key* and *Theme*, I am referring to any overarching similarities or correspondences amongst the participants' responses. The identification of these can, and should, be a both qualitative and quantitative process.

Qualitatively, one should be able to "see", justify, and group *Responses* in accordance to corresponding or interconnecting traits and sub-texts. Just because this is a qualitative process does not mean that it cannot or should not be explicitly reasoned and justified. This reasoning and justification, whether it becomes manifest in the final report as a text or not, can be important in the final - post scenario creation - consultation stages of a scenario planning project as fodder for interpretation and debate.

More quantitatively, *Themes* can be determined by counting and categorizing key words, phrases, and response types.

In the *Shaping the Future* project there were seventeen participant identified Human Capital Asset ideal future conditions selected in the Second Round. First, I qualitatively categorized the ideal futures. I did not have predetermined categories, although the specifics of a project could determine such a predetermination necessary.

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After the categorization, I had five categories: education; demographics; governance; culture; and employment. From this categorization I was able to make a determination of what the *Key Responses Themes* were by the ratio of *Responses* per category: education = 10/17; demographics = 1/17; governance = 2/17; culture = 2/17; employment = 2/17.

From this break down it was clear that the participants' *Key Response Theme* could reasonably and justifiable be determined as education.

Step 2: Articulate PEST Relationships

PEST stands for: Political; Economic; Social; and Technological.

Brainstorming and explicating PEST relationships should be done for both individual responses and across participant responses. The most attention should be given to the responses that correspond to the *Key Response Themes*, but it is also important to see how divergent responses and their implications relate to the *Key Response Themes*. Cause and effect relationships should be set up within each aspect of PEST (political, economic, social, and technological) and across them to better understand processes of change that could create a possible future or sets of alternative futures. The material generated from this exercise can be value added interpretation and expansion upon participant responses or can be found evident (as in already explicitly stated) within participant responses.

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The generation of PEST Relationships helps to flesh out the eventual scenarios. It helps to create an intentional and informed sub-text to each scenario. It is a means of brainstorming and generating the value added contributions that the scenario writer(s) will incorporate into the final scenarios. These value added contributions can be the mere "connecting of dots" across/within responses to build holistically informed scenarios or can be the incorporation of non-participant generated planning interventions that could reasonably and justifiably fit within the scenario.

The process teases out the implications of participant responses across the divergent stakeholder networks of a region. Extrapolating divergent groups of PEST implications creates ideas of causal drivers to particular futures. The PEST derived implications of causal drivers are important to determining the logic of the ultimate scenarios to be written.

The particular method of PEST Relationship brainstorming and whether its outcomes are disclosed should be project specific. In the *Shaping the Future* project the Second Round identification of internal and external influence upon the selected ideal futures allowed the participants to explore their own conceptualizations of PEST relationships. I further used my own individual exploration to expand upon the participants' articulations.

I took each ideal future condition, its associated participant identified internal and external influences, and attempted to flesh out PEST relationships and implications - both within individual ideal futures and across them - by simply writing my thoughts out

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Most scenario planning projects are a group endeavor – taken on either by hired consultants or local professional planners. When working within a group, the fleshing out of PEST Relationships often takes the form of a debate and brainstorming session: using a causal web or influence diagram displayed digitally or on whiteboards. When administering a project that seeks to create sets of alternative scenarios, PEST group debate and brainstorming is usually done with the participants as part of the planning scenario process and before the ultimate scenarios are written.

Step 3: Discern the Logic of the Scenarios

Having identified the *Key Response Themes* and brainstormed the PEST relationships, you will be able to discern the totality of the responses participants have provided. Therefore, by *Logic of the Scenarios* I mean the responses discernable totality of implications and resulting vision(s) - including divergent - of the future. When you *Discern the Logic of the Scenarios* you are conceptually linking the *Key Response Themes* to their *PEST Relationships* and projecting them into the future or toward sets of alternative futures.

This linking and projecting will give directionality to the story the scenarios are to articulate. Ultimate scenario timeframes and chronologies will be more evident. Alternative and conflicting futures can be postulated.

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Most importantly, you can now determine the scenarios dominant ideology. I define ideology as a normative and abstract vision of the future that is used to socialize thinking and behavior toward actualizing its normative goals. Scenarios distill an intentional ideology to the reader and show how adherence to that ideology may play out in creating a hypothetical future. That intentional ideology needs to be derived from what the participants have told you.

Step 4: Create Narratives

In *Discerning the Logic of the Scenarios* you have decided what you want the scenarios to say, but not how they are to say it. To do this, you need to take your scenario's logic and sub-text, and give them a narrative or storyline: a beginning, middle, and end. The narrative should be a showcase of the participants' responses and the scenario's ideology.

Creativity in narrative style helps to make the scenario memorable, and a scenario's intent – what it is trying to communicate – must be explicit and obvious. Narratives that depict a sequence of events or characters that are emblematic of the intended ideology are norms. Straight forwardness is desired. After reading a scenario there should be no confusion as to its intentions. A reader should be able to easily communicate a scenario's meaning in 2 minutes, while "in the elevator" or "at the water cooler" (Ringland 2002: 182).

For additional understandings on how to create scenario narratives I recommend: Gill Ringland's *Scenarios in Public Policy* (2002); James A. Ogilvy's *Creating Better Futures*

(2002); and Dowe

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(2002); and Dowell Myers's *Promoting the Community Future in the Contest with Present Individualism* (2007).

Step 5: Contextualize the Scenario

Contextualization can be present within a scenario's actual text, but here I am referring to written sections, data displays, or maps that are inserted both before and after the actual scenarios that serve as some form of set up or value added to the scenarios. Contextualization can ground the scenario's logic and narrative in the scenario planning process, participants' responses, place of interest, or dominant topic/question desired to be addressed. While a scenario's intention should be easily discernable, it is still desirable to provide the reader with pithy guideposts toward that intention. Yet this material must be well placed, as the scenario's logic and narrative need to be the key point of interest.

Contextualization material inserted before the scenario should particularly emphasis the upcoming scenario's logic and narrative, and should avoid the possibility of distracting the reader with data, maps, and forecasts. This is the opportunity to insert the first seed of scenario logic and narrative directionality. This directionality can be stated explicitly. Further, each scenario should be titled and the title should be another opportunity to prime the reader toward the scenario's intention.

Contextualization materials inserted after the scenario should be used to articulate implications (PEST or otherwise), reference the reader to relevant literatures, and connect the scenario to the project's main question. If transitioning to other scenarios,

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CHAPTER SEVEN: THE SCENARIOS

Below are the four participant informed *Shaping the Future* scenarios. The first scenario presented is the Natural Resource Utilization scenario, followed by the Human Capital Assets scenario, then the Infrastructure, and finally the Tourism Industry scenario. Before each scenario is a list of the participant selected ideal future conditions. Each participant selected ideal future condition was incorporated into the corresponding scenario. Some participants selected more than a single ideal future condition per topic, and each of their selections is listed. Within each topic, a varying number of identical ideal future conditions were selected by more than a single participant. Each ideal future condition which was selected by more than a single participant is grouped and repeated the number of times it was selected. Some participants choose to aggregate several ideal future conditions into a single category of ideal futures (Community Colleges for example) or compose their own ideal future condition to respond to. Those ideal futures are marked with an asterisk (*).

Both the selected ideal future conditions and the articulations of external and internal influences upon those ideal future conditions were used as inspiration for scenario creation. The First Round ideal narratives were also used. The Second Round results are provided in their entirety within **APPENDIX C.**

Each of the four scenarios is prefaced by: 1) a list of the participant selected ideal future conditions; 2) a narrative of my interpretation of Key Response Themes; 3) and a narrative Introduction to the Scenario. The actual scenarios are titled in bold and

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Growth of a Talented Labor Force: A Look Back; The End of the Digital Divide; and,

MINUTES OF THE *PURE MICHIGAN* – NORTHEAST MICHIGAN REGIONAL TOURISM

COUNCIL **BOARD OF DIRECTOR'S MEETING.**

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Natural Resource Utilization Scenario

<u>Participant Selected Ideal Future Conditions</u>

1. Natural gas development and production utilizing advanced technologies, including carbon capturing technology, exists to provide CO_2 to firms - enhancing the region's oil and natural gas recovery.

2. Fallow and underutilized agricultural lands are producing fast growing biomass crops to augment other forest resources in producing electricity and other forms of biomass energy for the region.

3. Agricultural by-products are innovatively reused for energy production

4. Firms specializing in the production of biomass energy related equipment and services are located in the region.

5. The region's communities have conceptually connected their local surroundings to the global climate crisis and wider green movement.

6. The region's communities have conceptually connected their local surroundings to the global climate crisis and wider green movement.

7. Marijuana is de-criminalized and grown as an agricultural product.

8. Marijuana is de-criminalized and grown as an agricultural product.

9. The region leads the entire Mid-West in putting forward solutions for clean water and conservation for the Great Lakes.

10. Agriculture and forestry are major sources of employment in the region*.

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11. Natural resources are utilized to promote economic growth, without degrading them, and the region is kept as natural as possible*.

12. The natural resources in the region are more fully utilized for eco-tourism, R&D, and recreation*.

13. Northeast Michigan has a thriving eco-tourism industry revolving around the preservation and conservation of natural resources*.

14. State and federal agencies continue to make investments and share management responsibilities in the region's natural resources*.

Key Response Themes

The responsible commercialization of natural resources is a part of Northeast Michigan culture, and should continue to be responsibly commercialized moving into the future. The natural beauty and bounty of region, along with the people that cherish it, represent a distinct comparative advantage – a clear power of place – which could be better leveraged through collaborative long term planning. The region is primed to be a biomass renewable energy producer and consumer, representing a great opportunity to develop a future economic growth sector in the region.

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Introduction to Scenario

This scenario is representative of the potential of Northeast Michigan's simultaneous natural resource commercialization and conservation. Taken around the region – through both space and time – by the story's protagonist first generation farmer Bill, we see a future in which the Northeast has developed a culture of environmental stewardship. The region's education system and labor force have been both molded by this culture and are responsible for propelling it forward. Correspondingly, the Northeast is home to a biomass energy grid that has been realized through long term investments that "only made plain common sense".

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Environmental Stewardship Does Not Just Mean Looking At It

Dawn has just broke and Bill has already been awake for some time. It is the second Monday of November, 2030, which means it is time to deliver his monthly harvest to the biomass energy substation in Atlanta, Michigan. This month it is a mixture of both corn stalks and new growth hemp. Every month it is a different substation, whichever is offering the highest prices. Many area farms have contracts with local firms to sell their harvest and byproduct at fixed prices throughout the year, incorporating pickup and delivery services into the contracts. Bill does not. He enjoys trying to best the markets each month.

Yet, as most houses in the area now have bio-gas storage tanks that use local methane gas to power their kitchen stoves, he does sell his animal manure to local middlemen on contract. The company comes out each week to collect and transport the manure. It is amazing that a little innovation in organic decomposition coming out of the MSU-NE MI Smartzone Renewable Energy Research Center and Business Incubator could be propelled into a new regional service that continues to create new jobs, draw external capital investment, and supplement the farm incomes.

As he fills up his truck from his home's natural gas line, he scans and compares the hemp growing in the West 40 to the hemp growing in the tree stand that abuts it, remembering years ago when the field sat fallow and the oak island's only really "production" was a harvest of squirrels in September. The field and tree stand now quickly turn over fast growing biomass crops. The Biomass Renewable Energy Future

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seed grant from the Department of Energy to the State of Michigan that found its way up to the Northeast has demonstrated the viability of derelict cropland conversions and agro-forestry.   While there was never any doubt that the conversions and agro-forestry techniques would grow the crops, the real trick was the investment in small scale renewable energy plants where the biomass could be converted into energy for local communities.   The now regionally integrated smart-grid of biomass energy production is economically and environmentally sustainable.

While getting his Bachelor's in Agriculture Science from the local community college, Bill learned of and supported early efforts in expanding the use of experimental green energy production in the region. The seemingly constant flow of MSU researchers and graduate students who were at the local college through joint programs or to conduct research provided a stream of renewable energy research and advocacy. Yet, the region's progressive culture of connecting their local environment and individual actions to the global climate change crisis was the true catalyst. During his college years energy prices were a major issue, and both State and local subsidies were provided to pilot projects that could over time measure the viability of local and renewable energy production – mostly biomass in the Northeast. Young Bill was willing to support the possibility of short term cost increases associated with these pilot projects - and later their expansions - since he believed in their long term economic and environmental benefits.

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He, then and now, considered the long term preservation of natural environments as part of his value system. It was of his region's culture and had been with him since childhood. The *Northeast Eden* initiative began when Bill was just entering grade school. It encouraged people, young and old, to conceptually connect their surroundings to the greater global climate change and green movement, including both how they live and how they earn that living. The project used multiple phases to integrate closed stakeholder and open town hall exercises to generate and disseminate a consensus derived shared vision of the region's environmental future, concluding that the Northeast's human and environmental futures were intertwined, and that natural resources may be commercialized for economic gain, but only through renewable means.

His school system built a K-12 curriculum that incorporated environmental and natural resource awareness. Each year built upon the previous. The students often took part in the community wide natural asset inventory campaigns. The indicators the campaign uses were developed in the *Northeast Eden* project. These inventory campaigns remain mandated in order to track the long term status and health of the region's natural resource base and are controlled by local citizen councils. Bill is currently sitting on the rotating board of his local council.

The high school courses Bill took that combined natural resource and entrepreneurial education are what inspired him to stay in the region and become his family's first farmer. To pay for his education, his first year out of high school he and his

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best friend decided to go through the community college's two semester natural gas processing technician program. After the first semester, the program transitioned him into a paid internship with a local natural gas firm to give him on-the-job training while completing the second semester of coursework. After that last semester he stayed on with the company part-time to earn money while he started his Bachelor's program at the same community college.

As he finished filling up the truck he glances at the company logo on his natural gas hookup. He is reminded of Jason Tucker, still Bill's best friend, who he followed into the community college program years ago. Jason stayed on to work full time with the company after the work-study portion of the program ended. He made a good living, but eventually went back to school to enable his continued advancement in the company. The transition was easy as he again was able to pursue his education locally through a joint community college - research university higher degree program. There were and still are many such programs tailored toward the region's evolving workforce demands.

Jason's re-entry into the workforce as a photogrammetrist proved to be long term and lucrative, as the natural gas industry in the Northeast is not only stable, but growing. The Wolverine Clean Energy Venture funded research into CO_2 sequestration that proved to both reduce the carbon footprint of that coal plant, and create a commodity to be utilized by the natural gas industry to enhance their efficiency of recovery. The power plant provides an economic stimulus to the region, while

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offsetting its carbon footprint by not only innovating and using CO2 sequestration technology, but being another substation in the biomass energy grid. Nearly 20% of its energy production comes through biomass.

As Bill heads toward Atlanta, Michigan the plant life along the roadside sparks memories; he is amazed at the transformation that has taken place over his life time. Indigenous and non-invasive biomass, ultimately dedicated to local energy production, is everywhere: in and along roads; in peoples' yards; and planted their fields. After a favorable impact assessment, harvestable biomass is now legally planted on both State and Federal lands. Now that the region's citizens understand how every flick of the light switch has an impact, it is just plain common sense to preserve the natural environment by all means possible. This is not to say that the biomass planting has not further beautified the region, because it has.

On his left he sees a group of Northern Eco-Tourists being led out of the forest by their guide and toward an electric van owned by a small transportation company that ferries such tourists to and from the major north-south bus lines. Each passenger is required to invest in the region's carbon sinks, tradable on the international carbon market, to offset the carbon produced from the electricity needed to power the van and later the natural gas powered bus. Northeast MI is innovative in that through a clever "invest in America" marketing campaign it set about challenging the Global South's – particularly Brazil's – dominance in the global carbon sink market. Individuals and major corporations have invested big monies in preserving the region's vast forests as carbon

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sinks; simultaneously preserving and commercializing them. Each potential tree purchase is inspected by a locally trained and accredited tree-carbon technician to determine how much carbon it is worth.

One of the Northern Eco-Tourists is wearing a *Great Lakes Now and Forever* tee-shirt; a citizen action campaign started in the Northeast aimed at preserving not only the Great Lakes, but also MI's in-land waters. Targeting collaborations based on mutual interests, the organization has partnered and spread throughout the Great Lake states and into Canada. It was no accident this effort originated in the Northeast as, from early childhood asset inventory campaigns, the value of public participation in conservation and preservations organizations like *Great Lake Now and Forever* is ingrained into Northeast citizens.

Bill pulls into the Atlanta substation, steps out of the truck and breathes in the crisp Northeast air. He has never had to know its superiority, but it is vast and growing. After delivering the load, his first impulse to head straight back to the farm waffles as thoughts of the local micro-brewery creep into his mind. Yet, dedication wins the day as he hops in the truck and begins the short trip back to the farm. As he drives, a white and black suggestion of 55 mph catches his right eye. He glances at the speedometer to read 53 mph. Breathing in the Northeast air, he lets his foot ease the pressure down and further cracks the window. What's the rush?

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Human Capital Assets Scenario

Selected Human Capital Assets Ideal Future Conditions:

1. Ninety percent of the population between the ages of 25-70 has a marketable post-secondary credential.

2. Ninety percent of the population between the ages of 25-70 has a marketable post-secondary credential.

3. Fifty percent of the region's population has a bachelor's degree or higher.

4. In the future, the region will have a much higher educated population*.

5. Local college graduates will desire to remain in the area.

6. Local college graduate will desire to remain in the area.

7. Community colleges*.

8. Local school districts have been consolidated.

9. There are strong school-community relationships that successfully get youth involved and interested in the region's future.

10. Population has greater post-secondary attainment.

11. The population of the region will maintain steady growth.

12. Term limits for elected government officials have been eliminated.

13. Creative people have empowered institutional support structures to aid in their endeavors.

14. The region has embraced entrepreneurial mindsets.

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15. There is a strong sense of place amongst the region's citizens that takes pride in the region's culture and natural environment.

16. A Smartzone technology cluster exists within the region, drawing human talent and outside investment, creating a center of innovation, R&D, and start-up innovation.

17. Maximize the outputs, commercialization, and profitability of our natural resources*.

Key Response Themes

In order to maintain a stable population and economy, Northeast Michigan needs to dramatically increase the proportion of its population with post-secondary credentials, including vocational and technical training. The region's community colleges are a great asset toward achieving this, but increased relationships with external colleges and research universities need to be sought in order to expand local access to higher education. Increasing local access to higher education is desired in order to grow and retain an educated labor force capable of spurring and sustaining economic growth in Northeast Michigan. Human capital is the foundation from which visions for the future of the region must be built upon.

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Introduction to the Scenario

This scenario depicts how a shared vision for increasing the higher-education attainment of Northeast Michigan created synergies and alignment between policies and programs, culminating in a Northeast Michigan of 2030 having a dynamic economy and society. Due to both expanded relationships between local community colleges and research universities, and expanded access to demanded vocational/ technical training programs, ninety percent of the region's population has a marketable post-secondary education. Global climate change is no longer a debate, and the educated and entrepreneurial labor force is able to responsibly leverage the region's knowhow and natural resource base to take advantage of the growing demand for green technology research, products, and services.

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Growth of a Talented Labor Force: A Look Back

By focusing attention on unleashing the creativity and empowering the talents of its children, Northeast Michigan has ensured it is a place where some of the best of its children can and want to thrive. There is a culture and economy that is dynamic enough to transition with the times, yet one that has preserved the traditions it values the most. Northeast Michigan chose a path and destination for the future, that was realized by planting the seeds of investment in its own children, enabling them to make the once desired future a reality.

After staring into the abyss during the Great Recession of 2008, a consensus was formed amongst the people of Northeast Michigan that the key to the region's future economic viability was cultivating a stable and educated population, while preserving and responsibly leveraging the region's natural resources. Community-wide understanding and acceptance of the importance of bettering oneself through higher education was fostered. The region proved that investing in targeted programs that aim to not only leverage knowledge, but instill values, civic pride, and engagement is the strongest foundation a region can lay toward building a shared and intentional future.

Learning from years of youth brain drain, target plans and programs were formed around growing place attachment amongst our youth. A lively community-wide debate positively reshaped the narratives around a Northeast Michigan lifestyle and how it fit into perceptions of "small town America". To ensure that the region's power of place generated and retained educated youth, the school systems established youth-

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community programs that built peer-to-peer and youth-to-mentor relationships aimed at networking/enabling the most talented, while demonstrating to them that they could thrive in and were a part of the region's future. After the painful school district consolidation fight was won, it became much easier to implement a sustained unified vision of how to build a more nuanced approach to K-12 education that facilitated and encouraged life-tracks toward not only university, but also career oriented technical and vocational post-secondary education.

Correspondingly, an effort was formed to ensure that business and entrepreneurial minded youth did not get lost in the mass push toward university. Utilizing the research that has shown entrepreneurialism to be a learned trait, a mandate of teaching entrepreneurial mindsets amongst the young was agreed upon. A concise argument was made to local business people convincing them to share their time and wisdom through mentoring and volunteering, participating in and facilitating inspirational/educational workshops. Most importantly, the local business community embraced a view that potential entrepreneurs were not mere competition, but an opportunity to expand their business's forward and backward linkages – vital components of the growth of the region's ever evolving economy.

This direct and inclusive approach was able to generate a widely accepted vision of first why, but continuously how to cultivate a new culture of entrepreneurship across the region. Feedback loops amongst mentors and programs were of great benefit to the experimental approaches. Existing efforts stemming from the community colleges were

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both embraced and expanded upon - creating new initiatives. Most importantly, our community college initiated a multi-tiered system of entrepreneurial support services offering resources to entrepreneurs throughout the stages of idea and product development. The most focus was directed at encouraging the region's youth to harness mindsets that embraced calculated risk, generating a willingness to create, not earn, a living. Yet a system was in place to evolve with and to the needs of all entrepreneurs moving through the stages of product/business development and launch.

Similarly, empowering support structures for creative individuals to pursue their interests in the liberal arts was built into the region's social fabric. There was a balanced understanding that future economic growth sectors were going to demand post-secondary degrees holders and that in the future places were going to have even increasing competition in retaining the educated, therefore investments in the amenities those individuals demanded had to be made. A better consolidated schools system newfound freedom in the K-12 education system enabled a network of in/after school programs to be created and coordinated - connecting aspiring individuals to each other, to mentors, and to facilities/institutions willing to enable, display/host all types of works.

The purely online gallery: *Northeast Michigan On Exhibit* – was created by consolidating fragmented efforts to serve as a forum, market place and gallery - while hosting digital events and publishing writings, music, and images. Aging downtowns proved to be another form of gallery, as all types of works found both permanent and

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temporary homes there. An envoy was sent to Livingston Montana, a model for such a community at the time, to both observe and establish a formal relationship of various kinds of cultural exchange. After some initial public assistance - mostly through the use of public space and media - theatre, music, art, literature, and poetry events displaying local talent and generating local pride have became common place. Early efforts were limited in scale and participation, but in conjunction with other efforts, self-reinforcing and complementary initiatives have dramatically grown participation. Today there is a culture of openness, encouragement, and acceptance of creative endeavors, uncommon to rural America in the recent past, which has proved to be a key factor in growing and retaining dynamic youth.

Self-reinforcing cycles and multiplier effects from the push to steadily increase the percentage of the population with a post-secondary credential have been evident. By noting that trajectories of employment growth, even traditionally considered "blue collar" jobs, increasingly correlated with requirements of some form of post-secondary education, a community-wide debate was ignited on the utility of a college education in the Northeast Michigan economy of the future. A consensus was formed around encouraging and empowering individuals to pursue higher education, but with greater focus upon the numerous pathways available to youth beyond direct transition to university. This cleared the way for encouraging vocational and technical degrees as a means of obtaining a "career focused" education. As a result, local community colleges steadily saw increased enrollment and an influx of funds/resources, allowing them to better target and develop programs responsive to the needs of the labor market,

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Community colleges better collaborated with the State's colleges and research universities on joint programs that would be mutually beneficial. The region's community colleges re-focused, articulated, and expanded two-year transfer curriculums by working with the State's large public universities. Online dual enrolment programs allowed students to earn transfer credits by attending their local community college, while simultaneously being enrolled in universities and taking purely online courses - helping student save money and more rapidly obtain their degree.

Universities were particularly interested in tapping into the region's expanded cohorts of students and professionals educated by local community colleges and specializing in the natural sciences and related technical trades. While active recruitment and attention from research universities increased, so too did offers of collaborations in both programs and research projects. Graduate level research taking place within the region increased, particularly involving renewable energies and resource management. Community colleges became homes to numerous college and university summer programs, bringing new people, ideas, and monies to the region.

After much advocacy, the region deservingly landed the MSU-NE Michigan Smartzone Renewable Energy Research Center and Business Incubator. The continuous pursuit of collaborations with external research universities, verifiable entrepreneurial culture, increasingly educated/technically proficient workforce, and abundance of

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natural resources, were all major selling points to the securing of the project. Yet the greatest factor in its realization was the sustained long term commitment from the elected officials who no longer were bound by term limits. The research center represented only a modest investment, but proved to be a major catalyst to the region. It began mostly as a wet laboratory for MSU graduate students conducting research on renewable energy production and carbon sequestration. Yet its originally only perfunctory business incubator and entrepreneur support system were increasingly utilized by the region's entrepreneurial and natural science savvy populous to successfully develop, test, and commercialize green energy equipment and techniques.

The region has developed a niche in this market and it is a stable employment source. The investments made in empowering creative people, "career focused" education, entrepreneurial mindset formation, and academic collaborations have come full circle. The region is a testing ground for the profitability of small scale renewable energy projects, related technologies, and techniques. The number of patents our region produces is second only to the southeast portion of the State. A modest number of start-ups have been able to not only endure, but steadily grow - a few being light manufacturing operations of green technologies that are able to take advantage of the skilled workforce and excellent port access - creating profitability and job growth. Local community colleges graduates – mostly with technical degrees – both desire and are desired to stay in the region, as they are a vital component of the current and future regional economy.

INFRASTRUCTURE

Participant Selected Infrastructure Ideal Future Conditions

1. The region has ubiquitous broadband access.

2. The region has ubiquitous broadband access.

3. The region has ubiquitous broadband access.

4. The region has ubiquitous broadband access.

5. The region has ubiquitous broadband access.

6. Fiber-optic cable is planned and laid in conjunction with every road project.

7. Off-road trails are expanded and modernized.

8. Off-road trails are expanded and modernized.

9. Trails accommodate multi-day trips exist, with connectors conveniently accessible to food, fuel, and lodging.

10. A limited access highway runs parallel to I-75.

11. There are numerous innovative and experimental energy generation demonstration projects concurrently taking place in the region's population clusters.

12. Counties, cities, villages, and townships plan and develop infrastructure projects in coordination with each other.

13. The region will be able to finance any infrastructure needs it may have.

14. Small airfields have taken a larger role in serving transportation needs.

15. Bus lines will shuttle people north to the region and south out of it.

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Key Response Themes

Northeast Michigan wants ubiquitous access to high speed internet as both a beneficial economic requirement and quality of life amenity. It is a building block toward achieving interconnected education, social, and economic development goals. Yet there lacks the regional cooperation needed to form a clear unified vision on how to achieve it. In order to capitalize on the region's natural beauty, hiking and biking trail systems need to be expanded and branded.

Introduction to Scenario

In this scenario by 2030 Northeast Michigan has had ubiquitous high speed internet for over a decade. Jane Iglesias is a dual-enrollment Anthropology student at a Northeast Michigan community college enrolled in a transfer program to the University of Michigan. She is required to complete an oral history project for one of her courses. She has an interest in generational perspectives of how changes to the region's built environment affect its culture. She has chosen to interview an 80 year old, a 60 year old, and a 40 year old, all of whom have grown up and remained in the Northeast, concerning their perceptions of change, and how they believe it has affected their lives.

Interview

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The End of the Digital Divide

<u>Interview One</u>

Interviewer: Jane Iglesias

Interviewee: Bob Herbert –an eighty year old retired natural gas worker

Jane: Mr. Herbert, what do you believe has induced the greatest change to Northeast Michigan over your lifetime?

Bob: Without hesitation I would say the Northeast gaining ubiquitous access to high speed internet. Firstly, just look where we are sitting. I have lived in this house, on the back NW corner of this 47 acre spread, since I was 52 years old and I have no plans or necessity of leaving. I am 80 years old, and this April my wife will turn 82. We live alone and my nearest neighbor is 15 minutes away.

I have a checkup with my doctor once a week via our wireless WiMAX connection. We are linked into the statewide healthcare consultation network. If I need some food or other items and do not feel like going out, I order them online and have them delivered. An entire cottage industry of online services has blossomed in the Northeast as a result of our investment in high speed internet; this is particularly beneficial to us seniors.

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I remember the debates about making the investment in internet infrastructure that began back in the 2010s. I was originally against it. However, there seemed to be vocal consensus among our community leaders; Northeast Michigan had to dramatically expand access to and increase utilization of high-speed internet if the region was going to develop socially and economically the way they intended over the next 20 years.

But a lot of old dogs like me, gosh I was already in my 60s at the time, believed that the region did not need or want it. That increased connectivity would encroach upon our region's rustic rural character and lifestyle. That it was just the next new thing to come around and that there were other more pressing infrastructure projects that needed attention. Things like sewer and road work.

The real catalyst that changed my thinking came when our region decided to regionally coordinate all infrastructure projects. I was in the natural gas industry here, so I got involved. There were important justifications for the new coordination – things like being better able to secure external grants and move toward being able to fully fund all of our infrastructure projects – but the primary mission of the regional coordination was to form a shared vision for the future of the region's infrastructure – one that aligned with our shared vision for the region as a whole – so we could better prioritize infrastructure projects, funding, and spending.

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Anyway, that early effort incorporated both stakeholder meetings and public town halls. In both forums, the prioritization of high-speed internet access, over more traditional infrastructure projects, gained momentum as strong voices began to make new and more tangible arguments linking high-speed internet access not only to the region's future economic viability, but any ability to hold on to its youth. As more and more everyday services transitioned to digital dependence, seemingly obscure arguments stressing that the "world is flat" and the rise of China gave way to: fears of even more dramatic youth brain drain; an inability of even the K-12 education system to keep up; fears that we were not going to retain and grow a labor-force capable of caring for the aging population; and a smorgasbord of concerns about disadvantages to our overall economic dynamism.

It seems that once the local stakeholders and general public embraced and owned the mandate for ubiquitous high-speed internet, we progressed on a steady march toward it. Synergies between other efforts emerged. Things like requiring fiber-optic broadband to be laid with every road project and getting publically accessible wireless in public buildings emerged. Once WiMAX and wireless hardware became the norm, we were able to overcome our low population density problem and secure ubiquitous access to wireless across the entire region.

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The public skepticism that the demand did not fit the cost, previously a major deterrent to the bulk buy-ins necessary for the region to expand access, eroded consistently. It was clear that access to internet was a pivot point toward the actualization of other, previously conceptually disconnected, goals for the future. Public support and regional coordination shifted the winds of skepticism from "it costs too much and we really don't need it" to "we cannot afford to go without it!"

Interview Two

Interviewer: Jane Iglesias

Interviewee: Jennifer Townsend – a sixty year old businesswomen and small business owner

Jane: Ms. Townsend, what do you believe has induced the greatest change to Northeast Michigan over your lifetime?

Sara: I think most people would say that wireless internet access has impacted the region the most, and as a person in business, I was a strong advocate for the original investments that have ultimately fulfilled that need. Yet for me personally, the expansion and modernization of our region's off-road trail system have been equally important.

I have been running a small online trail hospitality business for almost 9 years now. I got the idea, not surprisingly, while on a weekend hike with my family. The trail expansions were great for our communities, increasing not only the quality of life, but I think the health of our own population. Then and now our trail system is mostly utilized by our own residents for both short nature excursions and weekend getaways.

The entire region really got involved in making the expansion happen. First we targeted local loops around population clusters, and then local connections to more remote and extensive trails - meshing county, US Forest Service, and MI Department of Natural Resource trails. It was a collaborative effort not only amongst those in the region, but with State and Federal agencies.

After a few years, the trails began to draw tourists interested in exposure to the beauty of the north woods and waters. It was clear to me that there was a demand, so I started up my little business making food and some fuel deliveries from online orders. Now I am happy to say that I have diversified into transportation...I got myself a van. I keep the business running year round, but obviously, it is the most profitable and busy in the summer and fall months, which is fine since I intended it to only be a part-time income supplement to my full-time job.

I have a good job and my husband got a good job at the airfield after its expansion. I did not have to take a second job, but I wanted to take a risk and

the start-up funds required were low. I did not even have to take a loan from *NE*

Northern Eco-Tourism Micro Credit Union. I saw it as a kind of extra retirement

fund. And to be frank, from solely the savings it has already generated I will be

able to take the Social Security buyout and retire at least 5 years early!

And I am not the only one. Unstaffed shelters and hostels now populate the

system - built at low cost with simplicity in mind – blending into the natural

environment since that is why people use the trails in the first place. The online

interactive map - accessible anywhere due to the wireless network and complete

proliferation of smart phones – connects hikers to lodging, food, and fuel – both

for me and my competition.

Most of the hostels are free of charge, but the few hostels that require payment

can be paid for online, in advance or on-demand, with the hostels door codes

being released after payment. The hikers exit the trail system mostly along the

north-south bus routes that transport them back to their entry points and out to

the new I-75 limited access highway, but savvy locals like me also offer

transportation from non-connecting points.

I think the best part of the whole trail transformation is that we made the

expansion for us, you know there are trails all over, but they displayed our

region's natural beauty so well that they drew people up here. Not in an

intrusive, flooding our towns, kind of way, but in a peaceful, mutually beneficial

manner.

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<u>Interview Three</u>

Interviewer: Jane Iglesias

Interviewee: John Blackstone – a forty year old lab technician

Jane: Mr. Blackstone, what do you believe has induced the greatest change to Northeast Michigan over your lifetime?

John: That is a difficult one for me to answer. You know I am forty and have lived here most of my life. I see the Northeast as pretty much keeping up with the rest of the country in most ways. I know that we were one of the first rural regions to deliver ubiquitous high speed internet. That is really a big deal.

The only time I had to leave the Northeast for a significant period of time was for college. Back then I did not have the option of local access to higher education in the Northeast that my children do now. There really were not the online dual enrollment programs that exist today, and even if there were, my house only had dial-up! Yeah, dial-up in the late 2000s...I really did not have a choice but to leave for my college education. My kids are much luckier than I was, in that they can stay here and have the same opportunities as any incoming freshman to any big college or university.

But you know - and I do not think this would have ever happened without the internet expansions - our region's current renewable energy R&D, production, and consumption may be even more transformative. This has been and continues to be really trail blazing stuff, and without it I would have never been

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able to come back here after getting my PhD in Biochemistry. I am really proud that not only are our academic institutions now involved in R&D, but our social and business culture have embraced the renewable energy movement through both supporting and investing in numerous local innovative and experimental energy generation demonstration projects, mostly in biomass.

With these projects have come: increased jobs; greater commercialization of local research; better identification of underutilized natural resources, and related services; an expansion upon the region's brand as a leader in the renewable energy movement; and obviously local production and generation of clean energy. A lot of the people I work with at *Weeds and Wind* in the MSU-NE Michigan Smartzone Renewable Energy Research Center and Business Incubator could have gone anywhere, but chose the Northeast. That speaks well for the impact that investments in renewable energy utilization have had on the region.

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Tourism Industry Scenario

Participant Selected Tourism Industry Ideal Future Conditions

1. A regionally specific tourism marketing campaign differentiates Northeast MI from the State as a whole and throughout the Mid-West.

2. A regionally specific tourism marketing campaign differentiates Northeast MI from the State as a whole and throughout the Mid-West.

3. A tourism branding effort and sustained campaign has developed around the 45th Parallel, including events and related attractions.

4. A tourism branding effort and sustained campaign has developed around the 45th Parallel, including events and related attractions.

5. There is a strong "northern" eco-tourism industry that uniquely differentiates itself from the more widely understood "tropical" eco-tourism experience.

6. There is a strong "northern" eco-tourism industry that uniquely differentiates itself from the more widely understood "tropical" eco-tourism experience.

7. A micro-credit loan institution makes funds available to entrepreneurs interested in exploring new avenues of tourism within the region.

8. Select trails will be promoted and branded, holding yearly events.

9. The Mackinac Bridge is renovated to include walking and biking lanes.

10. Tourism is a major component of the Northeast regional economy.

11. Large cruise ships will port in the region.

12. Bovine TB is completely eradicated, allowing for profitable luxury deer hunting camps.

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Key Response Themes

Northeast Michigan's natural beauty and unique lifestyle gives it a distinct comparative advantage in attracting tourists. Yet this comparative advantage has not been fully utilized to differentiate the Northeast from other tourism markets. While tourism is seen as an employment and income supplement, there are reservations that too much tourism could decrease the quality life for the actual residents of the region. Both "northern" eco-tourism and an expansion of the region's hiking trails offer potential tourism niches.

Introduction to Scenario

This scenario takes the form of the September 15, 2030 *Minutes of the fictional* **NORTHEAST MICHIGAN REGIONAL TOURISM COUNCIL.** *This fictional body is just one of several direct manifestations of ideal future conditions the scenario highlights. The* **COUNCIL** *is a regional branch of Pure Michigan State Assembly and is deliberating on how the Northeast can best differentiate itself both from the broader Pure Michigan campaign and the rest of the Mid-West. As part of the annual* **Northeast Michigan Tourism Niche Defined** *program, this scenario is a record of the first phase of the project: a Nominal Group Technique brainstorming and ranking session. Citizen presentations are given and ranked on what aspects of the Northeast they believe should be used to better differentiate it. Transcripts of the top two ranking presentations are provided.*

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PURE *MICHIGAN* – NORTHEAST MICHIGAN REGIONAL TOURISM COUNCIL

BOARD OF DIRECTOR'S MEETING

September 15, 2030

Elkview Professional Building

Gaylord, MI 49735

Statement of Purpose

The *Pure Michigan-* Northeast Michigan Regional Tourism Council is dedicated to the promotion of Northeast Michigan as a premiere Northern Eco-Tourism destination. Open to the public and steered by a publically elected Board of Directors, this body is responsible for the: 1) coordination with the *Pure Michigan* State Assembly; 2) the generation of the NE Michigan Annual Tourism Marketing Plan; and 3) the implementation of the approved NE Michigan Annual Marketing Plan and the dispersal of appropriated funds.

CALL TO ORDER

The meeting of the *Pure Michigan* - Northeast Michigan Tourism Council Board of Directors was called to order by Vice-President Stonewall at 10:00 a.m

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ROLL CALL

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ROLL CALL

Board Members Present: Dawn Puente (Alpena), George Ward (Emmett), Duane R. Stonewall (Cheboygan), Tonya Wellington (Otsego), Roger Mathis (Presque Isle), Jenna Slator (Montmorency), Janet Gillmore (Alcona), Dave Portman (Crawford), and Jenny Sanderson (Oscoda).

A quorum was declared present.

Non-Board Citizens Physically Present: 7

Non-Board Citizens E-Conferencing: 58

MINUTES OF THE PREVIOUS MEETING

Motion by D. R. Stonewall and seconded by Jenny Sanderson to approve the minutes of the August 15, 2030 Board of Directors meeting. Ayes all, motion carried.

FINANCIAL AND NE NORTHERN ECO-TOURISM MICRO CREDIT UNION REPORTS

The financial report was presented to the Board by J. Sanderson. Motion by R. Mathis and seconded by D. Portman to upload the Financial Report. Ayes all, motion carried.

NE Northern Eco-Tourism Micro Credit Union President John Muir presented the Board with the *NE Northern Eco-Tourism Micro Credit Union* finance report and project list.

DIRECTOR'S REPORT

State Assembly

Director Ward summarized last month's *Pure Michigan* State Assembly E-conference for those who did not attend. He also recapped the Northeast Michigan Regional Tourism Council's topic selections for that month's *Pure Michigan* State Assembly Annual Prioritization Digital Delphi.

Vote:

After a vote, Director Ward disclosed the Northeast Michigan Regional Tourism Council's topic selections for this month's *Pure Michigan* State Assembly Annual Prioritization Digital Delphi. After the votes were tallied the Northeast Michigan Regional Tourism Council selected: 1) *A 2% increase in State funding to the Regional Councils*; and 2) *The formation of a Multi-State initiative to include other Great Lake States in Pure Michigan's "Halfway between Here and Nowhere" 45th Parallel adverting campaign.*

Northeast Michigan Tourism Niche Defined

Director Ward then commenced the annual ***Northeast Michigan Tourism Niche Defined*** Nominal Group Technique brainstorming session. The Board and citizens were grouped. Each group was tasked to form a consensus on what aspect of the Northeast tourist scene should be better integrated into the 2031 NE Michigan Annual Marketing Report

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to better differentiate the Northeast from both the broader *Pure Michigan* campaign and from the rest of the Mid-West. Every member of each group was allowed to identify a single aspect and present their case for why that aspect of the Northeast should be better advertised as being unique to the region. Some individuals uploaded and played prerecorded presentations, while others presented theirs verbally. Each verbal presentation was digitally recorded and stored along with the uploaded ones for reference.

After all the presentations were completed each member ranked their fellow member's presentations in order of importance. After the rankings, the lowest ranking presentations were eliminated. Each member of the group was then allotted two minutes to speak before another round of ranking commenced. The process was repeated until each group had formed a consensus through progressive rankings and eliminations. The winning presentations were then replayed to all the groups. All individuals then ranked those presentations. As before in the separate group phase, progressive rankings and eliminations continued until a consensus was formed on the top two presentations.

Director Ward concluded by asking the meeting's participants to please visit the *Northeast Michigan Tourism Niche Defined* web-world to review the project timetable and prepare for their roles in the development of alternative scenarios for each of the two top presentations during the second stage of the project next month.

TOP TWO PRESENTATION TRANSCRIPTS

Northern Eco-Tourism – Ranked #1

In the final ranking, Shannon Rockwell's presentation received the most # 1 rankings. The aspect of Northeast Michigan that Shannon identified as being able to further differentiate the Northeast from both the *Pure Michigan* campaign and from the rest of the Mid-West was: *"Better holistically integrate the Northeast Michigan lifestyle and unique human-environment interconnectivity into our Northern Eco-Tourism brand and offerings."*

Shannon Rockwell:

"I suggest we further and better holistically integrate the Northeast Michigan lifestyle and unique human-environment interconnectivity into our Northern Eco-Tourism brand and offerings. We were some of the first to advertise and brand the concept of Northern Eco-Tourism, challenging the notion that eco-tourism could only be harnessed in tropical environments. We also have all read the reviews on our web-world stressing that it is not just the ability to have a carbon neutral experience and low ecological footprint experience that our tourists seek, but it also is the ability to do it as part of a unique lifestyle that integrates these behaviors into everyday activities and lifestyles.

Let me give a couple of suggestions on how to better integrate the two.

Firstly, we originally were successful at branding our Northern Eco-Tourism experience by spreading awareness of our-agreed upon definition of Northern Eco-Tourism:

"Environmentally responsible travel to natural areas of 45° N Latitude or higher that promote conservation, are carbon neutral, and have beneficial socio-economic involvement with local peoples." Let's not settle for the status-quo and continue to allow other places to use our model to eat away at our niche. We need to refine the definition and experience to include a non-intrusive immersion and enculturation into our unique NE Michigan lifestyles.

Here is how.

We should have educational tours of our local biomass energy plants, where our Northern Eco-Tourists learn about the lifecycle of our renewable energy production – from seed to its conversion into energy. We could have tours of and home-stays at households that not only have a zero carbon footprint, but households that certified NE MI Sustainable Ecologies™ otherwise known as NE-SEs™. We could organize courses on how to measure carbon in biomass. Hold seminars teaching the best practices we use to populate our environment with biomass crops, while not challenging our local food supply. The unique history of the region can be taught: Native American history, the clear cutting era, CC replanting efforts, localized renewable energy production, and a culture of preservation and conservation. Eco-tourists can not only learn of how their travel and interaction within the region will be environmentally off-set, but take greater part in that process; whether by planting the saplings, seeing the trees they purchased to be preserved (even making the measurements to determine how many were required), or by planning biomass grasses to be used in the biomass energy grid.

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We could better expand the nexus between our agro-tourism and certified Northern Eco-Tourism through farm home-stays and local food chain tours. Built into this could be the introduction of "NE Sustainable Hunting and Fishing Practices" that offered not only local hunts and chartered fishing, but opportunities to learn about the sustainability of the responsible harvesting of local wildlife that draws explicit distinctions between itself and the environmentally damaging network of factory farming and consumption that still dominate the nation's food supply.

Second, let's start rebranding Northern Eco-Tourism from requiring carbon neutrality to more strict requirements of being "Carbon Neutral Plus". Obviously we would have to form a consensus on what exactly the new requirements of "Carbon Neutral Plus" are, but certainly at its foundation it would mean requiring would-be Northern Eco-Tourists to not only compensate for their carbon activities, but create a net-positive for the NE Michigan ecology. This would both better differentiate us from regional competitors, and continue to protect us from a tourism industry that could become more of a burden than a benefit to our way of life. We would have to expand on our Northern Eco-Tourism trip certification process and personnel, but we already have the training programs and staff at our local community colleges to do so.

The Great Lakes cruise industry has been suffering due to the size of its carbon footprint, so let's start better coordinating packages with them which could include more stops at our ports. Like our Northern Eco-Tourist, their passengers could not only just buy off-sets, but participate in carbon off-setting projects. Similarly, we could

expand the *Pure Michigan* packages which include the Northeast as their carbon off-setting destination. Further, the more strict Northern Eco-Tourism requirements will build up in our communities tradable carbon credits even faster, making us an even more important player on the international carbon market.

Our Northern Eco-Tourist would learn about our lifestyle, hopefully spread its benefits, and participate in our lives in such a way that ensures preservation of, not threats to, our lifestyles.

Lastly, let's work with John Muir of the *NE Northern Eco-Tourism Micro Credit Union* to re-focus the institution's loan guidelines to correspond with our rebranding effort. This would ensure that there is continued alignment between the proposals receiving micro funding and our new branding of Northern Eco-Tourism."

<u>Promotion of our Recreational Trails</u> – Ranked #2

In the final ranking James Douglas's presentation received the second most # 1 rankings. The aspect of Northeast Michigan that James identified as being able to further differentiate the Northeast both from the *Pure Michigan* campaign and from the rest of the Mid-West was: *"Expand the promotion of select trails through annual events."*

James Douglas:

"I suggest we expand the promotion of select trails through annual events. Over the years we have invested a significant amount of money in our region's trail network. We worked tirelessly to forge partnerships with State and Federal agencies to connect trails

running through those parks and forests. These investments have really improved our quality of life, our health, and reinforced our connections to the natural environment, but I also think that the trails can be better leveraged as a tourist attraction. Trail tourists are my favorite kind. Since the trials have lodging and on-demand hospitality accommodations, trail tourists rarely venture into our towns. When they do it is with a local guide and they stick to the environmental learning and awareness opportunities.

While we have tourists who come for and use the trails year round, I think we can increase the impact of trail tourism through expansion of our trails' annual events. Firstly, I would suggest some thought being put into a yearly event to showcase our, gosh now decade-old, addition of bike lanes to the Mackinac Bridge. Those bike lanes provide for a beautiful view and are a natural tourist attraction. Since it is has natural start and end points it may be perfect for a race, or a leg of a triathlon. I know we already have the annual *Northeast Walk for the Earth*, and I am about to get to it, but just as they started small and slowly grew participation, so could a Mackinac event.

The *Northeast Walk for the Earth*, I love it. Every year my whole family takes part. Let's expand it. Let's tie it to our Northern Eco-Tourism industry, and get some sponsorships. We could have tasteful corporate sponsors, ones that are involved in green R&D or manufacturing – we would not have to look far to find those – and have them tie their names to it. Their employees could all participate, most probably do already. Companies from outside the region could use it as a corporate get-a-way for their employees, as part of a package of Northeast travel and activities. Other corporate

sponsors would probably want to do it as part of their mandated carbon off-set purchases. As it already takes place on North County Trails, undoubtedly, the North Country Trails Organization would want to expand its advertising and support.

I am no economics or advertising expert but it seems that with some more brainstorming we could really utilize some larger scale events. These big events could bring in a ton of tourist dollars all at once, leaving the rest of the year to our more subdued and steady tourism, and obviously our regulated Northern Eco-Tourism. Everyone wins."

NEXT MEETING

The next NEMCOG Board meeting will be held on October 15, 2030 in Gaylord at the Elkview Building at 10:00 a.m.

ADJOURNMENT

Motion by Duane R. Stonewall, seconded by Tonya Wellington to adjourn the meeting at 2:00 pm. Ayes all, motion carried.

CHAPTER EIGHT: SHAPING THE FUTURE *APPLIED*

In this chapter I will articulate how scenario planning can be comprehensively used within regional planning organizations and stakeholder networks. In doing so I will show how the Second Round responses and four visionary scenarios produced in the *Shaping the Future* project can be built upon and applied to the development of regional strategies and planning interventions.

I will lay out three phases toward integrating scenario planning outputs (i.e. scenarios) into communicative collaborative planning actions. It must be emphasized that one of the major benefits of scenario planning is the interaction and brainstorming that the process itself induces: a process of stakeholder communication, focus on the long view, and mindset change. Scenario planning is communicative collaborative planning actualized, and its power is best harnessed when integrated into a planning culture of continuous communicative actions, as opposed to merely a one-time isolated effort.

Communicative collaborative planning uses mediation and interaction in order to create strategic frames of reference for interpreting the present in the context of collective visions of the future. It builds representations of meaning amongst participants which shape understanding and interpretation of space and spatial problems. Therefore such efforts should be judged by their qualities of process, whether they build relations between stakeholders and whether the relations are enduring enough to enable sufficient consensus on strategic frames and ultimate actions that progress toward a desired future (Healey 2006: 71).

Below I introduce a means of building upon the *Shaping the Future* project. The four participant informed visionary scenarios articulate idealized spatial "end-points", yet their creation of new conceptualizations of space should be used to influence present day frames of reference in relation to those end-points. Regional planning should be concerned not only with creating definitive end-points, but with using future oriented thinking to create strategic trajectories (Hillier 2007: 234). Therefore, building upon the four visionary scenarios should not necessarily be solely focused on immediately transitioning them into planning interventions, but with firstly using them to articulate and build widespread ownership of strategic trajectories - aimed at ideal futures - which thereafter planning interventions can be aligned to.

Acceptance of agreed upon strategic trajectories eases the burden of fragmentation amongst a region's stakeholders. A lack of policy fragmentation creates more operational, effective, and pervasive policy environments (Corey and Wilson 2006: 190). Yet it is not just about honing and coordinating mindsets, scenario planning produces substantive ideas, economic content options, and a range of innovative and feasible planning solutions (Corey and Wilson 2006: 137).

I have tailored the three phases below in response to the existing input of the four *Shaping the Future* visionary scenarios. The three phases provide an abstracted "template" for transitioning the four visionary scenarios of the *Shaping the Future* project into both strategic trajectories and targeted planning interventions. Communicative collaborative planning efforts have no beginning or end, they need to be

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continuous. Therefore, I do not recommend that all scenario planning efforts necessarily follow this type of template. Yet the existence of the four *Shaping the Future* scenarios provide a distinct advantage in being excellent means of pivoting from the dissemination of shared visions of the future and toward the prioritization and development of planning interventions. Here is how I would suggest making that pivot.

The Three Phases

1. Generate and disseminate a shared vision for the future.

2. Prioritize from that shared vision.

3. Generate alternative scenarios.

Phase 1: Generate and Disseminate a Shared Vision for the Future

Spatial management is intrinsically concerned with imagination and desire: what the future may look like (Hillier 2007: 10). The *Shaping the Future* project probed experts and stakeholders (the participants) about their perceptions of ideal futures for Northeast Michigan. The panel was not only asked to brainstorm about their perceptions, but also were exposed to the entire panels' thoughtful perceptions of ideal futures. The resulting participant selections of ideal future conditions and identifications of external and internal influences upon their actualization (the Second Round responses) were used in creating visionary scenarios that incorporated each and

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every participant identified ideal future, along with a substantial number of identified influences. These four visionary scenarios, particularly the threads of Key Response Themes and Scenario Logics running within and through all four, are a conglomerate of the stakeholders' perceptions of the region's ideal relations.

Space has no existence of its own beyond the perceptions of relations that exist between objects. Communication that disseminates perceptions of relations not only transmits awareness of divergent perceptions, but creates new relations as those divergent perceptions become absorbed in existing understandings. The *Shaping the Future* project has articulated, communicated, and connected the participants' previously individual conceptualizations of the region as an ideal space. Thus the process and outcome of the project has facilitated the creation of new relational space, specifically normative space, manifested through shared visions of the future. Shared visions can be thought of as a foundation from which future regional planning efforts can be launched, including the development of planning interventions that now have a common frame of reference – a normative space.

Yet the phrase "shared vision for the future" is not intended to imply complete universality or comprehensiveness. A single vision for the future – or articulated space - could never be created that could represent the entirety of a region's PEST relational webs of networked systems. Nor is it possible to create a vision of the future that does not embrace particular ideals while rejecting others, creating winners and losers. As will

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be shown below, a shared vision is a collectively embraced policy discourse that unites common ideals and coordinates stakeholder interests.

A challenge for local planning efforts is to build on the local distinctiveness of places, while escaping the constraints of local traditions (Healey 2006a: 152). The four *Shaping the Future* scenarios are a finished product in the sense that they have answered that project's research question. Yet their full potential can only be realized through their continued utilization, update, and improved representatives, in future communicative efforts that build upon existing and new manifestations of shared visions of space.

Those manifestations should be considered as new, place-specific, policy discourses. Jean Hillier in *Stretching Beyond the Horizon: A Multiplanar Theory of Spatial Planning and Governance* defines a discourse as:

"relational webs of meaningful practices constitutive of subjects in social formations and reflecting and constructing material practices in political institutional relations between groups of people (Hillier 2007: 153)."

Every policy discourse is underlain by a hidden fantasy or narrative (Hillier 2007: 38). The new narratives created by the *Shaping the Future* project are unique in that they are representative of not merely generic ideals, like democracy or individualism, but Northeast Michigan specific narratives of idealized space – or shared visions for the future.

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New narratives and understandings created through such collaborative group endeavors, like the shared visions of the *Shaping the Future* project, were not preexisting and waiting to be discovered, but created through communicative interaction (Healey 2006a: 256). Yet once generated, and if concertedly disseminated, a scenario can take on life as a new discourse that can continue to shape understandings and mindsets. Changing mindsets occur as a reweaving of individuals' webs of belief and habits as a result of new experiences obtained through interaction (Hillier 2007: 74).

Inclusionary and communicative spatial planning creates new policy discourses aimed at informing and shaping stakeholder action (Healey 2006a: 277). Therefore, generating a shared vision of the future is intended to be a continuous process of communicative planning that seeks to frame issues in mutual understanding and broad consensus. It is a process that through debate and communication seeks to first expose conflicting visions for the future, and then to expose the commonalities between such conflicting visions as foundations for understanding.

A reframing has to take place in which issues are placed within policy discourses of agreed-upon meanings and understandings. Individuals and organizations can then relate themselves back to the identified larger commonality. Thus, generating a shared vision for the future is an effort to create common frames of reference across interests, from which policies, programs, and plans - individuals and organizations - can be placed in alignment.

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This is particularly significant as regions are complex relational systems made up of countless, often contested, stakeholder interests, perceptions, and agendas. Therefore, successful spatial planning practice has to continuously seek to bridge divergent stakeholder perceptions and ideologies in order to build toward more inclusive common ideals for a shared future that can then be translated into action designed to actualize those ideals. Generating and disseminating an agreed upon shared vision of the future, across multi-sector stakeholder interests, is a vital step to being able to align fragmented actions, perceptions, and agendas. Visionary scenarios, and the processes of their construction, are a means of generating and disseminating shared visions of the future out of individual biases of idealized futures.

A visionary scenario is only useful if it is allowed to communicate its ideology. Therefore, the first step in using the shared visions that are embodied in the *Shaping the Future* visionary scenarios is to systematically disseminate them, through a communicative process of exposure and interpretation. Each scenario needs to be "unpacked" through discussion and debate, in order to flesh out PEST implications and interpretations of ideology. This should be done amongst a group of stakeholders, as opposed to individually, as no matter how overtly telegraphed, a scenario's logic will inevitability be interpreted slightly differently both over time and amongst different readers, particularly amongst readers who were not involved with its creation.

Divergent interpretations should be drawn out and embraced, as different stakeholders will interpret the shared visions as they relate to their own sets of relations, embedded

values, and networks. They should be given the opportunity to voice those interpretations to others, spreading understandings. Such communicative planning is an effort to shape or frame webs of relations through which people give value and take action with respect to the spaces with which they have relations (Healey 2006a: 49). Through such revelations, the fundamental shared visions presented will expose individuals to the new policy discourse they represent, connecting discordant interpretations and understandings.

The exposure and unpacking is best done communicatively, as a stakeholder/group endeavor. Participants are not only exposed to the scenario's messages, but can interactively debate their meanings. Group framing and unpacking processes shape subsequent action, easing future coordination (Healey 2006a: 284).

The three steps below should be systematically explored during group workshops, where conversations and brainstorming can best be used to unpack the scenarios. Stakeholders' expectations about the process and its results should be managed upfront through a clear articulation of the process's intention: to disseminate and generate shared visions of the region's future across stakeholder networks. This process is never completed.

Unpacking steps:

1. Exploring scenario implications: How does the future presented in the scenario relate to recent data projections and forecasts; what are the internal and external drives of the scenario (in *Shaping the Future* this has already been done, but could be further explored); and what are the PEST implications?

2. Exploring conflicting futures: Identify distinct future conditions within each scenario and explore how they directly and indirectly conflict and contradict each other; identify which current interests benefit from specific futures and which are hurt.

3. Exploring shared futures: Indentify which futures directly and indirectly relate and correspond to one another; and articulate/debate the ideologies and values embedded within those futures.

Phase 2: Prioritize

Just as with disseminating shared visions of the future, building a consensus around prioritization of relevant topics creates alignment of interests, mindsets, and planning. Consensus has been seen as a means to cope with uncertainty in planning processes, in particular when numerous actors with widespread and diverse interests are involved (de

Roo and Porter 2007: 2). Further, it creates a platform for the later prioritization of planning interventions, designed to address prioritized topics and their related issues.

Regional planning requires such alignment of interests and activities to be effective in assuring concerted and continuous multi-stakeholder participation. Mindset change, collaboration, and consensus building have all been found to be instrumental in transcending the diversity of various stakeholder organizations (Corey and Wilson 2006: 162). A key to planners being able to influence the transformation of space is the production and deployment of knowledge (Hillier 2007: 187). During Phase 1 (exploring scenario implications, exploring conflicting futures, and exploring shared futures) participating stakeholders would have had an opportunity to be exposed to perceptions of the region's most relevant topics and debate the contexts of issues pertinent to those topics. From the understandings generated during that phase, participating stakeholders should be able to make informed decisions on which topics they believe to be most relevant to the region's future and why.

Consensus building is a powerful form of social mobilization (Healey 2006a: 277). Stakeholders should be given the opportunity to verbally put forward their biases toward priorities and voice their reasoning for holding such biases. This is an inherently political process, as certain interests stand to be benefited by specific issues being given priority above others. Therefore, power relations and domineering personalities should be held in check through an agreed-upon method of prioritization.

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One of the key struggles in encouraging collaborative planning is to develop the "hard infrastructure" of institutional design (Healey 2006a: 313). Both the Delphi Method and the Nominal Group Technique (NGT) are established and tested methods that would facilitate systematic and informed prioritization. The Delphi Method is explained in detail within **Chapter Five: Methods**. The Nominal Group Technique was originally developed by Andre L Delbecq and Andrew H. Ban De Ven in the early 1970s. The seminal literature on the technique was done by these two in: *Group Techniques for Program Planning: A Guide to Nominal Group and Delphi Processes* (1975).

Both Delphi and NGT generally serve the same function: to systematically organize the generation and sharing of thought, and the formation of a consensus through ranking and voting. While a Delphi is typically administered remotely (as in the *Shaping the Future* project), the NGT is designed to be administered in the exact kind of large stakeholder environments communicative planning seeks to generate. Therefore, the NGT seems to be an ideal means of systematically prioritizing a large group of topics or futures.

Here is a brief abstraction of a typical Nominal Group Technique prioritization process:

1. Communicate the process and its goals.

2. Allow the participants to individually rank issues.

3. Share the rankings and allow participants to express their reasoning for their rankings.

4. Repeat the ranking and eliminate lower ranking topics until a final agreed-upon ranking is reached.

The *Shaping the Future* project has already given stakeholders an opportunity to express their ideal futures for the region (the Second Round responses), but it cannot be said that these futures have in any way been prioritized. In the Second Round selection of ideal future conditions from the 162 generated in the First Round, participants performed a kind of surrogate prioritization. Yet, the criteria and motivation behind the selections is not known, as there was not any attempt to place conditions upon the participants' selection of ideal futures (refer to the Second Round Questionnaire Instructions in **APPENDIX G**). Further, there has been no prioritization of the Second Round results.

Yet it is important to stress that prioritization, at least with the implicit aim to transition what is being prioritized toward alternative scenario construction, does not have to be as narrow as the Second Round ideal future conditions. While many of the ideal future conditions would serve as fine candidates for prioritization, many of the ideal future conditions could be lumped together as a single topic. For example, education was the

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dominant topic selection of the Second Round Human Capital Asset results. Within the broader topic of education, there were 10 ideal future conditions for the region's future educational system. These ideal futures could easily be lumped together as a single alternative scenario planning topic.

Phase 3: Alternative Scenario Creation

Once an agreed upon prioritization of topics has been developed top ranking topics should be explored through further scenario planning, in the development of alternative scenarios. In using the alternative scenario approach, scenarios are often manifestations of new paradigms (Ogilvy 2002: 5). Therefore, they are excellent vehicles to further explore the emergence of shared visions of the future, as well as a method to continuously generate new visions.

Alternative scenarios are distinctly different from the four visionary scenarios developed for the *Shaping the Future* project. Alternative scenarios should target a more narrowed problem or issue than visionary scenarios. By narrowing focus, alternative scenarios seek to explore the hypothetical futures of specific topics through the development of a set of conflicting scenarios that depict that topic in different future contexts. Alternative scenarios are a method for creating a range of futures, not a blueprint for a single future (Ogilvy 2002: 56).

As such, when engaging in alternative scenario planning the scenario planning question has to be narrowed to produce an outcome that seeks to address a specific issue. For example, the research question in the *Shaping the Future* project only sought to expose the participants' ideal futures of Northeast Michigan in relation to the four broad categories of topics. An alternative scenario project ought to narrow that focus. By narrowing the focus, the process will produce an outcome that exposes the implications of conflicting futures and the interventions required to actualize them. They illustrate the tradeoffs of decision making and policy/planning intervention selection.

Alternative Scenario Planning Processes

As with any scenario planning project, the process has to be tailored to the desired outcome. With alternative scenario planning, the aim is to inform understandings, alternative ends and pathways, and the interventions required to achieve varying ends. Therefore, while there are similarities to the scenario planning process embraced in the *Shaping the Future* project, certain adjustments should be made. Here are the steps:

1. Issue selection: Ideally, this would be pre-determined through a systematic prioritization method.

2. Generate ideal futures for the issue and indentify the internal and external influences upon it in the short, medium, and long term.

3. Identify present PEST conditions within the region that relate to the issue: In this step the internal milieu of the region, as it relates to the issue, is explored.

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4. Compare the present conditions to the ideal futures and identify gaps and possible interventions: A vital step when transitioning to program and plan development.

5. Rank interventions by importance and categorize them in terms of uncertainty, agreement, and disagreement: This material becomes the basis of the determination of alternative scenario logics.

6. Categorize interventions in the short, medium, and long term: Aids in the scenario chronologies and development of programs and plans.

The intent behind this process is to expose varying routes of development that the region could take in relation to the principal issue. The purpose of the ultimate alternative scenarios is to showcase deviating ends the varying means may produce. Therefore, each resulting scenario needs to project an alternative Scenario Logic.

In setting up a process to compose the alternative scenarios, authors have to establish a means of discerning what the final alternative scenario logics will be. Most alternative scenario projects pre-determine the number of alternative scenarios that the project will produce based on the ultimate use of the scenarios. A norm is four total alternative scenarios. The ranking of importance and categorization of uncertainty are key indicators in the determination of Scenario Logics.

A best practice is to set up a matrix of highly ranked "important" and "uncertain" factors from which the alternative scenarios logics will be based. Figure 8.1 below provides an example of such a matrix. Each axis is dedicated to a highly ranked important and

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uncertain factor, with one side of each axis representing one extreme manifestation of that important and uncertain factor and the other representing the opposite extreme.

Each scenario then is located within each of the four quadrants of the matrix, thereby being representative of distinct manifestations of the highly important and uncertain factors upon the principal topic - creating four distinct futures.

Figure 8.1 Alternative Scenario Matrix
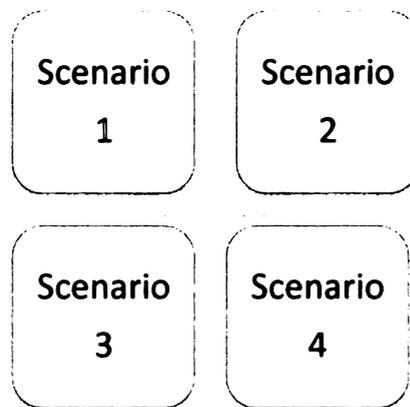
Make Sense of the Alternatives

Once a set of alternative scenarios has been created, they should be fed back to the stakeholder participants. A complete set of alternative scenarios are appropriate to release and publicize beyond the participating stakeholders and out to a more general public - either an expanded group of stakeholders or to the entire region. Increased PEST and implication feedback and the perpetuation of shared visions of the future are the objectives of expanding the dissemination of the alternative scenarios. This

feedback and inclusionary communication should be taken into consideration when developing planning interventions.

It is not necessary to select a single scenario as the preferred scenario, but to consider how each possible future is relevant to responsive strategic planning. Often planning intervention criteria are developed to compare and contrast conditions within the scenarios, as they relate to each intervention. The purpose of the criteria is to see which responsive possible interventions have the most relevance across the spectrum of alternative futures, or more bluntly: which interventions have the most "bang for the buck". The interventions to be measured can both come from the interventions generated during the alternative scenario planning process or be conceived in response to new brainstorming and debate that results from the dissemination of the scenarios.

Scenario planning is a method of steering toward a range of better futures (Ogilvy 2002: 56). It not only opens minds, but can increase strategic spatial planning capacity. As such, scenario planning often produces an outcome of early warning indicators – although not necessarily negative – of progress toward particular scenario conditions (Cummings 2007: 258). Gill Ringland in *Scenarios in Public Policy* stresses that the correct question to proactively ask is: "what shall we do if a certain scenario comes true?" and not: "what will happen" (Ringland 2002: 187).

Alternative scenarios should not be understood as the only possible futures. They are but a slice of a rainbow of varying futures. Therefore, the identification of planning interventions and guidepost indicators that will build toward shared ideals of futures,

not a single future, is recommended in transitioning alternative scenarios and process outcomes to strategic policies, programs, and plans.

Full Circle

The four visionary scenarios of the *Shaping the Future* project were created in response to a basic question of: what are the ideal futures for Northeast Michigan. The participants' answers to that question were aggregated into the four visionary scenarios. These scenarios are representative of the participants' shared visions of the future for the region.

From that foundation of shared visions for the future, distinct topics and issues can be identified. Once identified, those issues should be prioritized through consensus. That prioritization should be a communicative and collaborative process that builds alignment of interests and understandings amongst stakeholders.

An agreed upon number of prioritized topics should be transitioned into alternative scenario planning projects. Alternative scenario planning places issues within informed hypothetical futures in order to understand how processes of change could create divergent futures. Planning interventions are brainstormed during the alternative scenario planning process, and tested against possible futures, that could later be actualized in order to build toward agreed upon ideal futures.

This is a description of continuous processes of communicative regional planning that could build upon the four visionary *Shaping the Future* scenarios. Such processes seek

to shape understandings of spatial problems, spread shared understandings of those problems, and generate planning interventions that align to strategies that seek to address the problems over the long term. In such a communicative spatial planning environment, spatial problems are never sought to be "solved", but acted upon and continuously re-cast in relation to ever changing perceptions of their evolution.

CHAPTER NINE: COLLABORATIVE REGIONAL GOVERNANCE

"Plans that are not accepted by politicians and other stakeholders have no results (Healey et. al. 1997: 287)."

Overview

In **CHAPTER EIGHT: SHAPING THE FUTURE** *APPLIED*, I articulated a three phase "template" for how scenario planning (and therefore the *Shaping the Future* scenarios and participant responses) can used within regional planning organizations and stakeholder networks. In this chapter I will articulate a well supported narrative of the importance and characteristics of regional governance structures. In the next chapter, **CHAPTER TEN: THE HOW - A PROPOSED FRAMEWORK,** a normative proposal for how NEMCOG could use collaborative regional governance processes to develop a group of regional strategies and collaboratively plan toward their realization will be presented.

This chapter and the next are intended to provide the reader with an understanding of how regional planning organizations can embrace, perform, and be the initiators of collaborative regional governance initiatives that intentionally and proactively impact the development of space. These chapters are not intended to advocate for a entirely separate or alternative way to build upon the *Shaping the Future* project and scenarios other than the means previously articulated. They are intended to be mutually supportive, and should not be thought of as an "either/or" dichotomy, but as a mutually reinforcing "both/and" construct.

The topic of regional governance is multi-dimensional and therefore broad in scope. Here, I will narrow the topic within a normative discussion of how regional governance should be embraced by regional planning organizations – like NEMCOG - as a means of long term communicative collaborative planning. I will further expand upon that discussion by articulating how to operationalize a regional governance platform to translate strategic trajectories – like the ones that should be prioritized from the *Shaping the Future* scenarios - into concerted actions.

To do this the following chapter is broken into sub-sections that address the "why", "who", and "what" of regional governance. They are:

Why – the regionalization of the world economy calls for regional governance activities that use long term communicative collaborative planning to collectively take actions designed to leverage a region's unique assets;

Who – multi-jurisdictional regional planning organizations and their associated stakeholder networks are well equipped to organize and administer regional governance initiatives;

What – regional governance is a term to describe partnerships of public, private, and nonprofit leaders who come together in order to collaborate. This collaboration should be initiated to facilitate the generation of a limited number of clear strategic trajectories and to coordinate collaborative activities in relation to realizing those strategic trajectories.

The next chapter will address the "how" through a NEMCOG specific proposed framework for strategy generation and technique of collaborative planning.

Why - United States Economic Development Administration's Call to Collaborate

Regionally scaled agglomeration and clustering are major determinants of global competitiveness and economic growth.   Identifying and making the investments required to build regionally agglomerated economies requires new strategy processes and tools to guide complex decision making at a regional level (U.S. Economic Development Administration 2009: 24).   Thus, a critical issue for 21st Century public policy is how to create the right conditions in which regional governance can form and thrive (U.S. Economic Development Administration 2009: 122).

Regional governance is a term to describe partnerships of public (formal government institutions and elected officials), private, and nonprofit leaders who come together in order to collaborate (U.S. Economic Development Administration 2009: 121). Collaborative approaches need to be focused explicitly on the task of building up links across disparate networks to forge new relational capacity across the relations that coexist within a place (Healey 2006a: 61). Regional governance processes that intend to proactively impact the spatial development of a place – complete with all of its multi-dimensionality - has to be thought of, designed, and managed in a way that accepts the complexity of a relational world, while developing targeted actions to impact this complexity.   Long term planning has to shift from a focus upon the development of

regulations, to the development of strategic frameworks on the regional level of

practice (Hillier 2007: 283).

The United States Economic Development Administration (EDA) has placed a strong

emphasis on initiations of collaborative regional governances within America's regions.

This emphasis is manifest in the Administration's updated 2010 project investment

priorities – how it determines which projects it will provide with grants or funding - and

their mission statement.

The current EDA Mission Statement reads as follows:

"To lead the federal economic development agenda by promoting innovation and
competitiveness, preparing American **regions** for growth and success in the worldwide
economy (U.S. Economic Development Administration n.d., bold added)."

They preface their 2010 project investment priorities with this:

> "The U.S. Economic Development Administration's
> investment policy is designed to establish a
> foundation for sustainable job growth and the
> building of durable **regional economies** throughout
> the United States. This foundation builds upon two
> key economic drivers - *innovation and **regional
> collaboration**. Innovation is the key to global
> competitiveness, new and better jobs, a resilient
> economy, and the attainment of national economic
> goals. **Regional collaboration is essential for
> economic recovery because regions are the
> centers of competition in the new global economy
> and those that work together to leverage
> resources and use strengths to overcome
> weaknesses will fare better than those that do not**
> (U.S. Economic Development Administration n.d.,
> bold added)."

The U.S. Economic Development Administration's six project investment priorities and

explanations are (U.S. Economic Development Administration n.d.):

1. Collaborative Regional Innovation
Initiatives that support the development and growth of innovation clusters based on existing regional competitive strengths. Initiatives must engage stakeholders; facilitate collaboration among urban, suburban and rural (including Tribal) areas; provide stability for economic development through long-term intergovernmental and public/private collaboration; and, support the growth of existing and emerging industries.

2. Public/Private Partnerships
Investments that use both public and private sector resources, and leverage complementary investments by other government/public entities and/or non-profits.

3. *National Strategic Priorities*
Initiatives that encourage job growth and business expansion in clean energy; green technologies; sustainable manufacturing; information technology (e.g., broadband, smart grid) infrastructure; communities severely impacted by automotive industry restructuring; natural disaster mitigation and resiliency; access to capital for small and medium sized and ethnically diverse enterprises; and, innovations in science, healthcare and alternative fuel technologies.

4. Global Competitiveness
Investments that support high-growth businesses and innovation-based entrepreneurs to expand and compete in global markets.

5. Environmentally-Sustainable Development
Investments that encompass best practices in "environmentally sustainable development," broadly defined, to include projects that enhance environmental quality and develop and implement green products, processes, and buildings as part of the green economy.

6. Economically Distressed and Underserved Communities
Investments that strengthen diverse communities that have suffered disproportionate economic and job losses, and/or are rebuilding to become more competitive in the global economy.

These six new investment priorities and their incorporation of collaborative regional

governance language should send a strong message of the potential benefits of

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embracing such collaborative regional governance processes. Each of these priorities is significant to various aspects of the *Shaping the Future* project, but I will make only a few key points as they relate to regional governance specifically.

Firstly, the explanation of *Collaborative Regional Innovation* stresses several of the issues regional governance is responsive to, including: the regionalization of the global economy; the need to collaboratively engage stakeholders on a regional level; along with, the importance of long-term intergovernmental and public/private collaborations. The second priority of projects demonstrating *Public/Private Partnerships* is a direct manifestation of the conceptualization of regional governance embraced in this chapter. Further, its explanation states to "leverage complementary investments", which I interpret as advocating for the kind of strategic frameworks and alignment alluded to above and which will be further articulated below.

The importance of strategic frameworks and alignment in governance is further demonstrated in the third priority, *National Strategic Priorities*, and its associated explanation. This priority advocates for the development of projects that align with larger national agendas and initiatives – strategic frameworks - as they are defined within its explanation. Further, this effort becomes manifest in the fifth priority of *Environmentally-Sustainable Development* that explicitly states that priority will be given to projects that "develop and implement green products, processes, and buildings as part of the green economy" aligning to the defined *National Strategic Priority* of "green technology".

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Lastly, the U.S. Economic Development Administration prefaces these priorities by stating that: "Regional collaboration is essential for economic recovery because regions are the centers of competition in the new global economy and those that work together to leverage resources and use strengths to overcome weaknesses will fare better than those that do not." Thus the decision to place priority in funding projects that enhance *Global Competitiveness* – "to expand and compete in the global economy" - and embracing mechanisms of regional governances are inherently interconnected and mutually reinforcing.

As defined above, regional governance is partnerships of public, private, and nonprofit leaders who come together in order to collaborate. In order to operationalize that definition the question of how to create the right conditions in which regional governance can form and thrive must be answered. The U.S. Economic Development Administration has identified two common traps that must be avoided in order for a region to successfully link and leverage their regional assets: fragmentation and insularity (U.S. Economic Development Administration 2009: 24). Fragmentation arises when individuals and organizations pursue their own agenda of individual projects disconnected from a broader regional strategy, and insularity arises when leaders pursue old techniques of industrial recruitment and "incentive shopping" without explicitly attempting to do so within the context of shared regional competitiveness and clustering (U.S. Economic Development Administration 2009: 24).

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Who – Multi-Jurisdictional Regional Planning Organizations

A process of regional governance can be initiated from public, private, or non-profit organizations. Recently, the advent of new formal government structures and procedures is increasingly being pointed to as the best route to regional strategy formation and coordination (Healey 2007b: 274). Yet new formalized structures with legal requirements of a "strategic vision" or "core strategy" may hinder flexibility and creativity, leading to reductionist techniques of strategy formation, stifling mobilization capacity (Healey 2007b: 275). Informal mobilizations around issues of specific concern to those with a stake in the region, networking between formal and informal arenas, is more likely to generate a real sense of collective concern and infuse strategy building with a mobilizing force (Healey 2007b: 274).

Multi-jurisdictional non-profit regional planning organizations – like NEMCOG - are in excellent positions to be facilitators of collaborative regional governance initiatives. Regions that master the art of mobilizing regional governances, do so by creating region wide partnerships that span jurisdictional lines and public-private sector divides (U.S. Economic Development Administration 2009: 127). The core of place management and project development is the ambition to maintain an awareness of wider horizons, while engaging in the ongoing flow of allocating resources to projects and programs (Healey 2007b: 266). A planning organization's contribution to such place management, its value within the array of government processes in a given area, lies in maintaining a focus on place effects and relations among multiple governance arenas and practices (Healey 2007b: 268).

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A key to initiating regional governance processes is bringing together the diverse collection of stakeholders – public and private - in a way that engenders trust and the pooling of knowledge (U.S. Economic Development Administration 2009: 126). A regional planning organization, particularly a non-profit multi-jurisdictional body guided by a public/private board of directors, is in the ideal position to initiate such a process.

What – Two Tasks

I envision normative regional governance initiatives that are formed and perpetuated (thrive) to perform two sets of tasks: 1) collaboratively generate a limited number of clear strategic trajectories for a given region; and 2) plan collaborative activities in relation to realizing those strategic trajectories. These two tasks represent the "what" of regional governance, as designed to address the "why" of fragmentation and insularity.

The best strategies are short, clear, and represent critical transformations for the region (U.S. Economic Development Administration 2009: 29). To be embraced, strategies have to be grounded in mutual understandings and meaning. To have long lasting effects, strategies need to move from the stage of framing and discourse location, to discourse institutionalization – to the routines of practices (Healey 2007b: 184). This means disseminating a clear and concise group of strategic trajectories across a region's formal governments and stakeholder networks that are designed to induce and direct action. As discussed in the **CHAPTER EIGHT: SHAPING THE FUTURE *APPLIED*** subsections, Phase 1: Generate and Disseminate a Shared Vision for the Future and

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<u>Phase 2: Prioritization</u>, communicative collaboration can generate shared visions of the future and translate them into prioritized strategies.

Yet strategic regional planning must embrace a breadth that requires the actions of numerous actors in order to realize the desired destinations of a strategy (Needham 1997: 271). In most cases, economic regions will spill across county and often state lines, and overcoming political jurisdictions to coordinate and collaborate remains a major challenge (U.S. Economic Development Administration 2009: 25). Actors – albeit local governments or private stakeholders - have their own opinions, value judgments, prejudices and assumptions that have to be taken into consideration during processes of inducing collaborative action (de Roo 2007: 131). This challenge is particularly difficult in rural America where development planning is still largely practiced one county at a time, and in the worse cases degenerates into a practice of poaching business from neighboring jurisdictions through costly incentive packages (U.S. Economic Development Administration 2009: 25). The processes of determining whether, when, where, and how to induce action within the multi-stakeholder relations of a region is a complex political task (Healey 2007b: 186).

Plans that are not accepted by politicians and other stakeholders have no results (Healey *et. al.* 1997: 287). Coordinating action amongst various formal governments who control the use of public funds is a difficult challenge (Needham 1997: 271). In order to coordinate collaborative activities in relation to realizing regional strategic trajectories – to mobilize action – conflicting power geometries have to be steered by

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self-interest and a self-declared willingness to act, and not controlled or designed through the development of static comprehensive plans of absolute space. Flexible public-private partnerships of fluid action are required to progress toward a strategic destination while addressing the relational multi-dimensionality of contemporary economic regions – the foundation of a regional governance model.

As such, regional governance structures with an agency of facilitating actions cannot be dependent upon a single comprehensive plan designed in isolation, as actions must span across governments and private stakeholders. Further, the invention of collaborative strategy making and coordinated action cannot be completely captured in an a priori process model, as propounded in the rational planning process tradition (Healey 2006a: 61). While such step-by-step or phased models can help inform the designed implementation of desired actions, responsive actions taken in "real time" should never be dependent upon them. Effective regional partnerships do not arise from following formulas for engaging a static list of stakeholders, but emerge through painstakingly building new habits of collaboration within the unique institutional landscape of a given region (U.S. Economic Development Administration 2009: 25).

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CHAPTER TEN: THE HOW- A PROPOSED FRAMEWORK

> "Regional leaders need new skills and tools to adopt the new paradigm of regional development. This takes many forms, but **the most pressing need is designing a strategy process and set of analytic tools** that help regional leaders reach strong consensus on sensible investment priorities (U.S. Economic Development Administration 2009: 23, bold added)."

The Preface

The bold portion of the excerpt above points to a demand for two entirely distinct, yet mutually dependent, sets of inputs to create an output of regional development planning through regional governance mechanisms. One being a "set of analytic tools" while the other being a "strategy process". As the *Shaping the Future* project's primary focus has been advocating for and demonstrating communicative collaborative planning with the explicit aim of generating strategic capacity building outputs, this chapter will be primary focused upon the proposal of a NEMCOG specific "strategy process". Correspondingly, the *Shaping the Future* project has been critical of a perceived overreliance on the generation of empirical data as a surrogate for strategic planning. Thus I will only give that portion perfunctory, nevertheless deserving, attention.

Analytic Tools

The phrase "new set of analytic tools" is referring to methods of positivist measurement of select conditions and indicators relevant to a contemporary regional economy. The

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use of clear indicators can empower planners and stakeholders to understand current conditions and track quantifiable changes associated with the transformation to the dynamics of the global knowledge economy (Michigan State University Center for Community and Economic Development 2009: 4). While the *Shaping the Future* project strongly advocates that <u>planning</u> has to be more than measuring to generate data, utilizing targeted and relevant data to keep informed - in order to be more responsive - is also advised. Responsiveness has to be focused upon a region's characteristics within the overarching framework of designing action in relation to fulfilling strategies. Positivist data collection should only be pursued under the mindset of "analysis-to-action".

Operating from that mindset, the Michigan State University Center for Community and Economic Development has created a set of 27 indicators, within six categories, that are responsive to the demands of developing new analytic tools to better understand a 21st Century regional economy. Please refer to **APPENDIX E** for a listing of each category's associated indicators. The categories are (Michigan State University Center for Community and Economic Development 2009: 5):

1. Talent
2. Innovation Capacity
3. Knowledge Sector Jobs
4. Digital Economy
5. Globalization
6. Economic Dynamism

Yet even focused measurement has to be mobilized into action. Kenneth Corey and Mark Wilson in *Urban and Regional Technology Planning: Planning Practice in the Global*

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Knowledge Economy (2006) developed the ALERT Model as a means of moving analysis

to strategic action[1]. The ALERT Model's five relational elements (one per letter within

the word alert) do not need to be operationalized in a linear fashion (Corey and Wilson

2006: 111). Thus I do not view the model as a mere step-by-step universal process

model, but more as a means of conceptually organizing the multiplicities –

measurements and perceptions - of a relational world into a mobilizing force of strategic

action. I highly recommend investigating the ALERT Model to better understand how to

inform mindsets and actions congruent with the demands of contemporary responsive

planning.

A Proposed Framework of Regional Strategy Formation

> Effective regional partnerships do not arise from
> following formulas for engaging a static list of
> stakeholders, but emerge through painstakingly
> building new habits of collaboration within the
> unique institutional landscape of a given region
> (U.S. Economic Development Administration 2009:
> 25).

Below I will integrate the regional governance discussion presented in **CHAPTER NINE:**

COLLABORATIVE REGIONAL GOVERNANCE, with the introduction of new concepts,

forming a NEMCOG specific proposed framework for strategy formation and technique

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[1] The ALERT Model is a planning support system for planners who seek to engage planning in the steering of new knowledge and technology based development to achieve desired outcomes. The model is intended to be directional and relational as opposed to prescriptive, with the intention of engaging planners to design their own unique and locally responsive processes. The five elements of the ALERT Model are: Awareness; Layers; E-Business Spectrum; Responsiveness; and Talk. Please refer to *Urban and Regional Technology Planning: Planning Practice in the Global Knowledge Economy* (2006) for a complete understanding of the Model.

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of collaborative planning. The U.S. Economic Development Administration states that "creating a home for regional governance mechanisms is critical toward long term success" (U.S. Economic Development Administration 2009: 124). I believe NEMCOG is the ideal "home" for regional governance initiatives that both generate strategy and coordinate the planning of multi-stakeholder action. Yet NEMCOG would be best served incorporating other actors into not only designed collaborative activities, but also strategy formation processes – embracing regional governance. In articulating the proposal below, I am in no way attempting to insinuate that NEMCOG is not currently involved in the practice of regional governance or that their designed structures of regional governance do not already include aspects of this proposal. The section below is a normative discussion.

Strategic Planning Steering Group

The counties that make up NEMCOG, as a region, must decide upon a group of short, clear, and long term strategies that represent decisive transformations for the region. The U.S. Economic Development Administration recommends that no more than seven distinct strategies should be "officially adopted" within a given region (U.S. Economic Development Administration 2009: 29). A process that is representative of communicative collaborative regional governance is best suited to produce such a set of strategies.

Given the multiple functions, complexities and linkages inherent within such a process, a coordinated division of labor will be required (Corey and Wilson 2006: 104). I

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recommend the formation of a strategic planning steering group (SPSG) to be the leaders of the strategy formation process. Each county that has a membership within NEMCOG also has an individual county specific economic development corporation (EDC), economic development commission, or equivalent organization with professionals dedicated to facilitating public-private partnerships that engender cooperative development activities. Representatives of these organizations, as they are the gatekeepers to the various public-private networks across the region, would be the ideal candidates of such a strategic planning steering group. Key private sector stakeholders and resource controlling – budget and investment funding – formal government stakeholders must be included in the various iterative communicative collaborative regional strategy making processes (Corey and Wilson 2006: 107). The representatives from the county EDCs are likely to be in the strongest position to tap and incorporate such key stakeholders in communicative collaborative planning processes.

Prioritizing Through Iterative Consensus Building

Recipes for making strategies should be avoided (Healey 2007b: 284). Yet the SPSG must systematically design communicative collaborative mechanisms to enlist the stakeholders of <u>each</u> of their respected communities in the strategy making process. Patsy Healey in *Collaborative Planning: Shaping Places in Fragmented Societies* points to the use of "forums" in strategy making processes that should be used within the unique landscape of a region's relational networks (Healey 2006a: 259).

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Forums are for the creation and communication of meaning - to search for and articulate perceptions of relevant issues and descriptions of what they entail – while not yet attempting to develop solutions (Healey 2006a: 259-262). I equate this to the generation of shared visions for the future. Each member of the SPSG should be responsible for leading communicative forums in their respective county, as the ultimate outcome is the creation of a <u>region wide</u> - i.e. regionally representative – set of strategies to be collectively pursued. It must be understood that these "county forums", while important in terms of communicatively generating shared understandings, serve the larger purpose of generating content to be transitioned into regional strategies. Articulations of what is happening and what is cared about have to be drawn out and transitioned into "what we want to happen".

The particular planning technique or number of forums initiated should not necessarily be universal, as each member of the SPSG is in the best position to understand the unique characteristics and complexities of their area's stakeholder networks. Knowledge and understanding is produced through collaborative social learning processes, not in the isolated predetermination and manipulation of abstract planning techniques (Healey 2006a: 263). Thus the key is to use the local knowledge of the SPSG member to best induce a process of collaborative social learning, directed toward the intended result. Any number of communicative collaborative techniques could be adopted and reasonably operationalized through any number of phases across various timeframes. Suitable communicative collaborative techniques include, but are not limited to: scenario planning; town hall discussions; Nominal Group Technique driven

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meetings; Delphi surveys; or any combination of these methods. The key is to facilitate an open and communicative process that generates, shares, and systematically organizes group thought toward an intended purpose.

Thus while the technique embraced can be variant, the outcomes of the county forums must all generate a set of prioritized long term strategies for the region. It is always important to communicate a clear articulation of the desired outcome – long term and regional strategies - to participants upfront, as there will inevitably be the desire to think locally and in the short term. The process of long term communicative collaborative planning creates an outcome of mindset change amongst the participations in and of itself, yet here the aim is to perpetuate the process in accordance with a larger outcome – the ultimate prioritization of a single set of strategies across all the counties.

Upon the completion of the county forums, the SPSG should reconvene in order to share their respective results. While live discussions are often a preferred means of communicating, this process can be effectively administered remotely through digital interaction (video, e-conferencing, or even teleconferencing). Further, as the *Shaping the Future* project has demonstrated, structured written communications can be used to effectively interact.

The objective of this "SPSG mini-forum" would be to share, discuss, and ultimately agree upon a systematic prioritization mechanism to transfer the many county forum derived strategies into an agreed upon set of short and clear transformational regional strategies. In order to cultivate a process that encourages careful reflection and that

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produces the most stimulating discussions I recommend remotely distributing the county level prioritized regional strategies and any related materials beforehand, and not relying upon "live" presentations.

To facilitate this, the creation of a website - complete with interactive document upload capabilities and relevant downloadable material - specifically for the regional strategy making initiative may be best. Otherwise housing the material on the NEMCOG website or simply emailing material may be effective. Regardless of the means, I believe allowing the SPSG members to read, react, reflect, and form questions/opinions - in their own time – will be the most effective means of ultimately drawing out creative and thoughtful discussions.

The interaction should communicatively produce shared understandings of each county level set of preliminary regional strategies amongst the entire SPSG. From these understandings, each county should then prioritize (numerically rank) a single set of regional strategies from the entire group (every NEMCOG county) of articulated preliminary strategies. It is again up to the individual SPSG member to administer an effective means of exposing their stakeholder networks to the other counties strategies and justifications.

Prioritizing through numeric rankings allows for an empirically defensible method of determining the final set of regional strategies. Each county must submit a single group of ranked regional strategies. All of the counties rankings are then aggregated to create a final set of "official" regional strategies.

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Working Subgroups

Upon the determination of an official set of regional strategies, there must now be an effort to generate shared understandings of each distinct strategy in order to collaboratively coordinate actions - across the many stakeholder networks - that align to their realization. The SPSG members should individually be assigned the task of "main researcher" for a particular strategy. This task would include knowledge generation – utilizing focused "new analytic tools" – and awareness building/sharing of the multi-dimensional complexities and perceptions that encompass the region's relations in regards to that particular strategy. The objective is to produce a common frame for the issues inherent to the strategy.

Of certain interest to each Working Subgroup is an evaluation of whose actions need to be influenced for a strategy to be realized (Healey 2007b: 284). Closely related to this analysis is an equally important evaluation of how to actively involve stakeholders whose actions and judgments will affect the power of a strategy (Healey 2007b: 284). A useful technique for administering such analyses is Force Field Analysis. Force Field Analysis was developed by sociologist Kurt Lewin and is a systematic method of evaluating the forces that may help engender or hinder the desired change of a given situation (Hustedde and Score 1995: 2).

Problem

The Working Subgroup's role is to generate understandings and frames of reference for the knowledge, perceptions, and actors that will be vital to planning collaborative actions that build toward the realization of agreed upon strategies. The acceptance of

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an "official" set of short and clear regional strategies helps align policy, investments, and planned actions in accordance to an overall paradigm of regional competitiveness and long term development. A policy, narrowly interpreted, is a rule that identifies an action to be taken if a given set of circumstances occurs (Hopkins and Zapata 2007: 340). Ideally, concisely defined policy guides the determination of action within both the public and private sector.

While a regional governance initiative that generates regional strategies can shape perceptions of ideal policy and plans of action, the SPSG cannot dictate stakeholder policy or action (Needham 1997: 273). Thus in order to develop – or plan - collaborative public-private actions that build toward the realization of the desired strategies, the planning of collaborative action has to be practical in design. Thus I advocate that the planning of collaborative actions be developed in response to a stakeholder's stated willingness to act. Time and resources are too precious to waste drawing up plans without the agency of buy-in from the stakeholders whose actions are required to engender them. This is not to say that normative frameworks based on established "good-governance" and "best-practices" should go uninvestigated or un-hypothesized. Indeed, SPSG members working within the Working Subgroups should pursue such informative and instructional endeavors. It is to say, however, that stakeholder inclusion should be used upfront to give a plan agency through building it on a foundation of what actors are willing to contribute. This is particularly true in designing regional plans of collaborative action that incorporate formal governments, as in a

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projects that use public funds (U.S. Economic Development Administration 2009: 127).

Solution - Actor Consulting

Yet the SPSG has to transition regional strategies into plans of collaborative action, in

order to fulfill the strategies. Below I articulate a planning technique – actor consulting -

that should be adopted to combat the difficulties of planning public-private

collaborative action. Actor consulting should be used when making plans. This sub-

section has been largely influenced by the work of Gert de Roo – Professor of Planning

in the Department of Planning and Environment at the University of Groningen, The

Netherlands. Particularly, the articulation of "actor-consulting" within his chapter

"Actor-Consulting: A Model to Handle Fuzziness in Planning" within the edited book

Fuzzy Planning: The Role of Actors in a Fuzzy Governance Environment (2007) is the basis

for the discussion below. Gert de Roo sees actor-consulting as an approach for decision

making processes, a problem structuring method for multiple stakeholder evaluation,

and a meditation technique for conflict resolution (de Roo 2007: 132).

The sub-section below advocates for the use of actor-consulting when developing plans

that align to strategies by establishing what actors can and are willing to do, and then

building plans from that foundation. Central to actor-consulting is the consulting with

actors regarding their desired contribution, their present or actual contribution, and the

development of ideas about their potential contributions to a planning issue (de Roo

2007: 131).

However, actor consulting does not necessarily guarantee a communicative process of network and relation building (de Roo 2007: 147). Accordingly, de Roo explicitly differentiates actor consulting from a general notion of communicative planning (de Roo 2007: 148). Designing a plan - under certain circumstances - must adopt more closed processes than designing strategies, as shaping distinct actions by distinct stakeholders is the primary objective, and not necessarily the generation of shared meanings and desires.

If regional governances are going to implement actions to build toward regional strategies, plans must be designed that designate who is willing to take what action and when - to achieve a goal in line with a desired strategy. Actor consulting can be used to elicit commitments by consulting actors – who hold positions of power – concerning their intention and willingness to act, outside of an arena that builds relations and shared meaning. Thus, de Roo equates the actor-consulting model with more of a "top-down" mechanism of governance (de Roo 2007: 147).

Consulting the Actors

Actor consulting should be used as a procedure to fine-tune understandings of the dynamics of the relationships between the various decision-makers and the stakeholders, and between decision-makers and the executors of the decisions, resulting in more realistic plans (de Roo 2007:147). After the actors whom are important to a strategy have been identified (through Force Field Analysis or a similar technique) it still has to be determined whether or which actors can collectively act (de Roo 2007: 138).

To learn this information, actors should be approached and evaluated in regards to their willingness to contribute to the issue – their desired contribution, their actual contribution to the issue – their present contribution, and how the actors might in principle be able to contribute - their potential contribution (de Roo 2007: 140).
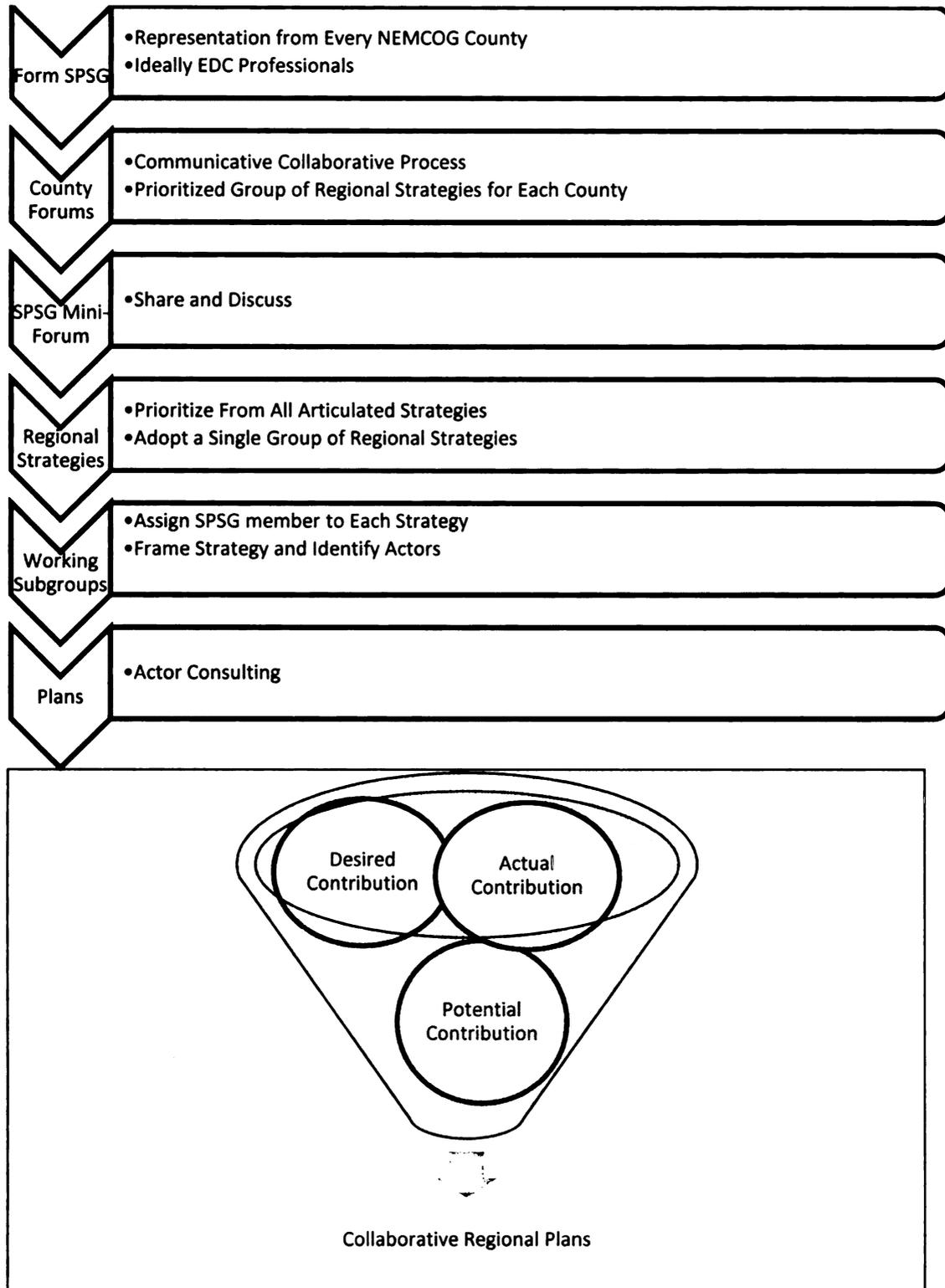
Gert de Roo elaborates:

> "Actions taken by actors do not come about independently. They are determined among other factors by the resources available to each actor and the institutional setting in which they operate. These are dynamic because physical conditions change continuously, because interactions between actors influence changes of attitude, and because of the continuous development of institutional arrangements. This is the context in which actors will act in a particular way – their present contribution. Meanwhile, they have certain ideas about the way they want to act – the desired contribution (de Roo 2007: 140)."

Through proactive consultation, a necessary actor is thus able to articulate their understandings and capabilities to the planners in their own words. An actor can contribute knowledge about the various barriers they or their organization confront and upon what they expect others to do (de Roo 2007: 139). Upon consultation, planners should examine the discrepancy between an actor's present contribution and their desired contribution as an important evaluation criterion (de Roo 2007: 140). That discrepancy should be used to help locate that actor's position and capacity to act within a collaborative endeavor. This allows an ultimate plan for collaborative action to be constructed in response to articulated and predicted behavior, and most importantly a realistic determination of potential contributions.

The evaluation of potential contributions should utilize the Working Subgroups research into applicable "good governance" and "best practices". Additional literature study, expert meetings, technical research, interviews, and considerations of the external and internal conditions under which potential contributions are possible also will require attention (de Roo 2007: 140). Exploring potential contributions is basically a two step process of exploring: 1) how the actor can contribute "solutions" in regards to the strategy; and 2) the advantages and disadvantages of pursuing such "solutions" for the various stakeholders involved (de Roo 2007: 140).

Choice, perception, and context reflect the subjectivity of planning – particularly collaborative actions – that the actor-consulting model attempts to mediate (de Roo 2007: 148). By systematically exploring those three subjective conceptions of a situation, plans can become less isolated from the actors who must implement them, and more emergent and performative reflections of the actors themselves. Regional collaboration can only emerge when it is perceived to "grow the pie" for everyone involved, and not represent a zero-sum game (U.S. Economic Development Administration 2009: 23). The effect of a plan is the outcome of what all relevant bodies do with the statements in that plan (Needham 1997: 274). By basing collaborative plan making explicitly on stakeholder articulations of desired contributions, current contributions, and evaluations of potential contributions, a plan emerges as both a realistic - desired and present contributions - and normative – potential contribution - endeavor. Refer to Figure 10.1 on the next page for a summary of steps described above.

Figure 10.1 Proposed Framework for Strategy and Planning Processes

Form SPSG
- Representation from Every NEMCOG County
- Ideally EDC Professionals

County Forums
- Communicative Collaborative Process
- Prioritized Group of Regional Strategies for Each County

SPSG Mini-Forum
- Share and Discuss

Regional Strategies
- Prioritize From All Articulated Strategies
- Adopt a Single Group of Regional Strategies

Working Subgroups
- Assign SPSG member to Each Strategy
- Frame Strategy and Identify Actors

Plans
- Actor Consulting

Desired Contribution

Actual Contribution

Potential Contribution

Collaborative Regional Plans

APPENDIX A: OVERVIEW

The three following appendixes are: **APPENDIX B: TOPIC FORMATION**; 2, **APPENDIX C: THE SECOND ROUND RESULTS**; and 3, **APPENDIX D: THE REFERENCE SCENARIOS.** Each of these three chapters is a tool for understanding how the Second Round results were used to create the four visionary scenarios. They are intended to be a kind of quality control mechanism that a reader can use to evaluate the extent to which the final scenarios are representative of participants' selected ideal future conditions and articulated external and internal influences upon those ideal future conditions.

APPENDIX B: TOPIC FORMATION

Beginning on page 147 are the Second Round ideal future conditions for *the Shaping the Future* project. The ideal future conditions are organized in accordance to the category from which they were derived: Human Capital Assets; Infrastructure; Natural Resources Utilization; and Tourism Industry. Accompanying each category of ideal future conditions is a list of topics which I used to organize the future conditions, a grouping of futures per topic, a listing of how many identical ideal future conditions were selected by participants per topic, and a pie chart to visually demonstrate which topics were of greatest frequency amongst that particular category of futures.

Each topic will have a descriptive assessment organized like the illustration below:

Topic Title
Total = # /# - a ratio of the number of ideal futures within this topic to the total number in the category
Repeating Futures = # – the number of ideal futures within the topic selected by more than one participant in the Second Round
Numbers of Futures: #-# - each ideal future is numbered, this gives the numbers of ideal futures for that particular topic

The categorization of ideal future conditions into topics was part of my Scenario Creation Process, and therefore was used to help determine the *Key Response Themes* and Scenario Logics. I did not predetermine the topics before administering the Second Round or analyzing the Second Round results. I first read the Second Round results, and then developed the topics as a means of organizing and analyzing those results. By making topic predeterminations a scenario writer is in effect preselecting the *Key Response Themes* and to a lesser degree the Scenario Logics. If preselected, the writer

has to then "force" each participant response into one of their predetermined topics, in effect molding what the participant is trying to say around what the scenario writer has already determined he or she wants to write. I took an inductive approach, and to the best of my ability allowed the participants' responses to determine the topic organizations and resulting Key Response Themes and Scenario Logics.

The topics below are not, nor were they intended to be, definitive classifications. It is a qualitative process. The descriptive section below is intended to provide accountability and understanding of my interpretation of the participants' Second Round results and how I used that interpretation to create the four visionary scenarios. There are overlaps between topics and between ideal future conditions across topics. Inevitably, a different scenario author analyzing the same results would have come up with different topic titles, and would have used varying organizations. The topics I formed are:

<u>Human Capital Assets Topics</u>

Education
Governance
Culture
Employment
Demographics

<u>Natural Resource Utilization Topics</u>

Employment
Biomass
Culture
Agricultural Production
Conservation
Energy Production
Environmental Management
Natural Gas

<u>Infrastructure Topics</u>

Internet
Trails
Transportation
Planning
Energy Generation

<u>Tourism Industry Topics</u>

Marketing Campaign
Eco-Tourism
Trails
Tourism employment
Micro-Credit
Cruise Ships

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Below are the lists of the participant selected ideal future conditions and the topic

formation information. Some participants selected more than a single ideal future

condition per category, and each of their selections is listed. Within each category, a

varying number of identical ideal future conditions were selected by more than one

participant. Each ideal future condition which was selected by more than a single

participant is grouped and repeated the number of times it was selected. Some

participants choose to aggregate several ideal future conditions into a single category of

ideal futures (Community Colleges for example) or compose their own ideal future

condition to respond to. Those ideal futures are marked with an asterisk (*).

Participant Selected Human Capital Asset Ideal Future Conditions

1. Ninety percent of the population between the ages of 25-70 has a marketable post-secondary credential.

2 .Ninety percent of the population between the ages of 25-70 has a marketable post-secondary credential.

3. Fifty percent of the region's population has a bachelor's degree or higher.

4. In the future, the region will have a much higher educated population*.

5. Local college graduates will desire to remain in the area.

6. Local college graduate will desire to remain in the area.

7. Community colleges*.

8. Local school districts have been consolidated.

9. There are strong school-community relationships that successfully get youth involved and interested in the region's future.

10. Population has greater post-secondary attainment.

11. The population of the region will maintain steady growth.

12. Term limits for elected government officials have been eliminated.

13. Creative people have empowered institutional support structures to aid in their endeavors.

14. The region has embraced entrepreneurial mindsets.

15. There is a strong sense of place amongst the region's citizens that takes pride in the region's culture and natural environment.

16. A Smartzone technology cluster exists within the region, drawing human talent and outside investment, creating a center of innovation, R&D, and start-up innovation.

17. Maximize the outputs, commercialization, and profitability of our natural resources*.

Figure AB.1 Human Capital Assets Topic Categorization Pie Chart
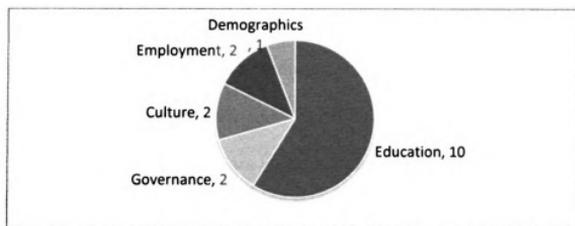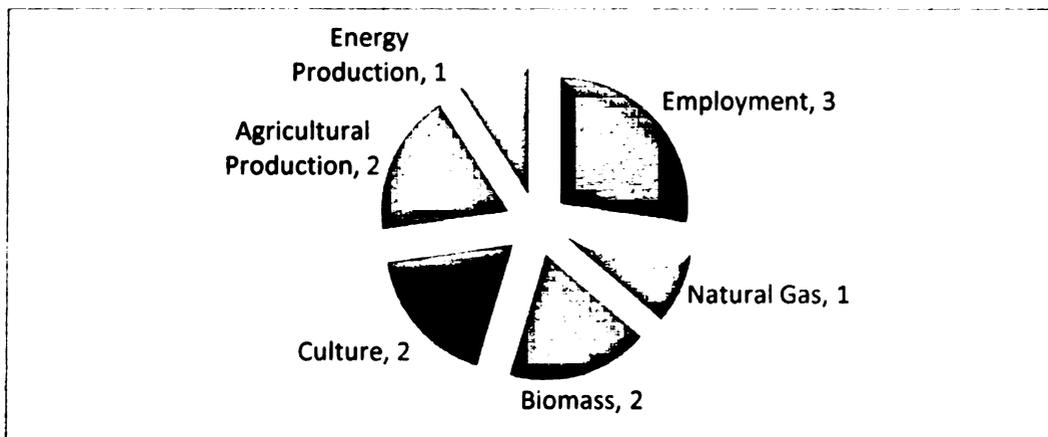

Topics:

1. *Education*
   Total = 10 / 17
   Repeating Futures = 3
   Numbers of Futures: 1-10
2. *Governance*
   Total = 2/17
   Numbers of Futures: 11 and 12
3. *Culture*
   Total= 2/17
   Numbers of Futures: 13 and 14
4. Employment
   Total= 2/17
   Numbers of Futures: 15 and 16
5. *Demographics*
   Total = 1/17
   Number of Future: 17

Participant Selected Natural Resources Utilization Ideal Future Conditions

1. Natural gas development and production utilizing advanced technologies, including carbon capturing technology, exists to provide CO2 to firms - enhancing the region's oil and natural gas recovery.

2. Fallow and underutilized agricultural lands are producing fast growing biomass crops to augment other forest resources in producing electricity and other forms of biomass energy for the region.

3. Agricultural by-products are innovatively reused for energy production

4. Firms specializing in the production of biomass energy related equipment and services are located in the region.

5. The region's communities have conceptually connected their local surroundings to the global climate crisis and wider green movement.

6. The region's communities have conceptually connected their local surroundings to the global climate crisis and wider green movement.

7. Marijuana is de-criminalized and grown as an agricultural product.

8. Marijuana is de-criminalized and grown as an agricultural product.

9. The region leads the entire Mid-West in putting forward solutions for clean water and conservation for the Great Lakes.

10. Agriculture and forestry are major sources of employment in the region*.

11. Natural resources are utilized to promote economic growth, without degrading them, and the region is kept as natural as possible*.

12. The natural resources in the region are more fully utilized for eco-

    tourism, R&D, and recreation*.

13. Northeast Michigan has a thriving eco-tourism industry revolving around

    the preservation and conservation of natural resources*.

14. State and federal agencies continue to make investments and share

    management responsibilities in the region's natural resources*.

Figure AB.2 Natural Resource Utilization Topic Categorization Pie Chart

Topics:

1. *Employment*
   Total = 3/14
   Numbers of Futures: 1, 2, and 3
2. **Biomass**
   Total = 2/14
   Numbers of Futures: 4 and 5
3. **Culture**
   Total =2/14
   Repeating Futures = 2
   Numbers of Futures: 6 and 7
4. **Agricultural Production**
   Total = 2/14
   Repeating Futures = 2
   Numbers of Futures: 8 and 9

5. Conservation
   Total = 2
   Numbers of Futures: 10 and 11
6. Energy Production
   Total = 1/14
   Number of Future: 12
7. Environmental Management
   Total = 1/14
   Number of Future: 13
8. Natural Gas
   Total= 1/14
   Number of Future: 14

Participant Selected Infrastructure Ideal Future Conditions

1. The region has ubiquitous broadband access.

2. The region has ubiquitous broadband access.

3. The region has ubiquitous broadband access.

4. The region has ubiquitous broadband access.

5. The region has ubiquitous broadband access.

6. Fiber-optic cable is planned and laid in conjunction with every road project.

7. Off-road trails are expanded and modernized.

8. Off-road trails are expanded and modernized.

9. Trails accommodate multi-day trips exist, with connectors conveniently accessible to food, fuel, and lodging.

10. A limited access highway runs parallel to I-75.

11. There are numerous innovative and experimental energy generation demonstration projects concurrently taking place in the region's population clusters.

12. Counties, cities, villages, and townships plan and develop infrastructure projects in coordination with each other.

13. The region will be able to finance any infrastructure needs it may have.

14. Small airfields have taken a larger role in serving transportation needs.

15. Bus lines will shuttle people north to the region and south out of it.

Figure AB.3 *Infrastructure Topic Categorization Pie Chart*
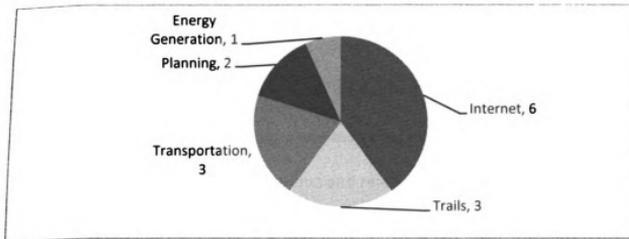
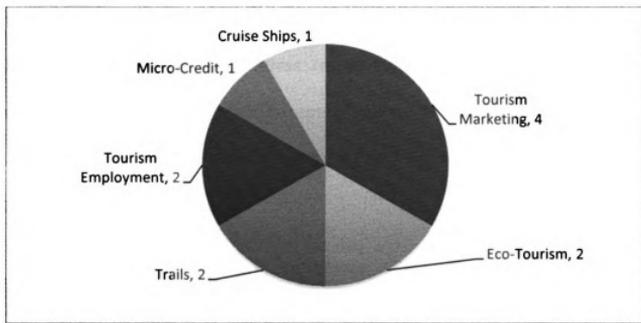## Topics:

1. *Internet*
   Total = 6/15
   Repeating Futures = 5
   Numbers of Futures: 1-6
2. *Trails*
   Total = 3/15
   Repeating Futures = 2
   Numbers of Futures: 7, 8, and 9
3. *Transportation*
   Total = 3/15
   Numbers of Futures: 10, 11, and 12
4. *Planning*
   Total = 2/15
   Numbers of Futures: 13 and14
5. *Energy Generation*
   Total = 1/15
   Number of Futures: 15

Participant Selected Tourism Industry Ideal Future Conditions

1. A regionally specific tourism marketing campaign differentiates Northeast MI
    from the State as a whole and throughout the Mid-West.

2. A regionally specific tourism marketing campaign differentiates Northeast MI
    from the State as a whole and throughout the Mid-West.

3. A tourism branding effort and sustained campaign has developed around the
    45th Parallel, including events and related attractions.

4. A tourism branding effort and sustained campaign has developed around the
    45th Parallel, including events and related attractions.

5. There is a strong "northern" eco-tourism industry that uniquely differentiates
    itself from the more widely understood "tropical" eco-tourism experience.

6. There is a strong "northern" eco-tourism industry that uniquely differentiates
    itself from the more widely understood "tropical" eco-tourism experience.

7. A micro-credit loan institution makes funds available to entrepreneurs interested
    in exploring new avenues of tourism within the region.

8. Select trails will be promoted and branded, holding yearly events.

9. The Mackinac Bridge is renovated to include walking and biking lanes.

10. Tourism is a major component of the Northeast regional economy.

11. Large cruise ships will port in the region.

12. Bovine TB is completely eradicated, allowing for profitable luxury deer hunting
    camps.

13. *Figure AB.1 Human Capital Assets Topic Categorization Pie Chart*

Figure AB.4 Tourism Industry Topic Categorization Pie Chart

Topics:

1. *Marketing Campaign*
   Total = 4/12
   Repeating Futures = 2 and 2
   Numbers of Futures: 1-4
2. *Eco-Tourism*
   Total = 2/12
   Repeating Futures = 2
   Numbers of Futures: 5 and 6
3. *Trails*
   Total = 2/12
   Numbers of Futures: 7 and 8
4. *Tourism employment*
   Total = 2/12
   Numbers of Futures: 9 and 10
5. *Micro-Credit*
   Total = 1/12
   Number of Future: 11
6. *Cruise Ships*
   Total = 1/12
   Number of Future: 12

APPENDIX C: THE SECOND ROUND RESPONSES

Starting on page 158 are the participant generated Second Round responses for the *Shaping the Future* project. These results consist of the First Round ideal future conditions participants selected to respond to in the Second Round and the participants' articulated external/internal influences that may act upon those futures in the short, medium, and long term.

The responses are organized in accordance to the category from which they were derived: Human Capital Assets; Infrastructure; Natural Resources Utilization; and Tourism Industry.

All selected ideal future conditions are in a bold and italic font, and distinguished by the bullet point (❖). The external and internal influences are listed in a taxonomy of short, medium, and long term directly below their corresponding ideal future conditions, distinguished by a traditional bullet point (•).

Each external and internal influence that was inserted into a scenario has references to locations within their corresponding scenarios. Each reference has a page(s) and line(s) number that corresponds to the Reference Scenarios within **Appendix D**. These references are guideposts to where the participants' articulated external and internal influences manifest themselves in the final scenarios. Most references include more than one page and line number. Multiple references for a single influence are separated by a semi-colon. Influences that span multiple lines or sentences within a scenario are distinguished by a dash (-) between line numbers (refer to Figure AC.1 on page 157).
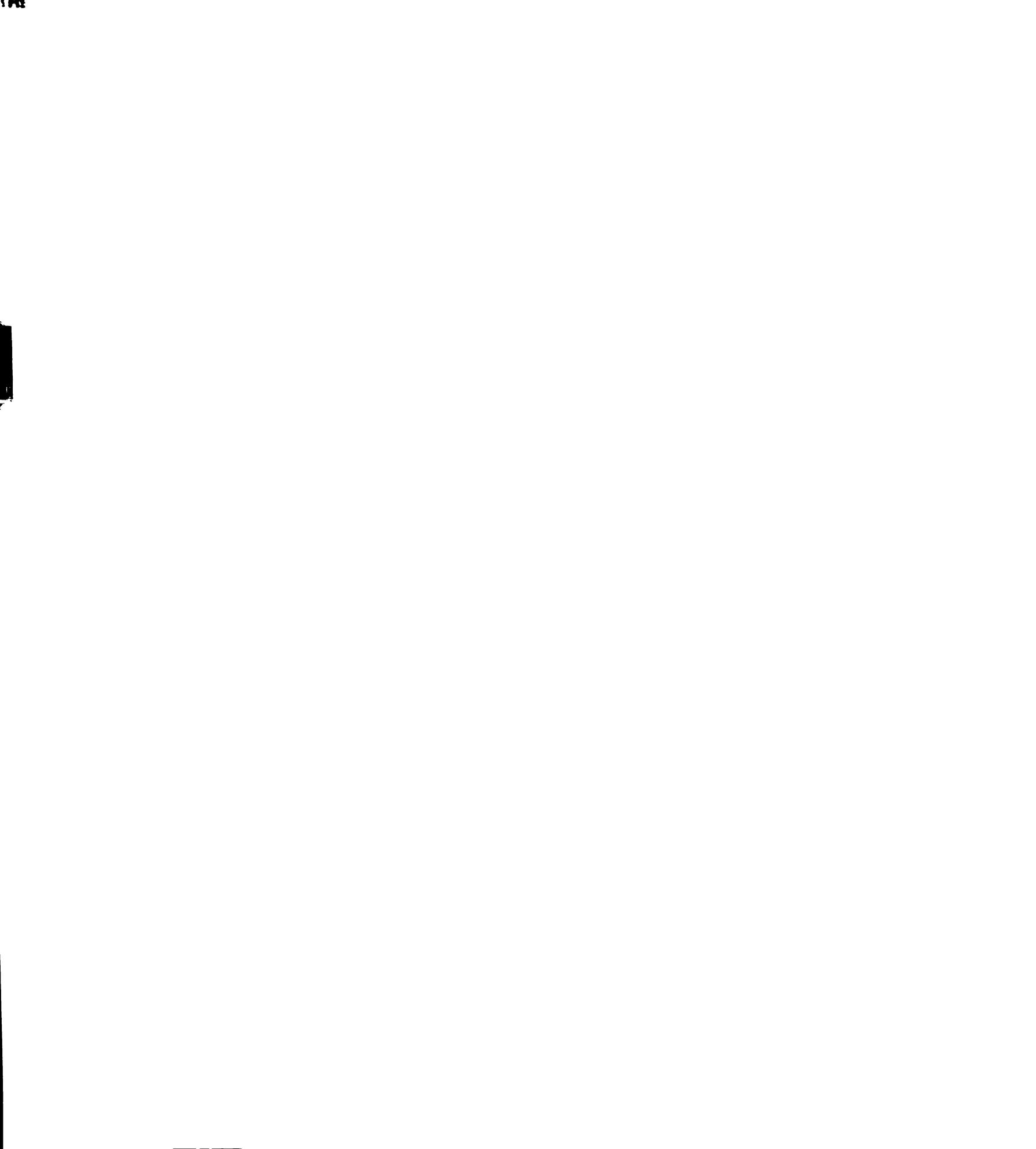
Figure AC.1 Reference Illustration

{2.1-2; 4.8-14}

Page 2, Lines 1 through 2   Page 4,   Lines 8 through 14
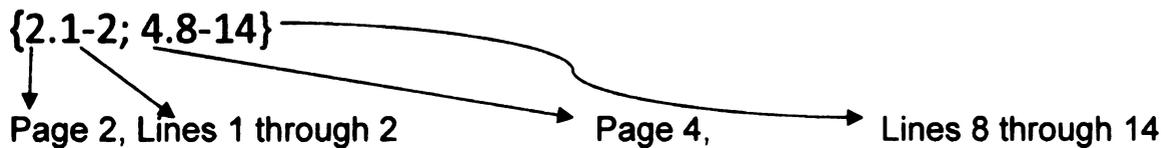
Not every external or internal influence has a reference. Certain external and internal influences were used within scenarios other than that to which they were in direct response. Numerous external and internal influences were used to help determine Key Response Themes and Scenario Logics.

By stating that the external and internal influences were used to "help determine the Key Response Themes and Scenario Logics", I am attempting to convey that the external and internal influences were not necessarily inserted verbatim into the scenarios, although at times they were. In using the influences as "inspiration", I used my interpretation of their intended meaning – hopefully accurately capturing the participant's - to build the scenario narratives, chronologies, and ideologies.

In exploring the references below, a line of connectively can be drawn between what the participants' were saying in their Second Round responses - the inputs - and the resulting content of the final scenarios - the output. This can be used as a means of evaluating the extent to which the participants' responses were used in the creation of the final scenarios. In doing so, one should conclude that the scenario content captured both the overarching strategic essence (to a larger extent represented by the inclusion
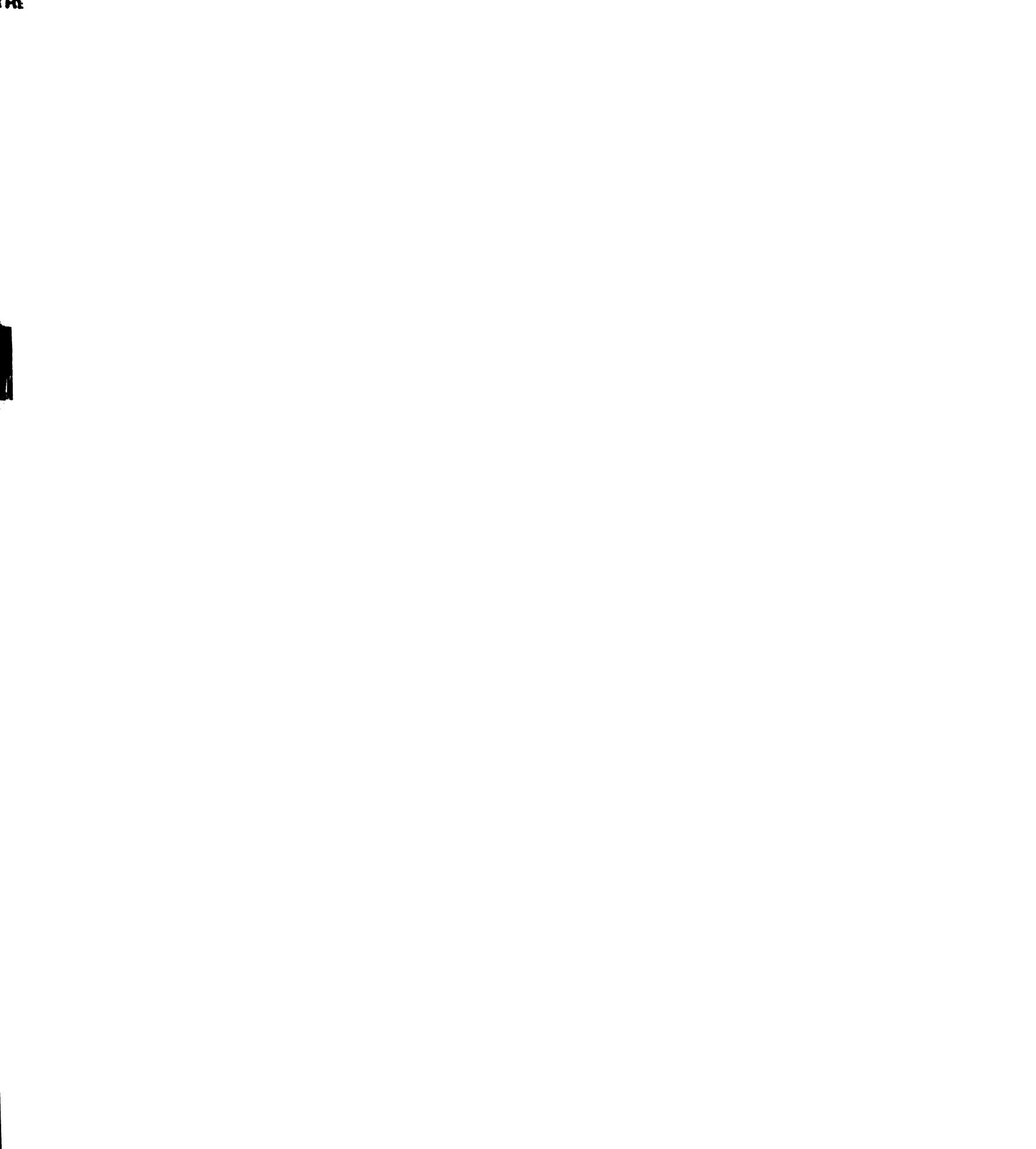
of the selected ideal futures than the external and internal influences), and the more

tactically operational aspects of the identified overarching strategic trajectories.

Second Round Human Capital Asset Responses

Future

> ❖ *Ninety percent of the population between the ages of 25-70 has a*
>
> *marketable post-secondary credential.*

External Influences Short-Term:

- Continuation / meaningful appropriation of federal stimulus money for higher

  education

External Influences Medium-Term:

- National debate surrounding the fact that most service-sector jobs (which

  account for over 70% of US economy) all but require education beyond high

  school, whether vocational, collegiate, or technical. America must have a

  conversation regarding the types of economic activities that take place and the

  types of economic activities that Americans THINK should take place

  {248.3-5; 250.7-11}

- An understanding that "marketable post-secondary credential" does not

  necessarily have to be a typical higher education credential (Associate, Bachelor,

  etc. degree) but rather can/should encompass all types of specialized training

  beyond high school

  {247.8-11; 250.11-17}

THE

External Influences Long-Term:

- Continued development of a globalized economy in which greater technical /

  geographic diversification of labor market remains important, opening doors for

  regions to become "experts" in a given activity or knowledge base

  {249.6-10}

- Freer inter- and intra-national trade between the U.S. and other countries as

  well as between U.S. states, permitting the region to capitalize on the specialized

  training it can offer

Internal Influences Short-Term:

- Continuation / meaningful appropriation of federal stimulus money for higher

  education

Internal Influences Medium-Term

- Ability of Northeast Michigan to attract and retain new, as well as support

  existing centers of post-high school technical, vocational, and educational

  training

  {250.20-251.2}

- Willingness of Northeast Michigan to accept that it will most likely never be a

  center for higher education (i.e., internationally-recognized research universities)

  and so is right to focus efforts on "marketable post-secondary credentials" that

capitalize on the region's existing natural resources (specially natural gas,

forestry, etc.)

{248.1-2; 252.7-16}

Internal Influences Long-Term

- Ability of Northeast Michigan to develop centers of post-high school training that

  enjoy synergies with regional, state, national, and international demands

  {250.15-19}

Future

- ❖ *Local college graduates will desire to remain in the area.*

External Influences Short Term

- Enhancement of the Region's recreational/natural assets.

Medium Term External Influences

- Creation of job opportunities.

Long Term External Influences

- Availability of broadband internet.

Short term Internal Influences

- Implementation of the "complete the streets" program in Sault Ste. Marie,

  which would go a long ways towards making the community walkable, giving it a

  more appealing sense of place.

Medium term Internal Influences

- Improved relationships between private sector and the University to identify local/regional opportunities for graduates.

Long term Internal Influences

- Implementation of the Smartzone proposal.

_____

Future

- ❖ Local college graduates will desire to remain in the area.

External Influences Short Term:

- Beginnings of a national tolerance movement to change the common stereotype that small-town life is backward, racist, too religious, boring, close-minded, unintelligent, etc.

  {247.17-19}

External Influences Medium Term:

- State/national policies such as Michigan's "cool cities initiative" a few years back that attempt to improve certain aspects of a city's infrastructure (i.e. wireless internet access, construction of bike lanes, etc.) that would appeal to young professionals.

  {249.6-10}

- Cultural shift that places greater value on giving back to your local community.

  {248.9-14}

External Influences Long Term:

- Development of affordable and reliable means of public transportation (bus systems, trains) linking smaller communities to larger population centers, so as to avoid a sense of isolation in the less populated areas.

Internal Influences Short Term

- Vision of local leaders and citizens to see the value of keeping young professionals, and attracting new ones, in the area.

  {247.19-248.2; 247.8-11}

Internal Influences Medium Term

- Developing a local appreciation of the value giving back to one's community.

  {248.9-14}

Internal Influences Long Term

- Focus on revitalizing the region's downtowns with restaurants, coffee shops, bars, clubs, stores, etc.

  {249.16-17}

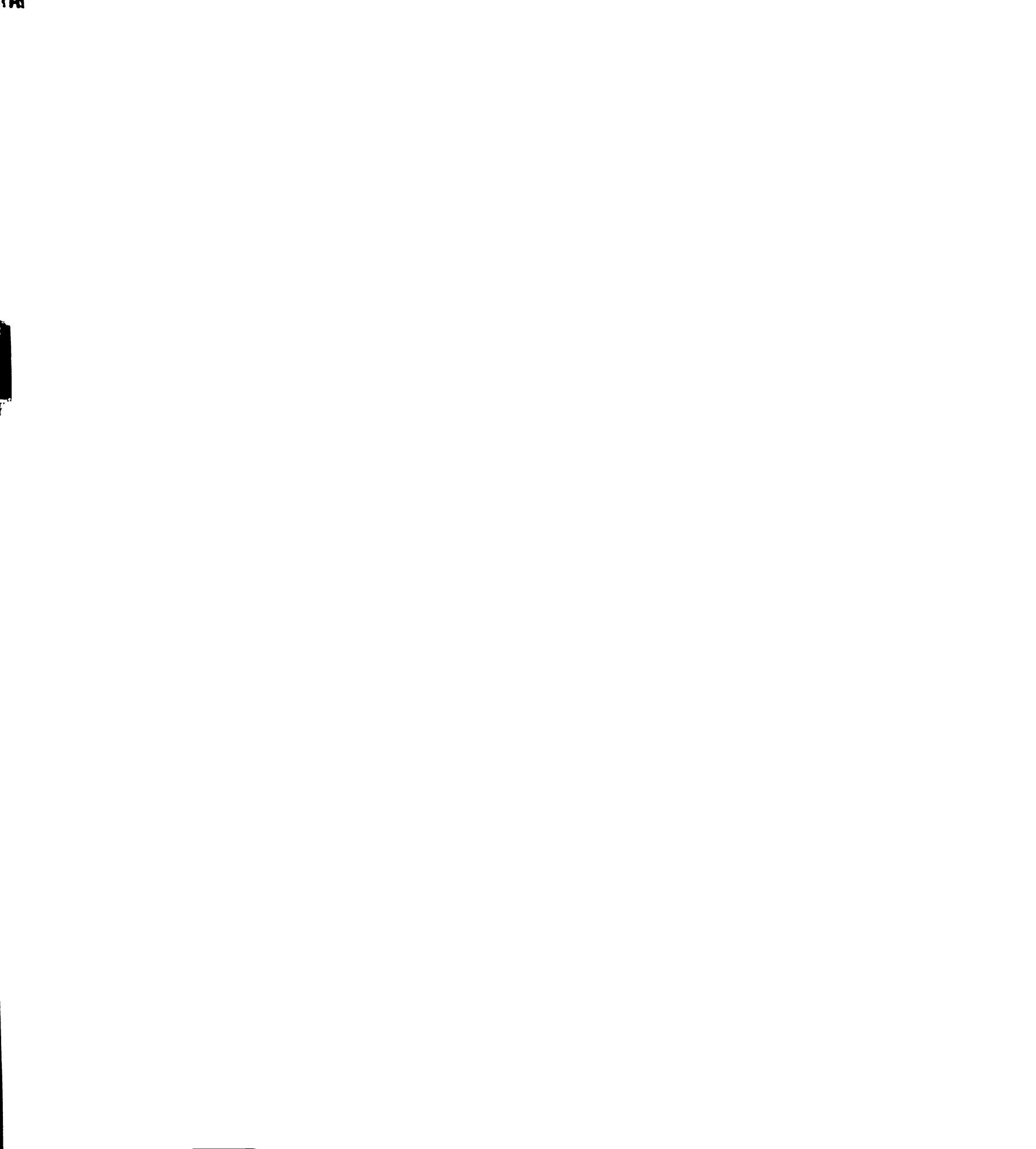---

Future

> ❖ *There is a strong sense of place amongst the region's citizens that takes pride in the region's culture and natural environment.*

External Influences Short Term:

- National effort to educate importance of sense of place.

- National examples shared on successful efforts of communities who successfully communicate and establish their own sense of place.

  {249.17-19}

- Value of local culture and natural environment leads to more people seeking quality of life and communities making efforts to improve the built environment and natural environment.

  {249.17-19}

External Influences Medium Term:

- Grants established that help communities create a plan to establish their own sense of place.

- Plan to inventory natural, historic and human assets for protection in the long term.

External Influences Long Term:

- Federal legislation that better protects historic and natural assets in communities and programs that fund the preservation and/or restoration of these assets.

- National effort to establish our country (and a statewide effort to establish Michigan) as an eco-tourism destination throughout the world.

Internal Influences Short Term:

- Local effort to inventory our assets.

- Local effort to create a shared vision that values long term planning for the protection of our historical and natural assets.

  {247.11-15}

Internal Influences Medium Term:

- Local efforts to create a shared vision of our area as a desirable place to live, recognizing our quality of life.

  {247.11-19}

- Additional grade and middle school curriculum that focuses on the economic value of protecting our natural/historic resources and natural/historic resource entrepreneurialism.

  {247.19-248.2; 248.6-9; 250.15-19; 252.2-5}

Internal Influences Long Term:

- The successful protection of our community centers and promotion of their social and economic value.

- Successful protection of our communities' natural and historic resources through a sustainable economic development program.

  {247.10-11}

Future

> ❖ *The population of the region will maintain steady growth*

External Influences Short-Term

- Condition of state and national economy

External Influences Medium-Term

- Condition of state and national economy

External Influences Long-Term

- Condition of state and national economy

Internal Influences Short-Term

- Condition of regional economy relative to state and national economy

Internal Influences Medium-Term

- Condition of regional economy relative to state and national economy

- Ability of Northeast Michigan to sustain existing as well as develop new financial

  incentives to attract and retain businesses, as well as residents

Internal Influences Long-Term

- Condition of regional economy relative to state and national economy

- Ability of Northeast Michigan "to develop" new industries, better environmental

  management, and opportunities for residents -- basically, to follow through on

  the recommendations of this survey!

  {251.20-252.16}

Future

> ❖ *There are strong school-community relationships that successfully get*
>
> *youth involved and interested in the region's future.*

External Influences Short Term

- Lack of adequate school funding.

165

- Graduation requirements that may not allow for learning beyond "seat time."

  {248.2-5}

- Expectation that youth are involved in some sort of community service before

  graduation from high school.

  {247.19-21}

External Influences Medium Term

- Michigan's economy continues to struggle or further declines.

External Influences Long Term

- *Intentionally blank*

Internal Influences Short Term

- School closings and/or consolidation taking youth out of their communities (such

  as having only one high school in Alpena County).

- Loss of jobs thus families moving from the area.

- Inability of school administrators, teachers, students, parents and community

  members to see the possibilities for education beyond the classroom and "seat

  time."

  {247.19-21}

- Young people do not see a future for themselves in their current community.

  {247.19-21}

- Adults don't know how to authentically engage young people as valued partners

  in communities.

- Adults do not want to engage young people in meaningful decision-making roles in communities – such as serving as a voting member on a school, township or county board.

Internal Influences Medium Term

- The culture of schools becomes totally focused inward with focus on just providing graduation requirements and not having financial support to engage students beyond the classroom.

  {247.19-21}

- The philosophy of "it takes a village" does not permeate communities.

  {248.9-14}

- The attitude of adults who say "I already raised my children and now am retired on a fixed income" is the norm, thus the sentiment of "it's not my problem" how education for young people gets paid for continues.

- Young adults who grew up in the area and now have children think "I'm doing o.k." and "my kids don't need more education" as well as one comment I've actually heard "My wife is making $8.50 per hour, so we have it made!"

  {247.8-11}

Internal Influences Long Term

- Generational poverty continues.

- There are fewer nonprofits and fewer small businesses thus fewer community partners.

Future

❖ *Community College empowerment*

External Influences Short Term

- *Intentionally blank*

External Influences Medium Term

- *Intentionally blank*

External Influences Long Term

- *Intentionally blank*

Internal Influences Short Term

- Make sure the demographics will support the additional facilities & staffing

- Be sure to make a concerted effort to cover more than just college credit courses.

  We have a tendency to force college upon every high school graduate. Post

  secondary education is important but can definitely take the form of technical or
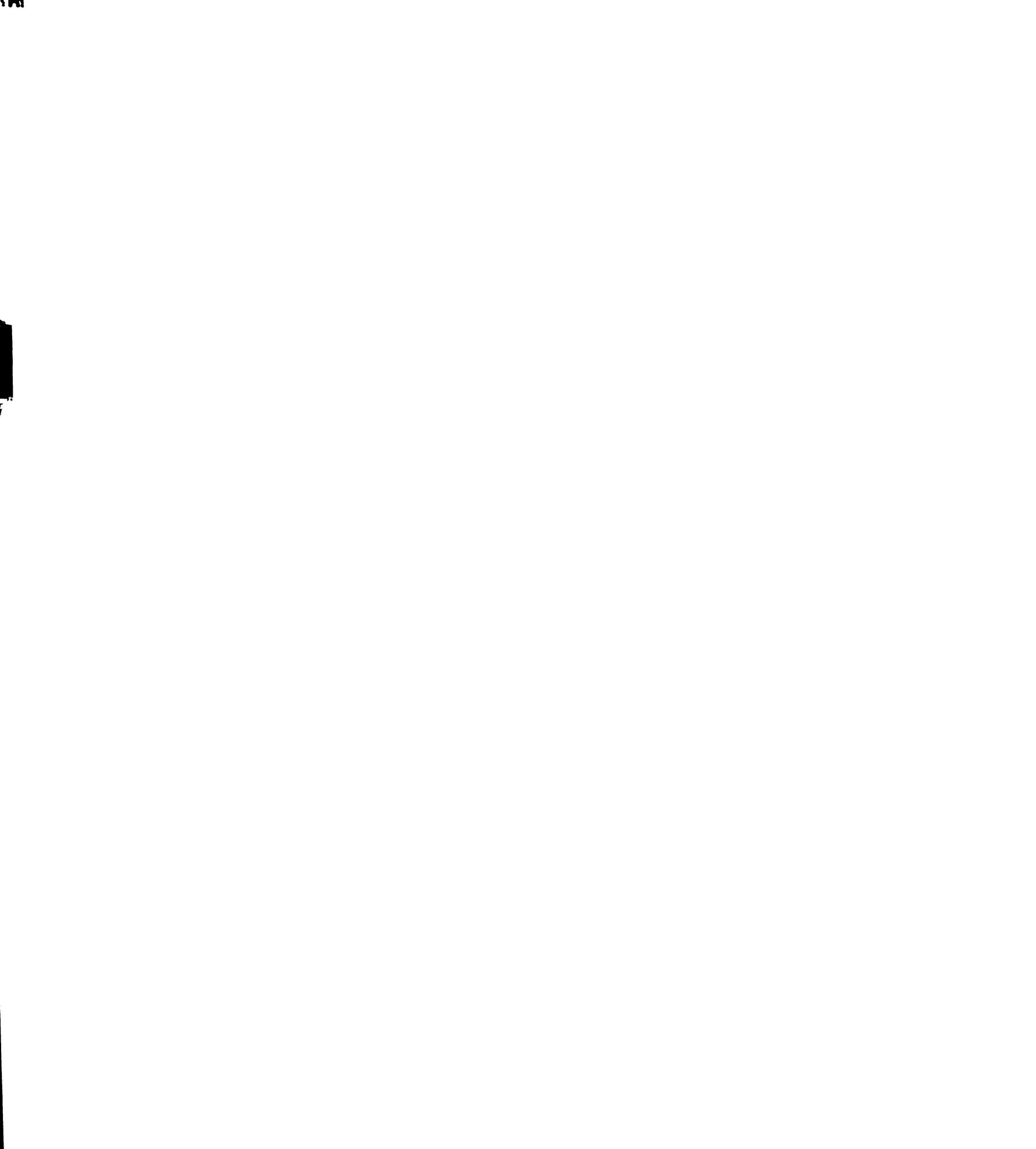
  trade related classes.

  {248.2-9; 1.20; 250.7-11}

Internal Influences Medium Term

- Be sure we continue to encourage students at very early ages to understand how

  education is their key to a successful future.

Internal Influences Long Term

- *Intentionally blank*

Future

❖ *The region will have a much higher educated population*

External Influences Short Term:

- Influx of educated people looking for a great place to live and to start businesses.

External Influences Medium Term:

- People born in the Northeast Region wanting to come back to live and raise their families after obtaining an education or skill elsewhere.

External Influences Long Term

- Large Universities will expand their classes and education opportunities into the Northeast Region.

  {250.20-21; 251.6-7}

Internal Influences Short Term

- Local students have higher education opportunities here in the Northeast. Such as a greater variety of educational opportunities including vocational training and entrepreneurial and business development education.

  {248.4-7; 2.2; 248.15-21}

- There is regional micro-credit loan lending available that targets local start-up businesses.

Internal Influences Medium Term

- The local colleges start offering four year degrees.

Internal Influences Long Term

- A cultural mindset that embraces change and risk.

  {248.5; 252.2-11}

- More creative thinking.

  {247.16-19; 249.5-6}

Future:

- ❖ *The region has embraced entrepreneurial mindsets.*

External Influences Short Term:

- The economy is keeping funding from all sources limited for start-ups.

External Influences Medium Term:

- NE Michigan will have to attract the entrepreneurial individuals with several

  factors from cost of living to quality of life, good infrastructure, etc. If Alpena

  falls behind in these areas, or cannot compete, the entrepreneurs and their

  ideas are likely to go elsewhere

External Influences Long Term:

- Same as Mid-term External – this will be a constant battle

Internal Influences Short Term:

- The community will have to overcome the lack of funding opportunities for

  start-ups. There is very limited capital available in NE Michigan and not a

  strong angel investor network.

Internal Influences Medium Term:

- Start-up funds will continue to be an issue. Current businesses will also recognize start-ups and anyone who helps them as competitors (anti) of "supporting local businesses"

Internal Influences Long Term:

- The growth in entrepreneurial mindsets will lead to increased population, traffic, etc. and the "good old boys" don't like that and will constantly push to maintain (not change) the status quo, which also stifles the entrepreneurial spirit

---

Future

- ❖ *A Smartzone technology cluster exists within the region, drawing human talent and outside investment, creating a center of innovation, R & D, and start-up incubation.*

External Influences Short Term

- Availability/awarding of grant funding through federal, state, local, private sources for development of a breeder building, rehab of current industrial incubator.

External Influences Medium Term

- State policies that impact the Smartzone program, continuation of the Smartzone program.

External Influences Long Term

- Availability of local, private funding to maintain facilities, continue the advancement of the Smartzone.

Short term Internal Influences

- Leadership at the local level

Medium term Internal Influences

- Retention of entrepreneurs in the Region that come through the Smartzone.

Internal Influences Long Term

- Capacity of the City and LSSU to successfully implement the proposed Prototype Development Center integration with the Breeder Facility to cultivate entrepreneurs.

Future:

❖ *Fifty percent of the region's population has a Bachelor degree or higher.*

External Influences Short Term:

Respected luminaries come to the region to challenge and inspire youth to pursue education in order to break poverty cycles. They also pledge to hold the region itself accountable for progress and pledge initial investment.

External Influences Medium Term:

- As many as 10 major US universities offer partnerships through web offerings of

  courses sufficient to complete Associate's degrees and Bachelor degrees.

- Those who came to inspire and challenge return to evaluate and continue to

  challenge and inspire.

External Influences Long Term:

- A "Promise" scholarship is available to all students in NE Michigan who graduate

  from high school.

Internal Influences Short Term:

- A culture of achievement and advancement is conveyed to youth by parents,

  teachers, mentors, businesses people, coaches, government officials and others

  from the time that youths are just babies and consistently through age 20.

- A culture of service is conveyed likewise with every young person investing

  themselves in community service at each stage of their education and indeed

  their life.

Internal Influences Medium Term:

- Every high school in the region serves as an educational outpost and as the local

  site for classes offered via web from 10 major US universities. High school

  teachers are adjunct faculty with those universities helping students continue in

  pursuit of educational attainment.

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- Businesses invest in the educational achievement of regional students by committing to and contributing to an endowment.

Internal Influences Long Term:

- College graduates from the region invest back in the region and invest in the endowment for the "Promise" scholarships.

HUMAN CAPITAL ASSETS NARRATIVE RESPONSES

Future

❖ ***Ninety percent of the population between the ages of 25-70 has a marketable post-secondary credential.***

Discussion:

Unless this criterion is met, there is little likelihood that the region will be able to support any kind of sustainable economic scenario. First of all, let me tell you that I do not subscribe to the school of thought that is currently in vogue that we can enjoy a prosperous lifestyle based upon service jobs and "knowledge" jobs. I'm not saying those sectors aren't necessary, I am saying that unless there is a robust wealth generating sector (i.e.: manufacturing, agriculture, resource development, etc.) the economy will continue to struggle. That being said, even the industries listed above require that their employees have "marketable post-secondary credentials." From a Human Capital perspective, in my mind, this is the most critical factor among all the ones listed.

Future

✿ ***Community College empowerment.***

Discussion:

There are a number of items offered that have good potential for success. I will take the

ones on community colleges as a group. These hold the most promise for medium and

long term success. In order to utilize the resources we have in the region their

programs will offer the best opportunities. Over the next 5 to 20 years more reliance

will be placed on agriculture and forestry resource utilization. The education received

will be very good. Small class sizes coupled with lower costs will always be major draws

to these institutions. In addition, more partnerships with four year schools will increase

the opportunity to get a four year degree. Some of the degrees will be offered through

two year school. There will not ever be a four-year Institution in the north-east

region. There are plenty of such schools covering the state already. With increasing co-

operation between the two types of schools none will be necessary.

Future

✿ ***The school districts have been consolidated.***

Discussion:

Whether that will be complete consolidation, merging of some programs or sharing of

staff, it will have to occur. Tax issues, cost increases and national and international

economics will force mergers of some kind. It will probably begin sooner rather than later.

Future

> ❖ *Term-limits for government office are eliminated, enabling the*
>
> *development of a class of professional politicians.*

Discussion:

Unfortunately this will be a very long term process but eventually the electorate will realize the mistake made.

Future

> ❖ *Creative people and artists, not just stereotypical entrepreneurs, have*
>
> *empowering institutional support structures that aid in their endeavors*

Discussion:

Within five years, as programs like "Antique Road show" demonstrate that creative works have high value, and getting into the pottery, arts, folk-arts and other markets is worthwhile. Internally, creative people start to form workshops and teaching centers to promote their arts.

Within ten years, the creative arts interest expands, and in the area, the workshops become art colonies and become a reason for people to visit the area. Within ten years, colleges get in the act, finding that arts programs are highly attractive to students and enhance their reputation. The arts become a regional attraction.

Second Round Infrastructure Responses

Future

- ❖ ***The region has ubiquitous broadband access.***

External Influences Short Term:

- There would be additional fiber backbone installed.

- Wireless internet connections and cellular phone tower collocation plans are encouraged and incentivized.

External Influences Medium Term:

- Government entities such as the DNRE would reduce by over 90% the fees charged for utility easements along their recreational trails and other land holdings for broadband and other needed utilities which are for the public good.

- Fiber backbone installations are planned with junctions so that connections can be made along its route and shared with the local communities.

External Influences Long Term:

- Successful implementation of broadband access, via wires or wireless, to rural areas with 99% coverage.

- Local airways and frequencies and fiber backbones are not owned by large monopolies but are shared and often owned by local entrepreneurs with a high degree of reliability.
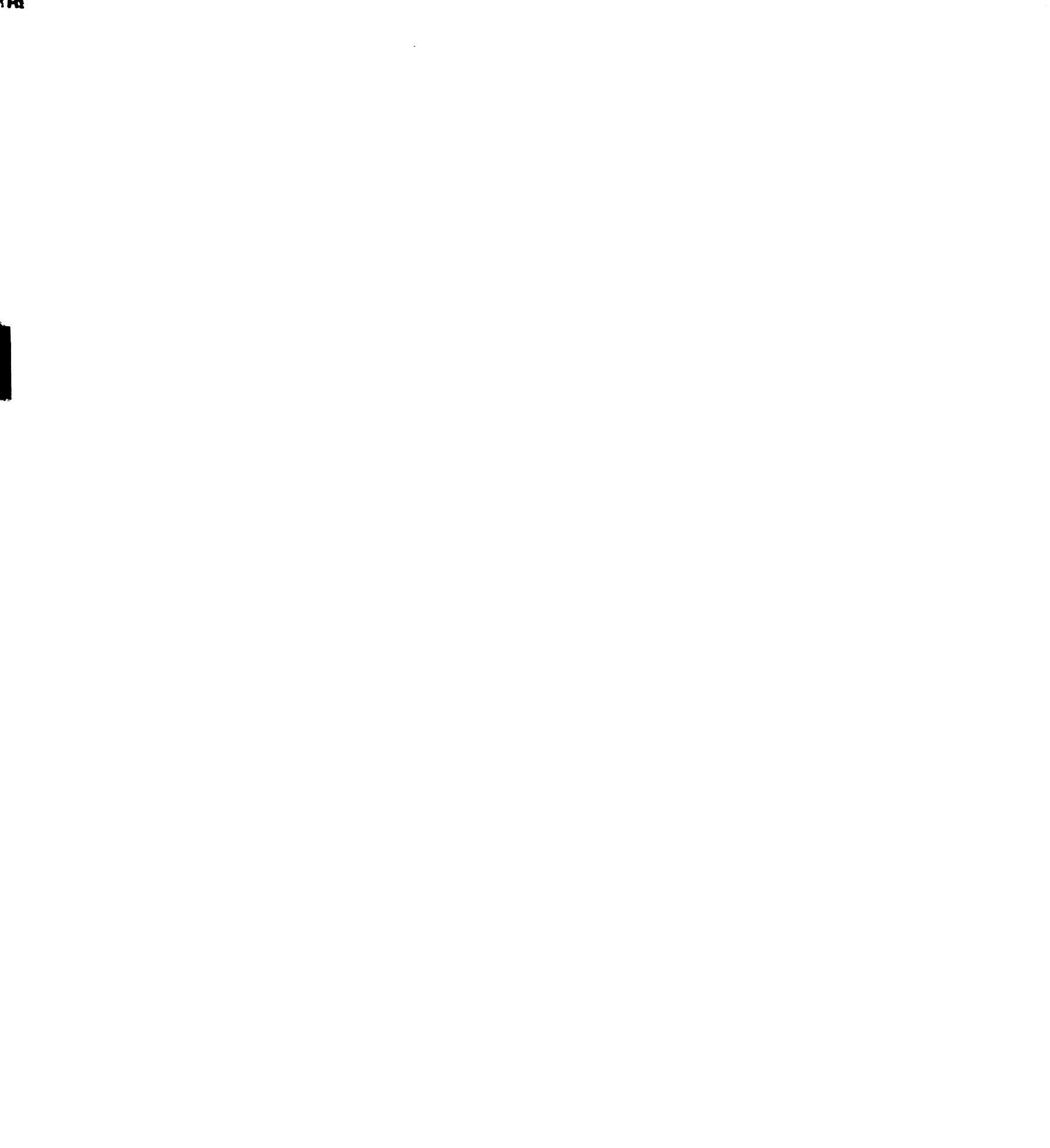
Internal Influences Short Term:

- Local government entities appropriately regulate wireless and wired broadband installations.

- Local broadband asset maps are created with cooperation from current fiber owners.

Internal Influences Medium Term:

- Local government entities include broadband access as a community service with installation of Wi-Fi around government buildings and properties.

  {257.15-15}

- Create incentives and support for local entrepreneurs who provide reliable broadband access.

Internal Influences Long Term:

- Retention of our youth, reduce brain-drain, as the broadband provides access to higher education in rural areas.

  {257.7-11; 261.3-7}

- Expansion of home-based, higher income, global consulting opportunities in rural areas allowing more people to take advantage of the quality of life AND stay connected to the global economy.

  {255.15-19}

Future

❖ *The region has ubiquitous broadband access*

External Influences Short Term

- Continuation / meaningful appropriation of federal stimulus money

External Influences Medium Term

- Implementation of USDA's Rural Broadband program, as well as it's

  continued funding

- Continued interest from companies like Google to offer innovative high-

  speed internet products to different areas of the country

External Influences Long Term

- Impact of wider state, national, and international economy on ability to

  secure financing for development of broadband products

- Potential development of a government-subsidized "Rural Broadband-

  ification Association" that circumvents broadband ownership / access

  problems that currently limits rural access to high speed internet

Internal Influences Short Term

- Continuation / meaningful appropriation of federal stimulus money

- Willingness of Northeast Michigan officials and institutions to learn about

  broadband access, the benefits associated with it, and how it can

  contribute to economic growth and quality of life

  {256.2-5; 257.3-11}

Internal Influences Medium-Term

- Ability of region to secure federal funding of broadband projects / ability

  of region to secure financing for private broadband projects

Internal Influences Long-Term

- Ability of Northeast Michigan to capitalize on the installation of

  broadband projects and prove their worth, hence encouraging greater

  and cheaper access to broadband resources

Future

❖ *The region has ubiquitous access to wireless internet.*

External Influences Short Term

- Those who could supply this are not interested due to lack of population

  density.

  {257.17-19}

External Influence Medium Term

- *Intentionally blank*

External Influences Long Term

- *Intentionally blank*

Internal Influences Short Term

- Costs too much.

- Who will pay for it?

- Why is it needed here?

  {256.7-8; 257.5-11}

- I moved here to get away from the hustle and bustle of city life.

  {256.7-11}

- It's not secure.

Internal Influences Medium Term

- Young adults who have not left the area lack knowledge to use it.

Internal Influences Long Term

- With a growing population of elderly who likely will not use it, the dollars to keep the system up-to-date will not be there.

Future:

❖ *The region has ubiquitous broadband access*

External Influences Short Term:

- The state recognizes that broadband is an essential utility and that investment in broadband is necessary to change the long-term trends in NE Michigan.

- The federal government decides to partner with MI to fund a rural broadband pilot project in NE Michigan and study the impact that widespread broadband access has on educational attainment, job creation, population influx and tax dollar creation.

External Influences Medium Term:

- Tele-communication companies compete to expand broadband access and offer affordable access based on federal and state grant dollars.

External Influences Long Term:

- The results of the impact of universal internet access in NE Michigan will be

  evaluated and used a model across the world.

Internal Influences Short Term:

- Every local government, school boards and agencies join together to request

  state and federal governments and businesses bring universal broadband access

  to NE Michigan.

  {256.13-14; 257.13-15; 258.2-4}

Internal Influences Medium Term:

- Regional county governments will require that all road reconstruction projects

  involve laying fiber optic cable for broadband internet as a part of the project.

  {257.15-17}

- Universal broadband in NE Michigan will become a major selling point for

  business development, educational expansion and even real estate sales.

  {257.5-11}

Internal Influences Long Term:

- Universal internet access will link schools, businesses, government services

  throughout NE Region allowing consolidation of some services and expansion of

  opportunities throughout all the region.

Future:

❖ *The region has ubiquitous broadband access.*

External Influences Short Term:

- Grant opportunities are rare, and the larger areas are being awarded the

  grant opportunities because their grant monies will impact more people than

  broadband in such a rural area

External Influences Mid Term:

- More grant opportunities will be necessary to secure funding for additional

  fiber and to improve fiber we currently have.

External Influences Long Term:

- NE Michigan will always struggle to keep up with the technological

  improvements. Once broadband is in and everyone in NE MICH has access to

  it, NE MICH will be behind the ball again because there will be something

  new out there we will have to start the cycle all over again

  {256.9-11}

Internal Influences Short Term:

- Cost. We don't have the fiber and fiber is expensive. We don't even have

  everyone on dial-up or cable internet. This is a problem itself.

  {257.21-258.4; 261.3-7}

Internal Influences Mid Term:

- More competition for internet service providers. Continued expansion and

  improvement of broadband – but who will pay for it will always be an issue.

Internal Influences Long Term:

- Maintenance of the broadband, with less users in a larger geographical area, it is expensive and makes maintenance more difficult

{256.21-22}

Future

- ❖ *There are numerous innovative and experimental energy generation demonstration projects concurrently taking place in the region's population clusters*

External Influences Short Term

- Continuation / meaningful appropriation of federal stimulus money

- Continued national push / debate and international action on issues related to climate change and the implementation of alternative electricity sources

External Influences Medium Term

- Continued national push / debate and international action on issues related to climate change and the implementation of alternative electricity sources

- Continued interest on the part of state, national, and international energy companies to develop new sources of energy

- Success of research outside the region on the production of new types of energy

- Willingness of state / national sources to fund new projects

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External Influences Long Term

- Reform of Michigan's antiquated energy regulation structure to allow

  demonstration projects NOT owned by the state's largest utility

  companies to flourish and actually demonstrate viability

Internal Influences Short Term

- Continuation / meaningful appropriation of federal stimulus money

Internal Influences Medium Term

- Willingness of people in Northeast Michigan to have a debate about

  climate change, energy usage, and the region's role in both

- Willingness of people in Northeast Michigan to sustain higher energy

  prices, even if only for a short time, as new projects come online

- Willingness of Northeast Michigan to work with energy project

  developers and offer them incentives for construction and operation

  {261.12-15; 262.1-2}

Internal Influences Long Term

- Willingness of people in Northeast Michigan to understand the projects

  they are taking part in and modify personal / family behavior in response

  to new energy resources

Future

❖ *Airfields*

External Influences Short Term

- *Intentionally blank*

External Influences Medium Term

- *Intentionally blank*

External Influences Long Term

- *Intentionally blank*

Internal Influences Short Term

- With several airports being worked on we need to get the vision of how they can affect the various local communities in a positive manner. Many citizens have been critical of the expansions and paving efforts and especially the projected monies being spent.

Internal Influences Medium Term

- Broadcast the new airfields and market to USPS, UPS, FEDEX etc. that these local fields can now accommodate larger planes and help with the cost justifications required to place a local truck and driver to accept the drops.

Internal Influences Long Term

- *Intentionally blank*

Future

> ❖ ***Trails that facilitate multi day trips with convenient access to food, fuel***
>
> ***and lodging.***

External Influences Short Term

- *Intentionally blank*

External Influences Medium Term

- *Intentionally blank*

External Influences Long Term

- *Intentionally blank*

Internal Influences Short Term

- Develop a regional trail system plan that works toward the use of both USFS,

  MDNR intersecting trails with the legal use of county roads to mesh a system

  that would allow for families and event planners to experience either: weekend,

  long weekend or week long exploration of our natural resources.

  {259.1-5}

Internal Influences Medium Term

- Market the regional trail system nationwide so as to draw current users of the

  Hatfield-McCoy or Piute systems to our area for a change of scenery.

- Sponsor at least 2 regional events to capitalize on our spring/summer beauty and

  our fall colors.

Internal Influences Long Term

- *Intentionally blank*

Future

- ❖ *The region will be able to finance any infrastructure needs it may have.*

  Highways, rail, ports, broadband/telecommunications, water & sewer, gas,

  electricity

External Influences Short Term:

- Have Broadband/telecommunications available for everyone at affordable prices.

- Become more energy independent with the development of bio-fuels.

  {261.13-15; 261.16-262.2}

External Influences Medium Term:

- Have regional planning for major infrastructure such as highways and airports.

  {256.13-14}

- Have regional land use decisions.

  {256.13-14}

External Influences Long Term:

- Build for regional cooperation on all infrastructure projects

  {256.13-14}

Internal Influences Short Term

- Prioritize needs and financing to complete the most needed projects.

  {256.19-20}

Internal Influences Medium Term

- Have the vision and planning to determine which direction the infrastructure

  should take in the distant future

  {256.17-20}

Internal Influences Long Term

- Promote needed infrastructure for growth, but maintain the rural character of

  the Northeast Region

Future

- ❖ *Fiber-optic cable is planned and laid in conjunction with every road project.*

External Influences Short term

- Providers must be available to offer service in the area

External Influences Medium Term

- Federal policies to subsidize cost (WIRED, Rural Broadband Initiatives)

External Influences Long Term

- Sustainability of maintaining the system.

Internal Influences Short Term

- Identification of projects either planned or underway in which this could be

  implemented.

Internal Influences Medium Term

- Coordination of organizations (road, broadband, etc)

{256.13-14}

Internal Influences Long Term

- Local planning that accepts this concept as best practice and requires it to be

  adhered to.

{256.15-20}

Future

- ❖ *Off-road trails will be expanded and modernized.*

External Influences Short Term

- Availability of state/federal/local/private funding to initiate projects.

External Influences Medium Term

- Statewide marketing of trail systems

External Influences Long Term

- Sustainability of maintaining the system

Internal Influences Short Term

- Identifying funding for existing trail system improvements.

Internal Influences Medium Term

- Implementation of the North Huron Scenic Pathway plan

Internal Influences Long Term

- Working with road agencies to coordinate trail development or improvements

  along segments of road scheduled for construction (Non-Motorized Investment

  Plan, 2009).

Future

- ❖ *Bus lines will shuttle people north to the region and south out of it.*

External Influences Short Term

- Cultural shift in the United States away from personal automobiles to public

  transportation.

- Legislation that provides funding for the establishment of bus lines into, out of,

  and within NE Michigan.

  {260.5-7}

External Influences Medium Term

- Widespread acceptance in the U.S. of the economic and ecological value of using

  buses for transportation.

External Influences Long Term

- Continued rising prices of gasoline

- Effects of climate change

Internal Influences Short Term

- Local citizens recognizing the economic and ecological value in decreasing their

  use of personal automobiles and increasing their use of public transportation.

Internal Influences Medium Term

- Developing bus routes and schedules to maximize efficiency.

{260.5-7}

Internal Influences Long Term

- Long-term commitment to implementing a basic and reliable public transportation network in the region.

INFRASTRUCTURE NARRATIVE RESPONSES

Future:

> ❖ *A limited access highway runs parallel to I-75.*

Discussion:

This issue has been discussed for at least the last thirty years. In my opinion, lack of a limited access highway is one of the biggest detriments to economic development in Northeast Michigan. When one looks at the level of development in those communities that lie along I-75 compared to those that are even 20 miles removed from it, the difference is striking.

In addition, since the availability of rail service has essentially disappeared from the region, limited access highways are even more critical as infrastructure components. Whether the highway parallels I-75 or uses the old railroad right-of-way, it would provide for significant improvement in the base economic infrastructure in the region.

Future

❖ *Counties, cities, villages, and townships plan and develop infrastructure projects in coordination with each other.*

Discussion:

It is a great idea to coordinate infrastructure and planning. That of course is called regional cooperation. In order to receive state and federal grants that cooperation will be a requirement.

{256.16}

That requirement will be coming soon, and will become overriding to any parochial needs.

But, in order to be successful, townships must be eliminated. That is a long term project but would go a long way towards eliminating narrow minded thinking. Township government is a tax drain with little to show for those taxes. I'm writing of rural as opposed to urban townships. One somewhat acceptable alternative would be to establish a minimum population and merge townships to meet that minimum.

Future

❖ *Off-road trails expand and modernize.*

Discussion:

Within five years, off-roading becomes more popular, and in NE Michigan, the trails system starts to be an attraction. Local people want it to be planned to eliminate conflicts, so a larger, more comprehensive plan evolves.

{259.1-5}

Within ten years, local trails are connected and branded, and start to get national recognition in off-roading media. Local planning connects trails to campgrounds, motels, new hostels and other creative hospitality services.

{259.19-260.2}

Within 20 years, Northeast Michigan becomes an off-road destination, and has the infrastructure and new businesses to support it.

Second Round Natural Resource Utilization Responses

Future

❖ *Northeast Michigan has a thriving eco-tourism industry revolving around the preservation and conservation of natural resources.*

External Influences Short Term

- National effort to educate importance of sense of place.

- National examples shared on successful efforts of communities who successfully communicate and establish their own sense of place.

- Value of local culture and natural environment leads to more people seeking quality of life and communities making efforts to improve the built environment and natural environment.

  {249.10-17;239.18-19}

External Influences Medium Term

- Grants established that help communities create a plan to establish their own sense of place.

- Plan to inventory natural, historic and human assets for protection in the long term.

  {240.9}

External Influences Long Term

- Federal legislation that better protects historic and natural assets in communities and programs that fund the preservation and/or restoration of these assets.

- National effort to establish our country (and a statewide effort to establish Michigan) as an eco-tourism destination throughout the world.

Internal Influences Short Term

- Local effort to inventory our assets.

  {240.9}

- Local effort to create a shared vision that values long term planning for the

  protection of our historical and natural assets.

  {240.1-6}

Internal Influences Medium Term

- Local efforts to create a shared vision of our area as a desirable place to live,

  recognizing our quality of life.

  {240.1-6}

- Additional grade and middle school curriculum that focuses on the economic

  value of protecting our natural/historic resources and natural/historic resource

  entrepreneurialism.

  {239.19-240.15}

Internal Influences Long Term

- The successful protection of our community centers and promotion of their

  social and economic value.

- Successful protection of our communities' natural and historic resources through

  a sustainable economic development program.

  {240.5-6}

Future

> ❖ *Agricultural by-products are innovatively reused for energy*
>
> *production.*

External Influences Short Term

- Continuation / meaningful appropriation of federal stimulus money

- Continued national push / debate and international action on issues

  related to climate change and the implementation of alternative

  electricity sources

  {238.9-11}

External Influences Medium Term

- Continued national push / debate and international action on issues

  related to climate change and the implementation of alternative

  electricity sources

- Continued interest on the part of state, national, and international

  energy companies to develop new sources of energy

  {238.20-239.1}

- Success of research outside the region on the production of new types of

  energy

- Willingness of state / national sources to fund new projects

External Influences Long Term

- Reform of Michigan's antiquated energy regulation structure to permit

  the implementation of new energy sources into existing infrastructure

  and thus demonstrate viability

Internal Influences Short Term

- Continuation / meaningful appropriation of federal stimulus money

Internal Influences Medium Term

- Willingness of people in Northeast Michigan to have a debate about

  climate change, energy usage, and the region's role in both

  {239.6-17}

- Willingness of people in Northeast Michigan to sustain higher energy

  prices, even if only for a short time, as new projects come online

  {239.12-15}

- Willingness of Northeast Michigan to work with energy project

  developers and offer them incentives for construction and operation

Internal Influences Long Term

- Willingness of people in Northeast Michigan to understand the projects

  they are taking part in and modify personal / family behavior in response

  to new energy resources

  {239.10-12}

Future

> ❖ *The region's communities have conceptually connected their*
>
> *local surroundings to the global climate crisis and wider green*
>
> *movement.*

External Influences Short Term

- Impact of larger national debate on environmental issues

External Influences Medium Term

- Outcomes of other countries / states / cities implementing sustainability

  programs .

External Influences Long Term

- Continued development of climate change science and the ability of

  leaders at all levels to explain the importance of protecting the natural

  environment

- Outcomes of other countries / states / cities implementing sustainability

  programs

Internal Influences Short Term

- Ability of region to see beyond traditional, monetary definitions of

  "resources", "livelihood", and "economy"

  {239.14-18}

- Desire of region to debate and understand environmental issues, not

  simply dismiss them as part of a broader "liberal" agenda

Internal Influences Medium Term

- Ability of region to see beyond traditional, monetary definitions of "resources", "livelihood", and "economy"

- Desire of region to debate and understand environmental issues, not simply dismiss them as part of a broader "liberal" agenda

Internal Influences Long Term

- Ability of region to see beyond traditional, monetary definitions of "resources", "livelihood", and "economy"

- Desire of region to debate and understand environmental issues, not simply dismiss them as part of a broader "liberal" agenda

Future
_____

- ❖ *The region leads the entire Mid-West in putting forward solutions for clean water and conservation for the Great Lakes.*

External Influences Short Term

- Differing ideas and opinions of those areas that border the Great Lakes (states and Canada).

- Raw sewage is allowed to continue to contaminate beaches.

- Toxic mercury continues to make the fish unsafe to eat. and unchecked water withdraws threaten their continued existence.

External Influences Medium Term

- Invasive species are not able to be stopped.

- Water levels go unchecked as water continues to be withdrawn from the Great Lakes.

External Influences Long Term

- Water level declines cannot be stopped or reversed.

Internal Influences Short Term

- Residents refusing to take responsibility for their actions (my dad always dumped out his old car oil in the backyard).

  {239.10-12; 242.1-4}

Internal Influences Medium Term

- *Intentionally blank*

Internal Influences Long Term

- *Intentionally blank*

Future

- ❖ ***Agriculture and forest industry products.***

External Influences Short Term

- *Intentionally blank*

External Influences Medium Term

- *Intentionally blank*

External Influences Long Term

- *Intentionally blank*

Internal Influences Short Term

- Develop a plan to work on the sustainable, renewable growth products to become a major source of employment.

  {238.6-8}

Internal Influences Medium Term

- Work to promote and educate students to understand how working the soil or forest is not only an honorable profession but one that, handled properly, can be a profitable vocation.

  {240.14-15}

Internal Influences Long Term

- *Intentionally blank*

Future

- ❖ *Use the natural resources of the region to promote economic growth without degrading the resource and keeping the Northeast Region as natural as possible.*

External Influences Short Term

- Educate the tourists and other visitors on the natural resources that are available and how to protect them.

  {242.5-9}

External Influences Medium Term

- Continue to develop bio-fuels, we have biomass available and could grow more.

  {241.19-20}

- Continue promoting gas and oil exploration in a responsible manner.

  {241.9-10}

External Influences Long Term

- Become a leader in "green energy"

  {239.6-10}

Internal Influences Short Term

- Promote eco-tourism!! It brings people to the region to enjoy the natural

  resources and is less invasive than other motorized outdoor activities

  {242.5-7}

- Increase value added products in the timber industry.

Internal Influences Medium Term

- Make the Northeast Region an environmentally friendly place.   A safer place to

  live.

- Grow and sell agricultural products locally.

- Keep the region "clean", fresh water will be important in the future.

  {242.16-18}

Internal Influences Long Term

- Use all the natural resources to be the foundation of the local economy and make it self-sustaining.

  {240.5-6}

Future:

- ❖ *The Natural Resources in Northeast Michigan are more fully utilized for eco-tourism, R&D, and recreation.*

External Influences Short Term

- NE Michigan is not currently viewed as a research/Eco-Tourism place, immediate steps need to be taken to start to change this perception.

  {240.14-15}

External Influences Medium Term

- Continue the short term and continue to seek grants and funding. Seek opportunities; don't wait for them to come to us.

External Influences Long Term

- Continue the short term and continue to seek grants and funding. Seek opportunities; don't wait for them to come to us.

Internal Influences Short Term

- Funding is limited for start-up activities in any areas; any activity has to adapt to the seasonal changes in NE Michigan

Internal Influences Medium Term

- Environmental issues always have strong lobbyists for and against, there has

  to be some harmony found between users and lobbyists

  {240.1-6}

Internal Influences Long Term

- Development and use will have to be closely monitored to assure it is good

  development and use of the natural resources, there will be constant conflict

  between the various groups of users. The community will have to be

  educated on the positive aspects to being a R&D location and what Eco-

  Tourism is. Educate community members about how to become

  entrepreneurs and turn their interests into viable careers. People live in NE

  Michigan because of the outdoor opportunities – they need to be taught how

  to turn those into careers.

  {240.8-9; 239.8-10}

Future

- ❖ *Firms specializing in the production of biomass energy related equipment and*

  services are located in the region.

External Influences Short Term

- ❖ Federal tax credits for biomass manufacturers

External Influences Medium Term

- ❖ Construction of the Mascoma refinery.

External Influences Long Term

❖ Level of success of the Mascoma refinery will directly impact the success of

spinoff industries.

Short term Internal Influences

❖ Collaboration amongst local leaders to local funding sources for infrastructure

improvements needed for Mascoma.

Medium term Internal Influences

❖ Small business assistance for those spin-off industries needed to support

Mascoma.

{238.11-15}

Internal Influences Long Term

❖ Coordination between local officials, workforce development and economic

development to sustain the workforce needed to support the Biomass industry.

{238.11-15}

Future

❖ *Marijuana (and hemp) is de-criminalized and grown as an agricultural product.*

External Influences Short Term

• More states continue to pass legislation legalizing the use of medical marijuana.

External Influences Medium Term

• Cultural shift that recognizes the enormous financial and social costs of

combating the use of marijuana, our inability to control its use among U.S.

citizens, and the acceptance that the legalization of marijuana is not going to lead to the downfall of our society.

- States begin passing legislation legalizing/decriminalizing the production and recreational use of marijuana.

External Influences Long Term

- Rising financial costs of the war on drugs.

- Rising death tolls in U.S. and México due to drug related violence.

- Continued failure to stop the recreational use of marijuana among U.S. citizens.

Internal Influences Short Term

- Recognition of the potential economic benefits that marijuana and hemp production could bring to NE Michigan.

  {238.5}

Internal Influences Medium Term

- Identification of areas in NE Michigan suitable for the production of hemp fiber and marijuana.

  {238.20-239.1}

Internal Influences Long Term

- Gradual widespread social acceptance of marijuana in NE Michigan.

Future:

> ❖ *State and federal agencies continue to make investments and share*
>
> *management responsibilities in the region's natural resources.*

External Influences Short Term

- Michigan will invest in and promote the state parks in NE Michigan as accessible

  destinations.

  {242.5-7}

External Influences Medium Term

- A plan will be developed with much local input to allow limited and restricted

  development in state forestlands that do not significantly reduce recreational

  value or preservation of the Kirtland Warbler.

  {241.20-242.1}

- A plan will be developed with much local input to allow limited and restricted

  development in federal forestlands that do not significantly reduce recreational

  value or preservation of the Kirtland Warbler.

- Michigan Department of Natural Resources and U.S. Forestry Service will seek

  partnerships with businesses to allow use of government property and natural

  resources for business development.

  {241.20-242.1}

External Influences Long Term

- The US Department of Forestry and the Interior will initiate pilot projects in

  Northeast Michigan in developing and increasing the economic returns from

  business partnerships on government properties.

  {241.20-242.1}

Internal Influences Short Term

Partnerships with clubs, groups, schools will be developed between Michigan

government to allow for and plan for care provided by those organizations of

state resources in ways that are beneficial to the club/group and to the residents

of the state. **{242.19-243.3}**

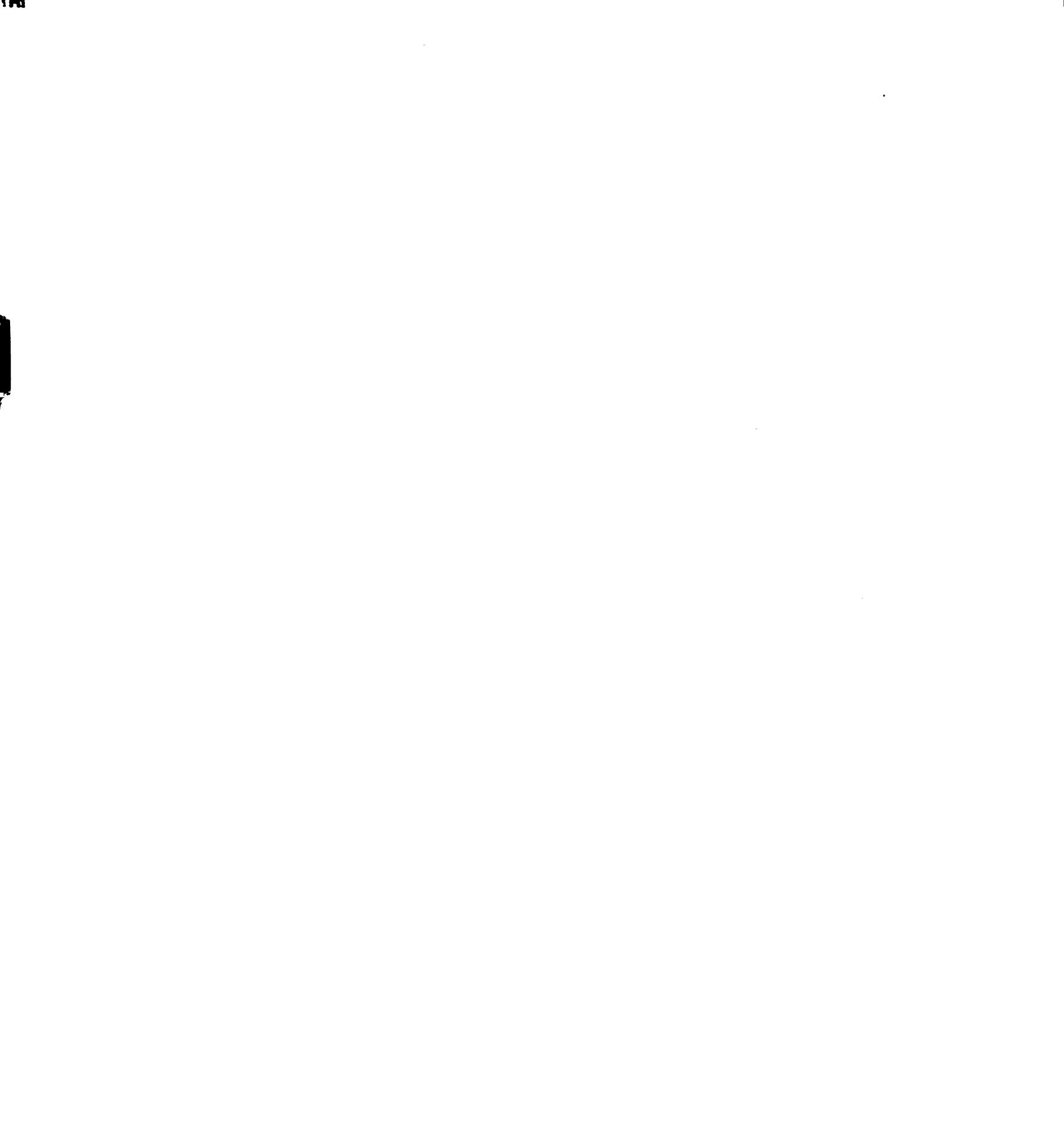**Internal Influences Medium Term**

- Planning organizations will receive help from MSU land-use institute to develop

  plans to allow limited and restricted development of state and national forest

  lands.

  {241.20-242.1}

- Recreational and tourism-related businesses will partner with government to

  enable more people to responsibly use government lands for recreation.

  {242.2-15}

Internal Influences Long Term

- Businesses will come to NE Michigan because they can grow plants (biomass, tree crops, etc.) on government property, can use lake waters, or can develop energy capturing facilities (water, wind, solar) on government property.

  {241.20-242.1}

Future

> ❖ *Maximize the outputs, commercialization and profitability of our natural resources*

External Influences Short Term

- *Intentionally blank*

External Influences Medium Term

- *Intentionally blank*

External Influences Long Term

- *Intentionally blank*

Internal Influences Short Term

- Get the vision of cooperative and collaborative efforts to be a reality. We suffer from a very parochial attitude not only by region but also by business...the fear of sharing any details about who, what where, when, why and most assuredly the HOW are in many cases taboo.

  {248.9-14}

Internal Influences Medium Term

- Being sure we market our area and brand it accordingly as those profitable

  commercialized efforts are realized.

  {247.10-11; 251.14-15}

Internal Influences Long Term

- *Intentionally blank*

NATURAL RESOURCE UTILIZATION NARRATIVE RESPONSES

Future:

- ❖ *Natural gas development and production utilizing advanced*

  technologies, including carbon capturing technology, exists to provide

  CO_2 to firms - enhancing the region's oil and natural gas recovery.

Future:

- ❖ *Fallow and underutilized agricultural lands are producing fast growing*

  biomass crops to augment other forest resources in producing electricity

  and other forms of biomass energy for the region.

Discussion:

I see both of these issues as being related through the Wolverine Clean Energy Venture.

{241.10-16}

First of all, I think it is naïve to think that we can somehow divorce ourselves from

electricity generation using fossil fuels (particularly coal) in the foreseeable future. Coal

is one of the most cost effective fuels available and its net energy yield is among the

highest of any fuel, so it only makes economic sense to utilize the resource to its fullest

potential. By pioneering CO2 sequestration and utilizing that by-product to improve the

yield of oil and gas wells creates a win-win-win situation for the State of Michigan and

the Northeast region.

{241.10-16}

Not only would we recognize the economic stimulus associated with the power plant,

we would see an economic advantage from the sequestration process itself and would

also see the economic benefit associated with higher levels of oil and gas recovery from

existing deposits.

{11.16-21}

The state would recognize increased revenue as well. All in all, it is hard to find a loser

in this scenario.

Now, if the power plant is also able to utilize up to 20% biomass in its generating

process, the picture becomes even brighter.

{241.16}

Using biomass to generate electricity can utilize the mill scraps that currently sit around

decomposing - it would allow conversion of several hundred thousand acres of

abandoned agricultural land into biomass production, which would also have a

beneficial impact upon wildlife in the area.

{238.20-21}

Again, the region would benefit on several levels, but none of this will happen unless the

Wolverine Clean Energy Venture is granted its permit to construct. From an economic

development perspective, it is nothing short of a sin that this is being held up by political

considerations.

{241.13-14}

Future

> ❖ *Marijuana is de-criminalized and grown as an agricultural product.*

Discussion:

Is marijuana a natural resource? Some may think it a stretch. I use shelled hemp seed

on my cereal and salads. Very tasty. It comes from Canada where industrial hemp is

grown.

Eventually industrial hemp will be grown as a cash crop in the region.

{238.6-21}

It will be a major cash crop for the following reasons: hemp fibers make great

cloth; hemp fibers can be used for paper making; hemp oil for lubrication (it may be

edible?); hemp can be used for alternative fuel.

{238.2-4}

Industrial hemp is much different than the buzzable kind. This is the kind of agricultural

product that can bring unused farmland back into production.

{238.16-239.4}

The uses for industrial hemp will also be a catalyst for spin off businesses in the region

that will add more employment. R & D business will also benefit.

{238.6-8}

In the mid to long term, social pressure against the growing of hemp will mostly die out. There will still be a few politicians who use the tough on crime ruse against industrial hemp but that will also become tiresome.

Future

❖ *The region's communities have conceptually connected their local surroundings to the global climate crisis and wider green movement.*

Discussion:

Within five years, the debate about global warming ends and planning begins. Northern Michigan realizes that their plant life will change, and the building trades will have to deal with insulation and energy use for both warming and cooling to a greater degree than before. Within ten years, the global climate change is seen as an opportunity as people find the north-woods of Michigan desirable.

{242.5-7}

People who vacationed here want to live here year-around. Internally, we need to plan for the influx of population, and put infrastructure in place to handle it. Within 20 years, there is a new economy in "living in the woods" as other places get less desirable. New forestry techniques, new crops, new flowers and gardens begin to make this area more like the Smoky Mountains in climate, and we change to take advantage of that. **{242.5-7}**

SECOND ROUND TOURISM RESULTS

Future

❖ *There is a strong "northern" eco-tourism industry that uniquely differentiates itself from the more widely understood "tropical" eco-tourism experience.*

External Influences Short Term

- National effort to educate importance of sense of place.

- National examples shared on successful efforts of communities who successfully communicate and establish their own sense of place.

- Value of local culture and natural environment leads to more people seeking quality of life and communities making efforts to improve the built environment and natural environment.

  {26.9.9-16}

External Influences Medium Term

- Grants established that help communities create a plan to establish their own sense of place.

- Plan to inventory natural, historic and human assets for protection in the long term.

External Influences Long Term

- Federal legislation that better protects historic and natural assets in communities and programs that fund the preservation and/or restoration of these assets.

- National effort to establish our country (and a statewide effort to establish Michigan) as an eco-tourism destination throughout the world.

Internal Influences Short Term

- Local effort to inventory our assets.

- Local effort to create a shared vision that values long term planning for the protection of our historical and natural assets.

  {270.11-12; 271.6-9}

Internal Influences Medium Term

- Local efforts to create a shared vision of our area as a desirable place to live, recognizing our quality of life.

  {269.19-270.1; 272.1-2; 272.16-18}

- Additional grade and middle school curriculum that focuses on the economic value of protecting our natural/historic resources and natural/historic resource entrepreneurialism.

Internal Influences Long Term

- The successful protection of our community centers and promotion of their

  social and economic value.

  {271.6-9}

- Successful protection of our communities' natural and historic resources through

  a sustainable economic development program.

Future

- ❖ *There is a strong "northern" eco-tourism industry that uniquely*

  differentiates itself from the more widely understood "tropical" eco-tourism

  experience.

External Influences Short Term

- Condition of state and national economy with regards to people's

  willingness to travel and take vacations

- Impact of state-led and state-funded tourism campaigns to attract

  visitors to Michigan (like "Pure Michigan")

  {265.13}

External Influences Medium Term

- Condition of state and national economy with regards to people's

  willingness to travel and take vacations

- Success of similar operations elsewhere

- Ability of people to integrate concerns with the environment into non-industrial, non-economic aspects of their lives (like vacation and travel) **{269.9-116}**

- Impact of state-led and state-funded tourism campaigns to attract visitors to Michigan (like "Pure Michigan")

External Influences Long Term

- Condition of state and national economy with regards to people's willingness to travel and take vacations

- Success of similar operations elsewhere

- Ability of people to integrate concerns with the environment into non-industrial, non-economic aspects of their lives (like vacation and travel)

Internal Influences Short Term

- Condition of state and national economy

- Ability of region to market itself as a tourism destination with unique features and attractions **{267.16-17; 271.9-11}**

Internal Influences Medium Term

- Ability of region to market itself as a tourism destination with unique features and attractions

  Ability of Northeast Michigan region to develop basic, yet innovative tourism facilities (hotels, resorts, parks, historic districts, etc.) and competent staff **{271.11-13}**

- Ability to ensure that new / renovated tourism facilities are

  environmentally friendly

  {272.3-14}

Internal Influences Long Term

- Ability of region to market itself as a tourism destination with unique

  features and attractions

- Ability of region to support tourism industry with qualified, well-trained

  employees

  {271.11-13; 272.18-273.2}

- Ability to ensure that new / renovated tourism facilities are

  environmentally friendly

Future

❖ *A tourism branding effort/sustained campaign has developed around*

  the 45th Parallel, including events and related attractions.

External Influences Short Term

- Negative images of Michigan.

- Positive images of other states and areas within Michigan.

- Weather and climate changes.

External Influences Medium Term

- Federal government.

External Influences Long Term

- *Intentionally blank*

Internal Influences Short Term

- Lack of ability to cooperate across township, village, county and community lines.

  {265.10; 266.2-5}

- Lack of vision for change.

  {267.1-13; 265.13-15; 267.16}

- Inability of current residents/leaders to brand based on visitors' perceptions about the destination and not their own perceptions.

  {269.13}

- Disagreement of how to brand the area/region – not clear on vision and mission.

- Disagreement on who the "customers" are.

  {265.10-15; 269.13}

Internal Influences Medium Term

- Lack of funds to sustain campaign.

  {267.4}

- Residents not liking "outsiders" in their communities.

  {271.9-13; 272.18-273.2}

- Lack of human capital to maintain the effort.

  {271.11-13; 273.1-2}

Internal Influences Long Term

- *Intentionally blank*

Future

> ❖ *Branding of trails and developing annual events.*

External Short Term

- *Intentionally blank*

External Medium Term

- *Intentionally blank*

External Long Term

- *Intentionally blank*

Internal Short Term

- Once the trail system as an infrastructure item has been developed work toward developing either rides or hiking/biking marathonish, triathleteish events to showcase the trails.

  {272.13; 30.15-16; 273.3-12}

Internal Long Term

- *Intentionally blank*

Internal Long Term

- *Intentionally blank*

_____

Future

❖ *Tourism is a major component of the Northeast Region economy.*

External Influences Short Term:

- The lower fuel prices will promote travel into the Northeast Region

External Influences Medium Term:

- Real estate values will level off and stabilize creating a market for cabins and

  recreation land.

- Coordinate tourism efforts into a region with cooperation between communities.

  {266.2-8; 265.13-15}

External Influences Long Term:

- Regionalized events: canoe races, musical festivals, art shows, bike rides, etc.

  {272.13-16; 273.11}

Internal Influences Short Term:

- Promote eco-tourism!!

  {265.10-11}

- Promote tourism "Packages" promoting the region

  {270.14-271.4; 271.14-16}

Internal Influences Medium Term:

- Promote tourism events year round. Promote the other seasons more.

  {272.13; 273.3-4}

Internal Influences Long Term:

- Promote the region as a great place to live and work, not just to visit.

_____

Future:

- ❖ ***A regionally specific tourism marketing campaign differentiates Northeast***

   MI from the state as a whole, both within MI and throughout the Mid-West.

External Influences Short Term

- Pass legislation to more fully fund the Pure Michigan Campaign.

   {265.13-15}

External Influences Medium Term

- Maintain\increase State level funding – but don't maintain status quo of

   Pure Michigan Campaign, keep improving it and being innovative in efforts

   {265.13-15}

External Influences Long Term

- Use the State program to promote MI as a whole but help individuals areas

   create tourism marketing plans of their own that are part of the state plan

   but can also be used on their own for more effectiveness. (expand Pure

   Michigan)

   {265.13-15; 267.10-13}

Internal Influences Short Term

- Need to evaluate who we have running our tourism bureau and evaluate

   their effectiveness (individual and board); need to have a "tourism in our

   own town" campaign

Internal Influences Medium Term

- Expand focus outside of our Maritime Heritage center – that is just one small part of tourism potential

Internal Influences Long Term

- Maintain funding at a state level and local level for adequate funding for tourism promotion. Expand entrepreneur mindset, funding sources, start-up assistance so tourism activities can help differentiate NE Michigan and mold what we are to become.

  {272.3-6; 265.13-15; 266.14-19; 267.10-13; 267.16-19}

Future

- ❖ *Large cruise ships will port in the region.*

External Influences Short Term

- ❖ Repair of current port facilities

External Influences Medium Term

- ❖ Coordination with Customs and Border Patrol at port facilities (currently no coordination)

External Influences Long Term

- ❖ Cruise lines will feature region as a destination for day trips.

  {271.14-21}

Internal Influences Short Term

- ❖ Repair of current port facilities

Internal Influences Medium Term

❖ Coordination with Great Lakes cruise lines to inform them of the opportunities to

dock.

{271.14-21}

Internal Influences Long Term

- Collaboration amongst the Chambers, CVB's, economic development

organizations and cruise lines to feature region as destination on cruises.

Future

❖ *The Mackinac Bridge is renovated to include walking and biking lanes.*

External Influences Short Term

- Beginnings of a serious national discourse on the necessity of exercise in a

healthy lifestyle.

{272.16-18}

- Recognizing the economic and health benefits of walking or biking as opposed to

driving.

External Influences Medium Term

- Legislation that designates funding for projects aimed at creating or enhancing

outdoor recreation areas.

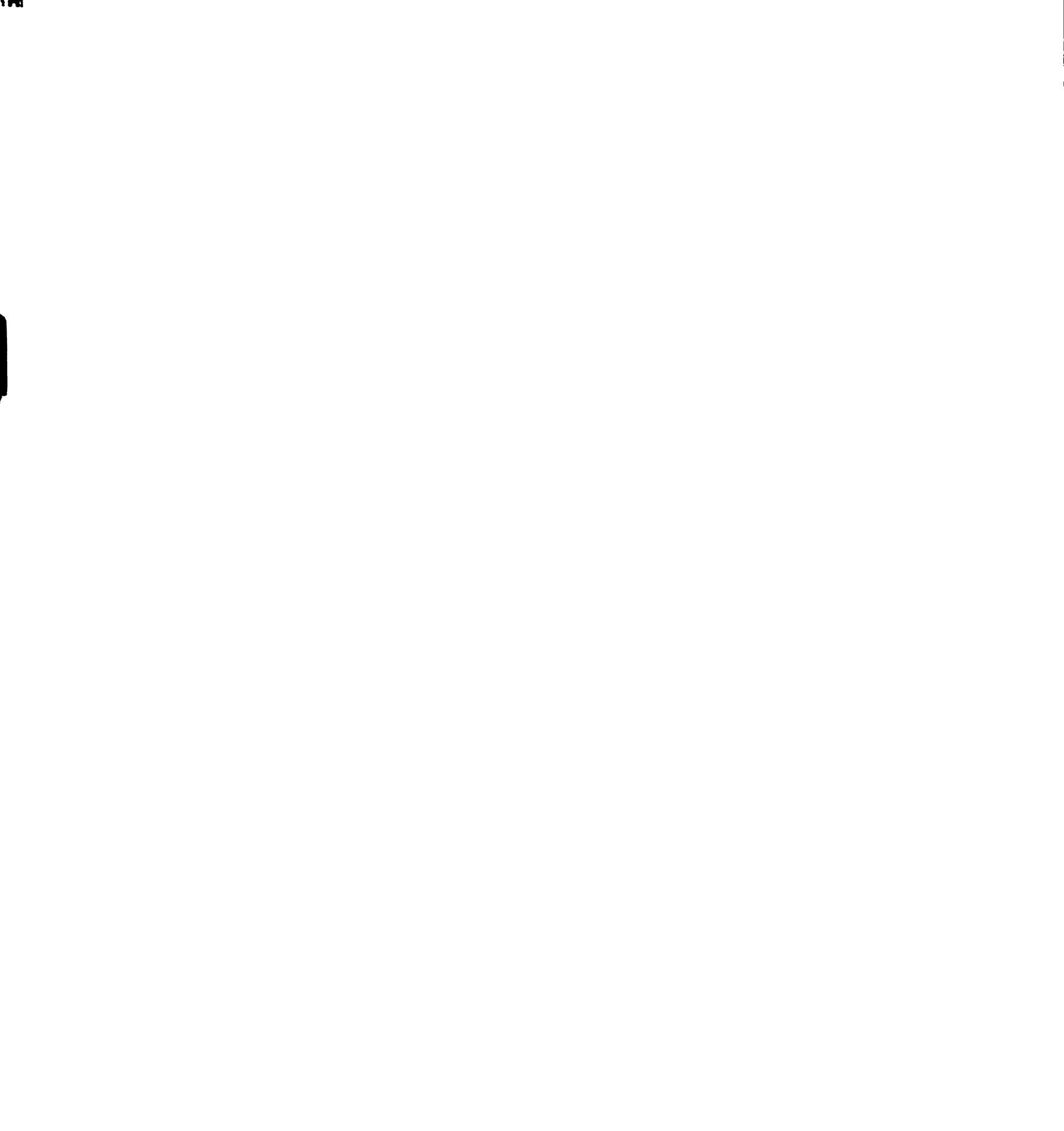**{265.13-15}**

External Influences Long Term

- Rising levels of obesity, diabetes, heart disease, etc. among Americans.

Internal Influences Short Term

- Recognizing NE Michigan as an aesthetically ideal setting for recreational biking.

Internal Influences Medium Term

- Rising interest among local residents to take advantage of the area's natural beauty for outdoor recreation.

- Recognizing the 5-mile stretch between Mackinaw City and St. Ignace as an ideal setting for a walking/bike lane, and its potential as a popular tourist destination in the area.

Internal Influences Long Term

- Designating funding for future maintenance of the walking and bike lanes.

Future:

- ❖ *Bovine TB is completely eradicated, allowing for profitable luxury deer hunting camps.*

External Influences Short Term

- Michigan Department of Natural Resources will seek to develop detailed information about the incidence of TB in deer and would publicize the information for better management decisions.

- The ban on feeding and baiting of deer will be continued as a means to reduce the potential transmission of the disease among deer.

External Influences Medium Term

- State officials will determine to manage the wild deer herd for health and vitality and not based on the short-sighted interests of hunters.

- Youth statewide will be engaged in hunting and discovering the beauty of the natural resources through a program to bring them to NE Michigan in mentoring relationships with hunters and farmers.

    {270.18-271.4}

External Influences Long Term

- U.S. and Michigan officials will provide resources to help manage the deer herd for health and vitality and partner with private entities to do so.

Internal Influences Short Term

- Every government, natural resource and agricultural organization in NE Michigan will be united in pressuring the state to eradicate bovine TB from the wild deer population and agree that short-term sacrifices will have to be made for long-term benefit.

Internal Influences Medium Term:

- Hunt club members will develop a passion to improve the resources they depend on including the deer herd, the forestland and grasslands. They will get involved in the communities and partner with farmers.

Internal Influences Long Term:

- Hunt clubs will allow public hunting opportunities and privileges like gold clubs do and actively invite others to come and recreate on their land.

TOURISM INDUSTRY NARRATIVE RESPONSES

Future:

> ❖ *A regionally specific tourism marketing campaign differentiates Northeast Michigan from the state as a whole, both within Michigan and throughout the Mid-West.*

Discussion:

Northeast Michigan can attract tourists, but not using the same kinds of promotions as other, more well-established tourism based areas (Traverse City, Petoskey, etc.).

{267.16-19}

NE Michigan must rely upon the kind of appeal that is explained in the "Sunrise Coast" promotion, i.e.: a place where the pleasures are simple and the life style is laid-back, a place to come and relax among friendly and accommodating people.

{269.9-11; 270.3-4}

In this regard, we need to better market areas like Thompson's Harbor State Park, Negwegon State Park and Rockport Harbor. These areas offer an extremely unique feature that is missing in most areas – an opportunity to interact with nature and not have to fight for a parking space (like Yellowstone Park). {269.13-16}

When you add in the Pigeon River Natural Area, the numerous trails and the historic, and highly underutilized State Parks (Hoeft, Onaway and Cheboygan) the region offers the kind of recreational experience that one would otherwise have to travel to Canada

or the Western UP to experience. The danger is that marketing the area might create too much interest, and as a result, too many people would visit.

{271.9-13}

But that is a risk that is worth taking. If the marketing is too successful, it could always be scaled back.

Future:

❖ *A micro-credit loan institution makes funds available to entrepreneurs interested in exploring new avenues of tourism within the region.*

Discussion:

The interesting idea is the micro-loan idea.

{266.14; 272.3-6}

This is a necessity. Even twenty years down the road the Northeast region will still be the poor stepchild when it comes to economic funding from the state; partly due to term limits and partly due to the number of legislators from downstate.

There are a number of small local loan programs and they are successful for the most part. By creating one or two loan programs the region will have more success at leveraging grant funds. The regional funds can also work with the local funds.

The question is: one loan institution for all business help or two institutions to be more business type specific. Either way, a region wide loan program would be of major benefit both short term and long term.

Future

❖ *A tourism branding effort/sustained campaign has developed around the 45th*

   Parallel, including events and related attractions.

Disucssion:

As people become aware of the 45th Parallel through use of GPS units, they want to explore that geographic feature. Locally we start to promote that tourism. A tourism campaign with a touch of humor creates t-shirts with the logo "45th Parallel, Half-way Between Here and Nowhere!"

{267.12-13}

These tourists have a wide interest in geographic features, Native American history, early settlement and logging history and the plant and animal life along the 45th.

{270.12-18}

Within ten years, we have guiding tours, brochures, and self-directed tourism via broadband cell phone and small computers in cars to point out the features they are driving past. Within 20 years, it becomes part of an international 45th Parallel tourism effort, and businesses spring up to support the popular experience.

APPENDIX D: THE REFERENCES SCENARIOS

The Reference Scenarios are identical versions of the four participant informed scenarios of **CHAPTER SEVEN: THE SCENARIOS.** These Reference Scenarios have been given slight aesthetic modifications to facilitate their intended use: a quality control device to discern the extent to which the scenarios are representative of the participants' Second Round responses. This quality control device is to be used in concert with the Second Round responses and references found within **APPENDIX C: THE SECOND ROUND RESPONSES.**

References

Each external and internal influence that was inserted into a scenario has references to locations within that corresponding scenario. Each reference has a page(s) and line(s) number that corresponds to the Reference Scenarios. Most references include more than one page and line number. Multiple references for a single influence are separated by a semi-colon. Influences that span multiple lines or sentences within a scenario are distinguished by a dash (-) between line numbers (refer to the illustration below).

Figure AD.1 The References

{2.1-2; 4.8-14}

Page 2, Lines 1 through 2 → Page 4, → Lines 8 through 14
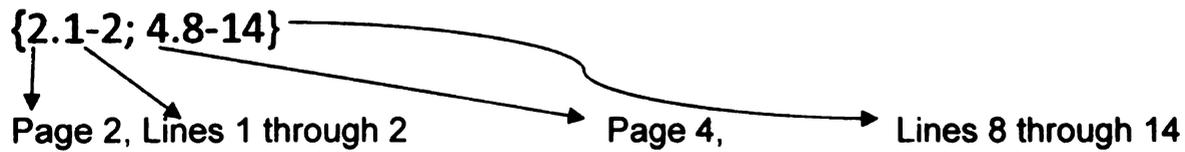
Ideal Futures

Each participant identified ideal future condition was inserted into their corresponding scenario. There is a list of the ideal future conditions for each scenario given before the Reference Scenario is presented. Within parenthesis at the end of each ideal future condition is the page and line number of that ideal future within the Reference Scenario. Each ideal future condition is in bold text within the Reference Scenarios, although most ideal future conditions manifest themselves in numerous ways and locations. Many ideal future conditions were used in more than one scenario.

Expanded Explanations

Lastly, sections within the Reference Scenarios have been highlighted in yellow. These sections are provided with expanded explanations of the reasoning behind their insertion into the scenario. Each highlighted section is given an expanded explanation starting on 274.

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The Reference Scenarios

Natural Resource Utilization Scenario

Participant Selected Natural Resource Utilization Ideal Future Conditions

1. Natural gas development and production utilizing advanced technologies, including carbon capturing technology, exists to provide CO_2 to firms - enhancing the region's oil and natural gas recovery (241.10-16).

2. Fallow and underutilized agricultural lands are producing fast growing biomass crops to augment other forest resources in producing electricity and other forms of biomass energy for the region (238.20-239.4).

3. Agricultural byproducts are innovatively reused for energy production (238.6-8).

4. Firms specializing in the production of biomass energy related equipment and services are located in the region (238.6-8).

5. The region's communities have conceptually connected their local surroundings to the global climate crisis and wider green movement (239.10-12).

6. The region's communities have conceptually connected their local surroundings to the global climate crisis and wider green movement.

7. Marijuana is de-criminalized and grown as an agricultural product (238.5).

8. Marijuana is de-criminalized and grown as an agricultural product.

9. The region leads the entire Mid-West in putting forward solutions for clean water and conservation for the Great Lakes (242.16-18).

10. Agriculture and Forestry are major sources of employment in the region*

(*Introduction to Scenario*).

11. Natural resources are utilized to promote economic growth, without

degrading them, and the region is kept as natural as possible* (240.5-6).

12. The natural resources in the region are more fully utilized for Eco-

Tourism, R&D, and recreation* (239.10-12 and 242.5).

13. Northeast Michigan has a thriving eco-tourism industry revolving around

the preservation and conservation of natural resources* (239.10-12).

14. State and federal agencies continue to make investments and share

management responsibilities in the region's natural resources* (241.20-

21).

Key Response Themes

The responsible commercialization of natural resources is a part of Northeast Michigan culture, and should continue to be responsibly commercialized moving into the future. The natural beauty and bounty of region, along with the people that cherish it, represent a distinct comparative advantage – a clear power of place – which could be better leveraged through collaborative long term planning. The region is primed to be a biomass renewable energy producer and consumer, representing a great opportunity to develop a future economic growth sector in the region.

Introduction to Scenario

This scenario is representative of the potential of Northeast Michigan's simultaneous **natural resource commercialization** *and conservation. Taken around the region – through both space and time – by the stories protagonist first generation farmer Bill, we see a future in which the Northeast has developed a culture of environmental stewardship.* **Agriculture and forestry have are strong employment sectors***. The region's education system and labor force have been both molded by this culture and are responsible for propelling it forward. Correspondingly, the Northeast is home to a biomass energy grid that has been realized through long term investments that "only made plain common sense".*

Environmental Stewardship Does Not Just Mean Looking At It

Dawn has just broke and Bill has already been awake for some time. It is the second Monday of November, 2030, which means it is time to deliver his monthly harvest to the biomass energy substation in Atlanta. This month it is a mixture of both corn stalks and **new growth hemp**. Every month it is a different substation, whichever is offering the highest prices. **Many area farms have contracts with local firms to sell their harvest and byproduct** at fixed prices throughout the year, incorporating pickup and delivery services into the contracts. Bill does not. He enjoys trying to best the markets each month.

Yet, as most houses in the area now have bio-gas storage tanks that use local methane gas to power their kitchen stoves, he does sell his animal manure to local middlemen on contract. The company comes out each week to collect and transport the manure. It is amazing that a little innovation in organic decomposition coming out of the MSU-NE MI Smartzone Renewable Energy Research Center and Business Incubator could be propelled into a new regional service that continues to create new jobs, draw external capital investment, and supplement the farm incomes.

As he fills up his truck from his home's natural gas line, he scans and compares the hemp growing in the West 40 to the hemp growing in the tree stand that abuts it, remembering years ago when the field sat fallow and the oak island's only really "production" was a harvest of squirrels in September. The field and tree stand now quickly turn over fast growing biomass crops. The Biomass Renewable Energy Future

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seed grant from the Department of Energy to the State of Michigan that found its way up to the Northeast has **demonstrated the viability of derelict cropland conversions and agro-forestry.** While there was never any doubt that the conversions and agro-forestry techniques would grow the crops, the real trick was the investment in small scale renewable energy plants where the biomass could be converted into energy for local communities. The now regionally integrated smart-grid of biomass energy production is economically and environmentally sustainable.

While getting his Bachelor's in Agriculture Science from the local community college, Bill learned of and supported early efforts at expanding the use of experimental green energy production in the region. The seemingly constant flow of MSU researchers and graduate students who were at the local college through joint programs or to conduct research provided a stream of renewable energy research and advocacy. **Yet, the region's progressive culture of connecting their local environment and individual actions to the global climate change crisis was the true catalyst.** During his college years energy prices were a major issue, and both State and local subsidies were provided to pilot projects that could over time measure the viability of local and renewable energy production – mostly biomass in the Northeast. Young Bill was willing to support the possibility of short term cost increases associated with these pilot projects - and later their expansions - since he believed in their long term economic and environmental benefits.

He, then and now, considered the long term preservation of natural environments as part of his value system. It was of his region's culture and had been with him since childhood. The *Northeast Eden* initiative began when Bill was just entering grade school. It encouraged people, young and old, to conceptually connect their surroundings to the greater global climate change and green movement, including both how they live and how they earn that living. The project used multiple phases to integrate closed stakeholder and open town hall exercises to generate and disseminate a consensus derived shared vision of the region's environmental future, concluding that the Northeast's human and environmental futures were intertwined, **and that natural resources may be commercialized for economic gain, but only through renewable means.**

His school system built a K-12 curriculum that incorporated environmental and natural resource awareness. Each year built upon the previous. The students often took part in the community wide natural asset inventory campaigns. The indicators the campaign uses were developed in the *Northeast Eden* project. These inventory campaigns remain mandated in order to track the long term status and health of the region's natural resource base and are controlled by local citizen councils. Bill is currently sitting on the rotating board of his local council.

The high school courses Bill took that combined natural resource and entrepreneurial education are what inspired him to stay in the region and become his family's first farmer. To pay for his education, his first year out of high school he and his

best friend decided to go through the community college's two semester natural gas processing technician program. After the first semester, the program transitioned him into a paid internship with a local natural gas firm to give him on-the-job training while completing the second semester of coursework. After that last semester he stayed on with the company part-time to earn money while he started his Bachelor's program at the same community college.

As he finished filling up the truck he glances at the company logo on his natural gas hookup. He is reminded of Jason Tucker, still Bill's best friend, who he followed into the community college program years ago. Jason stayed on to work full time with the company after the work-study portion of the program ended. He made a good living, but eventually went back to school to enable his continued advancement in the company. The transition was easy as he again was able to pursue his education locally through a joint community college - research university higher degree program. There were and still are many such programs tailored toward the region's evolving workforce demands.

Jason's re-entry into the workforce as a photogrammetrist proved to be long term and lucrative, as the natural gas industry in the Northeast is not only stable, but growing. **The Wolverine Clean Energy Venture funded research into CO2 sequestration** that proved to both reduce the carbon footprint of that coal plant, and create a commodity to be utilized by the natural gas industry to enhance their efficiency of recovery. The power plant provides an economic stimulus to the region, while

offsetting its carbon footprint by not only innovating and using CO2 sequestration technology, but being another substation in the biomass energy grid. Nearly 20% of its energy production comes through biomass.

As Bill heads toward Atlanta, Michigan the plant life along the roadside sparks memories; he is amazed at the transformation that has taken place over his life time. Indigenous and non-invasive biomass, ultimately dedicated to local energy production, is everywhere: in and along roads; in peoples' yards; and planted their fields. After a favorable impact assessment, harvestable biomass is now legally planted **on both State and Federal lands.** Now that the region's citizens understand how every flick of the light switch has an impact, it is just plain common sense to preserve the natural environment by all means possible. This is not to say that the biomass planting has not further beautified the region, because it has.

On his left he sees a group of **Northern Eco-Tourists** being led out of the forest by their guide and toward an electric van owned by a small transportation company that ferries such tourists to and from the major north-south bus lines. Each passenger is required to invest in the region's carbon sinks, tradable on the international carbon market, to offset the carbon produced from the electricity needed to power the van and later the natural gas powered bus. Northeast MI is innovative in that through a clever "invest in America" marketing campaign it set about challenging the Global South's – particularly Brazil's – dominance in the global carbon sink market. Individuals and major corporations have invested big monies in preserving the region's vast forests as carbon

sinks; simultaneously preserving and commercializing them. Each potential tree purchase is inspected by a locally trained and accredited tree-carbon technician to determine how much carbon it is worth.

One of the Northern Eco-Tourists is wearing a *Great Lakes Now and Forever* tee-shirt; **a citizen action campaign started in the Northeast aimed at preserving not only the Great Lakes, but also MI's in-land waters.** Targeting collaborations based on mutual interests, the organization has partnered and spread throughout the Great Lake states and into Canada. It was no accident this effort originated in the Northeast as, from early childhood asset inventory campaigns, the value of public participation in conservation and preservations organizations like *Great Lake Now and Forever* is ingrained into Northeast citizens.

Bill pulls into the Atlanta substation, steps out of the truck and breathes in the crisp Northeast air. He has never had to know its superiority, but it is vast and growing. After delivering the load, his first impulse to head straight back to the farm waffles as thoughts of the local micro-brewery creep into his mind. Yet, dedication wins the day as he hops in the truck and begins the short trip back to the farm. As he drives, a white and black suggestion of 55 mph catches his right eye. He glances at the speedometer to read 53 mph. Breathing in the Northeast air, he lets his foot ease the pressure down and further cracks the window. What's the rush?

Human Capital Assets Scenario

Participant Selected Human Capital Asset Ideal Future Conditions

1. Ninety percent of the population between the ages of 25-70 has a marketable post-secondary credential (*Introduction to Scenario*).

2. Ninety percent of the population between the ages of 25-70 has a marketable post-secondary credential.

3. Fifty percent of the region's population has a bachelor's degree or higher (*Introduction to Scenario*).

4. In the future, the region will have a much higher educated population (*Introduction to Scenario*).

5. Local college graduates will desire to remain in the area (252.15).

6. Local college graduate will desire to remain in the area.

7. Community colleges (250.15-16).

8. Local school districts have been consolidated (248.2).

9. There are strong school-community relationships that successfully get youth involved and interested in the region's future (247.19-248.2).

10. Population has greater post-secondary attainment (*Introduction to Scenario*).

11. The population of the region will maintain steady growth (247.10-11).

12. Term limits for elected government officials have been eliminated (251.18-20).

13. Creative people have empowered institutional support structures to aid in their endeavors (249.5).

14. The region has embraced entrepreneurial mindsets (248.6-7).

15. There is a strong sense of place amongst the region's citizens that takes pride in the region's culture and natural environment (247.14-15).

16. A Smartzone technology cluster exists within the region, drawing human talent and outside investment, creating a center of innovation, R&D, and start-up innovation (251.14).

17. Maximize the outputs, commercialization, and profitability of our natural resources (*Introduction to Scenario*).

Key Response Themes

In order to maintain a stable population and economy, Northeast Michigan needs to dramatically increase the proportion of its population with post-secondary accreditation, including vocational and technical training. The region's community colleges are a great asset toward achieving this, but increased relationships with external colleges and research universities need to be sought in order to expand local access to higher education. Increasing local access to higher education is desired in order to grow and retain an educated labor force capable of spurring and sustaining economic growth in Northeast Michigan. Human capital is the foundation from which visions for the future of the region must be built upon.

Introduction to the Scenario

This scenario depicts how a shared vision for increasing Northeast Michigan's attainment of post-secondary accreditations created synergies and alignment between policies and program, culminating in a Northeast Michigan of 2030 having a dynamic economy and society. Due to both expanded relationships between local community colleges and research universities, and expanded access to demanded vocational/ technical training programs, **ninety percent of the region's population has a marketable post-secondary education.** *Global climate change is no longer a debate, and the educated and entrepreneurial labor force is* **able to responsibly leverage the region's knowhow and natural resource base to take advantage of the growing demand for green technology research, products, and services.**

Growth of a Talented Labor Force: A Look Back

By focusing attention on unleashing the creativity and empowering the talents of its children, Northeast Michigan has ensured it is a place where some of the best of its children can and want to thrive. There is a culture and economy that is dynamic enough to transition with the times, yet one that has preserved the traditions it values the most. Northeast Michigan chose a path and destination for the future that was realized by planting the seeds of investment in its own children, enabling them to make the once desired future a reality.

After staring into the abyss during the Great Recession of 2008, a consensus was formed amongst the people of Northeast Michigan that the key to the region's future economic viability was cultivating a stable and educated population, while preserving and responsibly leveraging the region's natural resources. Community-wide understanding and acceptance of the importance of bettering oneself through higher education was fostered. The region proved that investing in targeted programs that aim to not only leverage knowledge, but instill values, civic pride, and engagement is the strongest foundation a region can lay toward building a shared and intentional future.

Learning from years of youth brain drain, target plans and programs were formed around growing place attachment amongst our youth. A lively community-wide debate positively reshaped the narratives around a Northeast Michigan lifestyle and how it fit into perceptions of "small town America". **To ensure that the region's power of place generated and retained educated youth, the school systems established**

youth-community programs that built peer-to-peer and youth-to-mentor relationships aimed at networking/enabling the most talented, while demonstrating to them that they could thrive in and were a part of the region's future. After the painful school **district consolidation fight was won,** it became much easier to implement a sustained unified vision of how to build a more nuanced approach to K-12 education that facilitated and encouraged life-tracks toward not only university, but also career oriented technical and vocational post-secondary education.

Correspondingly, an effort was formed to ensure that business and **entrepreneurial minded** youth did not get lost in the mass push toward university. Utilizing the research that has shown entrepreneurialism to be a learned trait, a mandate of teaching entrepreneurial mindsets amongst the young was agreed upon. A concise argument was made to local business people convincing them to share their time and wisdom through mentoring and volunteering, participating in and facilitating inspirational/educational workshops. Most importantly, the local business community embraced a view that potential entrepreneurs were not mere competition, but an opportunity to expand their business's forward and backward linkages – vital components of the growth of the region's ever evolving economy.

This direct and inclusive approach was able to generate a widely accepted vision of first why, but continuously how to cultivate a new culture of entrepreneurship across the region. Feedback loops amongst mentors and programs were of great benefit to the experimental approaches. Existing efforts stemming from the community colleges were

both embraced and expanded upon - creating new initiatives. Most importantly, our community college initiated a multi-tiered system of entrepreneurial support services offering resources to entrepreneurs throughout the stages of idea and product development. The most focus was directed at encouraging the region's youth to harness mindsets that embraced calculated risk, generating a willingness to create, not earn, a living. Yet a system was in place to evolve with and to the needs of all entrepreneurs moving through the stages of product/business development and launch.

Similarly, **empowering support structures for creative individuals** to pursue their interests in the liberal arts was built into the region's social fabric. There was a balanced understanding that future economic growth sectors were going to demand post-secondary degrees holders and that in the future places were going to have even increasing competition in retaining the educated, therefore investments in the amenities those individuals demanded had to be made. A better consolidated schools system newfound freedom in the K-12 education system enabled a network of in/after school programs to be created and coordinated - connecting aspiring individuals to each other, to mentors, and to facilities/institutions willing to enable, display/host all types of works.

The purely online gallery: *Northeast Michigan On Exhibit* – was created by consolidating fragmented efforts to serve as a forum, market place and gallery - while hosting digital events and publishing writings, music, and images. Aging downtowns proved to be another form of gallery, as all types of works found both permanent and

temporary homes there. An envoy was sent to Livingston Montana, a model for such a community at the time, to both observe and establish a formal relationship of various kinds of cultural exchange. After some initial public assistance - mostly through the use of public space and media - theatre, music, art, literature, and poetry events displaying local talent and generating local pride have became common place. Early efforts were limited in scale and participation, but in conjunction with other efforts, self-reinforcing and complementary initiatives have dramatically grown participation. Today there is a culture of openness, encouragement, and acceptance of creative endeavors, uncommon to rural America in the recent past, which has proved to be a key factor in growing and retaining dynamic youth.

Self-reinforcing cycles and multiplier effects from the push to steadily increase the percentage of the population with a post-secondary credential have been evident. By noting that trajectories of employment growth, even traditionally considered "blue collar" jobs, increasingly correlated with requirements of some form of post-secondary education, a community-wide debate was ignited on the utility of a college education in the Northeast Michigan economy of the future. A consensus was formed around encouraging and empowering individuals to pursue higher education, but with greater focus upon the numerous pathways available to youth beyond direct transition to university. This cleared the way for encouraging vocational and technical degrees as a means of obtaining a "career focused" education. As a result, **local community colleges steadily saw increased enrollment and an influx of funds/resources**, allowing them to better target and develop programs responsive to the needs of the labor market,

particularly in small business management, agriculture sciences, forestry, renewable energy, and natural resource management.

Community colleges better collaborated with the State's colleges and research universities on joint programs that would be mutually beneficial. The region's community colleges re-focused, articulated, and expanded two-year transfer curriculums by working with the State's large public universities. Online dual enrolment programs allowed students to earn transfer credits by attending their local community college, while simultaneously being enrolled in universities and taking purely online courses - helping student save money and more rapidly obtain their degree.

Universities were particularly interested in tapping into the region's expanded cohorts of students and professionals educated by local community colleges and specializing in the natural sciences and related technical trades. While active recruitment and attention from research universities increased, so too did offers of collaborations in both programs and research projects. Graduate level research taking place within the region increased, particularly involving renewable energies and resource management. Community colleges became homes to numerous college and university summer programs, bringing new people, ideas, and monies to the region.

After much advocacy, the region deservingly landed the MSU-NE Michigan **Smartzone** Renewable Energy Research Center and Business Incubator. The continuous pursuit of collaborations with external research universities, verifiable entrepreneurial culture, increasingly educated/technically proficient workforce, and abundance of

natural resources, were all major selling points to the securing of the project. Yet the greatest factor in its realization was the sustained long term commitment from the elected officials who no longer were bound by term limits. The research center represented only a modest investment, but proved to be a major catalyst to the region. It began mostly as a wet laboratory for MSU graduate students conducting research on renewable energy production and carbon sequestration. Yet its originally only perfunctory business incubator and entrepreneur support system were increasingly utilized by the region's entrepreneurial and natural science savvy populous to successfully develop, test, and commercialize green energy equipment and techniques.

The region has developed a niche in this market and it is a stable employment source. The investments made in empowering creative people, "career focused" education, entrepreneurial mindset formation, and academic collaborations have come full circle. The region is a testing ground for the profitability of small scale renewable energy projects, related technologies, and techniques. The number of patents our region produces is second only to the southeast portion of the State. A modest number of start-ups have been able to not only endure, but steadily grow - a few being light manufacturing operations of green technologies that are able to take advantage of the skilled workforce and excellent port access - creating profitability and job growth. Local community colleges graduates – mostly with technical degrees – **both desire and are desired to stay in the region**, as they are a vital component of the current and future regional economy.

INFRASTRUCTURE SCENARIO

Participant Selected Infrastructure Ideal Future Conditions

1. The region has ubiquitous broadband access (255.9-10).

2. The region has ubiquitous broadband access.

3. The region has ubiquitous broadband access.

4. The region has ubiquitous broadband access.

5. The region has ubiquitous broadband access.

6. Fiber-optic cable is planned and laid in conjunction with every road project (257.16).

7. Off-road trails are expanded and modernized (258.14-15).

8. Off-road trails are expanded and modernized.

9. Trails accommodate multi-day trips exist, with connectors conveniently accessible to food, fuel, and lodging (258.16).

10. A limited access highway runs parallel to I-75 (260.6-7).

11. There are numerous innovative and experimental energy generation demonstration projects concurrently taking place in the region's population clusters (261.14-15).

12. Counties, cities, villages, and townships plan and develop infrastructure projects in coordination with each other (256.13-14).

13. The region will be able to finance any infrastructure needs it may have (256.1-17).

14. Small airfields have taken a larger role in serving transportation needs (259.13).

15. Bus lines will shuttle people north to the region and south out of it (260.5).

Key Response Themes

Northeast Michigan wants ubiquitous access to high speed internet as both a beneficial economic requirement and quality of life amenity. It is a building block toward achieving interconnected education, social, and economic development goals. Yet, there lacks the regional cooperation needed to form a clear unified vision on how to achieve it. In order to capitalize on the region's natural beauty, hiking and biking trail systems need to be expanded and branded.

Introduction to Scenario

In this scenario by 2030 Northeast Michigan has had ubiquitous high speed internet for over a decade. Jane Iglesias is a dual-enrollment Anthropology student at a Northeast Michigan community college enrolled in a transfer program to the University of Michigan. She is required to complete an oral history project for one of her courses. She has an interest in generational perspectives of how changes to the region's built environment affect its culture. She has chosen to interview an 80 year old, a 60 year old, and a 40 year old, all of whom have grown up and remained in the Northeast, concerning their perceptions of change, and how they believe it has affected their lives.

The End of the Digital Divide

Interview One

Interviewer: Jane Iglesias

Interviewee: Bob Herbert –an eighty year old retired natural gas worker

Jane: Mr. Herbert, what do you believe has induced the greatest change to Northeast Michigan over your lifetime?

Bob: Without hesitation I would say the Northeast **gaining ubiquitous access to high speed internet**. Firstly, just look where we are sitting. I have lived in this house, on the back NW corner of this 47 acre spread, since I was 52 years old and I have no plans or necessity of leaving. I am 80 years old, and this April my wife will turn 82. We live alone and my nearest neighbor is 15 minutes away.

I have a checkup with my doctor once a week via our wireless WiMAX connection. We are linked into the statewide healthcare consultation network. If I need some food or other items and do not feel like going out, I order them online and have them delivered. An entire cottage industry of online services has blossomed in the Northeast as a result of our investment in high speed internet; this is particularly beneficial to us seniors.

I remember the debates about making the investment in internet infrastructure that began back in the 2010s. I was originally against it. However, there seemed to be vocal consensus among our community leaders; Northeast Michigan had to dramatically expand access to and increase utilization of high-speed internet if the region was going to develop socially and economically the way they intended over the next 20 years.

But a lot of old dogs like me, gosh I was already in my 60s at the time, believed that the region did not need or want it. That increased connectivity would encroach upon our region's rustic rural character and lifestyle. That it was just the next new thing to come around and that there were other more pressing infrastructure projects that needed attention. Things like sewer and road work.

The real catalyst that changed my thinking came when our region decided to **regionally coordinate all infrastructure projects**. I was in the natural gas industry here, so I got involved. There were important justifications for the new coordination – things like being better able to secure external grants and move toward being able to **fully fund all of our infrastructure projects** – but the primary mission of the regional coordination was to form a shared vision for the future of the region's infrastructure – one that aligned with our shared vision for the region as a whole – so we could better prioritize infrastructure projects, funding, and spending.

Anyway, that early effort incorporated both stakeholder meetings and public town halls. In both forums, the prioritization of high-speed internet access, over more traditional infrastructure projects, gained momentum as strong voices began to make new and more tangible arguments linking high-speed internet access not only to the region's future economic viability, but any ability to hold on to its youth. As more and more everyday services transitioned to digital dependence, seemingly obscure arguments stressing that the "world is flat" and the rise of China gave way to: fears of even more dramatic youth brain drain; an inability of even the K-12 education system to keep up; fears that we were not going to retain and grow a labor-force capable of caring for the aging population; and a smorgasbord of concerns about disadvantages to our overall economic dynamism.

It seems that once the local stakeholders and general public embraced and owned the mandate for ubiquitous high-speed internet, we progressed on a steady march toward it. Synergies between other efforts emerged. Things like **requiring fiber-optic broadband to be laid with every road project** and getting publically accessible wireless in public buildings emerged. Once WiMAX and wireless hardware became the norm, we were able to overcome our low population density problem and secure ubiquitous access to wireless across the entire region.

The public skepticism that the demand did not fit the cost, previously a major

deterrent to the bulk buy-ins necessary for the region to expand access, eroded

consistently. It was clear that access to internet was a pivot point toward the

actualization of other, previously conceptually disconnected, goals for the future.

Public support and regional coordination shifted the winds of skepticism from "it

costs too much and we really don't need it" to "we cannot afford to go without

it!"

Interview Two

Interviewer: Jane Iglesias

Interviewee: Jennifer Townsend – a sixty year old businesswomen and small business

owner

Jane: Ms. Townsend, what do you believe has induced the greatest change to

Northeast Michigan over your lifetime?

Sara: I think most people would say that wireless internet access has impacted the

region the most, and as a person in business, I was a strong advocate for the

original investments that have ultimately fulfilled that need. Yet for me

personally, the **expansion and modernization of our region's off-road trail**

system have been equally important.

I have been running a small online **trail hospitality business** for almost 9 years now. I got the idea, not surprisingly, while on a weekend hike with my family. The trail expansions were great for our communities, increasing not only the quality of life, but I think the health of our own population. Then and now our trail system is mostly utilized by our own residents for both short nature excursions and weekend getaways.

The entire region really got involved in making the expansion happen. First we targeted local loops around population clusters, and then local connections to more remote and extensive trails - meshing county, US Forest Service, and MI Department of Natural Resource trails. It was a collaborative effort not only amongst those in the region, but with State and Federal agencies.

After a few years, the trails began to draw tourists interested in exposure to the beauty of the north woods and waters. It was clear to me that there was a demand, so I started up my little business making food and some fuel deliveries from online orders. Now I am happy to say that I have diversified into transportation...I got myself a van. I keep the business running year round, but obviously, it is the most profitable and busy in the summer and fall months, which is fine since I intended it to only be a part-time income supplement to my full-time job.

I have a good job and my husband got a good job at the **airfield after its expansion**. I did not have to take a second job, but I wanted to take a risk and

the start-up funds required were low. I did not even have to take a loan from *NE Northern Eco-Tourism Micro Credit Union.* I saw it as a kind of extra retirement fund. And to be frank, from solely the savings it has already generated I will be able to take the Social Security buyout and retire at least 5 years early!

And I am not the only one. Unstaffed shelters and hostels now populate the system - built at low cost with simplicity in mind – blending into the natural environment since that is why people use the trails in the first place. The online interactive map - accessible anywhere due to the wireless network and complete proliferation of smart phones – connects hikers to lodging, food, and fuel – both for me and my competition.

Most of the hostels are free of charge, but the few hostels that require payment can be paid for online, in advance or on-demand, with the hostels door codes being released after payment. The hikers exit the trail system mostly along the **north-south bus routes** that transport them back to their entry points and out to the **new I-75 limited access highway**, but savvy locals like me also offer transportation from non-connecting points.

I think the best part of the whole trail transformation is that we made the expansion for us, you know there are trails all over, but they displayed our region's natural beauty so well that they drew people up here. Not in an intrusive, flooding our towns, kind of way, but in a peaceful, mutually beneficial manner.

Interviewer: Jane Iglesias

Interviewee: John Blackstone – a forty year old lab technician

Jane: Mr. Blackstone, what do you believe has induced the greatest change to Northeast Michigan over your lifetime?

John: That is a difficult one for me to answer. You know I am forty and have lived here most of my life. I see the Northeast as pretty much keeping up with the rest of the country in most ways. I know that we were one of the first rural regions to deliver ubiquitous high speed internet. That is really a big deal.

The only time I had to leave the Northeast for a significant period of time was for college. Back then I did not have the option of local access to higher education in the Northeast that my children do now. There really were not the online dual enrollment programs that exist today, and even if there were, my house only had dial-up! Yeah, dial-up in the late 2000s...I really did not have a choice but to leave for my college education. My kids are much luckier than I was, in that they can stay here and have the same opportunities as any incoming freshman to any big college or university.

But you know - and I do not think this would have ever happened without the internet expansions - our region's current renewable energy R&D, production, and consumption may be even more transformative. This has been and continues to be really trail blazing stuff, and without it I would have never been

able to come back here after getting my PhD in Biochemistry. I am really proud that not only are our academic institutions now involved in R&D, but our social and business culture have embraced the renewable energy movement through both supporting and investing **in numerous local innovative and experimental energy generation demonstration projects**, mostly in biomass.

With these projects have come: increased jobs; greater commercialization of local research; better identification of underutilized natural resources, and related services; an expansion upon the region's brand as a leader in the renewable energy movement; and obviously local production and generation of clean energy. A lot of the people I work with at *Weeds and Wind* in the MSU-NE Michigan Smartzone Renewable Energy Research Center and Business Incubator could have gone anywhere, but chose the Northeast. That speaks well for the impact that investments in renewable energy utilization have had on the region.

TOURISM INDUSTRY SCENARIO

Participant Selected Tourism Industry Ideal Future Conditions

1. A regionally specific tourism marketing campaign differentiates Northeast MI from the State as a whole and throughout the Mid-West (267.19).

2. A regionally specific tourism marketing campaign differentiates Northeast MI from the State as a whole and throughout the Mid-West.

3. A tourism branding effort and sustained campaign has developed around the 45th Parallel, including events and related attractions (267.12-13).

4. A tourism branding effort and sustained campaign has developed around the 45th Parallel, including events and related attractions.

5. There is a strong "northern" eco-tourism industry that uniquely differentiates itself from the more widely understood "tropical" eco-tourism experience (269.6-7).

6. There is a strong "northern" eco-tourism industry that uniquely differentiates itself from the more widely understood "tropical" eco-tourism experience.

7. A micro-credit loan institution makes funds available to entrepreneurs interested in exploring new avenues of tourism within the region (266.18-19).

8. Select trails will be promoted and branded, holding yearly events (272.11).

9. The Mackinac Bridge is renovated to include walking and biking lanes (273.5-6).

10. Tourism is a major component of the Northeast regional economy (*Introduction to Scenario*).

11. Large cruise ships will port in the region (271.14-16).

12. Bovine TB is completely eradicated, allowing for profitable luxury deer hunting camps (270.21).

Key Response Themes

Northeast Michigan's natural beauty and unique lifestyle gives it a distinct comparative advantage in attracting tourists. Yet this comparative advantage has not been fully utilized to differentiate the Northeast from other tourism markets. While tourism is seen as an employment and income supplement, there are reservations that too much tourism could decrease the quality life for the actual residents of the region. Both "northern" eco-tourism and an expansion of the region's hiking trails offer potential tourism niches.

Introduction to Scenario

This scenario takes the form of the September 15, 2030 Minutes of the fictional NORTHEAST MICHIGAN REGIONAL TOURISM COUNCIL. This fictional body is just one of several direct manifestations of ideal future conditions the scenario highlights. The COUNCIL is a regional branch of Pure Michigan State Assembly and is deliberating on how the Northeast can best differentiate itself both from the broader Pure Michigan campaign and the rest of the Mid-West. As part of the annual **Northeast Michigan Tourism Niche Defined** *program, this scenario is a record of the first phase of the project: a Nominal Group Technique brainstorming and ranking session. Citizen presentations are given and ranked on what aspects of the Northeast they believe should be used to better differentiate it. Transcripts of the top two ranking presentations are provided.*

MINUTES

OF THE

PURE MICHIGAN – NORTHEAST MICHIGAN REGIONAL TOURISM COUNCIL

BOARD OF DIRECTOR'S MEETING

September 15, 2030

Elkview Professional Building

Gaylord, MI 49735

Statement of Purpose

The *Pure Michigan-* Northeast Michigan Regional Tourism Council is dedicated to the promotion of Northeast Michigan as a premiere Northern Eco-Tourism destination. Open to the public and steered by a publically elected Board of Directors, this body is responsible for the: 1) coordination with the *Pure Michigan* State Assembly; 2) the generation of the NE Michigan Annual Tourism Marketing Plan; and 3) the implementation of the approved NE Michigan Annual Marketing Plan and the dispersal of appropriated funds.

CALL TO ORDER

The meeting of the *Pure Michigan* - Northeast Michigan Tourism Council Board of Directors was called to order by Vice-President Stonewall at 10:00 a.m.

ROLL CALL

Board Members Present: Dawn Puente (Alpena), George Ward (Emmett), Duane R. Stonewall (Cheboygan), Tonya Wellington (Otsego), Roger Mathis (Presque Isle), Jenna Slator (Montmorency), Janet Gillmore (Alcona), Dave Portman (Crawford), and Jenny Sanderson (Oscoda).

A quorum was declared present.

Non-Board Citizens Physically Present: 7

Non-Board Citizens E-Conferencing: 58

MINUTES OF THE PREVIOUS MEETING

Motion by D. R. Stonewall and seconded by Jenny Sanderson to approve the minutes of the August 15, 2030 Board of Directors meeting. Ayes all, motion carried.

FINANCIAL AND NE NORTHERN ECO-TOURISM MICRO CREDIT UNION REPORTS

The financial report was presented to the Board by J. Sanderson. Motion by R. Mathis and seconded by D. Portman to upload the Financial Report. Ayes all, motion carried.

NE Northern Eco-Tourism Micro Credit Union **President John Muir presented the Board with the** *NE Northern Eco-Tourism Micro Credit Union* **finance report and project list.**

DIRECTOR'S REPORT

State Assembly

Director Ward summarized last month's *Pure Michigan* State Assembly E-conference for those who did not attend. He also recapped the Northeast Michigan Regional Tourism Council's topic selections for that month's *Pure Michigan* State Assembly Annual Prioritization Digital Delphi.

Vote:

After a vote, Director Ward disclosed the Northeast Michigan Regional Tourism Council's topic selections for this month's *Pure Michigan* State Assembly Annual Prioritization Digital Delphi. After the votes were tallied the Northeast Michigan Regional Tourism Council selected: 1) *A 2% increase in State funding to the Regional Councils*; and 2) *The formation of a Multi-State initiative to include other Great Lake States in* **Pure Michigan's "Halfway between Here and Nowhere" 45th Parallel** *adverting campaign.*

Northeast Michigan Tourism Niche Defined

Director Ward then commenced the annual **Northeast Michigan Tourism Niche Defined** Nominal Group Technique brainstorming session. The Board and citizens were grouped.

Each group was tasked to form a consensus on what aspect of the Northeast tourist scene should be better integrated into the **2031 NE Michigan Annual Marketing Report to better differentiate the Northeast from both the broader *Pure Michigan* campaign and from the rest of the Mid-West.** Every member of each group was allowed to identify a single aspect and present their case for why that aspect of the Northeast should be better advertised as being unique to the region. Some individuals uploaded and played prerecorded presentations, while others presented theirs verbally. Each verbal presentation was digitally recorded and stored along with the uploaded ones for reference.

After all the presentations were completed each member ranked their fellow member's presentations in order of importance. After the rankings, the lowest ranking presentations were eliminated. Each member of the group was then allotted two minutes to speak before another round of ranking commenced. The process was repeated until each group had formed a consensus through progressive rankings and eliminations. The winning presentations were then replayed to all the groups. All individuals then ranked those presentations. As before in the separate group phase, progressive rankings and eliminations continued until a consensus was formed on the top two presentations.

Director Ward concluded by asking the meeting's participants to please visit the ***Northeast Michigan Tourism Niche Defined*** web-world to review the project timetable

and prepare for their roles in the development of alternative scenarios for each of the two top presentations during the second stage of the project next month.

TOP TWO PRESENTATION TRANSCRIPTS

Northern Eco-Tourism – Ranked #1

In the final ranking, Shannon Rockwell's presentation received the most # 1 rankings. The aspect of Northeast Michigan that Shannon identified as being able to further differentiate the Northeast from both the *Pure Michigan* campaign and from the rest of the Mid-West was: *"Better holistically integrate the Northeast Michigan lifestyle and unique human-environment interconnectivity into our **Northern Eco-Tourism** brand and offerings."*

Shannon Rockwell:

"I suggest we further and better holistically integrate the Northeast Michigan lifestyle and unique human-environment interconnectivity into our Northern Eco-Tourism brand and offerings. We were some of the first to advertise and brand the concept of Northern Eco-Tourism, challenging the notion that eco-tourism could only be harnessed in tropical environments. We also have all read the reviews on our web-world stressing that it is not just the ability to have a carbon neutral experience and low ecological

footprint experience that our tourists seek, but it also is the ability to do it as part of a unique lifestyle that integrates these behaviors into everyday activities and lifestyles.

Let me give a couple of suggestions on how to better integrate the two.

Firstly, we originally were successful at branding our Northern Eco-Tourism experience by spreading awareness of our-agreed upon definition of Northern Eco-Tourism: "Environmentally responsible travel to natural areas of 45° N Latitude or higher that promote conservation, are carbon neutral, and have beneficial socio-economic involvement with local peoples." Let's not settle for the status-quo and continue to allow other places to use our model to eat away at our niche. We need to refine the definition and experience to include a non-intrusive immersion and enculturation into our unique NE Michigan lifestyles.

Here is how.

We should have educational tours of our local biomass energy plants, where our Northern Eco-Tourists learn about the lifecycle of our renewable energy production – from seed to its conversion into energy. We could have tours of and home-stays at households that not only have a zero carbon footprint, but households that certified NE MI Sustainable Ecologies™ otherwise known as NE-SEs™. We could organize courses on how to measure carbon in biomass. Hold seminars teaching the best practices we use to populate our environment with biomass crops, while not challenging our local food supply. The unique history of the region can be taught: Native American history, the clear cutting era, CC replanting efforts, localized renewable energy production, and a

culture of preservation and conservation. Eco-tourists can not only learn of how their travel and interaction within the region will be environmentally off-set, but take greater part in that process; whether by planting the saplings, seeing the trees they purchased to be preserved (even making the measurements to determine how many were required), or by planning biomass grasses to be used in the biomass energy grid.

We could better expand the nexus between our agro-tourism and certified Northern Eco-Tourism through farm home-stays and local food chain tours. Built into this could be the introduction of "NE Sustainable Hunting and Fishing Practices" that offered not only **local hunts** and chartered fishing, but opportunities to learn about the sustainability of the responsible harvesting of local wildlife that draws explicit distinctions between itself and the environmentally damaging network of factory farming and consumption that still dominate the nation's food supply.

Second, let's start rebranding Northern Eco-Tourism from requiring carbon neutrality to more strict requirements of being "Carbon Neutral Plus". Obviously we would have to form a consensus on what exactly the new requirements of "Carbon Neutral Plus" are, but certainly at its foundation it would mean requiring would-be Northern Eco-Tourists to not only compensate for their carbon activities, but create a net-positive for the NE Michigan ecology. This would both better differentiate us from regional competitors, and continue to protect us from a tourism industry that could become more of a burden than a benefit to our way of life. We would have to expand on our Northern Eco-

Tourism trip certification process and personnel, but we already have the training programs and staff at our local community colleges to do so.

The Great Lakes cruise industry has been suffering due to the size of its carbon footprint, so let's start better coordinating packages with them which could include more stops at our ports. Like our Northern Eco-Tourist, their passengers could not only just buy off-sets, but participate in carbon off-setting projects. Similarly, we could expand the *Pure Michigan* packages which include the Northeast as their carbon off-setting destination. Further, the more strict Northern Eco-Tourism requirements will build up in our communities tradable carbon credits even faster, making us an even more important player on the international carbon market.

Our Northern Eco-Tourist would learn about our lifestyle, hopefully spread its benefits, and participate in our lives in such a way that ensures preservation of, not threats to, our lifestyles.

Lastly, let's work with John Muir of the *NE Northern Eco-Tourism Micro Credit Union* to re-focus the institution's loan guidelines to correspond with our rebranding effort. This would ensure that there is continued alignment between the proposals receiving micro funding and our new branding of Northern Eco-Tourism."

Promotion of our Recreational Trails – Ranked #2

In the final ranking James Douglas's presentation received the second most # 1 rankings. The aspect of Northeast Michigan that James identified as being able to further

differentiate the Northeast both from the *Pure Michigan* campaign and from the rest of the Mid-West was: ***"Expand the promotion of select trails through annual events."***

James Douglas:

"I suggest we expand the promotion of select trails through annual events. Over the years we have invested a significant amount of money in our region's trail network. We worked tirelessly to forge partnerships with State and Federal agencies to connect trails running through those parks and forests. These investments have really improved our quality of life, our health, and reinforced our connections to the natural environment, but I also think that the trails can be better leveraged as a tourist attraction. Trail tourists are my favorite kind. Since the trials have lodging and on-demand hospitality accommodations, trail tourists rarely venture into our towns. When they do it is with a local guide and they stick to the environmental learning and awareness opportunities.

While we have tourists who come for and use the trails year round, I think we can increase the impact of trail tourism through expansion of our trails' annual events. Firstly, I would suggest some thought being put into a yearly event to showcase our, gosh now decade-old, **addition of bike lanes to the Mackinac Bridge**. Those bike lanes provide for a beautiful view and are a natural tourist attraction. Since it is has natural start and end points it may be perfect for a race, or a leg of a triathlon. I know we already have the annual *Northeast Walk for the Earth*, and I am about to get to it, but just as they started small and slowly grew participation, so could a Mackinac event.

The *Northeast Walk for the Earth*, I love it. Every year my whole family takes part. Let's expand it. Let's tie it to our Northern Eco-Tourism industry, and get some sponsorships. We could have tasteful corporate sponsors, ones that are involved in green R&D or manufacturing — we would not have to look far to find those — and have them tie their names to it. Their employees could all participate, most probably do already. Companies from outside the region could use it as a corporate get-a-way for their employees, as part of a package of Northeast travel and activities. Other corporate sponsors would probably want to do it as part of their mandated carbon off-set purchases. As it already takes place on North County Trails, undoubtedly, the North Country Trails Organization would want to expand its advertising and support.
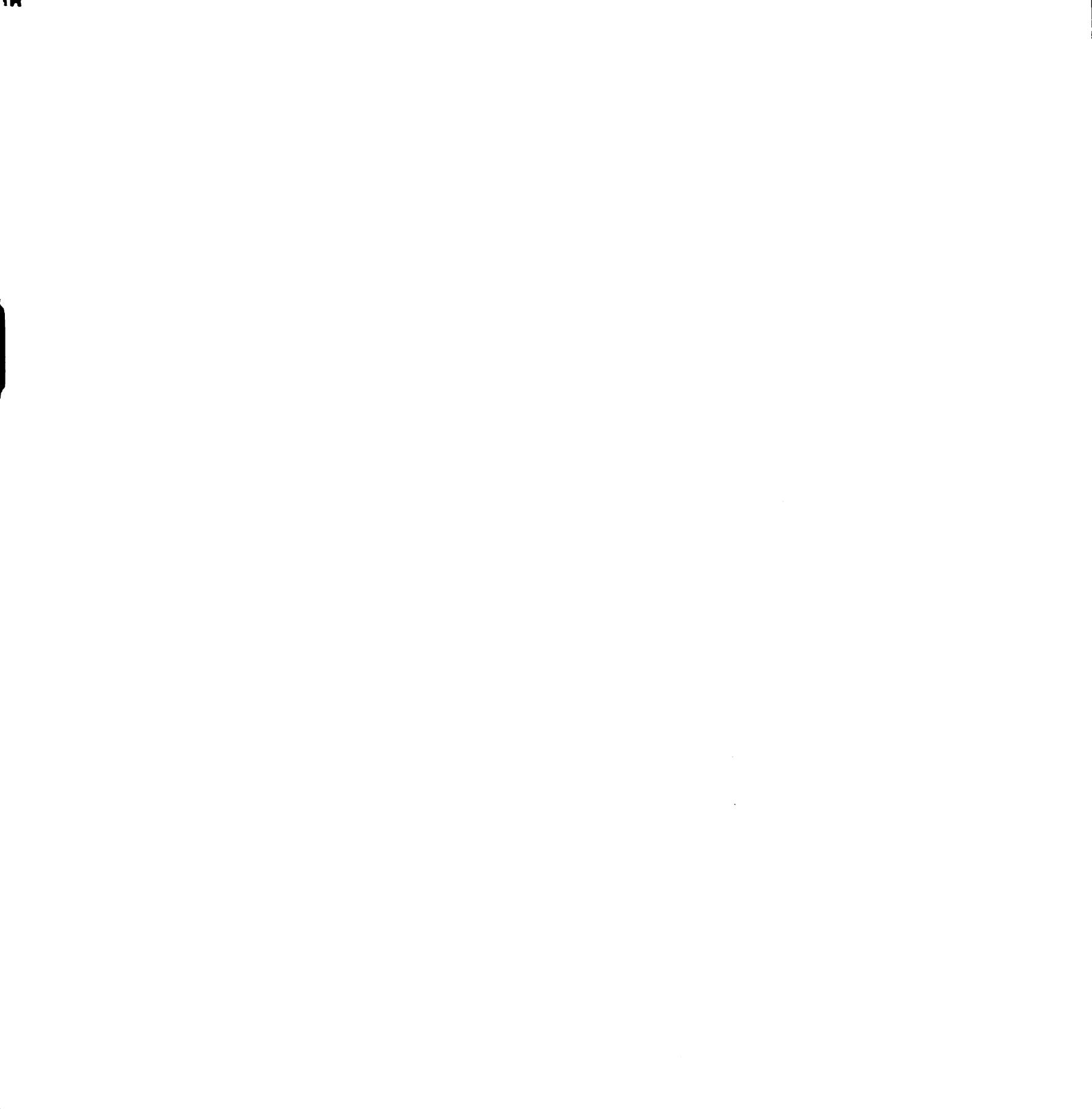
I am no economics or advertising expert but it seems that with some more brainstorming we could really utilize some larger scale events. These big events could bring in a ton of tourist dollars all at once, leaving the rest of the year to our more subdued and steady tourism, and obviously our regulated Northern Eco-Tourism. Everyone wins."

NEXT MEETING

The next NEMCOG Board meeting will be held on October 15, 2030 in Gaylord at the Elkview Building at 10:00 a.m.

ADJOURNMENT

Motion by Duane R. Stonewall, seconded by Tonya Wellington to adjourn the meeting at 2:00 pm. Ayes all, motion carried.

<u>The Expanded Explanations</u>

In the section below, excerpts from the scenarios are provided. These excerpts are highlighted both within the Reference Scenarios and below. Under each excerpt is a description of the influences that led to its insertion into the scenarios. If the except was inspired from participant generated materials, then the participant generated material (ideal future conditions or external and internal influences) are referenced.

1. Utilizing the research that has shown entrepreneurialism to be a learned trait, a mandate of teaching entrepreneurial mindsets amongst the young was agreed upon

   This content was added in order to support the ideal future: "the region has embraced entrepreneurial mindsets". Firstly, it is representative of the Key Response Theme of a desire to "<u>grow</u> and <u>retain</u> an educated labor force capable of spurring and sustaining economic growth in Northeast Michigan". Secondly, through targeting youth, its inclusion has synergies between both the ideal future "there are strong school-community relationships that successfully get youth involved and interested in the region's future", and the participant identified influences of encouraging "career focused education and vocational training".

   The articles below explore entrepreneurship as a learned trait:

   - Burke, A., *et. al.* (2008) "What makes a die-hard entrepreneur? Beyond the 'employee or entrepreneur' dichotomy," *Small Business Economics* 31(2): 93-115.
   - Krueger, N. (2007) "What Lies Beneath? The Experiential Essence of Entrepreneurial Thinking," <u>*Entrepreneurship Theory and Practice* 31 (1): 123-138</u>.

- Chatman D., *et. al.* (2008) "Community Entrepreneurial Climate: An Analysis of Small Business Owners' Perspectives in 12 Small Towns in Missouri, USA," *Journal of Rural and Community Development* (3):60–77

2. Most importantly, our community college initiated a multi-tiered system of entrepreneurial support services offering resources to entrepreneurs throughout the stages of idea and product development

    This was also added to support the selection of "the region has embraced entrepreneurial mindsets".

    Refer to the articles below for understandings of the benefits of using multi-tiered entrepreneurial support structures:

    - Lichtenstein, G., *et. al.* (2004) "Building Entrepreneurial Communities: The Appropriate Role of Enterprise Development." *Journal of the Community Development Society* 35 (1): 5-24.
    - Korsching, P., and Allen, J. (2004) "Locality Based Entrepreneurship: A Strategy for Community Economic Vitality," *Community Development Journal* 39 (4): 385-400.

3. The purely online gallery: *Northeast Michigan On Exhibit* – was created by consolidating fragmented efforts to serve as a forum, market place and gallery - while hosting digital events and publishing writings, music, and images

    This section was added to support the ideal future of "creative people have empowering institutional support structures to aid in their endeavors". It manifests an alignment of shared visions, programs, and stakeholders through the combining of fragmented efforts into a single collaborative endeavor.

4. An envoy was sent to Livingston Montana, a model for such a community at the time, to both observe and establish a formal relationship of various kinds of cultural exchange

    This material was also inserted as support for the ideal future of "creative people have empowering institutional support structures to aid in their endeavors". It advocates the seeking out of best practices, from which programs can be influenced and modeled, along with building mutually beneficial collaborations with external actors.

    Visit Livingston, Montana's website to explore their "creative" community: http://www.livingstonmontana.com/

5. biogas storage tanks

    The inclusion of a reference to bio-gas storage tanks was included to support the ideal futures of: "agricultural by-products are innovatively reused for energy production"; "firms specializing in the production of biomass energy related equipment and services are located in the region"; and to a lesser degree "the region's communities have conceptually connected their local surroundings to the global climate crisis and wider green movement"; and "maximize the outputs, commercialization, and profitability of our natural resources".

    Biogas storage tanks, also known as biogas generators, are used to harness methane gas from animal manure that otherwise would have been wasted. It is

considered a form of renewable energy. Such biogas tanks exist today and are used to power kitchen stoves, hot water heaters, and even furnaces.

6. Each passenger is required to invest in the region's carbon sinks ...

This material was inserted to support the ideal futures of: "the region's communities have conceptually connected their local surroundings to the global climate crisis and wider green movement"; "natural resources are utilized to promote economic growth, without degrading them, and the region is kept as natural as possible"; "the natural resources in the region are more fully utilized for Eco-Tourism, R&D, and recreation"; and particularly "northeast Michigan has an thriving eco-tourism industry revolving around the preservation and conservation of natural resources". Further, numerous internal influences focused upon the desire to not allow tourism to negatively impact the region's natural environment.

According to the Department of Energy, a carbon sink is: "a reservoir that absorbs or takes up released carbon from another part of the carbon cycle (U.S. Department of Energy n.d.)." Carbon sinks can be artificial or natural. The largest natural carbon sinks are trees, oceans, plants, and soils. Artificial carbon sinks include landfills and other chemically induced methods of carbon storage. Investing in or creating carbon sinks are currently a widely used means of offsetting other carbon producing activities.

7. WiMAX

   WiMAX corresponds to the ideal future of: "the region has ubiquitous broadband access".

   WiMAX, also known as Broadband Wireless Access and not to be confused with Wi-Fi, is a developing wireless technology capable of providing last mile wireless broadband access. The potential range of a WiMAX network is highly disputed and is variable depending on specific network conditions and loads. Yet most estimates suggest at least a 30 mile radius being feasible in the foreseeable future.

   Refer to the website HowStuffWorks for a complete description of WiMAX technology:

   http://www.howstuffworks.com/wimax1.htm

8. Prioritization Digital Delphi

   The Delphi Method is an often used method of forming consensuses and prioritizing issues.

9. Nominal Group Technique

   The Nominal Group Technique is an often used means of forming consensuses and prioritizing issues.

10. Environmentally responsible travel to natural areas of 45° N Latitude or higher that promote conservation, are carbon neutral, and have beneficial socio-economic involvement with local peoples

This corresponds to the ideal future of: "there is a strong "northern" eco-tourism industry that uniquely differentiates itself from the more widely understood "tropical" eco-tourism experience".

In order for tourism to be classified as eco-tourism, it must conform to specific requirements. While there is no "official" body from which an "official" definition can be drawn there are correspondences between common definitions. Most definitions include the terms: sustainable; low environmental impact; and, socially and economically beneficial to the local population.

I have based the Northern Eco-Tourism definition from The World Conservation Union and The Nature Conservancy's definition of eco-tourism (The Nature Conservancy n.d.):

"Environmentally responsible travel to natural areas, in order to enjoy and appreciate nature (and accompanying cultural features, both past and present) that promote conservation, have a low visitor impact and provide for beneficially active socio-economic involvement of local peoples"

11. NE MI Sustainable Ecologies™ otherwise known as NE-SEs™

This concept was developed in response to the unselected First Round ideal future of: "Any new building will have to be LEED certified"; and the Natural Resource Utilization ideal future of, "the region's communities have conceptually

connected their local surroundings to the global climate crisis and wider green movement, along with several participant identified influences stress that the region needs to embrace "green" lifestyles".

It is intended to relate to the concept of household ecological footprints. An ecological footprint is the amount of demand placed upon the Earth's ecological regenerative capacity by human activity. Therefore, a household ecological footprint is the amount of capacity needed to regenerate that particular household's activity. A household with sustainable ecologies implies that the household's activity is in balance with the Earth's ability to regenerate resources.

APPENDIX E – KNOWLEDGE ECONOMY INDICATORS

Below is the Michigan State University Center for Community and Economic Development's six knowledge economy categories and associated set of 27 knowledge economy indicators.

Please refer to "An Assessment of the Knowledge Economy in Northern Michigan and the Eastern Upper Peninsula" (2009) for complete description of each category and indicator.

Table AE1: Indicators

Category	Indicator
Talent	1. Public High School Graduation Rates 2. ACT Composite Scores 3. ACT Writing Scores 4. Certificates Conferred in the Region 5. College Degrees Conferred in the Region 6. Undergraduate Enrollment in Michigan Public Universities 7. Graduate/Professional Enrollment in Michigan Public Universities
Innovation	1. Patents 2. Venture Capital Firms 3. High-Technology Firms 4. High-Technology Jobs 5. Annual High-Technology Wages
Knowledge Sector Jobs	1. ICT Jobs 2. Annual ICT Wages 3. Healthcare Jobs 4. Annual Healthcare Wages
Digital Economy	1. High-Speed Internet Access Providers 2. Wireless Hotspots
Globalization	1. 1. Airport Enplanements 2. 2.H-1B Visas Granted 3. Exports 4. Foreign Trade Zones 5. Ports of Entry 6. Imports
Economic Dynamism	1. Job Turnover Rates: All Industry Sectors 2. Job Turnover Rates: Health Care Sector 3. Certified Business Parks

APPENDIX F – FIRST ROUND QUESTIONNAIRE

FIRST ROUND QUESTIONNAIRE

<u>INSTRUCTIONS</u>

Beginning on the following page, Page 2, there are four questions. Please respond to each question in paragraph form. Complete thoughts and justifications are sought, so please feel free to make your responses as many words as necessary.

You may use outside materials and references in forming your responses.

Please feel free to make your responses as focused or broad as you desire. You may choose to focus your responses on a single topic or several topics. There is no right or wrong response. Diversity of opinion is sought and not necessarily topic-specific expertise. Creativity and outside the box thinking is strongly encouraged.

If you have any questions or concerns please contact Lead Researcher Josh Watkins, day or night, by phone or email.

Please email this completed First Round Questionnaire to:

Thank you for the time you have devoted to participating in this important study.

FORMATING AND RESPONSE EXAMPLE

Below is a response example. It is only intended to guide your response style and not necessarily your response content.

Example:

Please describe what you envision to be an ideal future state of the Northeast Michigan's infrastructure in twenty years.

Infrastructure includes, but is not limited to: road; rail; air; ports; other public works; along with telecommunications, including broadband access.

Most importantly, there will be broadband access to the internet throughout the entire region - at very high levels of speed and very low or no cost to all users - whether individual or groups. The region will be much more connected through public means of transportation, with the emphasis on moving people rather than things. Public works will be more focused on improving quality of life rather than increasing production.

Development throughout the region will tend to concentrate people in smaller, denser areas, leaving more of the region in its natural state and returning some land back to nature. The concentrated development will give residents the advantages of living close to each other such as high quality education, services, entertainment, etc. while still being close to the natural environment.

Please refer to the instructions on Page 1 in responding to the question below. You may insert your response below or on a separate document.

Question One:

Please describe what you envision to be an ideal future state of Northeast Michigan's human capital assets in twenty years.

Human capital assets include, but are not limited to: access to higher education and levels of attainment; human talent growth, retention & attraction; employment sector compositions; entrepreneurship; local access to finance; local business support structures; innovativeness; and community focused non-profit resources.

Please refer to the instructions on Page 1 in responding to the question below. You may insert your response below or on a separate document.

Question Two:

Please describe what you envision to be an ideal future state of the Northeast Michigan's infrastructure in twenty years.

Infrastructure includes, but is not limited to: road; rail; air; ports; other public works; along with telecommunications, including broadband access.

Please refer to the instructions on Page 1 in responding to the question below. You may insert your response below or on a separate document.

Question Three:

Please describe what you envision to be an ideal future state of Northeast Michigan's natural resource utilization in twenty years.

Natural resource utilization includes, but is not limited to: forestry; water resources; green energy production; research and development (R&D) capabilities; bio-sciences; bio-technologies; agriculture; animal husbandry; and conservation.

Please refer to the instructions on Page 1 in responding to the question below. You may insert your response below or on a separate document.

Question Four:

Please describe what you envision to be an ideal future state of the Northeast Michigan's tourism industry in twenty years.

The phrase tourism industry is intended to include, but is not limited to: traditional tourism; agro-tourism; eco-tourism; tourism advertising; regional tourism branding; hunting and fishing chartering; financing; small business support.

APPENDIX G – SECOND ROUND QUESTIONNAIRE

INSTRUCTIONS

Beginning on page 3, there are four lists of possible ideal futures for Northeast Michigan that were identified within participants' First Round responses. The four categories are: Human Capital Assets in Twenty Years; Infrastructure in Twenty Years; Natural Resources in Twenty Years; and Tourism in Twenty Years.

From each of the four lists, please select at least one ideal future and explain what you believe to be the external and internal factors influencing its fulfillment. You may select and explain as many futures as you desire.

External influences will be defined as influences acting upon the ideal future originating from outside Northeast Michigan (internationally, nationally, or statewide).

Internal influences will be defined as influences acting upon the ideal future originating from within Northeast Michigan.

Please organize your identified external and internal factors into timeframes of Short Term (0-5 years), Medium Term (5-10 years), and Long Term (10-20 years). Meaning, explain and group factors you believe will be influential in the next 5 years, influential 5 to 10 years from now, and influential 10 to 20 years from now.

You may simply state your external and internal influences, use several sentences to explain them, or do a combination of both. Refer to the example on page 2.

You may use as much space to list and/or explain your identified external and internal influences as you desire.

Please email your responses to:

Josh Watkins

Thank you for the time you have devoted to participating in this important study.

Formatting and Response Example

Infrastructure in Twenty Years

Future

- ****The region is concentrated into denser population clusters****

Influences

- External Influences Short Term:
1. *The beginnings of a national discourse surrounding how our society values nature and how that relates to our chosen life-styles.*
2. *Climate legislation passing the US Senate that taxes carbon.*
- External Influences Medium Term
1. *State and/or national policies, legislation, and incentives that make it profitable for large-scale farmers to begin to return their land to its natural state.*
2. *Wide-spread acceptance of Global Warming, ending the debate.*
3. *A codified value system is articulated that challenges the 20th Century American mantra of equating individualism with large sprawled development.*
- External Influences Long Term.
1. *The development of building technologies, visions, and planning that enables more communal living, while maintaining the comforts of sprawled communities.*
2. *The irreversible effects of climate change.*
3. *Telecommunications advancements that lead to a "wired" and sedentary society, allowing both economic and human interaction to be nearly completely digital.*
- Internal Influences Short Term
    1. *Vision of local leaders and citizens to see the value of long term planning that that challenges social norms for long term gain.*
    2. *Zoning regulations that restrict new sprawled developments.*
- Internal Influences Medium Term
    1. *The implementation of holistic programs that act upon a mandate of the reorientation of residential planning and farmland conversion.*
    2. *Continued youth brain drain out of the region, and influx of seniors.*
    3. *Academic and private sector coordination in establishing an R&D park, SmartZone, or economic incubator related to green and forestry technologies that begin to shift the economic composition of the region.*
- Internal Influences Long Term
    1. *Achieve some success in concentration of development and land restoration that demonstrates its benefits.*
    2. *The achievement of a forestry related R&D sector (or park) that draws and grows educated professionals that tend to favor such communities.*
    3. *The successful revitalization of region's downtowns.*

HUMAN CAPITAL IN 20 YEARS - INSTRUCTIONS

1. From the list below (pages 3-6), please select at least one ideal future.

2. Explain what you believe to be external influences upon its fulfillment in the Short, Medium, and Long term. You may list as many as you desire.

3. Explain what you believe to be internal influences upon its fulfillment in the Short, Medium, and Long term. You may list as many as you desire.

4. Please provide your response within the RESPONSE SECTION starting on page 14 or on a separate document.

    Expertise is not required. This project seeks to inform experts with diversity of thought, therefore you are encouraged to select and respond to ideal futures whose topics are outside of your field. Creativity is strongly encouraged.

Ideal Human Capital Futures

- ❖ Alpena Community College and Kirkland Community College offer a variety of four year Bachelor degree programs.
- ❖ Alpena CC and Kirkland CC offer graduate degrees.
- ❖ Alpena Community College will have a specialized emphasis upon forestry and agricultural sciences.
- ❖ Alpena Community College will have expanded healthcare programs.
- ❖ There is a regional program similar to the Kalamazoo Promise that fully funds college tuition and requires awardees to remain within the region after graduation for a minimal amount of time.
- ❖ Community colleges have partnerships with MI universities outside of the region to offer a diverse variety of Bachelor degree programs to local students.
- ❖ The existing community colleges will be the main provider of higher education.
- ❖ A new four-year university, offering Bachelor and graduate degrees, exists in the region.
- ❖ Academic institutions will have tailored programs toward senior citizens, aiming at enriching quality of life and not necessarily retraining for the workforce.

- ❖ Community colleges will provide essential retaining to older citizens who desire to remain in the workforce.
- ❖ Academic institutions offer advanced technical/vocational training to students interested in the natural gas recovery and storage industry.
- ❖ There is a business school that grants post-secondary degrees within the region that caters to entrepreneurial and business development education.
- ❖ Ninety percent of the population between the ages of 25-70 has a marketable post-secondary credential.
- ❖ Seventy-five percent of the region's population have an Associate degree or higher.
- ❖ Fifty percent of the region's population has a Bachelor degree or higher.
- ❖ School systems have seen an increase in funding.
- ❖ There are strong school-community relationships that successfully get youth involved and interested in the region's future.
- ❖ Sub-regional institutions will take over *some* educational governance functions from the counties, creating greater efficiency and policy alignment.
- ❖ There will be greater cooperation and alignment between formal government and educational institutions of all levels.
- ❖ Residents have access to "learning centers" where they have free access to reference materials, learning and support groups, tutoring, and multi-media.
- ❖ School districts will have been consolidated.
- ❖ There will be venture capital institutions in place which channel the investment funds of the region's retirees into local startups.
- ❖ There has been a fifty percent population increase from 2010 levels.
- ❖ Green energy manufacturing ventures existing in the region.
- ❖ Retirement communities, similar to The Villages in Florida, exist in the region drawing retirees from throughout the state.
- ❖ Seasonal/summer condo communities exist, catering to the wealthy and retirees, with staff and planned events.
- ❖ The business sector is configured to better provide goods and services, beyond healthcare, to senior citizens.
- ❖ There is a digital network portal that connects healthcare facilities and individuals' homes to state and national healthcare providers for consultation and care.
- ❖ Local college graduates will desire to remain in the area.
- ❖ The region is dependent upon the attraction and retention small businesses.
- ❖ Creative people and artists, not just stereotypical entrepreneurs, have empowering institutional support structures that aid in their endeavors.

- ❖ The philosophy of "Economic Gardening" is embraced not only in spirit but through regional institutions supporting entrepreneurs.
- ❖ The population of the region will maintain steady growth.
- ❖ There is an expansive and staffed entrepreneur incubator system that provides potential entrepreneurs with technical and conceptual support, along with physical and digital space to network and market goods/ideas.
- ❖ There is a regional micro-credit loan institution that targets local start-ups.
- ❖ Internet cottage industries are an economic and employment mainstay, providing growth and jobs while preserving the region's rural character.
- ❖ Stakeholder consensus determines employment and economic growth goals which are continuously monitored via decided upon indicators.
- ❖ A call center industry has developed in the region.
- ❖ A fully interactive and expanded E-Governance platform aids citizens and businesses.
- ❖ There are interactive community forums that include citizens in the planning process.
- ❖ There is a body, similar to if not formally considered a "think-tank", focused upon hypothesizing uses of the region's vast natural resources.
- ❖ A consortium of stakeholders work in cooperative and collaborative ways to maximize: the outputs; potential commercialization; and profitability of the region's natural resources.
- ❖ A SmartZone technology cluster exists within the region, drawing human talent and outside investment, creating a center of innovation, R & D, and start-up incubation.
- ❖ There is greater reliance upon local non-profit financial lenders.
- ❖ Term-limits for government office are eliminated, enabling the development of a class of professional politicians.
- ❖ Programs will be in place that target raising the aspirations of the work and education goals of the region's youth.
- ❖ There is a cultural mindset of embracing change and risk.
- ❖ There is a strong sense of place amongst the region's citizens that takes pride in the region's culture and natural environment.
- ❖ The region has embraced entrepreneurial mindsets.
- ❖ There is a shift from project/task mentality to vision/strategy mentality.
- ❖ There still exists a culture of work ethic, informality, humanity, community spirit, and family loyalties.
- ❖ The region has actively been able to not only retain talent, but draw homegrown talent back.

- ❖ There is a boom of in-migration, not of retirees, but of young people seeking a NE MI quality of life.
- ❖ Community newspapers and radio programs include citizens and give them voice.
- ❖ NE MI is seen as a leader in the development and funding of innovative community projects that address social issues.
- ❖ Generational cycles of poverty will have been broken.

INFRASTRUCTURE IN 20 YEARS - INSTRUCTIONS

1. From the list below (pages 6-8), please select at least one ideal future.

2. Explain what you believe to be external influences upon its fulfillment in the Short, Medium, and Long term. You may list as many as you desire.

3. Explain what you believe to be internal influences upon its fulfillment in the Short, Medium, and Long term. You may list as many as you desire.

4. Please provide your response within the RESPONSE SECTION starting on page 14 or on a separate document.

   Expertise is not required. This project seeks to inform experts with diversity of thought, therefore you are encouraged to select and respond to ideal futures whose topics are outside of your field. Creativity is strongly encouraged.

Ideal Infrastructure Futures

* There is a network of world class natural gas extraction and storage facilities.
* Northeast MI is home to the country's first regional "smart grid" system, with real-time interactive electricity meters installed in every home.
* Any new building will have to be LEED certified.
* Northeast MI has fully embraced "distributed energy generation", utilizing small-scale local projects to create energy.
* Holistic energy production projects similar to the Wolverine Clean Energy Venture have bloomed through Northeast MI.
* There are numerous innovative and experimental energy generation demonstration projects concurrently taking place in the region's population clusters.
* There is a regional grant fund available to municipalities and businesses for energy conservation upgrades.
* The municipal water supply north of the AuSable River is expanded.
* Downtowns have been revitalized, offering niche business and services functions, while preserving a small town feel.
* There is a doubling of the number of communities that are planned and built around Smart Growth guidelines.

- ❖ Counties, cities, villages, and townships plan and develop infrastructure projects in coordination with each other.
- ❖ Land-use decision making is based on place and geographic characteristics and not politics.
- ❖ Alpena airport will be expanded to accommodate larger planes and increased air traffic.
- ❖ Small airfields have taken a larger role in serving transportation needs.
- ❖ Airports will be better tailored toward passenger travel, particularly accommodating the retirees who travel to and from the region.
- ❖ The Oscoda County Airport is expanded and has "onsite" manufacturing/assembly services.
- ❖ Bus lines will shuttle people north to the region and south out of it.
- ❖ A rail line will extend to the region freighting people and goods.
- ❖ Sewer and water systems will be expanded to most population centers and out to more isolated communities.
- ❖ There is a sewer and water system repair and replacement fund available to match state and federal funding sources.
- ❖ A four lane highway will run along Lake Huron.
- ❖ Road systems have incorporated pedestrian access facilities and traffic calming elements where they run through cities and villages.
- ❖ A limited access highway runs parallel to I-75.
- ❖ Fiber-optic cable is planned and laid in conjunction with every road project.
- ❖ New road projects will not be a large proportion of new infrastructure spending.
- ❖ A high-speed rail line runs along I-75.
- ❖ Off-road trails will be expanded and modernized.
- ❖ Trail-ways within the region will double in length.
- ❖ Trails accommodate multi-day trips with connectors conveniently accessible to food, fuel, and lodging.
- ❖ There are new and expanded deep water ports.
- ❖ There is a fair and flexible infrastructure funding plan that generates infrastructure monies without increasing business taxes.
- ❖ Infrastructure spending and planning should always consider value-added improvements (beautification) as secondary.
- ❖ The region has ubiquitous broadband access.
- ❖ The region has ubiquitous access to wireless internet.
- ❖ The region has ubiquitous access to wireless internet at no cost to users.
- ❖ The region has ubiquitous cell phone coverage.

❖ There is a regional digitalized healthcare database, accessible to both stationary healthcare facilities and the EMS fleet.

NATURAL RESOURCES IN 20 YEARS - INSTRUCTIONS

1. From the list below (pages 9-11), please select at least one ideal future.

2. Explain what you believe to be external influences upon its fulfillment in the Short, Medium, and Long term. You may list as many as you desire.

3. Explain what you believe to be internal influences upon its fulfillment in the Short, Medium, and Long term. You may list as many as you desire.

4. Please provide your response within the RESPONSE SECTION starting on page 14 or on a separate document.

   Expertise is not required. This project seeks to inform experts with diversity of thought, therefore you are encouraged to select and respond to ideal futures whose topics are outside of your field. Creativity is strongly encouraged.

Ideal Natural Resource Futures

- ❖ Northeast Michigan has a thriving eco-tourism industry revolving around the preservation and conservation of natural resources.
- ❖ Invasive species have been kept out of the region's waterways.
- ❖ There is a resource management advisory committee, populated by the local business community that seeks to educate the region's businesses on resource management best practices, strengthening the business community's stewardship of the environment.
- ❖ There is an R & D sector, affiliated with both academic institutions and the private sector, which focuses upon the conversion of "wood waste" into cellulosic ethanol.
- ❖ Natural gas development and production utilizing advanced technologies, including carbon capturing technology, exists to provide CO_2 to firms - enhancing the region's oil and natural gas recovery.
- ❖ The region is a world leader in harnessing flatter and lower flow rivers as a micro-scale source of hydroelectric energy generation.
- ❖ Fallow and underutilized agricultural lands are producing fast growing biomass crops to augment other forest resources in producing electricity and other forms of biomass energy for the region.

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- Firms specializing in the production of biomass energy related equipment and services are located in the region.
- Agricultural by-products are innovatively reused for energy production.
- Wind-farms exist in the region.
- Solar-farms exist in the region.
- Methane gas collection and use is prevalent within the region.
- Marijuana is de-criminalized and grown as an agricultural product.
- The region is largest producer of marijuana in the nation.
- There is a "green energy" manufacturing sector.
- The region is an innovator in the cement industry.
- Rogers City is home to a coal fired power plant.
- The Rogers City coal plant is a model for other cities in the region, leading to numerous similar projects.
- There has been a massive tree-planting campaign, replacing the clear cutting of the past.
- The forest industry is one of the main employment sectors of the region.
- Hardwood trees are prevalent in the region again.
- Silviculture is practiced throughout the region.
- The region maintains a majority stock of "new growth" forests with commercial value.
- The region's cedar stock is utilized through a niche cedar furniture industry.
- Forest industries will tailor products and services to support the Frontier Renewable Resources facility in the eastern UP.
- Inland lakes have been protected from over-development through increased regulation and restrictive zoning.
- Smaller scale agricultural production is embraced through an organized system of farmers markets providing traditional and niche agriculture products to citizens, drawing tourist, while supporting and sustaining the local farm industry.
- The region's dairy cattle industry is expanded in size and profitability.
- An aquaculture industry is a greater component of the region's economy.
- Wool and fiber production is profitable.
- Niche and small scale agriculture will be supported through kitchen incubators throughout the region, encouraging shifts from basic food production to more value-added products and services.
- LEED certified agricultural facilities are common.
- There exists a grassroots environmental movement in the region, in which communities set their own environmental standards and goals.

❖ The region's communities have conceptually connected their local surroundings to the global climate crisis and wider green movement.
❖ There is community wide 'nature awareness' campaigns that educate citizens about the region's natural assets in order to better steward them.
❖ The region leads the entire Mid-West in putting forward solutions for clean water and conservation for the Great Lakes.
❖ State and federal agencies continue to make investments and share management responsibilities in the region's natural resources.
❖ There are stronger partnerships between the region's local environmental governing bodies and state/federal agencies responsible for environmental management.

TOURISM IN 20 YEARS - INSTRUCTIONS

1. From the list below (pages 12-13), please select at least one ideal future.

2. Explain what you believe to be external influences upon its fulfillment in the Short, Medium, and Long term. You may list as many as you desire.

3. Explain what you believe to be internal influences upon its fulfillment in the Short, Medium, and Long term. You may list as many as you desire.

4. Please provide your response within the RESPONSE SECTION starting on page 14 or on a separate document.

   Expertise is not required. This project seeks to inform experts with diversity of thought, therefore you are encouraged to select and respond to ideal futures whose topics are outside of your field. Creativity is strongly encouraged.

Ideal Tourism Futures

❖ Tourism is not a major component of the Northeast MI economy.
❖ A regional tourism consortium self-generates marketing funding to promote tourism "packages", spanning several Northeast locations/activities, which also connect to statewide efforts.
❖ There are televised tourism ad campaigns targeting youth.
❖ A formal regional tourism bureau exists and maintains consistent funding and direction.

- Tourism is not thought of as numerous fragmented sectors (such as charter fishing tourism or diving tourism) but in holistic terms that connect together.
- The region is known for its homegrown music scene.
- Widely publicized and regionally coordinated music events are held throughout the year at select locations.
- Select trails will be promoted and branded, holding yearly events.
- The Rails-to-Trails movement has fully taken hold in the region, having already converted the majority of the region's derelict railways into hiking trails.
- The NE Michigan sections of the North Country Trail are strongly supported and promoted as a tourist destination.
- The Mackinac Bridge is renovated to include walking and biking lanes.
- There is a strong "northern" eco-tourism industry that uniquely differentiates itself from the more widely understood "tropical" eco-tourism experience.
- A tourism branding effort/sustained campaign has developed around the 45th Parallel, including events and related attractions.
- The region's tourism industry has expanded beyond reliance upon coastal areas.
- The region's Native American heritage is promoted.
- A flourishing art community impacts the tourism industry through: exports; increased sight-seeing; and art instruction.
- A summer theatre scene attracts tourist to view and participate.
- A regionally specific tourism marketing campaign differentiates Northeast MI from the state as a whole, both within MI and throughout the Mid-West.
- Bovine TB is completely eradicated, allowing for profitable luxury deer hunting camps.
- Hotels and golf courses actively coordinate and promote golf and lodging packages.
- The elk herd is promoted as a tourist attraction.
- A water park exists.
- Bus and railroad tours will crisscross the region.
- Large cruise ships will port in the region.
- The region holds a yearly marathon, bike-race, or triathlon that displays the region's unique characteristics.
- A micro-credit loan institution makes funds available to entrepreneurs interested in exploring new avenues of tourism within the region.
- A weekend long 'Fall Leaves Tour' brings tourist by rail from the south up through the region during the fall.
- Existing hotels will have been renovated, as opposed to new construction.
- There has been resurgence in seasonal second home ownership.

❖ Second home ownership is regulated via zoning to reduce and prevent encroachment upon coastal and natural areas.
❖ The tourism industry positively leverages state and federal resource management partnerships.

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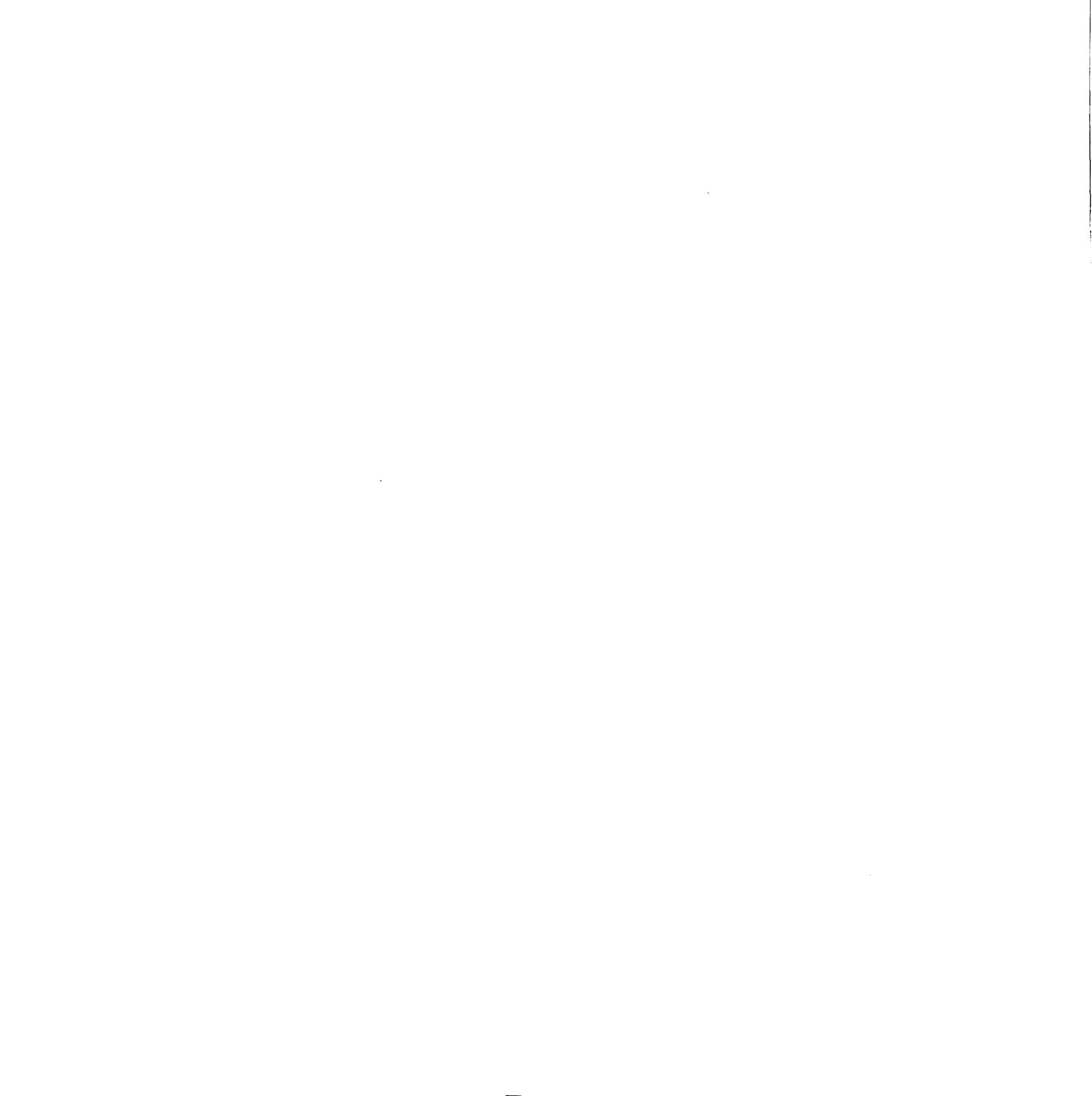
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