

CASS COUNTY MASTER PLAN 2010 AND BEYOND

Cass County Comprehensive Master Plan for the Unincorporated Area of Cass County, Missouri

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ARTICLE 1

Articles Referencing the 2005 Master Plan

1. Master Plan Process

Introduction and Statutory Background: As authorized by Missouri statutes, sections 64.211 through 64.298, Cass County, Missouri, has established and maintains a planning and zoning program for land use regulation. It strives to define land use in the context of the entire community within the County. The objectives of this program are to balance property rights with the rights of the community at large, and to accommodate growth and changes in use of lands within the County by encouraging such changes in locations and by means that maintain the health, safety and welfare of the resident community.

Missouri law provides the authority for Non-Charter, First Class counties such as Cass County to prepare and adopt a Master Plan through R.S.Mo. 64.231. The current Comprehensive Plan of 2005 was adopted through a public hearing and review process as required by the State and intended to serve as the Master Plan. In addition, the County Commission, as the legislative body for the administration of the County, has passed a resolution of support and agreement for this Comprehensive Plan. This Proposed Revision to the Master Plan will follow that same process.

The MASTER PLAN

The Master Plan is a guide and structure for the planning and zoning program, which attempts to characterize the County in terms of population, demographics, roadway and utility use and then consider these elements in the development of Planning Concepts. These Planning Concepts are an effort to both predict changes in the use of the lands of the County and to direct such uses in ways that preserve the public welfare and safety and private property uses and values. The Master Plan provides guidance and structure following the interaction of the Planning Board and the Public. The resulting Master Plan may then serve as guidance for the County Administration in the implementation through procedures, regulations and ordinance methods of a comprehensive planning and zoning program.

2. Role of the Planning Board

Planning Board: As a means of providing an oversight for this process and a tool to implement public participation and awareness of the planning and zoning program, the County has established a Planning Board comprised of members from the community. These are individuals from six major area divisions within the County who are appointed by the County Commission.

Development and Revision of the Master Plan: The Planning Board uses two principal means to achieve the purpose of maintaining the program: the adoption of an official, public document comprised of a Master Plan, (the Plan), and by the implementation of a public hearing process for the evaluation of proposed changes in the use of lands in the County. This evaluation is carried out within the context of this Zoning Order and the Subdivision Regulations, which are the regulations as legislated by the Cass County Commission. The Board meets monthly to consider zoning actions submitted to it in an application process. Following such public review, the Board may make recommendations to the County Commission regarding such proposed actions.

In addition, the Planning Board is charged with the responsibility of regularly reviewing the County Master Plan and adjusting it to meet the changing conditions in the land use, economics and demographics that occur in Cass County. With such close proximity to the large, urbanized Kansas City regional metropolitan center, the forces of change impact Cass County and its residents directly. This 2010 Master Plan, as detailed in the following sections, is a response to these changes

In order to implement the goals of the Plan, procedures and legislative actions may be required to establish a regulatory management process, using the Plan as a reference background. In its legislative role, the County Commission may adopt both this Master Plan as planning recommendations and a Zoning Order and Subdivision Regulations as a set of ordinances. When adopted, these become the working tools to implement the elements of the Master Plan and zoning ordinances in the management of the lands and environment of the County.

Historical Planning Approach: Beginning in 1991, Cass County initiated master planning with a primary intent of encouraging urban development to locate near incorporated areas and other urban land uses, designated as Urban Reserve Areas. By and large that approach had little effect. In 1996, the process of reviewing the master plan more regularly was begun, utilizing public hearings by the Planning Board and County Commission and meetings with representatives of various cities in order to review the existing goals, policies and objectives of the master plan. This more interactive process attempted to identify issues that were relevant to the future of the county. The following is a listing of the issues that were identified at that point:

- potential impact of confined animal feeding operations;
- site locations of communication towers;
- minimum lot widths and frontage of lots;
- adequacy of existing detention pond standards;
- improvement of road specifications;
- hard surface paving of off-street parking areas including display lots for car sales;
- limiting operation of quarries on certain holidays;
- need to more clearly define and regulate recycling facilities; and
- home occupation standards and the expansion of home based businesses.

In 2002, the review of the master plan identified the following key issues:

- eliminate “Urban Area Reserves” in favor of a “Tier System;”

- accommodate urban growth near towns and cities—with or without annexation—where community services can be extended, such as municipal sewers;
- small-acre subdivisions should be allowed if they meet design standards and pay their way for on-site improvements necessitated by the more dense development;
- expand the use of special use permits rather than change zoning designations in order to regulate site development;
- require bonds for public improvements in rural subdivisions;
- adopt access control standards on major roads;
- required paved local and interior roads in rural subdivisions and adopt impact fees to pay for major roads;
- allow commercial development with access to major roads; and
- increase road setbacks to ensure orderly development.

The 2005 Master Plan incorporated these objectives, along with the new Cass County Road Impact Fee; and other elements of past Cass County Comprehensive Plans. These are in the form of the following enumerated goals, objectives and policies. They are reproduced here to show continuity in the planning work process of Cass County. They represent a history of planning policy for more than a decade, and as such a link with the past and to the future of planning in the County.

Historical Goals and Objectives: Previous Planning Boards and County Administrations have defined goals, objectives, policies and procedures to supplement land planning within the County. Each new revision of these planning concepts attempts to follow these goals and objectives while adapting them to the current and expected future conditions that affect planning for the County as a whole community. Following is a summary of these earlier definitions:

Goal: To provide the opportunity for development of urban, suburban and rural land uses while providing for the appropriate location and relationship among these land uses.

Objective G1: Manage the location and design of new subdivisions and developments in order to minimize initial and future public and private costs.

Policy G1.1 New development of an urban character should be encouraged to locate in and around incorporated communities, where municipal services and public facilities are already present. These new developments should be encouraged to connect to such services.

Policy G1.2 New urban development should be encouraged to be contiguous to existing development to avoid the inefficient "leap-frog" pattern of growth.

2004 Policy G1.3 New development proposed within the unincorporated, rural portion of the County should be encouraged to occur within Urban Service Areas and where urban services can be cost-effectively extended or planned.

Policy G1.4 Urban subdivisions shall have direct access to a paved collector or arterial quality roads.

Objective G2 Encourage agricultural compatibility with urbanizing areas.

Policy G2.1 Residential, commercial or industrial land uses should be encouraged to develop in areas where they are not likely to interfere with or become a nuisance to normal agricultural operations.

Policy G2.2 Uses that are commercial or industrial land uses should not be permitted in rural areas if they are likely to interfere with or become a nuisance to normal agricultural operations.

Policy G2.3 Bulk storage of chemicals, petroleum or other products which are flammable or toxic should not be allowed adjacent to residential areas, nor shall new residential development be allowed adjacent to existing storage facilities.

Policy G2.4 Uses such as commercial feedlots which create sustained periods of noise, dust and odor should not be allowed to locate adjacent to urban areas or existing residential development.

Objective G3 Restrict new development to minimize the loss of natural resources due to urbanization, and locate it into areas with few environmental hazards.

Policy G3.1 New developments should be encouraged to locate in areas which are relatively free of environmental problems relating to soil, slope, bedrock and water table elevations. Reviews of proposed development should attempt to identify such environmental issues in the proposed site planning documents.

2004 Policy G3.2 Residential development should not be allowed within the 100-year flood plain. Under no circumstances should development be allowed in the floodway or that area which includes the center of the channel of a creek, stream or river and that area which carries the majority of the flood waters during a flood.

Policy G3.3 New development should be encouraged to be located so as to avoid disturbing significant natural resources including prime agricultural land and where natural resources may be utilized by public utilities.

2004 Policy G3.4 Increased storm water runoff attributed to new development should be restricted so as to prevent adverse affects downstream, to the land or structures. Clean Water Act, Phase II, National Pollution and Detection Standards best management practices should be followed in planning for new development.

Policy G3.5 The County should be granted drainage easements for all major drainage ways.

Residential Land Use Goals, Objectives and Policy:

Goal: To ensure decent and affordable housing, and to allow for a wide range of housing types.

Objective R1 Encourage the construction of housing subdivisions according to reasonable design and development standards.

Policy R1.1 Provide development regulations and enforce them through routine and consistent inspection.

Policy R1.2 Encourage development of residential units located within close proximity of incorporated areas to meet municipal design standards.

Commercial Use Goals, Objectives and Policy

Goal: To provide sufficient opportunity for commercial development at appropriate locations to serve the public needs.

Objective C1 Encourage the development of the majority of commercial establishments within the urban and urbanizing areas of Cass County.

Policy C1.1 Encourage the development of retail businesses in the urban and urbanizing areas of the County.

Policy C1.2 Allow for retail facilities in those areas of the County not served by retail centers only when sufficient market area populations are present or planned.

Policy C1.3 Encourage office and services type development to locate in the urban and urbanizing areas of the County.

Objective C2 Control strip commercial development.

Policy C2.1 Limit commercial development in the form of lineal strips to those uses directly serving the motoring public.

Policy C2.2 Further limit such commercial development to specifically identified areas in the Service Tiers where vehicular access may be provided.

Policy C2.3 Proposed large commercial land uses should be located on major arterial streets with careful access controls and sufficient buffers from any adjacent residential uses.

Industrial Use Goals, Objectives and Policy

Goal: To provide sufficient opportunities for industrial types of development at locations with suitable access and adequate service facilities available.

Objective I1 Industrial development should be located so as to maximize efficient usage of the municipal services necessary for this type of development.

Policy I1.1 Industrial sites should be directed to Use tiers which have access to arterial roads leading directly to major highways.

Policy I1.2 Locate or require the design of industrial development to have access to or develop adequate utility services, police and fire protection.

Policy I1.3 Locate industrial development so as to minimize the negative impact on the environment and on other residential or commercial uses.

Policy I1.4 Separated or buffer proposed industrial uses from surrounding non-industrial uses. Locate heavy industrial uses away from existing or projected residential growth areas.

Policy I1.5 Future industrial uses should not be allowed in areas where substantial, long-term environmental damage may occur from the use.

Policy I1.6 Locate or visually screen industrial uses which have a visual impact to limit the affect on the County landscape.

Policy I1.7 Restrict areas favorable to or having potential for industrial uses to discourage development of residential uses.

Policy I1.8 Industrial uses, other than those of an agricultural nature or operations which need to be in remote locations, should be encouraged to locate within existing cities.

Public Land Use Goals, Objectives and Policy

Goal: To provide opportunities for adequate governmental, institutional, educational and civic facilities in appropriate locations throughout the area of the County.

Objective P1 Encourage coordination in locating governmental, religious, educational and civic facilities.

Policy P1.1 Locate public facilities so as to maximize their accessibility.

Policy P1.2 Locate public service facilities, such as maintenance yards, in industrial areas which contain similar uses.

Municipal Services Land Use Goals, Objectives and Policy

Goal: To insure that residents are adequately supplied by public utility and municipal services in urbanized and rural areas.

Objective M1 Encourage coordination and cooperation in locating and developing resources, supply and distribution of utility services.

Policy M1.1 Require watershed, stream and reservoir protection.

2004 Policy M1.2 Establish direct coordination between cities and the County where the public interest should be protected through closer cooperation.

Transportation Land Use Goals, Objectives and Policy

Goal: To provide safe, efficient vehicular flow within and through the rural and urbanized areas of the County.

Objective T1 Provide a thoroughfare system which allows safe and efficient travel from one place to another.

Policy T1.1 Assure that major roads link employment, shopping and educational centers wherever possible.

Policy T1.2 Establish right-of-way and widths and roadway surfaces to accommodate anticipated future traffic loads.

Policy T1.3 Provide direct access onto major thoroughfares and carefully control the number of access points by the use of frontage roads for adjacent commercial and residential land uses.

Policy T1.4 Provide for curb cuts on major thoroughfare roads to be spaced such that traffic is not impeded.

Policy T1.5 Require proposed large scale new developments to provide evaluation of their impact on the surrounding road system and infrastructure and to confirm that design capacities will not be exceeded.

2004 Policy T1.6 Major road improvement should be financed in part through impact fees imposed at the time of creation of new parcels and uses, to compensate the public for the impact on the surrounding road system infrastructure that results for the proposed new development.

In fulfilling the responsibility of developing a Master Plan for consideration by the County Commission, the Planning Board performs under a set of general standards, as well as specific procedures. These are described as:

Basis of Decision Making

As with other police powers granted to administrative bodies, the exercise of zoning and subdivision regulations is itself subject to certain limitations. One of the most important of these requires that land use and management regulations cannot be applied in an arbitrary or capricious manner. Therefore decisions involving zoning and subdivision issues cannot be arrived at through an exercise of favoritism, whim, or by caprice. In addition, there must be consideration or adjustment, with reference to principles, the circumstances, or significance of the issue in relation to the general welfare of the public, in the establishment or enforcement of such regulations.

The procedures of the Planning Board for avoiding conflicts of interest, even the appearance of conflicts, or of compromise of ethical principals are presented below. Also presented are procedures for Planning Board members to follow in terms of assuring their informed participation in their planning and public hearing duties. The Cass County Planning Board references these these procedures when considering conflicts of interest as part of the Board's decision-making process.

Code of Conduct

Guiding Principals: The following principles should govern the conduct of the Planning Commission's business. They should be considered as advisory rather than

mandatory. Any questions regarding the interpretation and application of any of these principles should be referred to the County Commission by the Zoning Director when requested by the Planning Board. These principles are:

1. **Serve the Public Interest.** The primary obligation of Planning Board (Board) members and staff or the Zoning Department (Staff) is to serve the public interest.
2. **Maintain Public Confidence.** Board members and Staff must conduct themselves publicly so as to maintain public confidence in the public planning process and the official performance of the public trust. In administering the zoning and subdivision regulations, it is crucial that the decisions be made fairly. In addition, that the process by which decisions are developed is open and that it follows procedures that were developed openly and fairly. The credibility of the Board, the Board of Zoning Adjustment, and the Commission must be maintained at the highest level, without any appearance of unfairness or impropriety in the actions of these public bodies or their individual members. For this reason, it is important that a code of conduct be established and followed as closely as possible.
3. **Support Citizen Participation in Planning.** Because the definition of the public interest is modified continuously, Board members and Staff should recognize the right of citizens to seek to influence planning decisions that affect their well-being. Members should encourage a forum for meaningful citizen participation and expression in the planning process and assist in clarifying community goals, objectives, and policies.
4. **Recognize the Comprehensive and Long Range Nature of Planning Decisions.** Board members and Staff should recognize and give special consideration to the comprehensive and long-range nature of planning decisions. In review and decision making regarding Zoning Actions, the Board and Staff should seek to balance and integrate physical, historical, cultural, natural, economic, and social characteristics of the community or area with the goals of the proposed Action. They should strive to gather all relevant facts, consider responsible alternative approaches, and evaluate the means of accomplishing them before making recommendations. Board members and Staff should expressly evaluate foreseeable consequences of a proposed Zoning Action before making a recommendation or decision.
5. **Expand Choice and Opportunity for All Persons.** Board members and Staff should work together to make decisions which increase choice and opportunity for all persons of the County, and recognize a special responsibility to plan for the needs of people disadvantaged by physical or societal circumstances. They should bring to the awareness of the Commission policies, institutions, and decisions which restrict choices and opportunities and work toward changing these conditions.
6. **Facilitate Coordination through the Planning Process.** Board members and Staff must encourage coordination of the planning process. The planning and zoning process should enable those concerned with an issue to learn what other participants and regional actions are being considered, or which may have a bearing, thus permitting coordination of activities and efforts and accommodation of interests. Board members and Staff should strive to ensure that individuals and public and private entities likely to be affected by a prospective planning decision

receive adequate information in advance of the any Board recommendations being considered, with the purpose of allowing their meaningful participation.

7. **Avoid Conflict of Interest.** To avoid conflict of interest and even the appearance of impropriety, Board members and Staff who may receive some private benefit from a public planning decision must not participate in that decision. The private benefit may be direct or indirect, create a material personal gain, or provide an advantage to an immediate personal relation. A member with a conflict of interest must make that interest public, not participate in any deliberations on the matter, and abstain from voting on the matter. In such circumstances as a direct conflict, a Board member should step aside from the Planning Board and not participate as a member of the public when such deliberations are to take place. The Board member must not discuss the matter privately with any other member voting on the matter.
8. **Render Recommendations Thorough and Diligent Planning Service.** Board members and Staff should render as thorough and diligent an effort to consider all aspects of a proposed planning issue. Should a Board member believe they can no longer render such service in a thorough and diligent manner, they should resign from the position. If a Board member has not sufficiently reviewed relevant information regarding an issue before the Board, the member should not participate in the decision process.
9. **Not Seek or Offer Favors.** Board members and Staff must seek no favor. They must not directly or indirectly solicit any gift or accept or receive any gift, either in finances, services, travel, entertainment, hospitality, promises, or in some other form, under circumstances in which it could be reasonably inferred that the gift was intended or could reasonably be expected to be intended to influence them in the performance of their duties; or that it was intended or could reasonably be construed to be intended as a reward for any recommendation or decision on their part. Individuals must not offer any gifts or favors intended to influence the recommendation or decision of Board members or Staff. Any such offers made should be reported to the Board Chairman and Zoning Director.
10. **Not disclose or Improperly Use Confidential Information for Gain.** Board members and Staff must not disclose or use confidential information obtained in the course of their planning duties for financial or other gain. A Board member or Staff member should not disclose to others confidential information acquired in the course of their duties or use it to further a personal interest. Exceptions to this requirement of non-disclosure may be made only when a) required by process of law, b) required to prevent a clear violation of law, or c) required to prevent substantial injury to the public in their opinion. Disclosure pursuant to a) and b) must not be made until after the Board member or Staff has made reasonable efforts to verify the facts and issues involved, obtain reconsideration of the matter, and obtain separate opinion on the issue from the Chairman and Zoning Director.
11. **Insure Access to Public Planning Reports and Studies on an Equal Basis.** Board members and planning staff must ensure that reports and records of the public planning process are open equally to all members of the public. All non-confidential information available to a member or planning staff should be made available in the same form to the public in a timely manner at reasonable cost.

12. Insure Full Disclosure at Public Hearings. Board members and Staff must ensure that the presentation of information on behalf of any party to a planning issue is provided at the scheduled public hearing of that issue. Partisan information regarding the issue when received in the mail, by telephone, or other communication by Staff should be made a part of the public record. The Board Chairman at the commencement of each public hearing may request that any such information or communication concerning an issue before the Board, that has been received by Board members has been included in the public record, or is made part of the public consideration of that matter.

Conflicts of Interest

In making zoning and subdivision decisions, members of the Planning Board, Board of Zoning Adjustment, and the Governing Body should be acting in the best interest of the countywide community. Whenever a member of any of these bodies is acting on an issue in which he or she also has a personal interest, an important element of fairness is lost. In general, a conflict of interest is any situation in which a member is in a position to act upon or influence a development request, which includes the potential for direct or indirect gain, financial or otherwise. In order to clarify this general rule, the following guidelines are recommended.

No member shall act on or influence any development request when:

1. The member has a potential for direct or indirect profit or financial gain from the development;
2. The member owns or is employed by any company, which is an applicant, subdivider, developer or option holder;
3. The applicant, subdivider, developer or option holder is an established and regular client of the member or the member's place of employment;
4. One or more of a member's immediate family (parent, sibling, spouse or child) has a direct financial interest in the development or is an owner or officer of any company which is an applicant, subdivider, developer or option holder; or
5. The member has a potential for indirect financial gain or loss because of related property or business holdings.

Other situations not covered by these guidelines should be left to the judgment of the member involved. Again, the goals of fairness and impartiality are to be measures of that judgment.

When a conflict of interest does occur, however, the following steps should be taken:

1. The member should declare, and the record should show, that a conflict of interest exists with respect to a particular issue, and that the member will not participate in any discussion or action;
2. The member should step down from his or her regular seat and should not speak with any other members during the discussion of the issue at hand; and
3. The member should not represent or speak on behalf of the applicant, but may speak on this or her own behalf as a private citizen during the hearing.

Acknowledgement of Outside Information: During any public hearing, it is presumed that all sides will have the opportunity to hear the opposing side's information and arguments, and to offer rebuttal. This right is lost when discussions are held or information is provided outside the public hearing. The possibility exists that a decision could be based on information that was never discussed publicly. To avoid this situation, Planning Board and Board of Zoning Adjustment members should not receive any information relating to a case or discuss a case with anyone who has an interest in the outcome. Where such a discussion or information is unavoidable, the member should declare during the hearing, and the record should show, the general nature and content of the discussion or information and the participants in the discussion or the source of the information.

These guidelines also apply to any personal knowledge, which is relevant to the issue. If a member has any personal knowledge which will affect his or her decision, such information should be made public during the hearing and should be subject to rebuttal.

Informed Participation: All parties with an interest in a particular development issue have a right to a decision based on all of the available information. Any member who is not informed or aware of the available information should abstain from voting on that issue. This includes the following situations:

1. When a member has not reviewed the application or the information submitted with the application;
2. When a member has missed all or part of a public hearing and has not been able to review a transcript of the hearing; or
3. When a member has missed all or part of the discussion between members prior to the vote.

As a corollary to this policy, it is the duty of each member to attend normally scheduled meetings as regularly as possible. Without regular attendance, informed decision-making and full participation in the regulatory process is unlikely. The By-Laws of the Planning Board establish requirements and rules for attendance.

Master Plan Amendment and the Public hearing process

Annually the Planning Board reviews the contents of the Master Plan to assure it is an effective and being maintained as a current and relevant document in the administration of the County planning and zoning program for land use regulation. In alternate years, or as deemed necessary due to changes within the structure of the County and its land use, the Plan may be revised and amended in accordance with the public hearing process as described in the State statutes, and supplemented by procedures and fees adopted by the Planning Board or County Commission.

In addition to making amendments to the Plan, the Planning Board uses the public hearing process as part of the consideration of changes in the use or division of specific lands within the County. The Board is thereby in a position to provide an evaluation of the pertinent elements of the Master Plan as they related to these specific issues of a proposed change in use of lands, review such issues within the County in the context of

this Zoning Order and the Subdivision regulations, and the gather the considerations of the public. This process then informs the Planning Board in the broader maintenance of the usefulness of the Plan, as well as in the more specific applications of the Zoning Order and Subdivision Regulations. Thus evaluations provided by the Board to the County Commission in their consideration of the proposed issues are established in both the historic and current relevance to the County.

The Planning Board will meet each month at a predetermined date, time and location, and at other times as it deems necessary for the purposes of this process. The process by which specific matters are brought before the Board for consideration are defined in the

The development of the proposed Master Plan occurs through a series of work sessions between the staff of the Zoning Department and the Board. When the Board considers a section as having achieved a draft level, it will be made available for the public to review.

Coordination with Municipalities

During the review period, the zoning department will seek the review of municipalities within the County of the proposed Master Plan issues immediately adjacent to the potential areas of these cities. Review comments from these sources will then be considered as part of the final review by the Planning Board, such that the version being considered in the final public Meeting represents a consideration of the combined municipal authorities responsible for the public welfare within the County so far as practical.

Following a review period of all the proposed sections, the Board will then consider the completed draft Master Plan and comments from the public in a final review Meeting. Following incorporation of the results of these procedures, the resulting draft document is considered as a completed document by the Board. It will then be offered for consideration by the Commission as the completed recommendations of the Planning Board.

Role of the County Commission

The Cass County Commission, as the legislative and administrative branch of County government has responsibility for enacting and amending the Zoning and Subdivision Regulations after consideration of the recommendations of the Planning Board. In the public hearing process, one of the considerations of the Planning Board will be the compatibility and compliance of the issue being considered with the Master Plan. Therefore, in considering the recommendations of the Board, the Commission may adopt a resolution of support of the Master Plan as a means of informing their larger decisions in enforcement of the Zoning Order and Subdivision Regulations.

ARTICLE 2: LAND USE TIERS

A. Land Use Planning Tiers

Local government has a broad ability to mitigate the impact of changes in the land or the uses of the land for private benefit on the public welfare and adjacent land use in which the changes occur. The legitimate right of government to legislate land use for the protection and promotion of the public welfare must be balanced with a property owner's rights to promote the reasonable economic use of his property. The Master Plan attempts to balance the interests of all parties by considering the needs of individual property owners while promoting the good of the community-at-large.

The public also has a right to expect that the public benefits of changes in land uses, or changes with conditions, are considered and preserved. Preservation of historic structures or natural resources may serve the interests of both the public and individuals. As conditions of changing land uses, the inclusion of site and project specific environmental and infra structure requirements may be a tool to reduce the impact of a proposed change in use while they also promote both public and private interests.

The public also has a right to expect that the Planning Board and the Master Plan consider the longer term and larger environment than the immediate site in planning for changes.

The Master Plan for Cass County is the practical working guide for meeting with the growth and change occurring within the County. As such it includes goals and objectives that reflect the thinking and planning of community leaders and concerned citizens, the Plan builds on years of community planning. As Cass County is a large, diverse community with interests in the urban environment and roots in its historic agricultural base, goals and objectives contained in the Plan are formulated around planning that looks ahead while it provides a framework for current implementation of change in this context.

Regulation of land development is one way the Plan defines the longer term goals that seem to be indicated by the County in its recent time changes. The Urban Service, Multi-Use, Rural Density, Transportation Service and Environmental Focus Tier areas indicated in the Master Plan as Land Use Tiers are designations of areas where these goals are most clearly defined. These areas are indicated in schematic maps within the Plan. These Tier designations indicate the longer term goal that seems apparent in the trends of land use, but do not attempt to impose a tightly regulated definition on the current land uses. The detailed evaluation of specific parcels in relationship to these characterizations, and the implementation of the goals and planning concepts of the Master Plan are then included with the methods and procedures contained in the Zoning Order and Subdivision Regulations in the day to day management of uses and lands within the County.

B. Current Land Use Tiers

The Land Use Tier system was originally developed to assist the Planning Board in evaluating proposed Zoning Actions, such as residential, commercial or industrial development of new uses, in relationship to the current master plan for the entire County. The tier boundaries were generally laid out in the 2005 Comprehensive Plan utilizing several factors which were thought to provide an optimal coordination of a new use with the surrounding existing conditions.

Areas of consideration were:

- Natural barriers, such as drainage basin topographical definitions which affect storm water flows to the waters of the County, particularly in recognition of federal Clean Water Act water quality concerns;
- Constructed improvements, such as roads, utility infra structure and systems that support non-agricultural uses;
- Political boundaries of municipalities, water and fire district jurisdictions.

As uses expand and new uses are developed with their inherent infrastructure, Tier designations and boundaries must be reevaluated continuously. The 2005 Comprehensive Plan designed the following Tiers. While each use proposed in a zoning action is evaluated individually, there are goals for zoning actions in each of the Tier areas as follows:

Urban Service Tiers

Description: Urban density of land use is encouraged where urban related residential, commercial and industrial growth can be served cost-effectively by city services or by a community system of shared utilities, built to standards that are compatible with the neighboring city. This Tier occurs in depth around established urban areas where the extension of services from the adjacent municipality may be expected.

Zoning: The County encourages urban scale density zoning classifications where designated. Those uses where parcel sizes are below 3 acres will be required to meet County requirements for community or public sewer systems. Community sewers are considered to be limited, on site systems capable of collecting and satisfactorily treating waste flows. These package systems are engineered to meet State and Federal requirements for release of the final effluent.

Roads: Subject to requirements of the County Road Department, new uses and subdivisions of developed uses will be required to provide solid paved roads for interior roads and those portions of unpaved adjacent existing roads that have frontage along that use and are impacted by the increased traffic of the new use. Road widths and alignments are also to be established for future major streets, and will be provided by the project involved.

Utility Systems: Waste water treatment must be provided through a community system built to County standards, which are compatible with city standards in proximity to municipalities. Individual parcel, on-site septic systems are not allowed in cases where city services are provided, planned for, or may be effectively extended in a timely

manner. In special situations, where on-site septic systems must be used, easements are dedicated for future sanitary sewer trunk mains.

Multi-Use Tiers

Description: Areas immediately adjacent to and outside of an Urban Service Tier, or near municipalities, or along State or paved County highways are designated in this Tier. Uses suited for this designation are those which support the urbanizing environment as well as the non-agricultural, residential land uses adjacent. Commercial and industrial uses, and residential development that is denser than 20-acre lots, is encouraged where appropriate to site conditions. Such large scale use is allowed, including commercial and industrial zoning, provided there are provisions for direct access to paved roads and such use does not negatively impact adjacent uses.

Zoning: The County encourages commercial and industrial zoning classifications in this Tier where major thoroughfare roads or rail directly serve sites. Uses with parcel sizes of less than 3 acres will be required to meet County requirements for community or public sewer systems.

Roads: Subject to requirements of the County Road Department, new uses and subdivisions of developed uses will be required to provide solid paved roads for interior roads and those portions of unpaved adjacent existing roads that have frontage along that use and are impacted by the increased traffic of the new use. Road widths and alignments are also to be established for future major streets, and will be provided by the project involved.

Utility Systems: Waste water treatment must be provided through a community system built to County standards, which is compatible with city standards if within approximately 1.5 miles of a city. Individual on-site septic systems are not allowed in cases where city services are provided, planned for, or may be cost-effectively extended in a timely manner. In special situations, where on-site septic systems must be used, easements will be established and dedicated for future sanitary sewer trunk mains.

Rural Density Tiers

Description: Generally areas outside of the Urban Service and Multi-Use Tiers which surround the municipalities and major roadways, where rural density of land use is encouraged. Thus, subdivisions of land into 20 acre lots and larger is preferred. More dense development, with subdivided lots as small as 1 acre may be allowed where available infra structure is adequate or may be improved by the user. Fire protection water sources, and waste water treatment system limits will be important and limiting considerations in the zoning action process, as will impacts of such density on the character of existing uses.

Zoning: The typical zoning designation will be agricultural, which requires 20 acre parcels. Rural residential subdivisions will be limited by available utilities. Uses where parcels are smaller than 3 acres will be required to meet County standards for community or public sewer systems.

Roads: Subject to requirements of the County Road Department, new uses and subdivisions of developed uses will be required to provide solid paved roads for interior roads and those portions of unpaved adjacent existing roads that have frontage along that use and are impacted by the increased traffic of the new use. Road widths and alignments are also to be established for future major streets, and will be provided by the project involved.

Utility Systems: On-site waste water systems are allowed in development of rural subdivisions, as are community systems which meet State and County Health Department standards. On site systems utilizing evaporation ponds are limited to parcels of 5 acres or more. On site systems utilizing gravity or pressurized distribution systems may be used on parcels of 3 acres or larger, depending on standards set by the County.

Agricultural Preservation Tiers

Description: Where flooding is indicated by the National Flood Insurance Program, and in land areas where farming is intensively pursued, residences would be allowed only at agricultural densities.

Zoning: Residential uses will be the primary designation and parcel size will be limited to greater than 40 acres. The County may allow agricultural commercial or industrial uses where site conditions are considered to be favorable without impacting the overall agricultural intent or environmental conditions.

Roads: Private drives where they connect to public roads are required to have storm water ditching and culverts and surfacing improved to standards of the County.

Utility Systems: On-site septic systems designed according to County Health Department standards are allowed.

New Land Use Tiers

Transportation Service Tier

Areas of land which abut State or Federal highways and those which abut rail lines within the County are designated as Transportation Service areas. Uses proposed for these areas should be those which require either or both of these transportation systems in order to receive raw materials or goods or to distribute finished products. Residential uses are discouraged as being inconsistent with the environmental issues inherent with large scale transportation uses.

The focus of land use within this Tier is the transportation system. Thus the Tier is designated as occurring along and either side of a transport system. The general depth of the Tier will be 1540 Lineal Feet on either side of the center line of the transit system, although this may vary at the intersection of two such systems where adjacent road systems and access are affected. This designation allows for the 200 foot setback from the centerline of the State or Federal road, and a quarter mile beyond that.

Zoning: Industrial and commercial uses will be the primary designation and parcel size will be limited to greater than 5 acres. The County may allow increased density of use where environmental mediation procedures are part of the proposed use, and where site conditions are considered to be favorable without creating a negative environmental impact or impact to adjacent uses.

Roads: Connections to State and federal routes, and adequate road infra structure to manage the volume and nature of traffic normally a part of such uses will be required to be improved as part of the use. Interior roads and paving areas will be required to be designed for optimal environmental impacts and be integrated into adjacent systems.

Utility Systems: Waste disposal, storm water management and hazardous materials management systems will be required of all uses in this Tier.

Environmental Focus Tier

Included in this Tier are areas of land which abut the water ways, those areas where storm water drainage is a concern, or those areas where the potential for water reservoir systems of the County exists. Sites which are protected by State or Federal wetlands, wildlife or native site preservation regulations, and sites designated for public use or access as trails or public use areas are also designated as part of the Environmental Focus Tiers.

The purpose of such focus will be to preserve and protect such areas for the public welfare in the future, and limit adjacent uses that might have a negative impact on the environmental health of such areas. Uses proposed for these areas should be those which preserve and protect this condition for the larger public benefit. Residential uses are discouraged as being inconsistent with the environmental issues inherent in such sites. The presence of the potential for flooding in such areas will also be a limiting factor. Industrial and commercial uses will not be allowed unless they are considered by the County to further the public benefit from the natural environment.

In the case of water ways, the designation of this Tier will occur along and on either side of the stream. The minimum depth of these areas will be 75 feet on each side of the stream, but this depth will vary with consideration of the flood plain, topography or watershed issues. Watershed limits, or sites where the potential for creation of water reservoirs using natural topography and conditions are indicated by area definitions. Specific sites will be designated where they can be or have been defined by regulatory authority. Examples would be wetlands, native prairie or wild life preservation areas. Public trails and access sites would also be defined by specific area definitions.

Zoning: Agricultural will be the primary designation and parcel size will not be limited.

Roads: road infra structure will be limited to what is permitted by the National Flood Insurance Program in relation to management of the flood plain and the County Stream Buffer and Surface Water Management components of the Zoning Order. Road surfacing and paving areas will be required to be designed for optimal environmental consideration and be integrated into the adjacent systems.

Utility Systems: Waste disposal, storm water management and hazardous materials management systems will be required of all uses in this Tier.

Article III, Transportation Planning

A. Analysis

1. Results of Missouri Department of Transportation Studies: As Cass County has a substantial role in transportation activities adjacent to the Kansas City metropolitan area, the Transportation Service Tier is a preliminary approach to adjust and accommodate land uses to this end. Rails which extend from Mexico to Canada, and connector roadways for the Federal Interstate Highway system cross through the County. Lying between the metropolitan regional area and the major recreational central Missouri lake system, and the land routes to oil and gas resources in the Oklahoma and Texas region, and ultimately the Gulf of Mexico, the movement of goods, services and travelers across the County is expected to expand.

In order to gain some benefit from previous transportation usages in the County, the following data from the State Department of Transportation was tabulated. It shows where County residents were working and how they traveled to their work in the 1999 and 2000 time period.

The significance of the first set of data is that for every working resident in the County, there are approximately two others who are commuting to work outside of the County, either here in the region, or more widely. The second set shows the number of workers employed in the County who live outside of the County. Compared to the 14,616 County residents working in the County, an additional 40% of that number arrive here to work each day from other counties in the region.

Table 1

No. of Cass Residents Working

in These States

5	California
14	Colorado
7	Florida
7	Georgia
10	Illinois
17	Indiana
27	Iowa
	Kansas
38	Douglas Co., Kansas
6686	Johnson Co., Kansas
224	Miami Co., Kansas
197	Other Kansas Counties
1	Michigan
	Missouri
88	Bates Co., Missouri
14,616	Cass Co.
816	Clay Co.
71	Henry Co.
16,208	Jackson Co.
233	Johnson Co.
216	Platte Co.
448	Other Missouri Counties
8	Nebraska
5	New Jersey
7	Ohio
2	Oklahoma
1	Pennsylvania
7	Tennessee
8	Texas
6	Virginia

Total 39,951 Workers

Source: Missouri Department of Transportation and U.S. Census

Table 2

Workers in Cass County	That are Residents of These States
7	Indiana
5	Iowa
	Kansas
587	Johnson Co. KS
94	Miami Co. KS
251	Other Kansas
8	Michigan
	Missouri
834	Bates Co. MO.
2777	Jackson Co. MO.
1243	Other Missouri Counties
9	Nebraska
3	Texas
2	Utah
Total 5820	

Source: Missouri Department of Transportation and U.S. Census

Commuting to the work place is likely to be a factor for the majority of the working population of the County. This table of data provides a view of how workers in Cass County historically get to their work place.

Table 3

No. of Workers	Means of Transport				Work at Home	Mean Time One Way
	By Car	Car Pool	Public Trans	Other		
40,755	33,614	4,711	114	755	1,561	30 minutes
	82%	12%	0%	2%	4%	

By Comparison, Jackson County residents travel to work this way:

310,789	250,115	35,711	8,476	7,991	8,496	23 minutes
	80%	11%	3%	3%	3%	

Source: Missouri Department of Transportation and U.S. Census

Although this data is at the end of its effective life, the County anticipates that the new census will show much the same relationship of employment and transportation needs. This revision to the Master Plan recognizes that the transportation routes crossing the County area are not just for the benefit of tourists or business uses passing through on the State and Federal routes. In fact, they provide access to employment for the

majority of our working residents, whether their job is within the County or the larger metropolitan region.

2. Overview of existing conditions and land uses in target corridors

Route 71 Corridor: As indicated on the Transportation Service Tier mapping, U.S. Route 71 not only connects the urban centers of Archie, Harrisonville, Peculiar, Belton and Raymore, it is also abutted by several subdivisions, and numerous individual residential parcels. The commercial cities are served by the intersection hubs of State Routes, including the 187th Street hub at the north, and possible additional interchange hubs at 211th Street north of Peculiar and at the current bridge over Route 71 north of Harrisonville. South of Harrisonville, the grade level crossings at 307th and 327th currently serve primarily residential access. The potential improvement of these two connections into interchanges as the conversion of Route 71 into Interstate 49 is expected in the next few years.

Land uses along this corridor, and lying to the west of it in the area between the Missouri Pacific rail and the highway are predominantly agricultural and residential, with only the occasional commercial use, such as traveler related services. Similarly, infra structure development has moved along only on a service as needed basis. Improvement and increase in activity on either the rail or highway will certainly result in changes to these usages, with the resulting improvements to services.

Route D Corridor:

As indicated on the map, Missouri Route D connects the urban centers of Kansas City and Belton to Cleveland, Freeman and Drexel along the west County boundary. Adjacent to the roadway, the Kansas City Southern line connects rail with both Canada and Mexico through the larger KCS system. Commercial uses are relatively few, and several existing subdivisions and numerous individual residential parcels lie along either side of the roadway. There are numerous at grade crossings, essentially at each County road, as well as the State Route 2 connection to Kansas Route 56. The potential improvement of these connections, especially Route 2 is also highly likely. Accompanying this will be a need for infra structure development, water and sewer services.

Environmental

Coincidental with any changes use that may occur along these routes will be impacts on the environment, either by the use itself, or by the water and sewer system revisions that will accompany it. Both of these routes system lie along relatively mild topography. The environmental challenge will lie more in the fact that they run parallel with the largest water shed in the County, the headwaters of the Grand River. Protection of the quality and performance of this water way will be a priority concern in the planning process to anticipate developmental changes in the land use.

B Goals

1. Summary: It is apparent that accommodating these growth modifications to both rail and surface transport concurrently with seeking to minimize their impact on our agricultural and residential areas will require a long term and comprehensive effort. The

potential for the improvement of U.S. Route 71 to Interstate 49 within Cass County is strong. In addition, the development of a transportation regional facility at both the former Gebaur base in Grandview and at the hub location in Johnson County, Kansas will likely impact both transport activity and development within County areas. Similarly, the proposed expansion and improvement of the Smith Airport in Harrisonville will benefit from coordination and cooperation between the City and County. The residential nature of the County provides a work force to the region. Our agriculture helps support both the population and some of the industry.

The County begins a new effort to manage the confluence of these issues with this Master Plan. A key element of this new approach is the establishment of the Transportation Service Tier. By adding emphasis in planning for land uses which support and are accessory to transportation issues, in several corridors, the Master Plan focuses growth patterns and land usage along those intended approaches. The most obvious is the U.S. Route 71 corridor, and the adjacent Missouri Pacific rail line. Secondary emphasis will be toward the Missouri Route D and Kansas City Southern routing corridor on the western edge of the County.

By prioritizing development issues to coincide with these uses into these corridors, there is a coincidental benefit of better preserving the balance of the County for residential and agricultural needs.

2. Correlation with State and Federal Planning: Currently the County maintains a strong working relationship with the State Department of Transportation. Financial matters are integrated, and the County coordinates its long term road planning and bridge maintenance and repair efforts with State maintenance to maximum the effectiveness of projects. The opportunity to obtain matching State funding credits and the benefits of keeping County projects concurrent with related State projects are two of the immediate rewards for this effort. The potential improvements by the Federal highway system, as well as the State system will call for an acceleration of that cooperation. The Commission has made connections with the Kansas Department of Transportation, which is also investigating improvements to utilize Kansas Route 56 as a connector route from Interstate 35 at Ottawa eastward into Henry, Johnson and Lafayette counties.

C Near Term Objectives

1. Opportunities and Constraints for Connectivity and Growth: Improvement to transportation systems originating with the Federal and State systems offer opportunities for the County to magnify the road improvement impact. Large projects such as the conversion of the former Richards Gebaur base or the conversion of Route 71 to an Interstate quality system may be expected to have corollary impacts and perhaps improvements to the adjacent County systems. The bridge structure at the intersection of Routes 150 and 71, and the potential improvements to the access to Route 71 at 187th, 211th, 283rd, 307th and 327th streets and at Routes 2 and Route D are examples of such improvements that affect the peripheral systems that are administered by the County.

While such improvements provide better transit connection and commuter transport for County residents, they also increase the potential for related commercial and industrial development at such transport hubs. At this early stage of planning, the objective of the

County is to anticipate as much as possible these potentials, such that steps to have infrastructure and environmental management already in place.

The planning is somewhat constrained by uncertainty as to the details of any possible development. Funding for such improvements, both through the County management, or the independent fire protection, water and sewer district management is limited. Such limits prevent any realistic establishment of land use restrictions through pre-development zoning designations. However, having planning goals in place which direct, from the very initial project development point, such improvements along paths that benefit both the current and future land uses at such critical junctions of commerce and industry is critical.

2. Coordination with Municipality Master Planning: Currently changes in land use designations with proximity to municipalities are coordinated with the city administration, such that the local master planning and the proposed County area changes are working together toward common solutions and accommodation of changes. As noted, the expansion of Harrisonville's growing airport, and the inter-relationship of that transport center with the adjacent Route 71, Route 7 and 283rd Street surface route improvements will be a near future combined planning effort.

An objective of this Master Plan is to increase this coordination along these transportation corridors which are the focus of this Tier. When the County and adjacent municipality work closely together to accommodate and direct growth in these areas, the protections for the environment, the optimal use of limited funding for infrastructure and the benefit to the existing residents and uses within the City and the County are optimized. Such planning establishes tried and proven approaches, which can then act as models for development for other transportation routing within the area.

3. Development of Infra-Structure Capabilities: Beginning with the areas within this Transportation Tier, the County intends to initiate an early objective of characterizing the current infra-structure. To facilitate the potential for development of these types within the Tier, the location of water sources, sewage treatment potentials and power supplies will be researched with the suppliers of utilities. Included will be their plans for modifications to their systems within these target areas. Concurrently, any potentials for mass transit in cooperation with State and local municipalities will remain in focus as both a near and long term objective.

4. Concentrated Development Potentials: Use of land will be viewed in the same way, such that development may be concentrated, leaving intact tracts of environmentally sound, relatively undisturbed areas. Use of existing capacities of infrastructure as well as land will be optimized by this approach. This will help preserve as much as possible the current open space and agricultural nature of the County

A corollary benefit of this focus will be the minimization of public cost. While not readily apparent, the recent practice of simply moving a use to the edge of the existing community rather than an accommodation of existing sites leads to costs for expanded infrastructure, emergency and other services. To abandon a retail use in one location to simply rebuild a similar use at the edge of development, in green field lands as so commonly seen in the last two decades is a frivolous use of resources, resources that the existing community has generally already paid for in one form or another.

5. Sustainable and Smart Design: In the planning process for the possible uses in Transportation Tier and the Environmental Focus Tier discussed above, the principles used in development of uses are most desirable when they are based on methods that provide for the longer term focus, and most efficient use of materials and methods. As a current concept in the built environment, and commonly referred to as Sustainable or Smart Design, and more fully described below, this approach reintroduces several concepts into the planning of projects.

In the last part of the 20th Century, an era of cheap fuels and resources, and abundant capital, design methods which focused on efficiency, minimal use of resources and recycling had not received much emphasis. In reality, these principles have been utilized by our indigenous peoples throughout American pre-history and early colonial times.

Stated simply, design of changes to the landscape for the purposes of housing, agriculture and other human endeavors began with some basic standards. Three of these are design processes which evaluated the project purpose, consider the resources needed at the beginning and throughout the life of the design, and determine how the design might utilize these resources in the most efficient way. The ultimate result was to leaving the smallest impact possible on the land, now referred to as reducing our carbon footprint. Land uses of the Pueblo people of the Southwest are a workable example of how constructs on the land can be made in ways that benefit the inhabitant and meet their needs without overtaxing the available environmental resources.

In today's terms, the emphasis is more on the uses of energy and water. While our building materials have improved since mud brick, the concept of conserving materials, and utilizing them in ways to make the fullest use of the natural renewable environment for heating, lighting, ventilation, and water use are more important than ever.

Now being evaluated as having a new application potential are such planning concepts as compact building design, a mix and a range of land uses, including housing. Development demonstrating a concerns for a balance of pedestrian and vehicular uses, and focusing on the preservation of open space, while fully utilizing existing development and communities will be strongly considered. An immediate objective of this Master Plan is to accommodate and increase the use of these principles, applying them specifically to the consideration of projects occurring in these Transportation Tiers.

6. Environmental Impacts: Projects developed under this Master Plan will minimize the impact on the environment by considering the regional impact of the components of the project throughout its life. Use of all resources in the project and the overall built environment will be given priority over development that focuses only within the property boundary. Water landing on, entering, used by and leaving such a project will be managed using as balanced a life cycle approach as technology and planning may provide. Similarly, the impact of energy such as fuels arriving at, being used by and exhausted from a land use will be optimized.

Therefore the County has set as a near term objective the development and adaption of the concepts of "green", "reusable", "smart", "sustainable", in the most recent terminology, into a set of standards to be used in evaluation of proposed land uses within our area. Thus projects, developments, and uses of all scales will have a

measure of their short and long term effects on the holistic environment of all the residents and users of the County resources.

D Long Term Objectives

1. Program Evaluation: Equally important to the development of ways to implement such planning concepts are the methods to measure approaches for the evaluation of these changes in the area, and the ability to report on the benefit of such methods. Thus the renewal of the objectives of this Master Plan, and the Transportation Tier in specific, may be effectively evaluated by the County administration.

2. Ordinance Structure: As part of the analysis of the potentials for development and use of the Transportation Tier, and the planning process to optimize its usage, current ordinances will be reviewed. The goal will be to support such revisions to the planning process planning and design of projects so that they benefit the residents of the County at large. Any required changes in ordinance structure may then be implemented over a period of time.

3. Resources: These expected changes in land use may develop a need for public ownership of land or infra-structure, such that a long term approach to the creation of a Transportation Tier will be to investigate funding mechanisms for public land acquisition, maintenance, monitoring and creation of infra-structure.

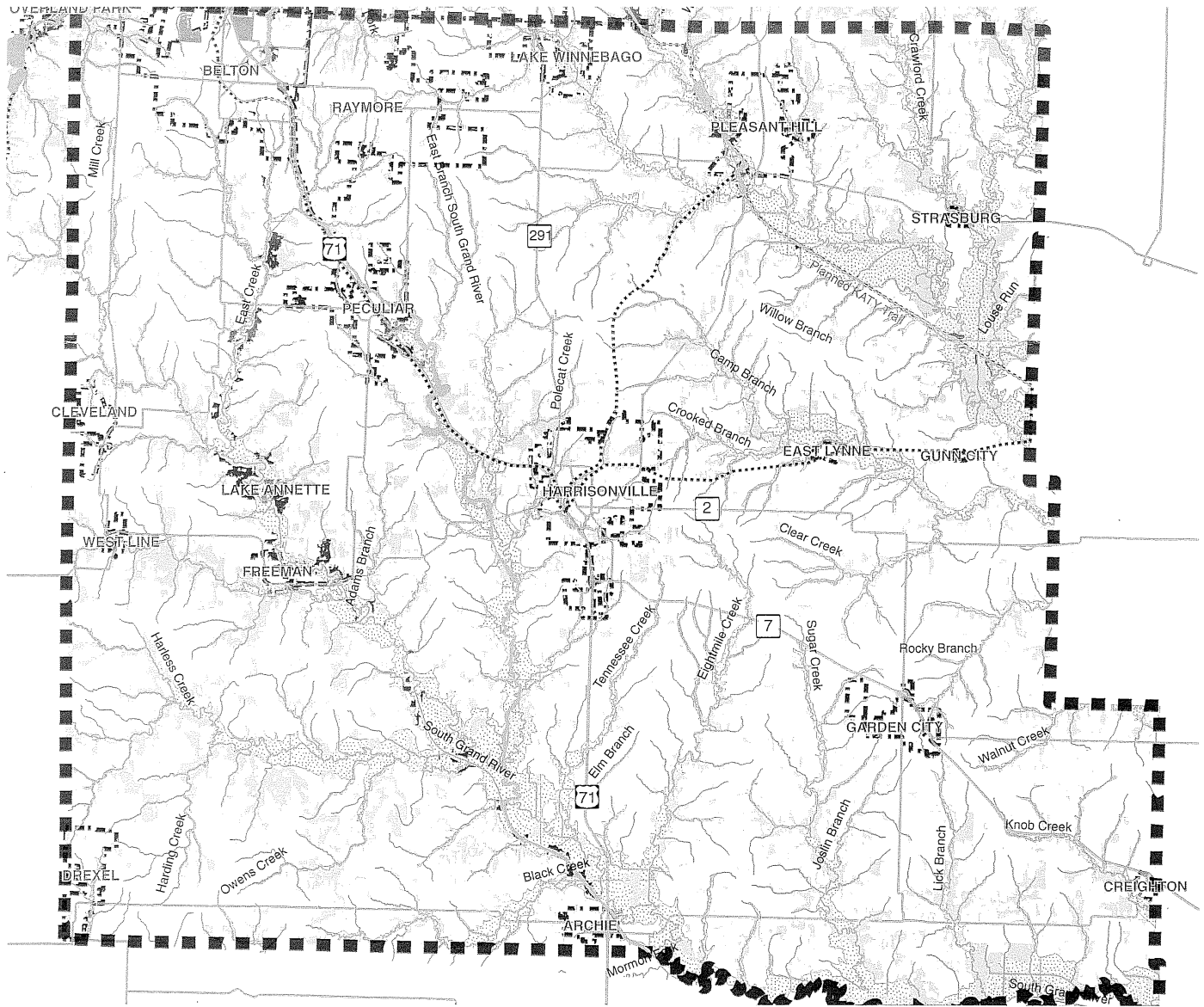
Article IV Environmental Effects

A. Analysis

1. Inventory of Current Environmental Conditions

a. Existing Streams: The land area of Cass County contributes almost entirely to two major watersheds, both of which are contributory streams to the lake system of the north central Ozarks Plateau. At the very northwestern corner of the County, Mill Creek collects water which feeds into Loch Lloyd, and ultimately the Blue River system and the Missouri River. The western and southern land mass, almost two thirds of the County area, is drained by the Grand River system, while the northeastern third is the upper watershed of the Big Creek system. Big Creek and the Grand join at Warsaw Missouri, and then in the current lake system both join the Osage River. After exiting the lake system, the Osage turns back to the northeast and joins the Missouri just east of Jefferson City.

Mid American Regional Council in conjunction with MetroGreen produced the following map of the watershed areas and major streams in Cass County.



FEMA – NFIP Flood Prone Areas of Cass County

The above mapping indicates in gray shading the areas along the Big Creek and Grand River Basins and tributaries which are prone to flooding. Areas of the Grand River near Archie have flood plains as wide as three miles. Similarly, the Big Creek Basin between Gunn City and Strasburg has low, flat topography and flooding approaches two miles in width along this stream and its tributaries.

Map courtesy of MARC

b. Existing Flood Plain Areas: With the establishment of the National Flood Insurance Program in the 1970s, mapping of the potential flooding extensions of the stream system was carried out as a cooperative venture between the State and Federal governments. As a member of the NFIP Program, which memberships enables Cass County residents to purchase flood insurance for their properties, the County follows guidelines and requirements of the Program. These are described as the regulations of Article 7 of the 2007 Zoning Order.

The topography of the northern Grand River system is generally more dramatic. The watersheds of East Fork and Wolf Creek, at the edge of the urban centers of Belton, Raymore and Peculiar, drain a mildly rolling topography. As the Massey Creek basin north of Freeman joins the tributary system, the terrain demonstrates more pronounced hills. As a result, flood plain prone areas of the County in the upper watershed have relatively narrow extents. Where Poney Creek joins the Grand southeast of Freeman, however, the terrain flattens considerably, and flood prone areas become much wider.

The Big Creek system occurs in similar lower profile topography, especially south and east of Pleasant Hill. Where Alexander Creek joins the Big Creek system at Lake Winnebago, the topography is also rolling hills, but south of Pleasant Hill, where Duncan Creek joins the system, the topography has begun to flatten considerably. In this terrain, the flood plain may be three miles wide in places, which severely restricts the use of the land for anything except flood tolerant farming.

c. Topography: The Cass County Geographic Information System (GIS) has developed topographic mapping which is much more detailed than the U.S. Geologic Survey data. While U.S.G.S. maps indicate changes in grade at intervals of ten vertical feet, the Cass County G.I.S. system has developed data and mapping at intervals of two vertical feet.

d. Land Use Inventory: In addition to providing information to describe the topography of the County, a cooperative effort between the G.I.S. and Zoning Departments has led to the establishment of a Land use Inventory Mapping System (LIMsystem). While the vast majority of land use is agricultural, designated as AG, with farm based residential uses, or independent residential properties of less than 20 acres, designated as R-R, R-S or R-1 Districts, the current LIMsystem indicates land uses that differ from these most common uses. While historical zoning designations may differ from the current intent of the Zoning Order, the Uses defined below and still under development would be designated on parcels that have been formally amended by historic zoning actions:

"R-2" Two-Family Residential District

Intent: For development of certain moderate density areas for the placement of single family and two family dwellings.

"R-3" Multi-Family Residential District

Intent: For development of certain moderate density areas for the placement of two family or multi family dwellings by use of a Mixed Use Overlay .

"M-P" Manufactured Home Park District

Intent: To permit low-density manufactured home uses in a park-like atmosphere where such zones are compatible with adjacent land uses and the general welfare of the residents.

"C-1" Local Business District

Intent: to provide commercial locations for small clusters of low volume and convenience retail and service use in and near residential uses. These commercial uses typically occupy small sites with strong connections to arterial streets in areas that are otherwise wholly residential.

"C-2" Business District

Intent: to provide commercial locations for medium volume, free standing uses which are compatible with adjacent residential neighborhoods and rural areas. Retail uses, services supporting such uses, and services which require some proximity to residential areas as well as to arterial streets and highways are appropriate. Large commercial office or retail center uses are not appropriate for this District unless they are provided under planned Mixed Use Overlay procedures that complement the underlying zoning district.

I-1" Light Industrial District

Intent: to provide locations for those production, manufacturing, assembly, and related industries in which the finished product is generally produced from materials which require minimal exterior material storage. Uses whose greatest impact on the surrounding uses is the generation of traffic in the movement of goods and personnel are appropriate. Commercial, retail and service uses in this district are generally those which serve the convenience of the industry or its employees.

"I-2" Medium Industrial District

Intent: to provide locations for production, manufacturing, assembly, storage and distribution industries and uses which generate traffic, noise, light pollution or waste handling conditions that the County considers as having the potential to create a negative impact on, or require separation from, any nearby residential uses. Commercial, retail or service uses also included in this district are generally those which serve the convenience of these principal industries or their employees.

"I-3" Heavy Industrial District

Intent: to provide locations for production, manufacturing, assembly, storage and distribution industries and uses which generate traffic, noise, light pollution or waste handling conditions that the County considers as having the potential to create a negative impact on, or require separation from, any nearby residential uses. In addition, such uses that the County considers as having the potential to be harmful to the environment, or which are regulated by Federal or State authorities are uses intended to be included in this District. Commercial, retail or service uses also included in this district are generally those which serve the convenience of these principal industries or their employees.

S Numbers

These are Special Use Permits which designate sites where uses exist on properties where the background zoning designation has not been changed. For example, communication towers operate under Special Use Permits issued by the

County. A parcel on which a tower exists will be indicated by an SUP number of 4 digits.

2. Statutory Preservation Methods

a. Flood Plain Ordinance: Unincorporated areas of Cass County identified on the Flood Insurance Rate Maps (FIRM) or Floodway Maps, as issued by the National Flood Insurance Program, (NFIP) administered by the Federal Emergency Management Agency (FEMA) and determined to be within the floodway and flood fringe districts are restricted by the County Zoning Order, Article 7, 2007. The County enforces these floodplain regulations to meet provisions of 44 Code of Federal Regulations, Part 60, §60.3.(d) relating to floodplain management criteria for flood-prone areas, and of County Ordinance 06-05, dated March 09, 2006.

The designated flood hazard areas of the County are subject to inundation which may result in loss of life and property, health, and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base all of which adversely affect the public health, safety and general welfare. Losses are caused by: 1) The cumulative effect of obstruction in floodways causing increases in flood heights and velocities, and (2) The occupancy of flood hazard areas by uses vulnerable to floods or hazardous to others which are inadequately elevated or otherwise protected from flood damages.

The Federal NFIP has selected a regulatory flood event (RFE) which is based upon engineering calculations which permit a consideration of such flood factors as its expected frequency of occurrence, the area inundated, and the depth of inundation. The regulatory flood event regulated by the County is representative of large floods which are reasonably characteristic of what can be expected to occur on the particular streams subject to this regulation. It is in the general order of a flood which could be expected to have a one (1) percent chance of occurrence in any one year, as delineated on the Federal Insurance Administration's Flood Insurance Study, and illustrative materials dated March, 1980.

It is the purpose of this Ordinance to promote the public health safety and general welfare and to minimize those losses described in section by applying controls which:

- 1) Restrict or prohibit uses which are dangerous to health, safety, or property in times of flooding or cause undue increases in flood heights or velocities.
- 2) Require that uses vulnerable to floods, including public facilities which serve such uses, be provided with flood protection measures at the time of initial construction.
- 3) Inform the public of the presence of lands which may be unsuited for intended purposes because of flood hazard.

- 4) Assure that eligibility is maintained for property owners in the County to purchase flood insurance in the National Flood Insurance Program.

b. Surface Water Management and Erosion Control

Under the Federal Clean Water Act of 1972, storm water management regulations were first implemented for Cass County in the 2005 Master Plan, and then made ordinance in the 2007 Zoning Order, Article 8. The County maintains a requirement for surface water management planning of the impact and potential for pollution of the waters of the County and the State resulting from rainfall, in particular to demonstrate compliance with the National Pollutant Discharge Elimination System (NPDES) Phase II section of the Clean Water Act.

The Missouri Clean Water Law and the Missouri Code of State Regulations also require specific permitting in order to regulate activities that cause land disturbance. A land disturbance permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that includes controls to protect against soil erosion and to limit waste and pollutants on sites, through inspection, monitoring, reporting and record keeping. In response to these regulatory requirements, the County established regulations limiting impacts to the waters of the County from any land use which damages, alters or removes natural vegetation such that soil erosion may occur, or which introduces pollutants as defined by State and Federal standards to a site without limiting the potential for such pollutants to extend into the public way and waters. Such uses include, but are not limited to:

- 1) Land clearance operations or construction activities,
- 2) Land uses, such as animal density, which diminish the natural ground cover to the extent that there is a potential for soil erosion, without creating new protective covering by utilizing best management practices, (BMPs),
- 3) Uses which introduce polluting substances of a type, or by methods, or to the extent that they have the potential to leave the property during storm events and reach public lands or waterways, and for which BMPs are not utilized to limit this potential.
- 4) Such land uses shall be considered as violations of this Zoning Order, a misdemeanor. The administration and enforcement response by the County shall be as described in the Administration Article of the Zoning Order.

3. Management Methods

a. Effective techniques to aid in storm water management are referred to as best management practices (BMPs). BMPs seek to maintain or reduce the amount of storm water runoff generated within a watershed by maintaining watershed hydrology and natural ground cover. Treatment methods to be applied to the runoff where possible to remove the pollutant load are also described. The County maintains, under separate order, descriptions of BMPs that are recommended by the Federal Environmental Protection Agency and the Missouri Department of Natural Resources. BMPs may

include structural facilities, non-structural solutions or biological controls to achieve the following management practices:

1) Preserve and promote natural hydrology of a site by maintaining or reducing the amount of additional storm runoff created by uses on the site, and by promoting natural hydrological characteristics of the site and its surfaces. New uses or alterations to surfaces for existing uses, or failure to maintain surfaces and ground cover for optimal run off characteristics for existing uses, shall not have the affect of increasing the volume of storm water leaving the site from those levels that existed before the change; nor shall the rate at which run off leaves the site or the direction and location be altered; nor shall there be any suspended polluting materials in this storm water.

2) Install erosion and sediment controls which, when implemented, prevent or minimize erosion of the surface soils and control the amount of sediment or pollutants leaving a site.

3) Provide and protect buffering zones along sensitive water bodies from new uses, or alterations to surfaces for existing uses which restrict the approach to shorelines of wetlands, streams and lakes within the County, in order to protect these areas from disturbance or encroachment, and to sustain the integrity of their ecosystems and habitats. Protective measures are in the form of water pollution hazard setbacks which separate a potential pollution hazard from a waterway, vegetated buffers that divide active land uses from encroaching on the buffering zones and engineered buffers specifically designed to treat storm water.

4) Stream Buffer Requirements: As referenced above, Article 8 of the current Zoning Order has adopted an overall watershed protection strategy which includes stream buffer protections based on three zones of protection along streams, active and seasonal. The effective stream buffer width zones are the Streamside, Middle core and Outer zones. Each zone performs a different function and has a different width, vegetative target and management scheme. Two major goals of a stream buffer network are to maintain an unbroken corridor of riparian forest and to protect the upstream and downstream passage of natural wildlife in the stream channel.

5) Setbacks are based upon contributing area of the watershed involved as follows:

Contributing Drainage Area	Streamside Zone	Middle Core Zone	Outer
Watershed less than 40 acres	25 ft	25 ft	25 ft
40 to 160 acres	25	40	25
160 acres to 5000 acres	25	50	25
Greater than 5000 acres	25	75	25

Agrarian uses, such as cultivated cropland or pasturage, on land in an Agricultural District, are permitted to intrude upon the Middle Core zone, so long as they do not contribute to a state of non-compliance with Federal, State and County regulations.

B. Goals

1. Promote Use and Preservation

As a model, environmental protection programs that include a viable component designed to improve both the involvement of the public in the use of the land, as well as the protection and preservation of it has been selected in this Master Plan. Rather than static preserves of spots of natural environment, those uses which allow for interaction with that environment and seek to find actual uses of such spaces without endangering them hold the promise of a longer term protection of the specialized environment. While traditional uses might prove destructive or harmful, alternative uses may provide a better model. Thus, a wetland might be drained and farmed, might be preserved without any interaction, or might become a hunting or observation area to promote tourism. Missouri has taken steps within the Osage Basin to both improve and protect the riparian environments along the streams of this large watershed, as well as to promote the uses of those same areas for recreation and hunting. Cass County is currently seeking to expand that program northward along the Grand River and Big Creek stream systems. The County will explore procedures to evaluate these and other kinds of choices as a means to make environmental preservation issues more economically viable.

2. Education

While Cass County does not have an abundance of large or famous environmental habitats like the Ozark Plateau, it does have micro sites that offer more subtle specialized habitat. This is in part due to the historic efforts of the State Conservation Department, the Thomas Hart Benton chapter of the Sierra Club and the work of the South Grand River Watershed Alliance. The County will seek to expand the awareness of the public at large of both the areas where habitat is specialized and at risk, as well as the opportunities for involvement of the process of protecting and preserving such areas. There are small areas of unplowed, original prairie which could benefit from a stronger awareness for example.

3. Citizen Involvement

a. A Goal of this Master Plan is to involve the resources and interests of the citizens of the County into the administrative attempts to protect and preserve the environmental health and integrity of the region. With 700 square miles of land area, the County intends to develop methods to involve citizens as individuals or proactive groups, to act at a local level to bring an awareness to the citizenry, to provide concepts for methods of use, preservation and protection that are based in the most site specific approach possible, and to provide monitoring of the changing conditions that affect the quality of our combined environment.

b. In addition to impacting the land, residents are also observers of the land. As an agriculturally based region, there is an historical involvement of the citizens of the County with the land and its flora and fauna, and its weather. The impact of weather, second only to the impact of humans on the land in terms of damage, may be extreme, principally because of the erosion character of the native soils. Another goal of this Master Plan, while increasing the awareness, and decreasing the impact on the land, is to increase the individuals skills in observing the impacts of use and weather on the land in those areas that they routinely interact with in their daily life. If the citizens of the County can aid in being stewards and guardians, the opportunities to prevent and

reduce the loss of topsoil and habitat is increased. More specifically, then, the Master Plan will explore ways to provide training to individuals to improve their awareness and observational skills so that they might assist in the caretaking of the lands of the region.

C. Near Term Objectives

1. Establish Focus Areas

Part of the purpose of this Master Plan is to focus attention and planning toward the identification of specific areas of the County that are sensitive to changes in the environment. Wildlife habitat, which may be critical to animals or plants or both, is being identified in the Environmental Focus Tier approach. Wetlands, areas where the topography and drainage features create natural and recurring water levels which provide protection to streams and filtering of water systems are also defined by existing standards of Federal and State authorities. By identifying habitat, the County has the goal of providing for the managing impacts from land use on such areas, so that their characteristics and benefit to the public at large are included in planning for development.

a. Habitat Preservation: An objective of focusing attention on such areas is twofold: to preserve and protect those distinct areas from damage through development without awareness of the potential for losing such critical environment, and to promote the health of these areas, where possible in ways which make the areas economically sound to preserve.

b. Osage Basin Initiative: A more specific goal, originally defined in the recent Osage Basin Project, is to provide similar focus on the streamside protection of the larger waterways within the County. Targeted first are Big Creek and the Grand River as the main tributaries of the Osage River, the headwaters of that river. Part of this goal is to acquire funding to more actively manage the preservation of the current stream buffer protective restrictions, such that the habitat alongside these larger streams is protected enough to both allow it to function as the filter and guardian of the stream banks, as well as to allow limited use of such areas for public recreation. These micro climates and landscapes have tremendous variety and beauty, and only require a more delicate preservation and observation. As a region on the edge of the Great Plains, Cass County with the headwaters of the Osage River Basin, has a great opportunity for the public to enjoy interaction with nature and also effect a stream that runs most of the way across the State.

2. Establish Best Management Procedures

The County uses management tools and resources from a variety of sources in the goal of water protection. The American Public Works Association publishes a variety of standards which provide solutions to surface water problems related to urbanized development. The partner agencies of the Environmental Protection Agency and Missouri Department of Natural Resources provide direction for management methods as well. These are presented in the form of a library of specific methods called Best Management Practices. These tools have been developed to provide mechanical controls and structures that can be used to solve problems that arise from projects which disturb the natural conditions of the land, and therefore have the potential to cause erosion. As an immediate object, the County has adapted the first of a two part

set of these methods in order to provide a resource to individuals and organizations who have need to undertake projects which have the potential to cause erosion and pollution issues.

These Best Management Practices will be assembled as a Procedures publication and made available for both public education and use by the construction and developer industries. Those which have the best potential for use on individual parcels by the resident land owner will be indicated by a number. Most of these BMPs lend themselves to methods of effective control in projects which develop new or modified land uses, and typically involve altering the topography of a site or adding structures. Because they are of an approach or a scale to be used by a home owner on a residential sized parcel by either the owner or the builder, their implementation is relatively simple. In addition, large scale land uses such as agricultural and larger developments will find procedures suitable for protection of surface water impacts and stream quality among these approaches.

A second addition of procedures will be developed immediately after the first, and will include both the most current design standards, and additional solutions to assist in surface water protection and management.

3. Citizen Involvement Approaches

There are a variety of methods for involving the citizens of the County, varying from informational programs to actual participation efforts. These are also described in the Article regarding Citizen Participation in this Master Plan.

a. Educational: Information may be provided by means of the web site, by direct contact through mail and other literature, notices of activities by conservation and environmental groups, and informational articles in the public media.

b. Training: A more active involvement may include training programs available to citizens or more targeted parties. Examples would be pre and post construction requirements focused on the construction industry to help protect against accidental pollution, programs to provide more detailed protection steps available to home owners and homeowner association issues relating to trash, septic maintenance and similar protections.

c. Goals for Individual Involvement

The individual who lives on the land has two basic impacts on that land. They leave an environmental footprint from their day to day use, and they provide an opportunity to make that footprint as supportive and conducive to the long range quality of that environment. A goal of this Master Plan is to provide tools to augment both approaches. Information describing positive ways to impact the land, which minimize the negative impacts, is an immediate tool. The County will attempt to develop such information, using available resources from the Federal Environmental Protection Agency and the State Departments of Conservation and Natural Resources, more localized resources of environmentally active citizen groups, and the contributions of individual citizens. When such resources are available, the goal will be to find ways to provide that information to the public in such a way as to encourage its use today and in the future.

d. Goals for Group Involvement

In addition to the goals above, it is likely that there will be environmental issues complex enough or so far reaching as to benefit from the efforts of a team of participants. The goal of the Master Plan is to draw from the citizens of the region wherever possible to provide the most immediate and invested perspective. Deliberation of alternative solutions to problems and long range planning for issues such as water reservoirs and waste management are just two examples where the working task force or focus group approach would seem most appropriate. To this end, this goal will seek to design and implement training and participation methods that will enable a team of participants to contribute to such issues.

4. Develop Planning and Design Methods

This Master Plan has an objective in establishing standards for evaluating new proposed uses of land in the County, such as the development of residential subdivisions, commercial or industrial projects and special uses occurring on parcels. With an emphasis on measuring projects in terms of their large scale impact for both the immediate and life cycle use, the practical aspects of Sustainable Design and Smart Design are effective ways to evaluate projects.

a. Sustainable Development Approaches

“Sustainable Design” is generally used in conjunction with Smart Design principles because it adds a series of best management techniques to extend the consideration of impact of the built environment into longer term accountability. The life of a project by this approach is considered from the pre design period all the way through the recycle into a different use, perhaps years after the normal life expectancy. This approach also looks at detail elements of the project; materials, energy uses, job creation, or life time productivity. The intended result is a product that supports the needs of the user client, the community, the developer, the regional and global ecology.

The benefits of this management approach are intended to be distributed across the spectrum of stakeholders, from the project user, to the neighborhood area, to the owner-developer to the community as a whole. Perhaps the greatest benefit is in the analysis and design aspects that are concerned with energy use, land use, air and water impacts, and materials efficiency and reuse potential. In this context, the term resource may be referring to land, people, energy, materials or the environment in which a use is taking place. This analysis process involves the use of seven steps:

- 1) A thorough understanding of the resources to be used, their origin and life cycle
- 2) The availability and use of these resources that has the least impact on their supply
- 3) Analysis of the minimum amounts of and most efficient use of a resource
- 4) Early consideration of the reuse of existing resources, or the long term reuse of resources within the project
- 5) Translation of this analysis into design approaches that are practical and usable in the built environment
- 6) Restoration aspects of the recycling of the resource
- 7) Analysis of the results of these methods so that they provide encouragement to other project designs

This approach assumes that humanity and the environment may coexist if we recognize their interdependence, accept responsibility for the consequence of the approach,

eliminate the concept of waste, rely on natural energy relationships and seek constant improvement in our design. The result of such an effort has the greatest chance to create safe integrated uses in our environment with the longest term value.

b. Smart Design Approaches

“Smart Design” is a reference to planning and development practices which are both Sustainable, environmentally practical and cost effective, a subset of a Sustainable approach to human endeavors. The elements making up these best management planning practices include the following:

- 1) Encouraging mixed land uses promoted by zoning and the rehabilitation of existing uses
- 2) Focusing on compact use design to reduce the use footprint for lowering costs and improving security, as well as encouraging walking through better transportation design.
- 3) Creating a range of housing opportunities and choices
- 4) Creating a sense of place for developments, to encourage growth in a variety of integrated ways
- 5) Preservation of open space, existing green space and tree habitat and protection of water resources
- 6) Enhancing the reuse of existing structures to improve cost efficiencies relating to infra structure, utilities in place and transportation needs
- 7) Providing a variety of transportation approaches, from walking to mass transit
- 8) Encourage strong predevelopment planning and market analysis
- 9) Expand education opportunities within the public and the developer communities, and then encourage their mutual predevelopment interaction
- 10) Facilitate cooperation between service providers, municipalities and developers
- 11) Develop measurement approaches to record benefits of smart management practices

c. Establish Procedures: A near term objective relating to these design approaches will be to establish procedures to evaluate proposed zoning actions, amendments and proposed land uses in relation to these management methods. By consideration of these principles of design very early in the life of projects, these aspects of the development may be considered, along with issues relating to zoning or the application of building codes, and the most effective and beneficial approach can be accomplished. Such procedures should allow for some measurement of the success of a proposed use or project in accomplishing these goals, much as residential subdivision projects are currently evaluated based on lot size, or access to public roadways. As the most recent building codes in the country are moving to evaluate projects in terms of their Leadership in Energy and Environmental Design (LEED) status, standards which address a broader picture of the nature of a project may be made to fit in with increase awareness and respect for efficiency in use of materials, land, water and energy,

d. Establish Procedures for Infra-Structure: A corollary of implementing such standards as a near term objective for zoning actions on individual parcels or specific building systems is to apply this analysis approach to large projects which are not normally viewed as if they are structures in the landscape. New infrastructure projects, roadways, reservoir development, power generation, or utility distribution planning

occurring within the County may then be evaluated from a more very broad and life cycle based approach to the benefit of the County residents.

D. Long term Objectives

1. Program Evaluation: Establishing measurement methods to evaluate the effectiveness of these new management methods, and to provide for the reporting of results will certainly be required and beneficial. This will allow for opportunities to continue or expand methods which prove effective and is therefore a long term goal for these approaches.

2. Ordinance Structure: Ultimately as requirements for accountability of design approaches is more fully developed as a requirement by building codes and Federal and State regulation, the County will review present ordinance structures for ways to implement support for these design and management approaches. Changes required will be developed through a the County legislative process.

3. Resources: Developing funding mechanisms to enable educational outreach programs to developers, builders and the citizens of the County, training in effective protections for the environment, and even funding to support land acquisition as the most direct means to preserve and protect the environment will all need exploration to assure that it will remain as a benefit to our future generations.

Article V Infrastructure

A. Analysis of Waste Water Issues

1. Existing Waste Water Management: The population of Cass County is expected to approach 100,000 in the 2010 Census, and to continue to grow at several percent annually. As a result of population density, the management of septic waste becomes a more critical issue. Currently waste water from public community collection and treatment systems is managed by several independent systems. These may be water districts, individual cities, or even individual subdivision developments. As examples, Loch Lloyd is served by the North Cass Sewer District, with the effluent treated by a facility in Kansas. The City of Belton manages a treatment facility at 212th and Mullen Road. The City of Raymore, the older subdivisions of Mullendike and Dikeland and Lake Winnebago utilize connections to the Little Blue Valley wholesale collection and treatment system. In addition some waste water is pumped northward for treatment in Jackson County.

Further south the communities of Peculiar, Cleveland, Harrisonville, East Lynn, Drexel, Archie, Garden City and Creighton all have collection and treatment capabilities of varying sizes. Pleasant Hill has merged its treatment system with the Middle Big Creek division of the Little Blue Valley Wholesale Sewer District.

2. Existing Sewer Districts: Currently there are also several designated sewer districts, established to directly manage the collection and processing. In addition to the Cities named above, there are three Public Water Supply Districts, Numbers 7, 9 and 11 who have this status. There are also a limited number of small area subdivision systems that operate as community waste water treatment systems. These are either enlarged community collection systems using a lagoon evaporation approach, or alternatively, subdivisions using a variety of small, packaged equipment primary treatment systems. These were all established some years ago as a response to the development of individual subdivision projects.

A new wholesale system and District, Middle Big Creek has recently been established in the area south of Pleasant Hill and will eventually utilize and expanded treatment facility at the location of the existing Pleasant Hill facility. As a subsidiary of the Little Blue Valley Sewer District, MBC will then be able to provide wholesale service to approximately 50 square miles of area lying between Pleasant Hill, Lake Winnebago and Harrisonville. The adjacent cities of Pleasant Hill, Winnebago and Harrisonville will act as the Retail Sewer Districts and provide the actual maintenance and operation of the collection systems.

B. Goals for Waste Water

1. Regional Treatment Systems: The increase in population makes more critical the need to provide processing and treatment of waste water. Individual systems, the

normal septic tank and lateral fields or even the evaporation pond solution which serve a single household are simple, relatively easy to maintain, and have a very limited affect on the environment when properly installed and managed. Such systems depend on the natural habitat to treat the effluent. The process begins with bacteria action in the holding tanks as the primary treatment, supplemented then by transfer to either the lateral fields, which use a filtering process of the soil, or the simple evaporation of the bulk of the liquid in the lagoon, with natural bacteria again acting on the solids. The density of such individual systems on the landscape does have a finite limit before oversaturation must be considered.

The simplest approach is to make such collection and treatment options coincide with the natural topography of the County. By collection, regional treatment becomes a more economical solution because the volume of water is such that large basin treatment can be used. While an individual septic system may manage an average of 150 gallons of waste water per day, a regional facility may manage and treat 5 million gallons. The MBC system, for example, is the first new regional system that follows the drainage topography of the Big Creek Watershed. Prior to this, the major systems in the northern Township 46 of the County were pumping their water northward into the Missouri River watershed, a more direct approach. The Master Plan is establishing goals that will explore the opportunity to locate facilities in other areas of the County, such that they serve the population changes and fit the topography

2. Community Systems of Treatment: Individual parcel sized systems begin to be more of a concern as they become more concentrated, or as their proximity to the waterways of the County begins to shrink. The capital cost of regional systems, as well as their delivery time from concept to completion is multiple years. Therefore an intermediate level of designed treatment may be utilized. Community level collection and treatment approaches that service 50 to 500 homes, when designed at the same time as new development and density is established, may offer solutions. Regulatory authorities, the EPA and Missouri Department of Natural Resources, have recently revised standards for community systems, limiting their practicality. Developing a comprehensive understanding of the issues involved in utilizing this potential solution may allow the County to provide a coordinating role between developers and land owners.

3. In addition, there are non human pollutants in our waste water which must be considered. The two most common are excess fertilizer materials, such as nitrogen, phosphorus and phosphate present in storm water run off, and salts from the deicing methods used in winter. As part of State permitting requirements, the County is working to develop monitoring protocols to help identify streams at risk, and specific contributors to the pollution. A second goal will be to put in place educational training, standards for preventing accidental releases, and methods for removing any such pollutants that may be subject to interception and treatment.

C. Analysis of Water Supply Systems

1. Existing Municipal Supply Systems: A component of the Master Plan in this regard is the coordination and support of efforts to develop the regional water processing systems that could convert these supply reservoirs into potable water for domestic use or for fire protection. Most of the population of the County obtains its potable water from the Missouri River, through a series of third party suppliers selling potable water to the public water supply districts and the municipalities. The water districts and cities of the

County own and maintain the in ground infra-structure for delivery of the water, with the largest supply lines lying closest to the highest density population for the most part.

In the middle and southern areas of the County, the supply is more diverse. Third party suppliers provide potable supplies as far south as Drexel and Garden City, while other communities have their own supply reservoirs. The cities of Pleasant Hill and Harrisonville both have lake sources, although neither lake is currently in use due to lack of a treatment capability prior to distribution. Water District No. 7 also uses a reservoir supply lake north of Freeman as a supply source.

D. Goals of Water Supply Issues

1. Reservoir Potentials: As with the waste water system problems, the County is establishing a goal of attempting to assist in a solution to the supply of potable water to reduce our dependence on the Missouri River source. As a remote user, depending on a supply located miles to the north, and subject to river, weather and processing issues, our vulnerability to interruptions in supply suggest efforts to evaluate and development alternative supply sources. In conjunction with the goals of the Environmental Focus Tier described above, the County will analyze potential reservoir sites and treatment opportunities.

2. Regional Treatment and Infra-structure: If water storage sources can be developed, the next part of the solution of supply is to analyze the infrastructure required to prepare the water for consumption, and to deliver it. The water districts which perform this service are already pressed by the economics of delivering potable water to a population spread over 700 square miles. Existing lines are subject to aging, and maintenance of the system demands all the capital available from the fees paid by the users. An immediate objective is to join with these Districts in addressing their current and near future infrastructure planning and maintenance operations. This team approach will have the greatest opportunity to take advantage of long range planning and financial potentials.

E. Analysis of Solid Waste Management

1. Existing Waste Management: The management of solid waste is a broad topic. The County experiences the lack of any management in the daily debris left alongside our roads, or accumulating in back fields. Our waste handling systems are limited to collection businesses, located in Cass and nearby counties. Sorted waste materials are then moved to recycling or final locations also located in other counties.

2. Recycling of usable parts of this waste stream is an endeavor that is highly dependent on market forces. A given waste component, such as scrap ferrous metal, may or may not be profitable at a point in time. Recycling of hazardous materials, such as subcomponents in electronics requires an additional dismantling step, and is also limited because of the small amounts or recoverable heavy metals. Packaging waste is to a great extent recyclable, but also has a limiting factor.

F. Goals of Solid Waste Management

1. Recycling: In the same context as the management of the regional water and waste water management, this Master Plan will set an objective of coordination of efforts to

study the management of solid waste generated within the region. The education of consumers that such waste can and should be recycled has accelerated in the last two years. The County will seek to expand this educational effort, and add a multi faceted approach to solid waste, utilizing recycling and protected waste disposal. Limiting waste through more efficient product packaging and usage in a regional and local context are active parts of this goal as well. By working with the existing municipalities, a combined effort toward developing a plan for regional needs and opportunities may help facilitate more effective long range planning for solutions.

2. Prevention of the accumulation of solid waste begins with an objective of education and public involvement. Items that end up alongside County roads pass the cost of removal to the citizens. By utilizing a citizen reporting and awareness approach, as noted in the Article describing Citizen involvement opportunities, in conjunction with a goal to explain the value of waste recycling rather than on site storage may be the most effective. As an example, automobiles, washing machines and air conditioners which are not repairable may be converted to scrap waste and sold, rather than left to rust along a fence line if the owner becomes aware of that option.

G. Analysis of Air Quality Management

1. Existing Issues: As with solid waste, the air borne waste of our homes, manufacturing, retail and even our automobile uses are all presently disposed of randomly into the environment around us. Located on major road and rail transportation routes that serve both the regional metroplex, as well as the interior of the country, Cass County will be the recipient of automotive and trucking air borne waste products such as carbon dioxide and monoxide. As the County moves forward to meet internal electrical power needs, and the development of more local employment, these generating, assembly and manufacturing kinds of uses will also have an environmental impact to be considered.

H. Goals of Air Quality

1. Ozone Non Attainment: The Environmental Protection Agency and Missouri Department of Natural Resources are in the process of developing procedures and standards regarding the generation of carbon based air pollutants. Cass County is one of the several regional counties to be included in a target control area termed the Ozone Non Attainment Zone. Specific effluent production amounts, monitoring and reporting standards are planned for the next 5 years, with actual implementation to begin shortly after that.

Presently Cass County has shown moderately high levels of carbon based air pollutants, almost certainly the result of vehicular emissions. Currently the numbers of generators of these pollutants in the County are small, leaving the challenge of regulating pollutants from vehicles passing through the area and local traffic. This serves to focus attention on reducing automobile use by attempting to develop more work opportunities proximate to the residential areas of the County, and to promote development of ride sharing and mass transportation solutions in the interim.

I. Near Term Objectives for Infrastructure Issues

1. A common point of beginning for the solid waste issues considered above is to educate the citizens of the County as to their role in management of such wastes. Utilizing educational and other outreach methods described in this Master Plan, the County objective will be to collect and disseminate information that will assist citizens in their management of the wastes of their households or businesses.
2. Conservative approaches to the uses of materials, and then effective recycling of waste materials is also an objective, and this extends as a concept to the recycling of water. By returning waste water or other waste products into as complete and intact a condition as possible, the citizens reduce the life cycle cost of these materials. An additional benefit is that costs spent in treating materials in the most efficient manner, and in volume, is a direct saving to the County. This is an educational objective, as well as a management practice.
3. Citizen involvement in the educational efforts, the recycling efforts, and in monitoring of waste issues throughout the County is a near term objective as noted in the Article for Citizen Participation above.
4. Setting an objective of developing management and practical standards for planning and design to enable changes in land use within the County will provide a coordinated leadership at the local level as well. It will be able to encourage advanced planning and utilization of materials, energy, resources in the most efficient ways that are consistent with the needs of projects and land owners seeking such changes.

J. Long Term Objectives for Infrastructure Issues

1. A long term objective is for the County to provide as much of a repository and source for planning among the stake holders of the County. By providing a collection and distribution role, gathering from the Federal and State agencies the current thinking and protocols for the management of septic waste, water sources and uses, road system impacts, utility uses and infrastructure, the County will assist in bringing the larger approaches to managing these issues to the local level.
2. As with other objectives contained in the Master Plan, coordination of the planning with the current ordinance structure, and the modification of those procedures to facilitate the implementation of these goals, will require analysis and longer term integration.
3. By adopting an objective to facilitate coordinated team approaches to the development of funding sources from Federal, State and other resources will improve the ability of the stake holders within the County to better plan and implement improvements. A part of this will necessitate monitoring progress toward the planning goals, and reporting of successes to the stakeholders within the County and the region.

Article VI Citizen Participation

A. Analysis and Coordination of County Administration and Citizen Interests

1. Current Citizen Participation: Cass County has involved citizens in the administration of the County business since the 1970's. When the County was established as a first class County, it became eligible to create land use controls and means of enforcing these. Serving as volunteer members of boards and committees, citizens were able to provide a different perspective and experience to supplement that of administrators and elected officials.

Current citizen participation has been effective in three areas for the last decade. These are more formalized programs and boards, but also include a task force approach in the last several years.

a. Planning Board: As a means of providing an oversight for the implementation of the zoning and subdivision regulations, the County established a Planning Board in the 1990s. It is comprised of members from the community who are appointed by the County Commission. The Planning Board uses two principal means to achieve the purpose of maintaining the control and direction of land uses within the County areas of jurisdiction. One program is the adoption of a Master Plan, (the Plan) such as this one. Another is by the implementation of a public hearing process for the evaluation of proposed changes in the use of lands in the County. This evaluation is carried out within the context of this Zoning Order and the Subdivision Regulations, which are the regulations as legislated by the Cass County Commission.

Missouri law provides the authority for non-charter, first class counties such as Cass County to establish a planning board and this Master Plan. Cass County appoints six citizen members to provide this service. Board members represent and reside in the diverse geopolitical areas of the County. The establishment of a Master Plan to act as a guidance tool which informs the Administration of the broad range of interests represented by the citizens. Authorized by R.S.Mo. 64.231, the current Master Plan, called the Comprehensive Plan of 2005 was adopted by this citizen group through a public hearing and review process. This Master Plan, of which this Article is a portion, is a revision of the 2005 version and will also undergo a review process which seeks the comments of the citizen residents of the County.

3) This citizen Planning Board also uses the public hearing process as part of the consideration of changes in the use of lands within the County. The Board is thereby in a position to provide an evaluation of the pertinent elements of the Master Plan, the specific issues of a proposed change in use of lands within the County in the context of the Zoning Order and the Subdivision regulations, and the considerations of the public information and opinion as provided in the hearing process.

b. Codes Board: The County Building Department, which issues building permits, and enforces the current National building codes that have been adopted by the County, utilizes a volunteer group of 6 citizens. This Codes Review Board of citizens provides two major services. When the Building Department is considering adopting a new version of the Building Codes, the Board may be asked to review portions of the document before adoption. Much like the function of the Planning Board, the Codes Review Board contributes a wider perspective to supplement the technical aspects of the code documents themselves, and the applied technical experience of the code enforcement personnel. Therefore code based issues are considered from a broad base of viewpoints before being adopted as enforceable regulations

A second role played by these citizens arises when variations from the standard requirements of the Codes, or of the County's interpretation of how those requirements are to be applied, need to be considered. The Codes Review Board may serve a role as a mediator, a source of alternative points of view and a broader community based experience level in helping to resolve such differences.

c. Road and Bridge Volunteers: As a means of providing information which represented local conditions, the County implemented a volunteer group of 28 citizens in 2004 as a Road Task Force. This group provides a discussion format for changes being considered in the road system, its maintenance, and the kind of equipment in use. This Road Task Force met several times a year for over 2 years, adding a public oversight to the process of maintenance of the road system. This tool of public participation was used again in early 2009, utilizing some of the same members, to again review maintenance procedures and equipment. The combination of staggering increases in the cost of paving materials, especially oil based sealers and patching, and the severely reduced County sales tax revenues, this group provided a broad based second opinion regarding procedures.

In 2008, the County also brought into service a Road Advisory Board of three citizens, two of whom also served on the Road Task Force, 2009. Working in conjunction with the Planning Board above, these two combined boards are prepared to review road system projects by means of a public hearing format. The public at large may then present opinions relating to road conditions and proposed projects. These combined boards are then able to review these comments and present more specific criteria and even specific projects to the County Commission and Road Departments for incorporation into capital improvement plans.

b. Park Board: In 2007, the County also instituted a Parks Board to begin the process of creating public land uses available to citizens. The Board members have the near term objective of coordinating the goals for public recreational lands with those of the cities of the County. In addition, coordination with the goal of establishing an extension of the Missouri Katy Trail network within Cass County, which has begun development along the Ameren Rail Line routing in the northeastern area of the County.

2. Citizen Opinion Participation

a. Open Meetings: The Planning Board holds a public meeting for the review and consideration of each proposed amendment that is referred to the Board as an

Application for a Zoning Action. Each Application is considered individually, with commentary requested from the attending public in favor of and opposed to any of the aspects of the issue. The public is notified of these meetings by a public notice published once in a newspaper of general circulation, by a posting of the proposed Agenda in the County administrative building, and by posting the Agenda on the County website. The primary purpose of these procedures is to obtain the involvement and the citizens of the County, in particular those near the land being proposed for an amendment. The applicant for such an action is even required to notify land owners within 1000 lineal feet of the property by direct, certified mail as an added attempt to obtain public participation.

The Planning Board Agenda, when it involves zoning amendments which affect any nearby municipalities, is also provided to the local city administration, seeking to obtain the relevant comments from that municipality. The affect fire, sewer, water and school districts are also notified by the applicant in the direct mail process. The result is that any authority or entity or individual land owner with proximity to the site of a zoning action has ample opportunity to participate in the consideration of the matter.

b. Web Based Citizen Participation

At various times the County has used a combination of newspaper notices and its internet site, ***casscounty.com***, as a means of taking surveys of public opinion. Specific questions regarding long range planning issues have been posted to the web site. The questions are asked such that interested citizens may then send their selected comments by a prepared email response system. This enables an accumulation of responses. Admittedly, the process is somewhat limiting, due to the requirement that the people interested must keep in touch with the issues by reading the web site information periodically. Those who do not have that interest or capability leave gaps in the accuracy of such surveys in conveying the opinion of the population as a whole.

B. Goals

1. Citizen Involvement: The experiences of citizen participation in aiding the administration of the County has proven to be positive, broadly based within the community, and productive in the development of analysis and ideas of the problems that are shared by the population at large. With resources already limited, creating opportunities for citizen involvement at many levels is a sound and proven means of making government more responsive and efficient.

2. Citizen Opinion: While contributing time resources for specific projects is not possible for all citizens, the convenience and social linking capabilities of the Internet make it realistic to gather more public opinion regarding long range planning goals that affect the entire community. The County will seek to utilize this approach in the future to make such broad based decisions represent as complete a representation of the residents as is practical.

3. Target Participants: Some issues where citizen involvement are more specifically directed encourages attempts to select residents who will most benefit from information

or opportunities, and in turn who will then contribute the most benefit back to the entire stakeholder population. For example:

a. Individual land owners: The County holds the view that individuals who own an interest in a parcel of land have a particular role within the community of the County. By the simple fact of ownership, they use the land and that use may have impacts on those people residing around them. In the reverse, those adjacent land owners may also have an impact. Therefore that role is partly a stewardship which benefits from being informed about what is happening, in a variety of ways, in the area.

As a result, this group is targeted as being a benefactor of receiving good information regarding land and land use issues, from the obvious things such as proposed changes in land use, to the more site specific issues of contamination nearby.

b. Homes associations: Similarly, as groups of individual owners with a common interest and proximity, home owner associations are selected as favorable recipients of information, and as possible resources for involvement in issues that affect their common area.

c. Developers, Builders, Financial institutions, Utility providers: Individuals and businesses which plan and implement new land uses and structures, because they generally provide long range and detailed planning are also in an optimum position to be involved in information and participation programs.

C. Near Term Objectives

1. Inform Citizens: Participation by citizens, as individuals or groups, at its most direct, is the providing of quality information on topics that have a broad and important impact on the citizens.

Roads: The most basic type of information provided by the County involves road conditions, planned improvements, and bridge replacements. This is ideally a two way communication in that information regarding road or bridge conditions are received from citizens as well as provided to them. Following a recommendation of the 2004 Road Task Force of citizens, the Road Department records reports of problem areas with individual roads, provides that coordinated information to the repair crews, and then tracks those costs.

The County provides information via their website as to proposed road work which may disrupt traffic, or more serious projects, such as bridge repair, which may divert it altogether. The combined Road Advisory / Planning Board has hosted public meetings where citizens may participate in the evaluation of proposed road maintenance and capital improvement qualifying projects.

Environment: A second area of citizen participation involves environmental issues. Currently the County, through a State process provides monitoring of some tributary streams in the Grand River watershed. Potentials for pollution of these waters, if discovered, will be provided so that adjacent property owners may be prepared for or assist in protecting areas downstream. The potential for chemical and petro chemicals,

excess road salt, and fertilizer components are all issues that have an impact on the entire length of the stream involved.

The potential for solid waste pollutions, most commonly road side dumping, effect adjacent land owners, who need to be informed of these issues.

The means of communicating such information, in either direction, have only limited effectiveness. An immediate objective is to expand the reach of such communication, so that more people have access to more information about these key issues. The County intends to explore the available technology for this improvement as well as making the information available for citizens more concise and effective.

Methods and Reporting: As part of the objective of involving citizens in the exchange of beneficial or pertinent information, the methods of the exchange will be considered. The methods of reporting such information as road conditions or environmental issues will be reviewed, as well as the means of delivering the communication. The County will seek to provide clear and precise designs for both printed and electronic information to improve the content as well as its deliver. Concurrently there is an objective to develop procedures to measure the progress in reaching the citizens, and in regularly improving reporting methods as technology evolves. This is partly due to the concern that both newspaper print media and web based information transfer are limited by the citizen's participation in that technology.

2. Citizen Participation Objectives

a. Education and Information: In addition to informing citizens of issues of likely concern to them, a more interactive objective will be the development of training programs, which will inform target citizen groups as well as utilize their involvement. The County will develop basic class curricula to explain some of the importance of and methods of protection of several environmental aspects within the County. A longer term portion of that goal will be to create a citizen involvement that would facilitate individuals and active groups actually presenting such programs in venues such as home owner associations and elementary school classrooms

b. Training: Developing workshop and training outreach programs to present conditions and solutions for protecting the edges and channels of our streams, for utilizing those land areas affected by the federally regulated flood plain, and to improve the preservation of wetlands and specialized habitat. Corollary to those are training issues which improve surface water management and erosion control related to lands uses throughout the County. Part of this objective will be the implementation of a set of specific Best Management Practices adapted from the EPA and State. These are construction and land use practices which provide effective and practical protections of the environment in conjunction with facilitating changes in land use.

As described in the Transportation and Environmental Articles above, the County will also develop a series of recommended practices for design methodologies to improve green design elements in residential and commercial construction, including environmental impact design standards.

c. Citizen Activity Opportunities: In addition to both training and participation in training to raise the design and protection issues, the County will also have an objective of utilizing individual citizens for field situations, such as environmental field surveys, regular observations of stream conditions, and of road conditions.

d. Group Participation: Besides utilizing individuals, another objective is to provide opportunities for group involvement. The County has experimented with focus groups as a means to obtain a representative perspective to explore solutions for short term, contained questions. By posing questions and conditions about various aspects of a possible project, and then bringing together small groups to discuss the topic, experience suggests that well considered perspective points of view about the favorable or unfavorable aspects of such topics can be developed. Such focus groups have an opportunity to bring out a variety of aspects to a question, and then evaluate and rank those options, so that the result provides a variety of manageable approaches to such problem solving.

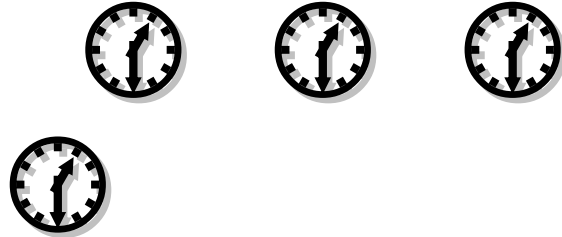
On a larger scale, the success of the Road Task Force encourages seeking more such citizen groups to analyze and provide a broadly based analysis of issues that are diverse and complex. Such groups have provided the benefits of a wide variety of practical and actual results that have been tried and successful. Similar action groups will be explored as a means of providing a continuing and dependable resource for sharing experience with through youth educational outreach programs concerned with these areas of need.

D. Long Term Objectives

To support these preliminary methods to attempt to utilize citizen expertise and interest, once they have been designed, the longer term objectives will require developing funding methods for such involvement and training programs. Even with volunteers providing much of the labor, such programs will require supplies, the production of training and direct mail information literature, and perhaps software programs for distribution.

In addition, the County will certainly need to develop an ordinance structure to support citizen participation and results and be able to resolve issues of liability, property access and transportation.

CASS COUNTY MASTER PLAN



2010 AND BEYOND

Prepared by the 2009 Planning Board of Cass County, Missouri

Robert Hardin – Chairman, Northwest Region
David Clickner - Vice Chairman, Southeast Region
Lynn Stark - Board Member, Southwest Region
Obie Carl - Board Member, South Central Region
Michael Gerant - Board Member, North Central Region
Orris Hoff - Board Member, Northeast Region

Recommended November 24th 2009
to the

Cass County Commission

Gary Mallory – Presiding Commissioner
William J. Cook - District One Commissioner
Brian Baker – District Two Commissioner

