Mid-America Regional Council

Eco-Logical Project

Linking Environmental and Transportation Planning

Project Summary and Recommendations

Funded by a grant from the
Federal Highway Administration

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The Mid-America Regional Council

Eco-Logical Project

Linking Environmental and Transportation Planning

The Mid-America Regional Council Eco-Logical Project

1.0 Executive Summary

The Mid-America Regional Council (MARC) received a Federal Highway Administration (FHWA) grant to implement the Eco-Logical Process for integrating transportation and environmental planning in the Kansas City metropolitan area. The primary purpose of the project is to develop a framework for an efficient 21st Century transportation system that is sustainable and enhances the Greater Kansas City region.

Eco-Logical is a framework developed by the Federal Highway Administration, U. S. Environmental Protection Agency, and other federal agencies to support making infrastructure—in particular, transportation systems— more sensitive to wildlife and ecosystems through greater interagency cooperation and conservation.

Kansas City is:

- *A region of vibrant spaces;*
- *A connected region;*
- *A green region.*

Source: Imagine KC

Expected benefits of the project include the following:

- Better understanding of and cooperation between transportation & environmental/conservation agencies and professionals.
- A sustainable Long-Range Transportation Plan (LRTP).
- Transportation systems that enhance regional natural and human resources.
- Sustainable transportation projects from concept to long –term operations and maintenance.
- A regional conservation strategy that goes beyond compensatory mitigation of environmental impacts.

To learn from other regions involved in integrated planning, several organizations across the United States were interviewed to develop a list of best practices and case studies illustrating techniques for linking transportation and environmental conservation planning, as well as going above and beyond mitigation of environmental impacts caused by the transportation system. In addition, four workshops were conducted by national experts to inform and inspire area stakeholders. These workshops focused on policies and plans, best practice procedures and tools, implementation steps, and mitigation strategies.

This process identified several best practices that link environmental and transportation planning, and move beyond compensatory mitigation. They have been separated into two categories and are listed on the following page.

The Mid-America Regional Council Eco-Logical Project

Integrated Planning

- Develop a sustainable vision and guiding principles for the transportation planning process to achieve integrated planning.
- Engage stakeholders and agency personnel deliberatively and consistently.
- Incorporate 'sustainable transportation' into the Long-Range Transportation Plan (LRTP) project selection and design.
- Link land use, transportation, and environmental planning.
- Integrate transit and alternative transportation modes to achieve a more sustainable transportation system.
- Protect and restore high priority natural, cultural, and historic resources.
- Identify local champions to advocate for integrated planning and implementation.
- Plan for two generations into the future – anticipate land use, transportation, conservation, and mitigation needs 60 to 75 years into the future.

Conservation, Restoration, and Mitigation

- Avoid and minimize impacts to the natural and built environments; identify key resources for protection and restoration, and areas for mitigation.
- Use ecosystem approaches to achieve multiple benefits.
- Use technology to support decision making and track progress.
- Communicate with stakeholders and decision-makers with consistent frequency and protocol.
- Protect and restore or mitigate prior to construction of transportation elements.

Transportation Vision

"A safe balanced, regional multi-modal transportation system that is coordinated with land use planning, supports equitable access to opportunities, and protect the environment."

-MARC Board , adopted January 2009

A transportation system should be framed in the larger context of a community's other elements, such as land use, housing, economics, and health; it is not a stand alone system. This general way of thinking leads to integrated planning and more sustainable communities. Triple bottom line benefits for a community's people, environment, and economy can be achieved.

MARC worked with a stakeholder advisory group to develop an action plan to implement these strategies (Linking Environmental and Transportation Planning—a Draft Action Plan) which will serve as a strategic framework for implementation. The recommended actions include:

1. Align decision-making with the vision
2. Formalize on-going collaboration
3. Create a regional mitigation strategy

"Be innovative and try new approaches - because the old, traditional approaches just aren't working. Try to stay ahead of the regulations, instead of playing catch-up."

-Matt Garrett, Commissioner Oregon Department of Transportation

2.0 Introduction

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was signed into law in August 2005. Sections 6001 and 6002 require collaboration of transportation planning with the National Environmental Policy Act (NEPA) process. Section 7 of the Endangered Species Act, Section 106 of the National Historic Preservation Act, Section 4(f) of the Department of Transportation Act of 1966 and many other federal laws and Executive Orders require and support an ecological approach to transportation planning. Eco-Logical is a framework developed by the Federal Highway Administration, U. S. Environmental Protection Agency, and other federal agencies to support making infrastructure—in particular, transportation systems— more sensitive to wildlife and ecosystems through greater interagency cooperation and conservation.

Integrated planning advocated in the Eco-Logical process includes elements in the current practice of transportation planning, such as the following:

- The ascent of sustainability and climate change issues which strengthen environmental concerns and the need for a significant connection between transportation planning and land use, environmental, conservation, and sustainability impacts.
- An opportunity to improve effectiveness and efficiency in transportation planning and project development.
- The need for more strategic and beneficial use of mitigation resources.

Kansas City regional officials, transportation planners, and conservation experts participated in a "Linking Conservation and Transportation Planning" Workshop on February 21 - 22, 2008 to help frame transportation priorities in the context of natural resource conservation and other community goals. Participants reviewed existing resources and best practices, and identified policy and process changes needed to achieve better integration.

An Advisory Group was formed to guide the Eco-Logical process and outcomes. An Action Plan was drafted and revised over the past year to incorporate recommendations and feedback from stakeholders. It will serve as the strategic action framework for implementation. Expected benefits of the project include:

- A better understanding of and cooperation between transportation and environmental/ conservation agencies and professionals.
- A sustainable regional Long-Range Transportation Plan.
- A regional transportation system enhanced with the resources of the natural and built environments.
- Sustainable transportation projects from concept, design, construction, and operations and maintenance.
- A regional conservation strategy that goes beyond compensatory mitigation and implements the regional green infrastructure plan, MetroGreen.

The Mid-America Regional Council Eco-Logical Project

The Mid-America Regional Council (MARC) received a Federal Highway Administration grant to implement the Eco-Logical Process for integrating transportation and environmental planning in the Kansas City metropolitan area. The grant scope of work included research into best practices for integrating environmental and transportation planning and workshops for stakeholders.

Research on the best practices and tools currently in use was conducted to learn from the experiences of other metropolitan areas working with integrated planning and mitigation. Individuals from several organizations across the United States were interviewed to develop a list of best practices and case study examples exemplifying techniques for linking transportation and environmental planning, as well as mitigation that goes above and beyond the requirements of federal transportation and environmental laws. Policies, processes, and planning models were elements of focus to identify best practices for consideration in the Kansas City region.

Several best practices were identified that create a more sustainable region. MARC is among a limited number of Metropolitan Planning Organizations (MPOs) assertively moving in this direction according to the best practices research conducted during this project.

In addition, three workshops were held with speakers with international experience to inform and inspire area stakeholders. These workshops focused on policies and plans, best practices, and mitigation strategies. The experts spoke on the following topics:

- Sustainable Transportation Planning: A Conversation with Hal Kassoff (Parsons Brinckerhoff), October 28, 2008.
- Integrating Plans, Policies, and Projects: Aron Borok (Environmental International, Ltd.), December 18, 2008.
- Beyond Mitigation: Cynthia Burbank (Parsons Brinckerhoff) and Helene Kornblatt (Environmental International, Ltd.), February 9, 2009.

A fourth workshop focused on finalizing the Action Plan. Presentations from each workshop are posted on MARC's website at http://www.marc.org/transportation/conservation.htm. Feedback from the workshops were incorporated into *The Action Plan for Linking Environmental and Transportation Planning*.

Case Studies

***The Victoria Transport Policy Institute (British Columbia, Canada**) uses principles of integrated planning to combine sustainable policies with integrated planning. For more information, visit:* www.vtpi.org

***The Green Highways Partnership** uses sustainable policies by developing the Green Highways Characteristics (see Attachment 5). For more information please visit: www.greenhighways.org*

3.0 Best Practices & Recommendations for the Kansas City Region

In Greater Kansas City, there is support to implement the Eco-Logical Process and create a more sustainable region. The three primary recommendations described in more detail in this section are:

- Create a vision of a sustainable region;
- Align planning and decision-making with that vision; and
- Use mitigation strategically and comprehensively to enhance the environment.

Interested stakeholders identified recommendations and strategies in the following categories: Plan Strategy, Data & Technology Strategy, Collaboration & Communication Strategy, Funding Strategy, Commitment Strategy, and Project Strategy. Each are described in more detail after each primary recommendation.

3.1 Create a vision of a sustainable region.

MARC's Strategic Planning process resulted in a vision of a sustainable region that reads:

Greater Kansas City is a sustainable region that enhances the vitality of our society, economy, and environment for current residents and future generations.

Regional Vision

"Greater Kansas City is a sustainable region that enhances the vitality of our society, economy, and environment for current and future generations.

-MARC Board, adopted January 2009

3.2 Align planning and decision-making with that vision.

Transportation is a means to broader ends. The transportation system can help shape our community as well as service it. Strategies to align planning and decision-making are described on the following pages.

Plan Strategy:

- Develop principles, goals, objectives and performance outcomes aligned with the vision.
- Incorporate the vision in the Long-Range Transportation Plans of both States and MARC.
- Harmonize the comprehensive plans of local communities with the vision for a sustainable region.
- Plan for several generations into the future.
- Develop project selection criteria aligned with the vision.

Case Study

East Alameda County, California *aligned transportation decision-making framework with vision and principles by developing a county-wide conservation strategy. For more information, visit:* www.fws.gov/sacramento/eaccs

Data & Technology Strategy:

- Support collaborative decision-making with high quality data integration.
- Make decisions using a comprehensive framework and objective data reflective of sustainability's "triple bottom line" - people, prosperity and the planet.
- Identify the full benefits, costs and equity impacts of transportation policies and programs.
- Invest in the development and maintenance of data and tools.
- Use technology to support decision making and track performance toward fulfilling the regional vision.
- Create a repository for information that allows easy data sharing.
- Formalize a structured data sharing process.
- Keep the data current and relevant.

Triple Bottom Line Impacts

Economic	Environmental	Societal
Congestion	Air Pollution	Impact Inequity
Mobility	Climate Change	Disadvantaged
Crash Costs	Habitat Loss	Health
Facility Costs	Water Quality	Cohesion
Consumer Cost	Hydrologic	Livability
Resource Loss	Noise	Aesthetics

Source: "Sustainable Transportation and TDM: Planning That Balances Economic, Social and Ecological Objectives;" Victoria Transport Policy Institute (An independent Canadian research organization)

Collaboration & Communication Strategy:

- Create a collaborative environment among key decision makers and agencies.
- Design a consistent and deliberate communication process. Institutionalize communication. This may involve changing committee structures.
- Evaluate the structure and makeup of committees to ensure that issues are considered and problems are solved in a more integrated way.
- Ensure that all stakeholders are involved appropriately and bring stakeholders not typically involved to the table. Some agencies may not have the resources to participate, therefore consider ways to underwrite their participation. Use technology to make participation more cost-effective and simple.
- Educate the public, policy makers, and other stakeholders about sustainability issues and how they can contribute in making the region more sustainable.

Case Studies

The Florida Department of Transportation *established institutional communications by developing a Memorandum of Agreement/Memorandum of Understanding with 23 agencies or organizations based on principles, working relationships, and roles, responsibilities, and funding. For more information, visit:* www.etdmppub.fla-etat.org

Pike's Peak Area Council of Governments (COG) *engages stakeholders by keeping elected officials informed and by controlling and directing the data and message. For more information, visit:* www.ppacg.org

Chapter 3 (cont.)

Funding Strategy:

- Fund projects and programs that result in a more sustainable region.
- Develop project selection criteria aligned with the vision so that sustainable programs and projects are the highest priority.
- Work to change funding sources to accommodate more integrated projects.
- Develop pricing strategies to trim the growth of vehicle miles traveled and reduce congestion.

Commitment Strategy:

- Secure agency commitment starting at a high level and throughout all levels of the organization.
- Institutionalize this thinking so the commitment lives over time. Formalize the level of commitment to the vision through a memorandum of understanding or agreement. Expertise and staff capacity are essential therefore a commitment to support these resources is essential.
- Identify champions to build this commitment.

Project Strategy:

- Implement multi-benefit & multi-modal projects with an ecosystems approach.
- Design, build, operate and maintain systems using sustainable practices.
- Develop a sustainability plan for each project.
- Enact sustainable procurement policies.
- Identify early demonstration projects and build on early project level successes.

Case Study

The San Diego Council of Governments *invested in multiple-benefit projects based on ecosystem and watershed approaches by developing an Environmental Mitigation Program. For more information, visit: www.sandag.org*

3.3 Use mitigation strategically and comprehensively to enhance the environment.

Mitigate comprehensively (e.g. multi-species habitat vs. site-by-site). Use the Mitigation Hierarchy, shown in the box below, as described in 40 CFR 1508.20 to achieve broader goals. Mitigation is not meant to be an extraction for punitive reasons, but an investment in the community for future generations. Mitigation is defined as:

- Avoiding the impact altogether by not taking a certain action or parts of an action;
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- Compensating for the impact by replacing or providing substitute resources or environments.

Mitigation Hierarchy

1. *Avoid*
2. *Minimize*
3. *Restore/Repair*
4. *Reduce*
5. *Compensate*

Source: Federal Highway Administration, 40 CFR 1508.20

Plan Strategy:

- Prioritize MetroGreen to create a more specific watershed-based conservation/restoration/ mitigation plan.
- Focus efforts to protect endangered species & high quality habitat; address invasive species & heat island effect, reduce carbon production, improve air & water quality, improve public health and make communities more bikable, walkable and livable.

Case Study

Kane County, Illinois Division of Transportation *used the hierarchy of mitigation for the Stearns Road Bridge project. They incorporated resource protection and a mitigation plan that included project development. The restoration was completed prior to construction of the roadway.*

Data & Technology Strategy:

- Update the regional Natural Resources Inventory and establish a process to maintain & share the data.
- Map wildlife/habitat linkages.
- Collect, share and maintain data regarding adverse environmental impacts such as natural resource impacts, noise, cultural/historic resources, socio-economic impacts, air emissions including green house gases. Use this data to make decisions.
- Identify the monetary as well as the qualitative value of high priority resources.

Case Study

The Missouri Department of Conservation *is demonstrating the importance of trees by identifying their monetary value and benefit to society. A MDC model calculates the value each tree species provides over its average lifetime.*

Collaboration & Communication Strategy:

- Make stakeholders aware of the high value of natural resources.
- Promote the availability of mitigation lands in each major watershed.
- Work with the municipalities, contractors, consultants, and others to avoid and enhance high priority areas.
- Create interagency review teams.
- Educate the public about expectations and results of the mitigation program.

Funding Strategy:

- Acquire important conservation lands early for mitigation.
- Establish legal entities and/or mechanisms so that mitigation funds can be received and invested in high priority areas (for example, a mitigation or carbon bank, in-lieu fee program, land trust and/or easement program).
- Create incentives to protect and restore the identified high value natural resources.
- Develop a dedicated funding source or apply existing funding to leverage additional investment all aspects of the mitigation program - land acquisition, restoration and enhancement, long-term maintenance.

Commitment Strategy:

- Agree to a regional mitigation approach and collaborate to define each agency's role.
- Secure general and programmatic permits by major watershed or another ecologically-based organizing principle.
- Enact ordinances that protect natural resources and encourage concentrated growth, such as stream buffer ordinances, tree & native vegetation preservation ordinance; and sustainable development codes. These tools are described in Attachment 3, Mitigation Hierarchy.

Project Strategy:

- Include mitigation as a line-item in project budgets.
- Enhance, restore, and mitigate natural resources impacted by transportation project before initiating construction of the transportation portions of the project.
- Enhance, restore, and mitigate for local (heat island affects, air quality, greenhouse gas emissions), regional (greenhouse gas emissions, threatened and endangered species, migratory songbirds, water quality) and global impacts (water quality, dead zone in the Gulf of Mexico, greenhouse gas emissions).

Case Study

The San Diego Council of Governments *aligned investments and resources with vision by dedicating funding to support an environmental mitigation program and plan for the long-term. For more information, visit: www.sandag.org*

4.0 Best Practices

Best practices used by communities across the United States have provided examples that can be applied in the Kansas City region. Selected case studies are also provided. The best practices are grouped by: 1. Policies and Planning, 2. Procedures, and 3. Implementation. A summary is included to identify the current use of the best practice in the Kansas City region. Example actions to implement the best practice are given.

4.1 Best Practices for Policies & Planning

Best Practice	Current Status in KC metro	Example Actions
Create a regional transportation Vision and Principles	Regional vision adopted by MARC Board, January 2009 Imagine KC event, April 209; data is being analyzed	• Draft principles to support regional vision and guide integrated planning, conservation and mitigation, and implementation of framework
Engage Stakeholders	Ongoing: Linking Environmental and Transportation Planning Advisory Group; Long-Range Transportation Plan Subcommittee; LRTP update process; Action Plan	• Review make-up of transportation and environmental committees; revise membership to align with vision, principles, and goals. • Identify gaps in stakeholder participation; • Include policy-makers and decision-makers as stakeholders. • Meet with new stakeholders one-on-one to establish relationships and garner support. • Develop a Memorandum of Agreement to work together on the vision, principles, and issues.
Use sustainable policies in integrated planning	Initiated: Eco-Logical process ; update of Long-Range Transportation Plan (LRTP), Transportation Outlook 2040	• Develop policy on sustainable transportation for inclusion in Long-Range Transportation Plan (LRTP) • Incorporate sustainable policies in LRTP for project selection.
Plan for two generations forward (50 –75 years)	Initiated in Long-Range Transportation Plan (LRTP)	• Project land use for anticipated growth for the next 50—75 years. • Include long-term projections in LRTP. • Run alternative land use scenarios.
Link land use, transportation, and environment	Not done; discussions initiated for municipalities in region. Initiated in Long-Range Transportation Plan (LRTP)	• Form specific stakeholder groups by county to meet regularly to share information. • Develop a Memorandum of Agreement to work together across jurisdictions on land use, infrastructure, and conservation issues. • Include supportive policies in LRTP and project selection criteria.

4.2 Best Practices for Procedures

Following the establishment of principles, sustainable policies, and initiating plan analysis, the next phase is developing procedures, processes, and a framework for implementation.

Best Practice	Current Status in KC Metro	Example Actions
Align transportation decision-making framework with Vision and Principles	Initiated: Action Plan	• Review organization of committees and working groups. • Reorganize groups to align with vision, principles, and goals; include decision-makers.
Prioritize resources	Started; completed on large scale with Natural Resource Inventory	• Select specific priority areas for conservation, restoration, mitigation within each Metro-Green corridor. • Prepare management plans for each watershed in MetroGreen priority corridors.
Establish criteria for decision-making that aligns with the vision and principles.	Initiated in Long-Range Transportation Plan (LRTP)	• Establish a working group to draft selection criteria. • Establish selection criteria for transportation projects based on vision and principles. • Draft a framework to implement decision-making criteria at the local government level.
Establish criteria for sustainable practices	Discussion Initiated, Long-Range Transportation Plan (LRTP)	• Establish criteria for sustainable transportation projects. • Incorporate conservation and mitigation hierarchy in the criteria.
Develop protocol to link land use, transportation, environment	Discussion Initiated	• Establish framework for local governments to work together, share and coordinate plans and projects. • Align local plans with regional plans on land use, environment, and transportation.
Utilize technology to support decision-making	On-going: Long-Range Transportation Plan (LRTP) and Action Plan	• Provide web access to Natural Resource Inventory (NRI) • Fill data gaps in Natural Resource Inventory (NRI) and other MARC databases • Provide web-based tools to support decision-making process.
Institutionalize collaborative communication	On-going: Advisory Group and Long-Range Transportation Plan (LRTP) subcommittee; LRTP; Action Plan	• Draft Memorandum of Understanding for stakeholder participation in integrated planning and conservation. • Develop framework/schedule for regular meetings with stakeholders • Hold a regional summit on progress of Eco-Logical process and integrated planning in the Kansas City region, at least annually.

4.3 Implementation

Implementation is often the most difficult phase to initiate. A great way to build momentum is focusing resources to achieve early success with two to three action items and a pilot project. Five best practices are described below with example actions to continue the momentum in the Kansas City region.

Best Practice	Current Status in KC Metro	Example Actions
Align investments and resources with vision and principles.	Initiated: Long-Range Transportation Plan (LRTP)	• Implement reorganized framework developed under Procedures. • Select transportation projects that meet the sustainable criteria established, and that align with vision, principles, and goals. • Reallocate transportation budgets to be multimodal and balanced. • Fund only local governments and transportation projects that meet the established criteria.
Use hierarchy of mitigation	Discussion initiated	• Select transportation projects that incorporate the mitigation hierarchy to the maximum extent practicable. • Establish budget line items for conservation or mitigation, starting at the project concept stage. • Select a framework for conservation: mitigation/conservation bank or in-lieu fee program. • Complete at least 50% of conservation/mitigation prior to construction.
Invest in multiple-benefit projects based on ecosystem and watershed approaches.	Discussion initiated	• Project selection in Long-Range Transportation Plan (LRTP) shall have multiple benefits and use mitigation hierarchy. • Coordinate transportation projects with the other local initiatives of MetroGreen, Clean Air Action Plan and Climate Protection Plan.

continued

Best Practice	Current Status in KC Metro	Example Actions
Utilize sustainable practices in design, construction, operations & maintenance (O&M)	Discussion initiated. Sustainable practices started with operations and maintenance (O&M) of roadways at Missouri Department of Transportation.	• Require each transportation project to develop a sustainability plan. • Develop example design specifications that incorporate sustainable practices, low impact development, and protection of resources. • Develop example construction bid specifications that incorporate sustainable practices during the construction phase. • Build on sustainable operations and maintenance (O&M) practices at state level; transfer knowledge, tools, and resources to local government.
Use technology tools to track progress of Long-Range Transportation Plan (LRTP), Action Plan, integrated planning, and conservation/ mitigation in the Kansas City region.	Discussion initiated: Long-Range Transportation Plan (LRTP) and Action Plan	• Utilize technology and media for informing the public on the LRTP and program success. • Develop an education campaign for all stakeholders (policy and decision makers included) specific to integrated planning and conservation/mitigation. • Utilize on-line surveys as part of public education campaign. • Incorporate sustainable transportation and infrastructure projects into appropriate Mid-America Regional Council (MARC) databases; provide web-based maps. • Incorporate conservation, restoration, and mitigation projects into Natural Resources Inventory.

5.0 Conclusions

MARC is currently implementing some of the best practices identified and utilized by other planning organizations, state agencies, and municipalities. The Natural Resources Inventory, MetroGreen, Clean Air Action Plan, Imagine KC, MARC Board Strategic Planning Process, and regional climate change initiatives are examples of MARC's best practices. Municipalities and other agencies have started incorporated these and other best practices into their organizations and work. All of these plans and initiatives have a positive impact on Kansas City's environment, emissions of greenhouse gases and climate change, public health, economy, and future land use and development.

Some of the barriers and challenges the Kansas City region will face as the Eco-Logical process is implemented were identified throughout the project and include the following:

- Aligning the regional vision for sustainability with local municipal decision-making on land use.
- Building trust between stakeholders - across the state line and with other jurisdictions as well as between agencies.
- Breaking the traditional roles of transportation planning (production, build) and environmental protection (regulate, permit, comment).
- Communication with all stakeholders – agencies, municipal officials and staff, and the public.
- Limited resources – staff, money, time.
- Keeping participants engaged during a long-term and continuous process of planning, project selection, project implementation, and program evaluation.

The difficult next step for the region is implementing the Action Plan with a lean and efficient framework aligned with the region's vision and the principles that support this vision. Funding is always a crucial element for any program, plan, or initiative, however the time is right to align the area's resources for a sustainable community five, ten, twenty-five, and fifty years and beyond in the future.

"Focusing on win-win strategies has been the key to success in working with resource agencies."
-Neil Pedersen, Maryland State Highways

Attachment 1: List of Resources

Thirty organizations were included on the original contact list for telephone interviews. Personnel at these organizations were first contacted via email or telephone. Follow-up phone calls were made to schedule an interview time. From the original contacts, interviews were conducted with sixteen state departments of transportation, metropolitan planning organizations (MPOs), county government, federal agencies, and non-profit conservation groups. The organizations listed below completed interviews.

Agency/Organization	Name	Email Address
Cape Cod Commission Metropolitan Planning Organization (MPO)	Sharon Rooney	SRooney@capecodcommission.org
Chicago Metropolitan Agency for Planning	Ty Warner	twarner@cmap.illinois.gov
Colorado Department of Transportation	Brad Beckham, Branch Manager, Environmental Programs	Brad.Beckham@dot.state.co.us
Colorado Department of Transportation	Jennifer Finch, Division Director of Transportation Development	Jennifer.Finch@dot.state.co.us
Colorado Department of Transportation	Sandi Kohrs, Branch Manager, Intermodal Programs	Sandi.Kohrs@dot.state.co.us
Colorado Department of Transportation	Yates Opperman	Yates.Opperman@dot.state.co.us
Defenders of Wildlife	Patricia (Trisha) White	Trisha.White@defenders.org
Federal Highway Administration (FHWA) Portland, Oregon	Michelle Eraut	Michelle.Eraut@fhwa.dot.gov
Florida Department of Transportation	Larry Barfield	Larry.Barfield@dot.state.fl.us
Houston-Galveston Area Council	Meredith Dang	Meredith.Dang@h-gac.com
Illinois Department of Transportation	Paula Green	Paula.Green@illinois.gov
Kane County Division of Transportation	Thomas Rickert	rickerttom@co.kane.il.us

continued

Attachment 1: List of Resources (cont.)

Agency/Organization	Name	Email Address
Kansas Department of Transportation	Ron Kaufman Joel Skelley	RKaufman@ksdot.org JoelSk@ksdot.org
Kansas Department of Transportation	Deb Miller	DMiller@ksdot.org
Kentucky Federal Highway Administration (FHWA)	Anthony Goodman	Anthony.Goodman@dot.gov
Maryland Department of Transportation	Don Haligan	DHaligan@mdot.state.md.us
Michigan, Southeast Michigan Greenways Initiative	Michael D. Eberlein	eberleinm@michigan.gov
North Carolina Department of Transportation– Office of Environmental Quality	Julie Hunkins, Office of Environmental Quality Director	JHunkins@dot.state.nc.us
North Carolina Department of Transportation	Dan Thomas	DanThomas@dot.state.nc.us
Ohio, Kentucky, Indiana Regional Council of Governments (OKI)	Robert Koehler, Transportation Director	RKoehler@oki.org
Ohio, Kentucky, Indiana Regional Council of Governments (OKI)	Todd Portune, Executive Board Member	Todd-Portune@hamilton-co.org
Oregon Department of State Lands	Dana Field	Dana.Field@state.or.us
Oregon Department of Transportation	William Warncke, Mitigation/ Conservation Program Coordinator	William.M.Warncke@odot.state.or.us
Pike's Peak Council of Governments	Craig Casper	CCasper@ppacg.org
Puget Sound Regional Council	Cheryl Saltys	CSaltys@psrc.org
Riverside County Transportation Commission	Cathy Bechtel	CBechtel@rctc.org
Sacramento Area Council of Governments	Kacey Lizon, Blueprint Project Manager	KLizon@sacog.org
Sacramento Area Council of Governments	AJ Tendick, Blueprint Project	ATendick@sacog.org

continued

Attachment 1: List of Resources (cont.)

Agency/Organization	Name	Email Address
Southeast Michigan Council of Governments (SEMGOG)	Jennifer Evans	Evans@semcog.org
Tahoe Regional Planning Agency	Bridget Cornell	BCornell@trpa.org
Tahoe Regional Planning Agency	Nick Haven, Transportation Department	NHaven@trpa.org
Tennessee Department of Transportation	Ed Cole	Ed.Cole@state.tn.us
Tualatin Soil and Water Conservation District	Judy Marsh	Judy.Marsh@or.nacdot.net
U.S. Fish and Wildlife Service	Marella Buncick, North Carolina	Marella_Buncick@fws.gov
U.S .Fish and Wildlife Service	Joe Burns, National Transportation Liaison	Joe_Burns@fws.gov
Vermont Agency of Transportation	Gina Campoli	Gina.Campoli@state.vt.us
Wildlands of Washington	Jeff Matthews	JMatthews@wildlandsinc.com
Wildlands of Washington	Sky Miller	SMiller@wildlandsinc.com

Attachment 2: Interview Questionnaire

MARC Eco-Logical
Linking Environmental & Transportation Planning
Best Practices Research – Interview Questionnaire

Contact

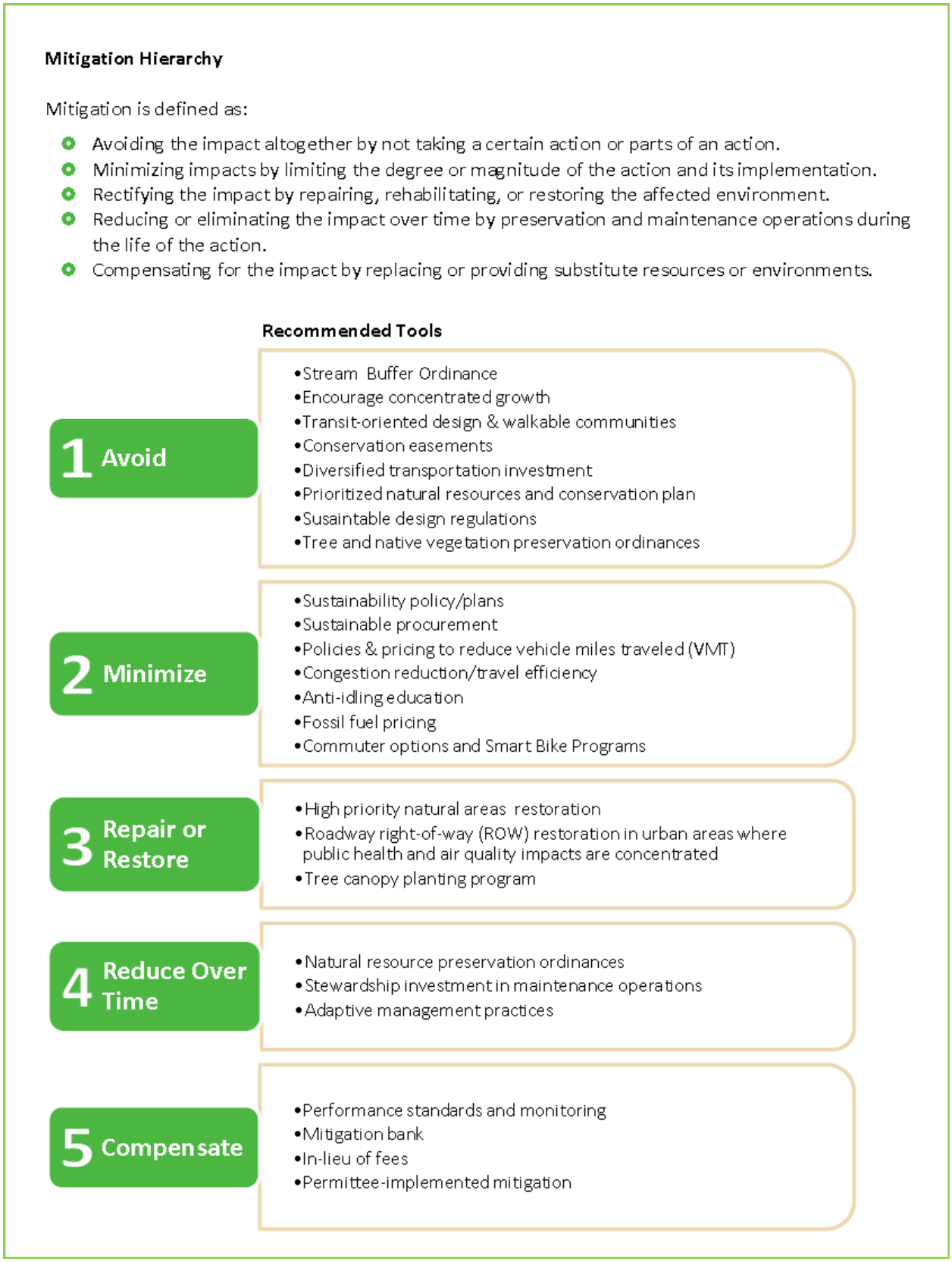
Name/Position:
Phone:
E-mail:

Planning/Linking Process

Basic questions: What, who, where, how

1. Are you participating in transportation planning efforts that link with environmental protection efforts?
2. Describe what you are doing. Note: questions 3-5 can be used as prompts.
3. What are/were the primary goals, objectives, and expected outcomes of your efforts?
4. Who are/were the participants?
5. What was the process? How do you link transportation and the environment in the development of policies, plans, and projects?
6. What are/were the challenges and barriers to implementation or success?
7. What factors are/were the most supportive in your efforts?
8. To what extent were the primary goals achieved?
9. In what ways did the process and results depart from what was expected?
10. What are/were the benefits?
11. What lessons have you learned so far from your participation?
12. Would you do it again and if so what changes would you make?
13. Are you planning or implementing mitigation for expected environmental impacts? If yes, briefly describe your efforts.
14. Do you have a scoring criteria for ranking transportation and environmental plans and projects? How do you set priorities?
15. MPO's: What drives decision making in your organization? What role are you playing in the Eco-logical process for your community?
16. Is there anyone you recommend we talk to about similar efforts linking transportation planning with environmental protection?
17. May we contact you in the future for more detailed information?

Attachment 3: Mitigation Hierarchy, cont.



Attachment 4: Participants

The Mid-America Regional Council (MARC) would like to thank these contributing organizations and agencies:

American Council of Engineering Companies– Kansas Chapter
American Institute of Architects– Kansas City Chapter
American Planning Association– Kansas City Metro Section
Cambridge Systematics
City of Gardner, Kansas
City of Kansas City, Missouri
City of Lenexa, Kansas
City of Olathe, Kansas
City of Parkville, Missouri
City of Roeland Park, Kansas
Davison Architecture + Urban Design
Federal Highway Administration
Federal Transit Administration
Johnson County Bicycle Club
Johnson County Transit
Kansas Biological Survey
Kansas City Area Transportation Authority
Kansas City Regional Transit Alliance
Kansas Department of Wildlife and Parks
Kansas Department of Transportation
Missouri Department of Conservation
Missouri Department of Natural Resources
Missouri Department of Transportation
NatureServe
Platte County, Missouri
Regional Transit Alliance
Shockey Consulting Services, LLC
Sierra Club
University of Kansas Graduate Program in Urban Planning
URS Corporation
U.S. Army Corps of Engineers
U.S. Environmental Protection Agency Region VII

Attachment 5: Best Practices Example– Green Highways Partnership

Green Highways Partnership
Taken From: Green Highways Partnership
www.greenhighways.org

Green Highways Characteristics

- Provides net increase in environmental functions and values of the watershed
- Goes beyond minimum standards set forth by environmental laws and regulations
- Identifies and protects important historical and cultural landmarks
- Maps all resources in the area in order to identify, avoid, and protect critical resource areas
- Uses innovative, natural methods to reduce imperviousness, and cleanse all runoff within the project area
- Maximizes use of existing transportation infrastructure, provides multi-modal transportation opportunities, and promotes ride-sharing / public transportation
- Uses recycled materials to eliminate waste and reduce the energy required to build the highway
- Links regional transportation plans with local landuse through partnerships
- Controls populations of invasive species, and promotes the growth of native species
- Incorporates post project monitoring to ensure environmental results
- Protects the hydrology of wetlands and streams channels through restoration of natural drainage paths
- Results in a suite of targeted environmental outcomes based upon local environmental needs
- Reduces disruptions to ecological processes by promoting wildlife corridors and passages in areas identified through wildlife conservation plans
- Encourages smart growth by integrating and guiding future growth and capacity building with ecological constraints