

LINKING TRANSPORTATION AND ENVIRONMENTAL PLANNING

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A REGIONAL PHILOSOPHY / VIEWPOINT

During the past several decades there has been a growing awareness of the need to have a more thorough discussion and understanding of the relationship between the transportation planning process, the impacts of highway programming and construction and environmental protection. Our knowledge and understanding between the complexities of the natural environment and our development-made surroundings is a continuous process. The connection between these has resulted in new areas of environmental science that needs to be considered and discussed as they interact with the growth of our infrastructure systems.

“History has clearly demonstrated that the quality of life and the sustainability of human settlements is dependent on the stewardship of natural resources.” In response to this issue, Metropolitan Planning Organizations (MPOs) are developing strategies to include conservation in the area's overall transportation planning process and the development process of the area's long-range transportation plan (LRTP). For the RATS MPO, specially, **Section 10.7 – Planning and the National Environmental Protection Act Process of the Year 2035 LRTP.**

RATS APPROACH TO LINKING WITH NEPA

On February 14, 2007, planning regulations issued jointly by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) require a more detailed policy approach to concentrate on the significance between biodiversity and other environmental impacts and the proposed transportation projects that are included in the RATS LRTP. When these regulations were issued, RATS adopted Resolution 2007-7 which identified three additional planning efforts including a framework planning approach for this issue, which is shown below.

RATS Planning, Coordination and Consulting Plan with Resource Agency

In order to comply with 23 CFR 450, Section 6001 it is important for MPOs to coordinate with State and Federal resource agencies, sharing information and creating a planning process that looks at environmental issues as a regular task item. In most cases the resource agencies can provide plans, maps and databases, often in GIS-ready format. Often information is available from resource agency websites that complements the work of the MPO planner. In particular, the following is available from the respective resource agencies:

1. US Army Corps of Engineers – GIS based mapping of permit activity, mapping of wetland mitigation areas and banks.
2. US Fish and Wildlife – Consultation on Federal endangered species lists and compliance with the Endangered Species Act. Soon to be available GIS coverage's of habitat.
3. US Environmental Protection Agency / IL EPA – Powerful web-based tools that provide a range of environmental conditions and features within MPO areas. Watershed assessment tracking and environmental results. Envirofacts data warehouse for air, water and land. Air data and NEPA compliance.
4. IL Department of Natural Resources – State list of endangered species and statewide conservation plans.
5. IL Historic Preservation Agency – Access to the HAARGIS system that provides detailed information on historic properties and structures from a web-based environment.
6. IL Department of Agriculture – Compliance with the Farmland Preservation Act. Updated soils information on a county by county basis. Land use planning assistance to ensure compact and contiguous development in urban areas, minimizing the conversion of agriculture land to non-agriculture uses. Information available through the regional Soil & Water Conservation Districts.
7. Winnebago Soil & Water Conservation District
8. Rockford Park District
9. Winnebago County Forest Preserve District
10. Boone County Conservation District
11. Belvidere Park District
12. Village of Winnebago Park District
13. Natural Land Institute

MPOs can assist the resource agencies by providing transportation and land use planning data in GIS-ready format for easy and seamless data integration.

During September 2007, the FHWA and FTA conducted a certification review of the RATS transportation planning process. In March 2008, they issued a report, which including several findings and recommendations.

One of the findings of this review was that the “Rockford MPO shall amend the current LRTP to include a discussion on potential environmental mitigation activities at the policy and/or strategic levels.”

Section 6001 of SAFETEA-LU, requires that MPOs LRTP include a fundamentally different discussion of mitigation efforts than are typically contained in the NEPA documents. This new requirement is a more broad-based planning approach for reviewing the “types of potential mitigation activities and potential areas to carry out these activities” than normally done by MPOs. This was the framework that RATS used in adopting Resolution 2007-7. Described later in this section are some specific projects that RATS is planning, coordinating and consulting with environmental resource agencies. But, RATS has and will continue to assist in the planning and preparation of the resource materials that are currently being used by traditional transportation agencies responsible for the actual preparation of the NEPA documents. Because RATS staff is located within the Public Works Department of the City of Rockford, the staff and the planning materials and documents are easily available for City and RATS staff to check with when issues arise.

To meet the intent of Section 6001, RATS staff, voting members, non-voting members and other participating agencies who receive federal funds have and will continue to follow the National Environmental Policy Act (NEPA) process. However, one of the planning approaches that SAFETEA-LU stresses is for MPOs to shift towards a broader and more strategic involvement with a wide range of agencies, organizations and the public who might not have been traditionally connected with the overall transportation planning process, or understand the role, and/or functions of RATS. One of the important efforts will be to work with these new connections to identify other approaches that will cause the least disruption of environmentally sensitive areas, such as wetlands and known locations of endangered species. From this charge, one of the overall objectives should highlight environmental benefits, as well as impacts. One of the methods to be used will be northern Illinois / southern Wisconsin geographic area so that regional ecological issues can be addressed in the planning stages of a project.

The types of activities that will be considered for mitigating the impacts of transportation projects are those that have been traditionally used. These are wetland replacement, avoidance of habitat fragmentation, preservation of habitat for endangered species, replacement of trees and other types of vegetation, identification and creation of mitigation banks within the watersheds of possible projects, planting native vegetation, buffering existing parks, forest preserves and other parkland from high-impact land use development, working with the land use controls of the local units of government to adopt policies that would avoid environmentally fragile areas and to develop landscaping plans and other amenities that would restore and enhance the ecological values of the land. Another management activity might be the creation of an in-lieu fee program where developers and other users who impact certain environmental areas could contribute to a third-party conservation organization that is attempting to restore, acquire or develop high-value natural areas.

BEGINNING THE CONVERSATION

To start and continue to have discusses on the steps to integrate the transportation planning process with environmental management, one of the main emphases will be communicating with these resource agencies who have direct authority and information on environmental issues. In other words, to have open and continuous discussions with those agencies, the general public and the transportation plans and programs that might impact the environment. These relationships are very critical to ensure that the transportation planning process follows the 3-C (Continuing, Cooperative and Comprehensive) principles.

For the area to have an on-going dialogue on environmental and transportation planning issues, several efforts have been done to bring these subjects together to discuss their interests so that information can be assembled about concerns early in the overall planning process. Besides the governmental partners listed above, non-governmental organizations and other interest groups and individuals will be included in this process. While these organizations and groups have different responsibilities and information, the sharing and identification of issues will be very valuable in the development of the RATS LRTP and other planning documents. MPOs are at the “cross-roads” of being able to pull together these different community resources to ensure that issues are known and documented to allow good planning procedures, information and reports to transpire. While some

community organizations might have a no-growth attitude, the reality is that growth will continue to occur in the greater Winnebago County – Boone County area. The proper planning procedure is to consider the long term consequences of our growth as those actions impact the green infrastructure. As the urbanized area of Rockford and surrounding communities continue to grow, it will require a disciplined planning process to recognize that providing economic growth can be done in a way that will protect and ensure a balance between nature preservation and development.

Over the past several decades, there has been sporadic dialogue on how to link the MPO / state responsibility for transportation planning and the Federal review process with NEPA. This issue of making an easy, smooth and seamless merger with NEPA is one of the key guidelines of the SAFETEA-LU planning regulations. This joining of these two steps in the overall process of constructing transportation projects is a critical one because the MPO planning process and NEPA steps are at the early stages of the project development process and if issues and topics are not fully identified and investigated, the implementation of those projects are delayed or are extended to the point that the project cost exceeds the original estimate. If these delays occur, concerns are raised by the public regarding the MPOs/Locals/States/Federal ability to get these projects done in an acceptable time period. In the public informational open houses and other public presentations that RATS have held and given, one of the concerns has been repeatedly heard is the length of time it takes to get projects done. One of the reasons is the time that transportation projects are listed in a MPOs 20+years long-range plan, funding cycle and the implementation schedule for each specific project included. Primarily because of the funding cycle and other priorities that local and state governments are facing with regards to revenues, the seamless transition (regarding no time gap) between the transportation planning process and NEPA mostly does not happen.

While SAFETEA-LU stated that mitigation strategies and activities are “intended to be regional in scope, and may not necessarily address potential project level-impact” they should be included in a MPOs long-range plan. One of the principle goals of this discussion on environment mitigation is to explain how to include much of the MPOs planning products in the NEPA process. Since the NEPA process is a federal requirement, the critical issue is that the resource agencies to be included to assist the MPO process to determine what information is allowed so that a duplication of efforts can be minimized. Also, since the NEPA process is directly related to specific project-level impacts and the intent in SAFETEA-LU is an overview of the entire metropolitan planning area of an MPO, this discussion / dialogue essentially becomes one of including and involving the agencies in the review process and determining what information they do or might consider in the NEPA process.

The approach that RATS has used in the past when issues have been raised is to take that vision and to implement a planning task / work element to start the process to implement that idea. This was exactly the planning approach that RATS used when the area wanted a more thorough and complete discussion on the common community vision for having a bicycle / pedestrian system that would offer the communities a viable transportation choice. As a result, RATS set-forth a planning effort to explain the vision to implement a safe and efficient bicycle and pedestrian system. To implement a regional bikeway system, RATS participated and assisted the local and states agencies involved in this process:

- (1) to develop a network system displaying the routes and type of bike facilities that could be built, striped and signed,
- (2) to research and determine the requirements of different types of revenue sources that could be used to develop a grant proposal to build such bike facilities, and
- (3) to assist the local units of government in writing and preparing such grants.

A copy of the steps of public participation in this planning effort is shown at the end of this document. Based upon the amount of public involvement and response to this planning approach, RATS will follow this approach for all future planning efforts/activities that have a broad regional focus.

PAST & CURRENT PROJECTS LINKING TRANSPORTATION AND ENVIRONMENTAL PLANNING

For this discussion on environmental mitigation, several efforts have been done or are currently underway that allowed citizens the opportunity to participate in these specific planning projects. For several of these projects, RATS has participated and taken an active role in the development of these planning efforts.

- **Boone and Winnebago Regional Greenway Plan** – The development of this plan provided a framework to allow local and state organizations, along with private organizations and individuals, an opportunity to participate in this planning effort and have discussions on the relationships between environmental resources and growth management. With the completion of the original greenway plan in 1997 and an updated version in 2004, this planning process provided a basis for agencies involved with transportation, water quality, stormwater and floodwater management, parklands and forest preserves, and other environmental and conservation programs to address planning coordination. Through this effort, interagency consultation has continued.

In the development of the Regional Greenway Plan, numerous layers of data were included in the GIS-format mapping process. Some of these layers are:

- Bedrock geology
- Bedrock topography
- Streams
- Wetlands
- Floodzones
- Bedrock aquifers
- Public water supplies
- Surface waters
- Landcover
- Forest resources
- Archeological sites
- Cemeteries
- Federal lands
- Natural areas and preserves
- State fish and wildlife areas
- State parks
- County and local parks, and
- Privately owned known environmental critical areas (such as property which has been enrolled in Conservation Reserve Program or which has a conservation easement)

This Greenway Plan has been used extensively by the participating agencies as a tool for planning open space acquisition, protection of natural areas, development of pathways and other transportation systems. It has been an important resource in meeting grant application requirements, especially Illinois Department of Natural Resources (IDNR – C-2000), IDOT (Transportation Enhancement) and Open Space Land Acquisition and Development (OSLAD) program grants. As the Regional Greenway Plan was being developed, the local and state agencies essentially created a consortium to develop a collaborative work-effort that has continued throughout the past several years.

- **FHWA / IDOT's Enhancement Program** – Another example of this effort is the regional cooperation on the submissions of enhancement applications. The two principal planning documents that are used in this effort are the RATS Year 2035 LRTP and the Regional Greenway Plan. The majority of projects that have been submitted, awarded and constructed in the RATS MPA are regional shared-use path facilities. Particularly, are two major north-south routes that have been completed in the area which are the Rock River Path and the Perryville Path. One of the objectives of the recently completed Bicycle / Pedestrian Plan was the identification of existing streets to connect to the area's several shared-use path facilities. Using the traditional transportation system management philosophy of low-cost transportation improvements, this planning approach of using low-volume streets to safely accommodate bicycling would create a mobile and accessible transportation option in the RATS MPA. The regional cooperation on the submission of these

grants by several of the local agencies identified above and the construction of these transportation facilities, the area is now in the position of implementing an on-street bicycle network.

- **Winnebago County Natural Resource Inventory** – As part of the Winnebago County 2030 Land Resource Management Plan, a natural resource inventory will be developed to list the types of natural resources whose locations and characteristics should be identified and mapped in a GIS format. WinGIS is requesting information about private or public natural resources that may not have been previously recorded by local, state, federal, or private agencies, but which are still considered great assets of the residents of Winnebago County. This inventory will be used to help protect and manage these precious assets in the future. The foundation for this work effort is the State of Illinois Natural Area Inventory. This 30-year old inventory identified high-quality remnant natural communities and grades them according to their ecological integrity. As part of County’s 2030 Land Resource Management Plan, the Winnebago County Geographic Information System (WinGIS) has contracted with a consulting team to (1) create an inventory of scarce natural resources, (2) assess the ecologic significance of the natural resources, (3) recommend a management strategy to maintain, restore and protect the natural resources and (4) provide the inventory and strategy data in an approved GIS format. RATS assisted WinGIS in developing the project overview and purpose of this activity.
- **Principles of Balanced Growth** – Beginning in January 2002, Winnebago County began a planning initiative “to inform public and private decision-makers in Winnebago County on the concept and benefits of balance growth; to encourage implementation of projects and policies or actions which reflect the principles of balanced growth and to become a model for other counties in Illinois.” This project had several objectives, but the overall theme was to educate public officials about the principles and to explain some of the best practices on Balanced Growth. As with all planning tasks, the final report includes a multi-level approach to most of the important issues that challenges urban communities across the United States. The topics that were described included Economic Development, Fiscal Stability, Natural Resources, Agriculture, Open Space, Viable/Livable Communities, Infrastructure and Coordination.
- **Rock River Valley “Green Communities” Environmental Vision: *Facilitation of Cooperative Conservation*** – This environmental visioning effort involved many government and other resource agencies to develop a community understanding of the importance of protecting and preserving our natural resources. This process included investigating the physical, ecological and cultural dimensions of the local environment, identifying issues and preferences through surveys and public meetings, creating strategies to address issues and generating an action plan. The goals of this effort were to:
 - (1) – cultivate and preserve historical and cultural resources,
 - (2) – protect, preserve and enjoy natural resources and ecosystems,
 - (3) – link the natural world to hands-on learning and physical activity through recreational and environmental education,
 - (4) – implement environmentally sound land use strategies and
 - (5) – develop a system that encompasses all forms of transportation in a safe, interactive manner.

The action plan that was published by the Rock River Valley Green Communities included ten critical action areas and follow-up issues for the region to consider and incorporate into the area’s planning process and documents. The steps to implement the ten issues that were identified in this visioning planning process listed local and regional planning documents like the greenway and trails plan, park and open space plan and the RATS LRTP, including a specific reference to have a more detailed planning analysis on bicycling and pedestrian transportation.

- **Illinois Department of Natural Resources Ecosystems Program: *Ecosystems Partnerships*** – The purpose of this state-wide effort “is to integrate the interests and participation of local communities and private, public and corporate landowners to enhance and protect watersheds through ecosystem-based management.” In the RATS Metropolitan Planning Area are three of these ecosystem partnerships:
 - * Upper Rock River
 - * Kishwaukee River
 - * Sugar – Pecatonica Rivers

The strategy of these partnerships is to ensure that habitat and other environmentally-sensitive areas are maintained and managed to enhance biological diversity and to establish human and economic and recreational conditions that will be compatible with local and regional interests. Because more than 90% of the state's land area is privately owned, a new approach was initiated to have a cooperative effort to protect, enhance and restore natural resources through private management and public support and encouragement.

- **Illinois Wildlife Action Plan** – The Illinois Department of Natural Resources (IDNR) has completed a detailed, science-based approach to develop a comprehensive plan to manage public and private lands to conserve the state's wildlife. The planning approach included an inventory of species, but also developed a plan to address the particular needs of wildlife that are declining so that these species populations can be stabilized and then increased. To address the eight congressionally required elements, IDNR's method involved more than 150 federal, state, and local agencies, partnerships, institutions, and nongovernmental organizations. Through a wide-variety of other public events and announcements, an estimated 600 people were consulted throughout the state.

The fifteen natural land divisions of Illinois, defined by biological and geological characteristics, were used to geographically divide the state into sections to evaluate wildlife and habitat conservation needs. To assess each of these land divisions, thirteen major and minor categories were used in the environmental – ecosystem review. Two of these fifteen land divisions are included in the RATS Metropolitan Planning Area, the Rock River Hill Country and Northeastern Morainal Natural Divisions.

Included in the State Wildlife Action Plan is a Green Cities Campaign section. As a result of increasing population growth in several of the 102 counties in Illinois, this plan discussed several actions steps for developing areas to foster an understanding of and appreciation for wildlife, habitat, natural communities, ecological processes and disturbance regimes. Knowledge of these issues and related subjects are important for urban residents to support scientifically driven conservation priorities. The steps that were outlined are:

1. Minimize the adverse effects associated with development on wildlife and habitats.
2. Integrate wildlife and habitat conservation in developing areas, as possible or appropriate.
3. Increase water quality education efforts in areas under high development pressure and/or within fragile geographic zones (i.e. karst terrain).
4. Make natural areas conservation, ecology and environmental education a mandatory part of school curricula.
5. Fill information gaps and develop conservation actions to address stresses.
6. Increase access to open lands and waters within and near urban areas for wildlife-related recreation.

VIEWING FORWARD

As noted in numerous publications and studies, the importance of land conservation and incorporating environmental and community principles into the transportation planning and decision-making process can improve the quality of life for the citizens and visitors to the Rockford Metropolitan Planning Area. The continuous changes occurring in the human landscape are effecting our natural environment. SAFETEA-LU is asking metropolitan planning organizations (MPO) like RATS to develop an on-going discussion between local organizations and to coordinate with State and Federal resource agencies to begin a dialogue to share information and create a planning process that will serve to avoid, minimize, or compensate for the impacts to the environment from transportation projects. Consultation with non-traditional transportation planning partners in the federally-funded MPO process seeks to include and involve other interests who are affected by transportation projects in the Rockford metropolitan area, like economic development, conservation and agricultural organizations.

The SAFETEA-LU planning requirement to have MPOs develop a regional scope and strategy to address the issues that are a part of the NEPA process is not new to RATS. As presented and discussed above, the approach that the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) are

asking MPOs to pursue with resource agencies that are included in the NEPA review process is currently used in the RATS area.

The critical point in any community planning process is to take that vision (plan) and to identify the steps and resources needed to materialize that visualization. ***In other words, to make the plan happen.*** The first step in this process was to communicate with these resource agencies that have direct authority and information on environmental issues. That occurred as the May 20, 2008 version of this plan amendment was distributed to several of the local and regional park and conservation agencies in the RATS/RMAP MPA to seek their comments and opinions. Based upon those conversations, this updated version (July 17, 2008) includes most of those views. Once this plan amendment has been adopted by the RATS/RMAP Policy Committee, the next step will be that RATS/RMAP staff will conduct a meeting(s) with local, state and federal organizations, along with private organizations and individuals, to begin identifying the issues and relationships between the transportation plans and programs that might impact the environment. At this time, it is the intent to have continuous conversations with these organizations and individuals because the RATS/RMAP MPO process is always an on-going discussion. One of the items for discussion will be to review the “Planned Roadway Improvements from Present to Year 2035 (Map 7-3)” in the RATS LRTP and to determine what impacts those projects might have to the environment. If there are possible impacts, explore other options to avoid or reduce those possible effects. Another item for consideration might be an advisory committee of environmental agencies and individuals to review and incorporate environmentally friendly (ecosystem or watershed basis) practices into state and local transportation agencies construction and maintenance operations to protect and enhance wildlife and wetland habitat. Ultimately, the goal is to become *Eco-Logical* in our decision-making process to link transportation planning with environmental issues.

Steps for Public Participation

