

VIII.

System Environmental Review and Mitigation Strategies

Introduction

This chapter provides mapped inventories of the agricultural and natural (includes recreational) resources within the planning area (MPA). The purpose of these inventories is to provide a baseline of existing conditions for use during project scoping and environmental assessment as required by the National Environmental Policy Act (NEPA) of 1969. Anticipated build projects are mapped in relation to the resources described above as well as to disadvantaged populations. This chapter documents compliance with these requirements.

Federal law requires considering environmental mitigation activities in developing transportation plans, in addition to new consultation requirements with federal and state natural resource, land management, environmental protection and other agencies.

Metropolitan planning regulations state in 23 CFR 450.322 (f.) (7) that the plan shall include, at minimum:

“A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities that may have the greatest potential to restore and maintain the environmental functions affected by the metropolitan transportation plan. The discussion may focus on policies, programs or strategies, rather than at the project level. The discussion shall be developed in consultation with Federal, State and Tribal land management, wildlife and regulatory agencies. The MPO may establish reasonable time frames for performing this consultation. ”

It should be emphasized that MPO’s role in examining issues related to environmental mitigation is to scan system level issues – this is not a project level environmental impact document, which requires field work and specific analysis under the National Environmental Policy Act (NEPA). Rather, the planning regulations require system level or regional analysis to look at cumulative effects of all projects (not those of individual projects) from a high level – which may streamline later project level or site specific analysis to the extent they may flag or act as “an early warning system” to both transportation and resource agencies of issues which may need to be considered in later project level analysis, but more importantly, to assure that the planning and

programming process as a whole considers what the long term environmental mitigation issues are for the region in light of future plans.

Since this high level view is the intent of the MPO planning requirements (as opposed to the project level NEPA process), the legislation and regulations specifically exempt consideration of planning factors and environmental mitigation at the Plan or TIP phase from judicial review. Judicial review, however, is the function of the NEPA project level analysis, a level of analysis that the MPO has no direct role in but to review and comment like any other interested party.

As such, this high level view may inform the NEPA process, but it is quite distinctly different from it by design and intent, since project engineering design decisions are typically not known at the planning stage. However, earlier awareness of potential issues from a high level system view may better alert implementing agencies of need to consider issues at the project stage when the project is designed – such as presence or absence of historic sites or possible locations of potential contamination areas that may require mitigation the project stage when engineering begins, plans are being prepared and a NEPA-style project level analysis is required – which then, and only then, may be subject to judicial review. Regulations pertinent to the project level environmental review can be found in Appendix E.

General Plan Review

Through a multi-year process of data gathering, alternatives analysis, modeling, and agency and public review, the LRP developed a list of multi-modal transportation recommendations to meet the anticipated growth and subsequent mobility demands. The analysis stages included review of county and municipal land use and transportation infrastructure improvement plans, State transportation plans, as well as Wisconsin Department of Natural Resources (WisDNR) defined environmentally sensitive areas.

The WisDNR guidelines, contained in Appendix F, describe environmentally sensitive areas as “Major areas that are unsuitable for the installation of waste water treatment systems because of physical or environmental constraints. Areas to be considered for exclusion from the sewer service area because of the potential for adverse impacts on the quality of the waters of the state from both point and non-point sources of pollution include, but are not limited to, wetlands, shorelands, floodways and floodplains, steep slopes, highly erodible soils and other limiting soil types, groundwater recharge areas, and other such physical constraints.” (NR 121.05(1)(g)2.c.).

This plan is an update to LRP adopted in 2006. The plan does not include significant changes in highway project recommendations from the plan adopted

in 2006. Transportation model runs do not show any significant deficiencies in addition to those addressed in 2006. A full update of the LRP will be conducted after 2010 census data is available, with adoption anticipated in 2014. The build recommendations included in this plan were reviewed relative to identified environmentally sensitive areas.

The identification of environmentally sensitive areas is intended to provide for the long term protection of wildlife habitat and recreation areas; reduce runoff and erosion damage along lakes and rivers; preserve the quality of surface and groundwater; guide development to protect environmentally sensitive areas; prevent excessive non-point source pollution; and reduce public utility costs. In addition to all regulated wetlands greater than five acres, delineated on the Wisconsin Wetland inventory maps, all areas within the FEMA delineated 100-year flood hazard zones, and all areas of 20% or greater slope, several other environmentally sensitive features were mapped and, where possible, were considered in the alternatives analysis. These include unrestricted wetlands of less than five acres, developed parks and recreation areas, designated open spaces, and wellhead protection zones. Inventories of prime farmlands, by Soil Conservation Services standards, were reviewed, and farmland preservation program protections, mainly through exclusive agricultural zoning, were found to be minimal within the planning area.

The significant presence of historical, architectural and archeological properties in the MPA has been identified and recorded by the State Historical Society of Wisconsin. While the publication of identified archeological sites in this plan is not desired, and therefore not included here, a review proposed projects relative to the sites' locations has occurred, and none of those identified are impacted by the proposed transportation projects. Historical Society staff is also certain the area contains many undiscovered prehistoric and early historic sites. The Historical Society, in cooperation with area developers and local municipalities, will lend assistance with the surveying and evaluation of potential archeological and historical sites in the planning area to help preserve these valuable cultural assets.

A summary of the build projects, both committed and planned, and their potential areas of impact on environmentally sensitive areas is shown in Table 19 and on Map 35.

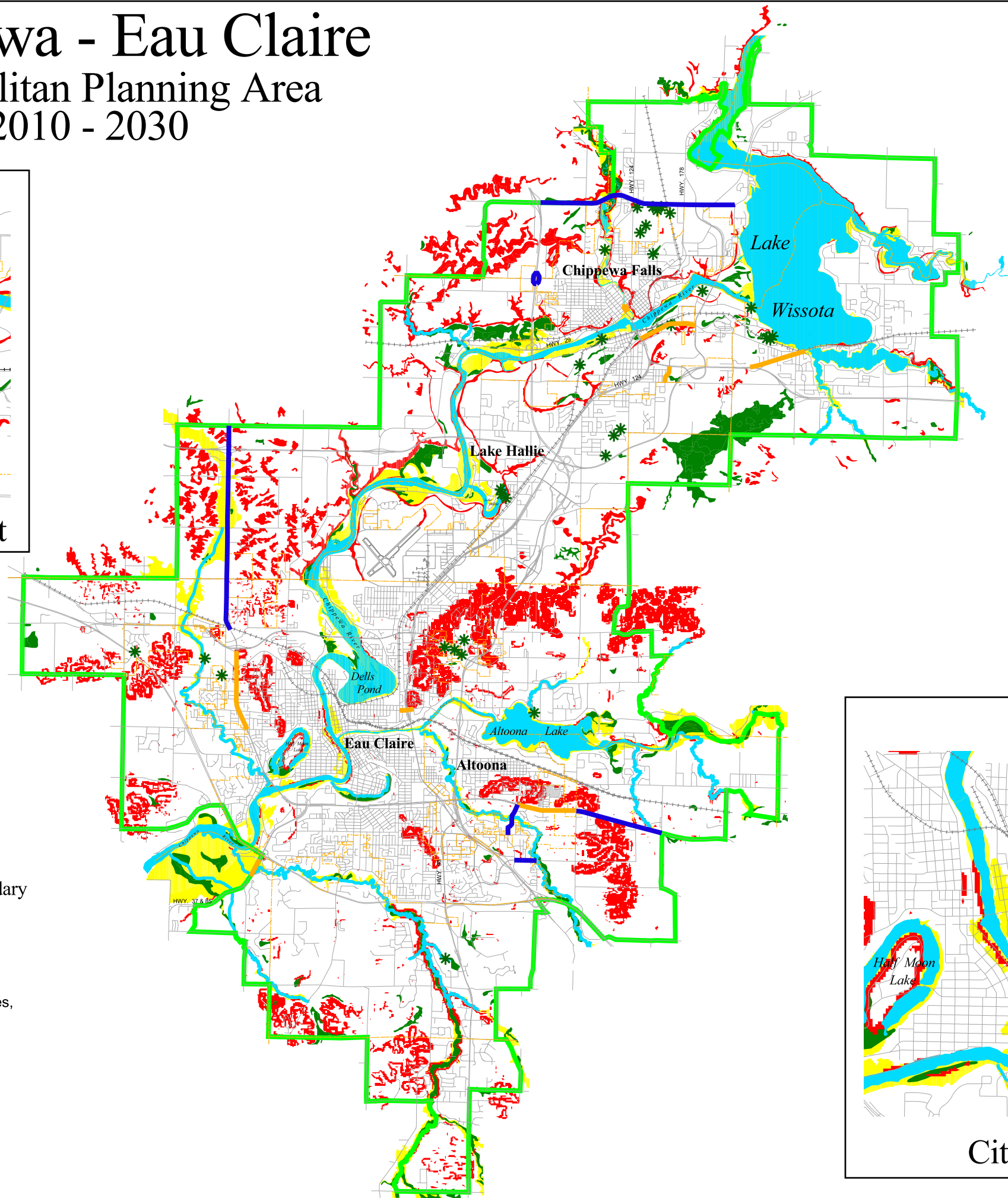
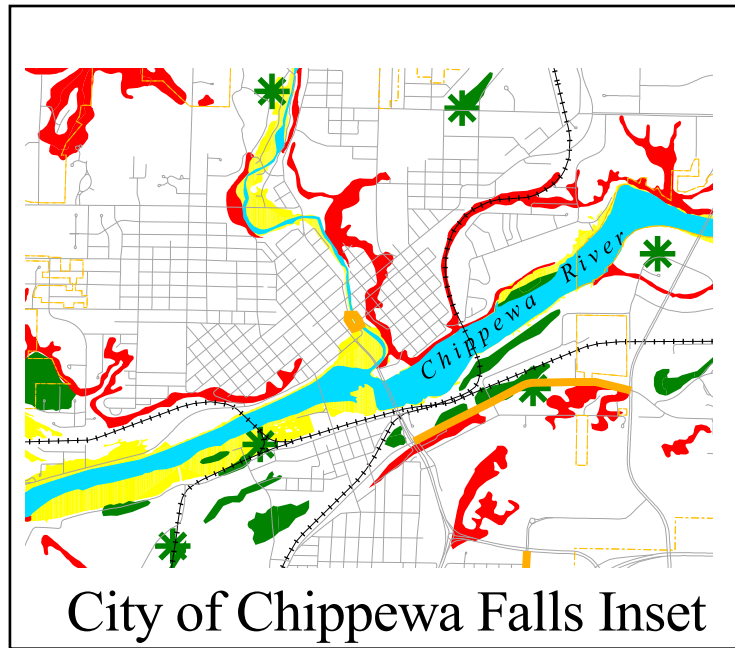
The only project noted in the consultation to likely to have extensive impacts is the Gateway Drive extension between Hamilton Avenue and USH 12, near the Hwy 12/3rd St. East intersection in Altoona. This project would cross Otter Creek just south of USH 12. Otter Creek is classified as a class 3 trout stream. Class 3 waters are considered marginal trout habitat with no natural reproduction occurring. The stream banks in this are steep and wooded. If the project reaches the design stage, it will require an appropriate NEPA study to better define the environmental impacts of the project.

Table 19
Potential Environmental Impacts of Committed and Planned Projects - 2030

	Planned Project Description	Purpose and Need	Potential Impacts							Notes	
			Flood Plain	Wetlands	Stormwater /Erosion	Woodlands	Parks	Wildlife Habitat	Archeological Sites		
1	Reconstruction of Birch St. with capacity expansion, Starr Av. to Pine St. <i>(update:</i>	capacity need/ functional change									
2	Reconstruction of STH 37/85 with capacity expansion, eastbound on-ramp of I-94 to Lowes Creek Dr. intersection	serve development needs	✓	✓	✓				✓		
3	Reconstruction of Park Ave., Peterson to Seymour Cray Blvd.	serve development needs	✓	✓	✓				✓		
4	Reconstruction of USH 12, 3rd St. East to Winchester Way	serve development needs			✓						
5	Reconstruction of CTH AA with capacity expansion, Gateway Dr. to House Rd.	serve development needs	✓	✓					✓		
6	Reconstruction of USH 12 with capacity expansion, Winchester Way to Shultz Rd.	serve development needs		✓					✓		
7	Reconstruction of CTH T with capacity expansion, Alpine Rd to old STH 29	serve development needs			✓						
8	Construction of diamond interchange, USH 53 and Bridgewater Av.				✓						
9	Intersection improvements along USH 12, Vine St. to North Crossing										no capacity expansion
10	Address deficiency of the Spring St. bridge over Duncan Cr.	likely to provide for non-motorized circulation									no capacity expansion
11	Reconstruction of CTH S including capacity expansion, USH 53 interchange to STH 178		✓					✓		✓	
12	Reconstruction of CTH X including capacity expansion, CTH J to CTH K		✓	✓					✓		
13	Construction of Gateway Dr., Hamilton Av. to 3rd St. East.	serve development needs/ USH 53 relief	✓	✓				✓	✓		
14	Construction of Alexander St. as 2-lane, E. South Av. to old STH 29					✓			✓		

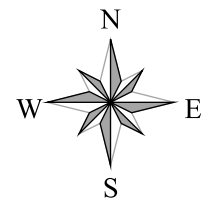
NOTE: This table is based on available resource inventories available at the time of plan development and a planning level review by WDNR, and does not represent an exhaustive list of environmental impacts that may be encountered in the implementation of these projects.

Chippewa - Eau Claire Metropolitan Planning Area 2010 - 2030



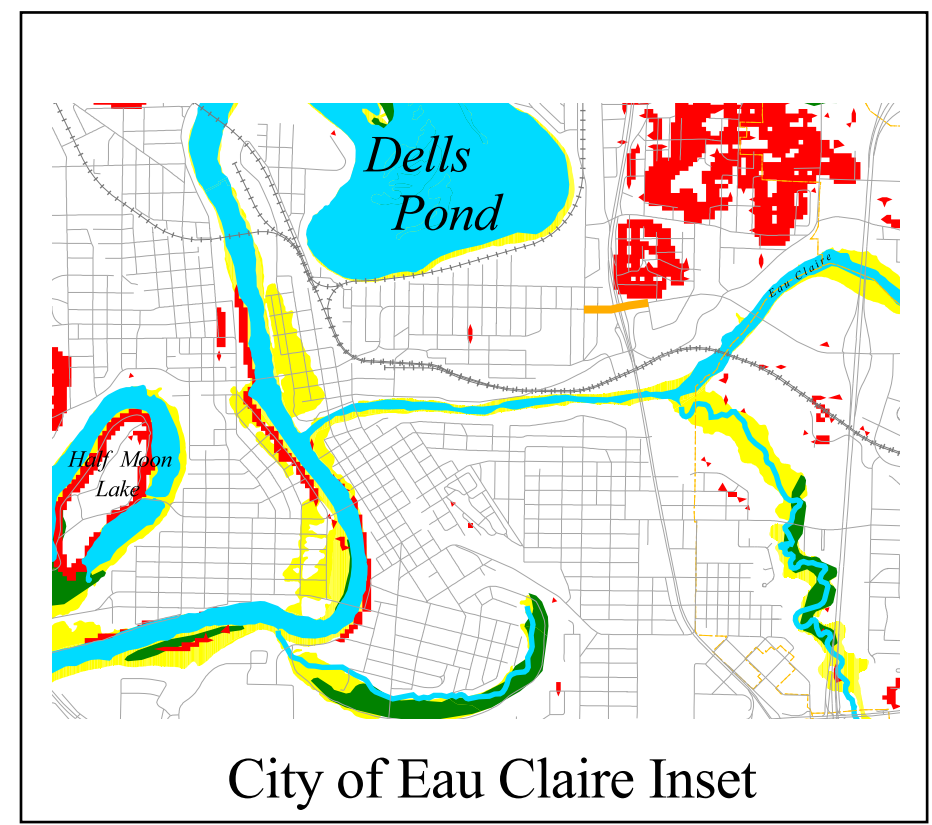
Committed and Planned Projects - Potential Environmental Impacts

- 20% or > Slope
- 100 Year Floodplain
- Wetlands > 5 Acres
- ✱ Wetlands < 5 Acres
- ▾ Committed Projects
- ▾ Planned Projects



— 2030 Metropolitan Planning Area Boundary

data sources:
U.S. NRCS Soil Surveys for Eau Claire and Chippewa Counties,
WDNR Wisconsin Wetlands Inventory (1996),
FEMA D-FIRMs (Chippewa Co 2010, Eau Claire Co 2009),



Mitigation Strategies

The NEPA process includes an ordered approach to mitigation and involves understanding the affected environment and assessing transportation effects throughout project development. Effective mitigation starts at the beginning of the NEPA process and continues through as an integral part of the alternatives development and analysis process. The Council on Environmental Quality (CEQ) defines mitigation in order of process sequencing as:

- 1) Avoiding the impact altogether.
- 2) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- 3) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- 4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- 5) Compensating for the impact by replacing or providing substitute resources or environments.

A discussion of regionwide policies on environmental impact and mitigation of potential impacts of plan recommendations took place at the environmental consultation meeting in March of 2010. The generally accepted rule of: *(1) avoid impacts, (2) minimize impacts, and (3) mitigate impacts*, can be applied at this level of planning, in terms of identifying areas of potential environmental impacts in the development of a project recommendation. The MPO has adopted such a planning policy, as follows:

MPO Environmental Impact Mitigation Policy

Chippewa-Eau Claire MPO will, to the maximum extent practicable:

- Consider actions to avoid, minimize, and mitigate environmental impact in the analysis and recommendation of transportation improvements, and
- Look for opportunities within the transportation planning process, for the reconnection and restoration of previously damaged environmental resources.

Planning for more specific environmental mitigation strategies for the long range horizon can present a number of challenges. While some strategies, such as imposing access controls on a facility to reduce the pressure for development, can easily be discussed at the long range planning level, others such as identifying locations for wetland mitigation can have too many implications for a project that is 15 or 20 years out, has not reached the stage of environmental assessment or preliminary design, and might not actually be implemented.

Wetland banking, for instance, is a practice of WisDOT, for use in mitigation relative to state highway projects. The wetlands banked by WisDOT are shown on Map 36. The MPO, as an advisory body, does not have appropriate authority or resources to partake in wet land banking for local projects. Some planning level mitigation strategies, generally favoring lower impact improvements follow:

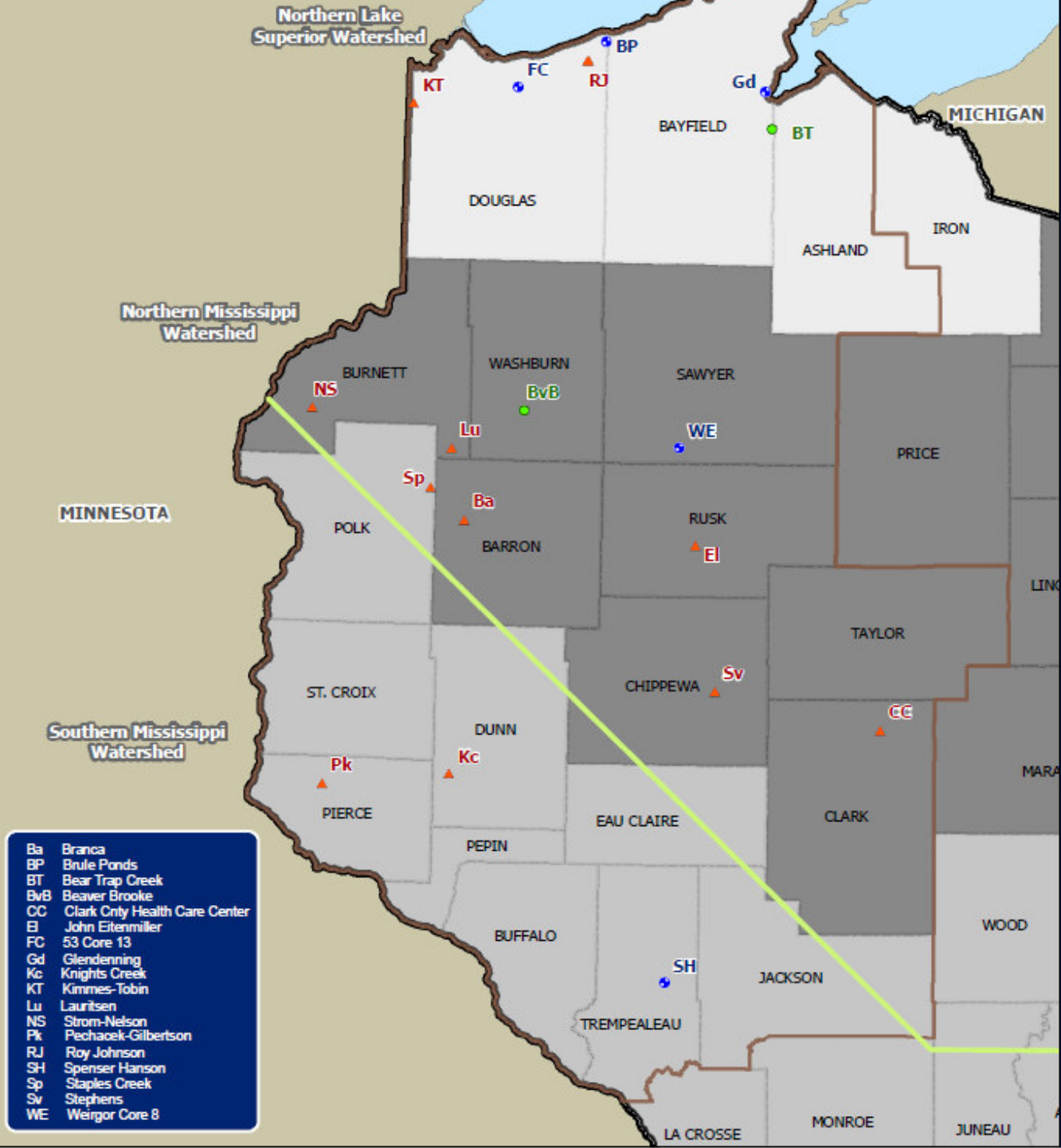
Land management strategies can address the rate and character in which development expands in the urbanizing area, and resulting demand for utility and transportation services. Issues such as urban sprawl, cost-efficient provision of urban services, environmental protections, public safety, environmental justice, and jurisdictional autonomy are discussed in Chapter 3: Land Use Patterns and Development Trends. Further, this plan incorporates a number of relevant recommendations from the West Central Wisconsin Regional Comprehensive Plan and recently adopted local comprehensive plans regarding transportation, land use, and sustainability. The Regional Comprehensive Plan, in brief, promotes and encourages compact development in the urban areas, as well as accommodations for bicycle, pedestrian, and transit transportation modes. In terms of natural resources, these policies mitigate the effects of growth and development by using less land, generating fewer vehicle miles traveled (VMT), and encouraging the provision of alternative travel mode options which reduce harmful emissions.

More specifically, recommendations of this Long Range Transportation Plan for the Chippewa-Eau Claire MPA also mitigate the effects of anticipated growth and development on the environment by reducing VMT through infrastructure improvements, and by recommending modal options to the traveling public.

Operational and management strategies are means to mitigate or eliminate transportation issues, such as congestion or safety, short of major construction or reconstruction projects. There are times when something as simple as modified lane-striping can better channel traffic and reduce crashes in a corridor or intersection, or better define the separation of bicycle and motorized modes. Other strategies are more technically complex, such as many Intelligent Transportation System (ITS) approaches. This section discusses several common operational and management strategies that can be examined for application to problem areas in the transportation system, as potential alternatives to traditional capacity expansion, and presents the MPO policy for such considerations in the planning process.

Map 36

WisDOT - NW Region Wetland Mitigation Banks



WisDOT Wetland Mitigation Banks - Northwest Region



Location
State of Wisconsin

Project Information
Project Number : 009-0034-01
Modified September 14, 2010

Legend

- WisDOT Northwest Region
- Bank Site
- Consolidation Site
- New Bank Development Site
- Tension Zone
- County Boundary
- State Boundary

WisDOT Wetland Bank Regions (2002)

- Northern Fox/Lake Michigan
- Northern Lake Superior
- Northern Mississippi
- Southern Fox/Lake Michigan
- Southern Mississippi

Mapping Provided By:

200 Commerce Parkway
P.O. Box 126
Cottage Grove, WI 53017-0126
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fax: 608-829-7995
www.startec.com

The information presented in this map document is advisory and is intended for reference purposes only.

Data Sources include WDOT, USGS, WNR and WDGA

Source: WisDOT, 2010.

MPO Operational and Management Strategy Policies

Chippewa-Eau Claire MPO will, to the maximum extent practicable:

- Recommend capacity expansion to mitigate traffic congestion only after consideration of other alternatives, such as access management, ITS, operations or congestion management, intersection modification, and traffic signal timing.
- Consider transportation system management strategies in the planning for arterial roads to improve traffic flow, maximize capacity, and increase overall system efficiency and safety.
- Involve operations personnel in the planning process to manage future capacity issues.

Access management strategies for the planned projects included in the Long Range Plan are largely determined by the implementing jurisdictions, as appropriate to the functional classification of the roadway. While collectors may directly serve adjacent land uses, freeways, by definition, have access only at interchanges. The broad categories of major and minor arterials are less well defined. Controlling access with access roads, combined access points, or limiting access to public streets can protect the capacity of the highway well beyond that of a highway with multiple private accesses, reducing the need for expansion or replacement. Access management strategies are best incorporated into the initial project planning and design, to avoid costly purchase of right of way and access rights. This can not be better illustrated than by a recently implemented project, the US 53 bypass, on the east side of Eau Claire. The facility is controlled, allowing only interchange access. The facility has succeeded in removing a great deal of through traffic, including many trucks, from the old USH 53, now Hastings Way, an urban arterial with a great deal of commercial access along much of its corridor and many signalized intersections.

Intelligent Transportation Systems (ITS) is a very broad term, covering everything from synchronized signal systems to changeable message signs to automated vehicle locator systems on buses and paratransit vehicles to traffic monitoring centers, all with the intent of improving traffic flow, communication, and ultimately the safety of the transportation system. Currently, WisDOT uses mobile changeable message signs in advance of construction areas to warn and/or redirect traffic, but to date, regular congestion has not reached the level that any more permanent ITS actions are needed to address it. Eau Claire Transit has considered, but has not, to date, been able to justify the expense of AVL equipment in fixed route or paratransit vehicles.

The NW Regional office of WisDOT has not developed an ITS Architecture, a document that defines ITS needs in the area to help facilitate compatibility and coordination of individual projects. One individual project is underway at the interchange of I-94 and STH 93. As a part of a larger project, gates will be

installed on the I-94 entrance ramps to be used for weather or crash emergency traffic control.

Operations can also play a role in mitigating the impacts of growth and development. Although they come from differing perspectives, transportation planning and operating agencies generally share the goal of enhancing system performance, and they can mutually benefit from stronger linkages. Some opportunities for stronger linkages include data sharing, performance measures, funding and resource sharing, regional ITS architecture, etc. Through such coordination and collaboration among State and local governments, MPOs, highway and transit agencies, other stakeholder organizations, and the general public may realize greater efficiencies and cost savings, better understanding of the others' roles, and improved ability to address short- and long-term needs. Under current technical advisory committee structure, as well as stakeholder review processes included in the adopted public involvement process, the Chippewa-Eau Claire MPO involves operators throughout the planning process. Some operations management strategies are used in the urbanized area, such as significant data sharing between stakeholders, and the on-going membership of operations personnel on the Technical Advisory Committee. Performance indicators have also been adopted by the MPO and will be used to measure plan progress in future years. The performance indicators adopted and the base data compiled to set the foundation of future comparisons can be found in Chapter X of this report.

Congestion management has not been a critical issue in the Chippewa-Eau Claire urbanized area. Some short-term, or site specific congestion does occur, but to date it has not been a driving force in transportation decision making. Some typical congestion management strategies, such as carpooling, public transportation options, park and ride, and flexible scheduling do occur on some level, typically for other reasons (private programs, as public services, or general commuting desires), but will be formalized to address future congestion for commuters on I-94 and within the urbanized area. Such alternatives will be considered as a part of a study contracted through the Minnesota Gateway Corridor Commission, a formalized group of Washington and Ramsey County, Minnesota and in collaboration with the Wisconsin Gateway Corridor Coalition, a similar group which includes the five counties of St. Croix, Dunn, Eau Claire, Chippewa, and Barron. The study, currently underway, includes a transit alternatives analysis for the corridor between St. Paul, Minnesota and Eau Claire.

Intersection Modification/Traffic Signal Timing can be low-cost and effective methods of addressing congestion issues. It is understood that intersections are frequently the first place that congestion and safety issues become apparent. Improvements such as signal timing and turn lane accommodation can improve traffic flow and address congestion issues to an extent. These strategies are typically addressed by local jurisdictions when safety issues or initial congestion issues arise, prior to the need or available funding to address capacity expansion.

Consultation Documentation

WCWRPC has conducted consultation and system level analysis of the relationship between Regional 2035 Transportation Plan projects and various natural features and resources. Formal consultation included a meeting that was held early in the plan update process, in March of 2010. A summary of that meeting is included in Appendix A. Invitations to the consultation meeting were sent out to the following agencies:

- DNR Bureau of Integrated Science Services
- WisDNR West Central Region
- State Historical Society
- Wisconsin Department of Agriculture, Trade and Consumer Protection
- U.S. EPA, NEPA Implementation Section
- U.S. Fish and Wildlife Service
- U.S. Dept. of Agriculture, NRCS
- U.S. Army Corps of Engineers
- U.S. Corps of Engineers, St. Paul District
- National Park Service
- Great Lakes Inter-Tribal Council, Inc.
- Bad River Band of Lake Superior Chippewa Indians of Wisconsin
- Ho-Chunk Nation
- Lac Courte Oreilles Band of Lake Superior Chippewa Indians of Wisconsin
- Lac du Flambeau Band of Lake Superior
- Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin
- St. Croix Band Chippewa Indians of Wisconsin

Each invited party was provided with a packet which explained the purpose of the meeting and gave a summary of the existing plan and of the process for plan update. Topics of discussion included the existing consultation process, potential impacts of proposed projects, and methods of addressing mitigation of those impacts. The same agencies were notified of the draft plan's availability for their review and comment.

The agencies that attended the consultation meeting, USEPA and WisDNR, all noted that they were happy with the existing process for environmental consultation, as well as the working relationship with the MPO, to date. WisDNR is represented on the MPO Technical Advisory Committee (TAC), and is therefore kept current on project development and programming throughout the planning and programming processes.