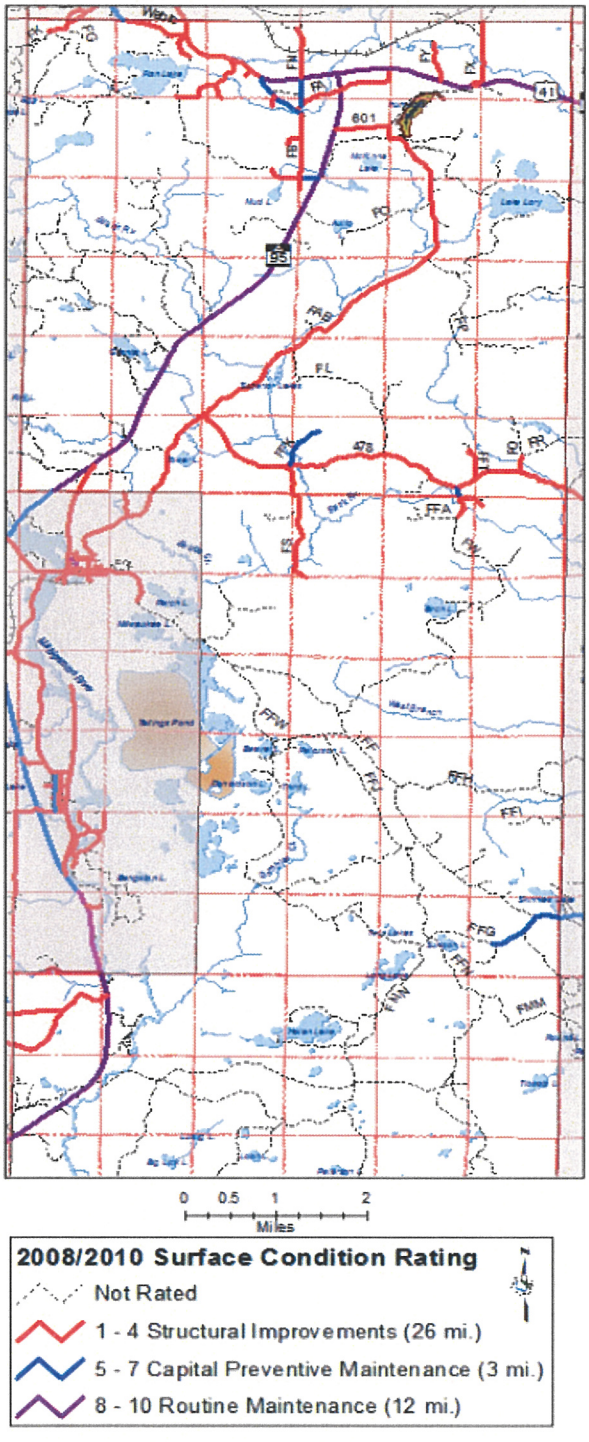
7.6 Road Condition Evaluation continued



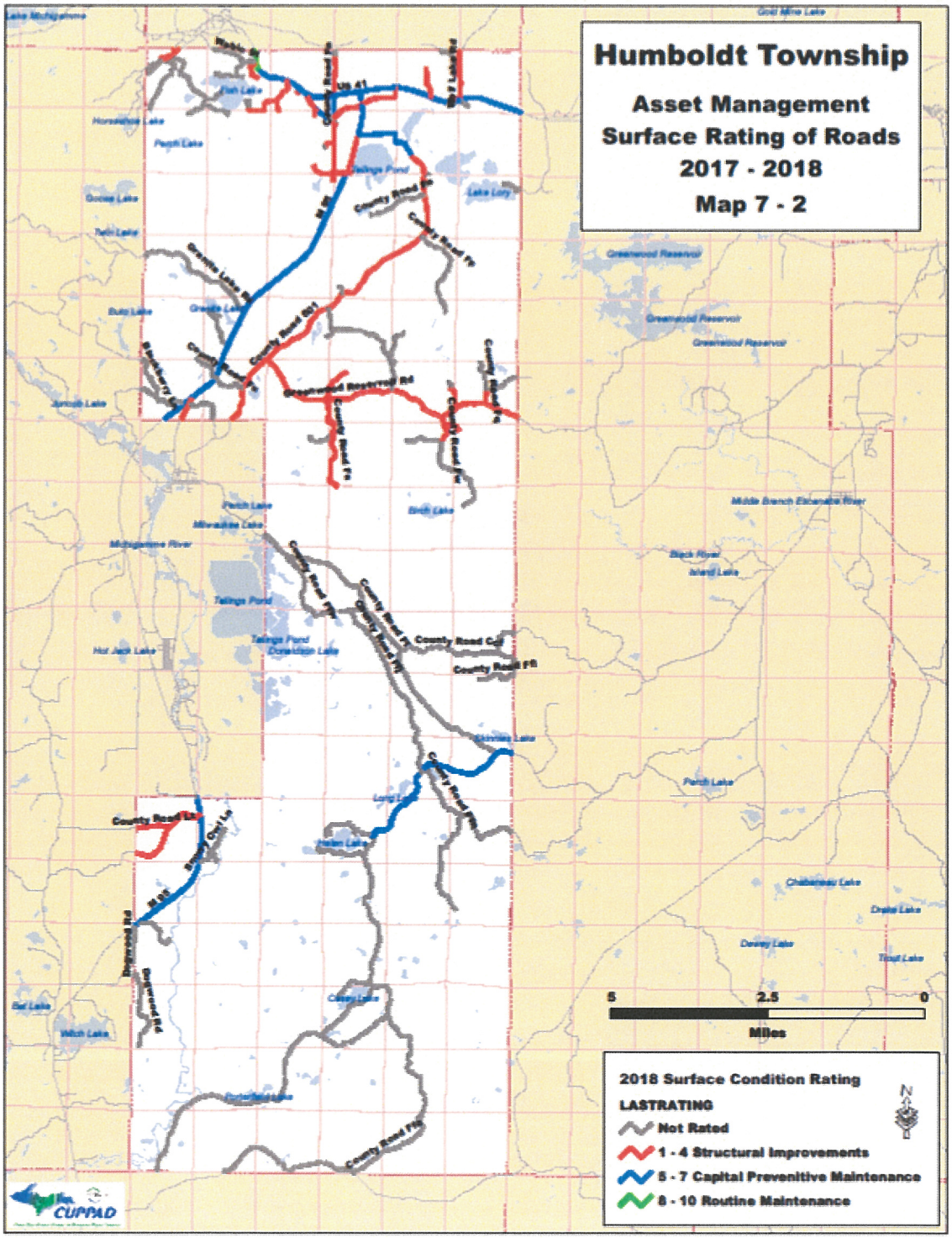
Future state trunkline system conditions are forecasted using the Pavement Management System data in conjunction with the Road Quality Forecasting System. It is anticipated that the percentage of pavement in poor condition will decrease over the next ten years. Bridge rehabilitation and replacement is scheduled on a "Worst First" basis, assuming that funding is available for construction.

The MCRC evaluates the condition of county roads every other year using the PASER (**PA**vement **S**urface and **E**valuation and **R**ating) system. A survey team drives the roads to inventory surface type and condition. Segments of road are rated on a scale from one to ten based on factors such as surface distress, pavement strength, and deflection. A rating of "10" indicates the pavement surface is in excellent condition, displaying no visible signs of distress, and having a quality rating of "new construction". A roadway given the rating of "1" represents a failed roadway condition with extensive loss of surface integrity.

PASER Ratings are often classified into three Asset Management Strategies which are listed and described in Table 7-3, Asset Management Strategies. The three strategies are color-coded with Red being "Poor" (1-4), Blue being "Good" (5-7), and Purple being "Excellent" (8-10) condition. The Asset management approach shifts from the traditional "Worst First" approach to one that incorporates a "Mix of Fixes." Investing smaller amounts of money in roads that are in "Good" condition extends the life of the road. Approximately one-half of the roads in the Federal Aid eligible system are rated every year.

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7.6 Road Condition Evaluation continued



7.6 Road Condition Evaluation continued

As illustrated in Table 7-4, PASER Rating Summary, Humboldt Township, the vast majority of roads in Humboldt Township are unrated (76.2 percent). The roads that have been rated in the Township are in fair or poor condition. The cost to fix roads in the Township that are currently in poor or fair shape is approximately $3.9 million. The more recent (5/22/17) Road Improvement and Prioritization Plan (pg.7) puts the cost to fix failed to fair roads at $8.5 million.

Table 7-3 Asset Management Strategies

PASER Ratings	Strategy	Description/Maintenance Technique	
1-4	Structural Improvement	Total reconstruction, resurfacing, gravel resurfacing, patching with major overlay	
5-7	Capital Preventive Maintenance	Crack sealing, asphalt overlay, chip seal	
8-10	Routine Maintenance	Street sweeping, shoulder maintenance	

Table 7-4
PASER Rating Summary, Humboldt Township

Condition Rating	Fix Needed	Miles	% of System	Estimated Cost
1 (Failed)	Reconstruction	1.457	2.5%	$509,950.00
2 (Very Poor)	Reconstruction	3.305	5.7%	$1,156,750.00
3 (Poor)	Reconstruction	3.648	6.3%	$1,276,800.00
4 (Fair)	Overlay	4.26	7.3%	$745,500.00
5 (Fair)	Overlay	1.14	2.0%	$199,500.00
6 (Good)	Chip Seal	--	0.0%	--
7 (Good)	Crack Filling	--	0.0%	--
8, 9, 10 (Excellent)	New	--	0.0%	--
Unrated	NA	44.248	76.2%	--
Totals	**--**	**58.058**	**100%**	**$3,888,500.00**

Source: MCRC, 2011.

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7.7 Financing

Local Funding

The Marquette County Road Commission allocates a certain amount of funds each year towards improvements to the local road system in each of the communities and/or townships, primarily utilizing monies from the Michigan Transportation Fund (MTF). The percentage of local road improvement funding allocated to each township and/or community varies year to year depending on the financial condition of the Road Commission. For each local road project, the community is required to pay 60 percent of the road construction cost, with the County Road Commission paying for the 40 percent balance. The Marquette County Road Commission has experienced sharp budget cuts in recent years and therefore has had limited funding to address maintenance and repair problems with the local county road system.

Michigan Transportation Fund (MTF)

Revenues collected from fuel taxes and motor vehicle registration fees are distributed to county road commissions, cities, and villages by formula through the Michigan Transportation Fund (MTF), established under Public Act 51 of 1951. The formula uses factors such as road classification, road mileage, and population to distribute funds accordingly. A percentage of the funding received by each road commission is also set aside for engineering, snow removal, and urban roads. For 2011, the Marquette County Road Commission was allocated a total of $5,507,678 from the MTF, compared to $5,481,647 received in 2010. In 2016 the approved MTF amount was $5,478,588.

Michigan Transportation Economic Development Fund (TEDF)

This program was established in 1987 by the Michigan Legislature. The purpose of the program is to assist with road improvements that will attract industry and create and retain jobs in Michigan. The program provides funding to allow the state, local agencies and businesses to work together to meet the often-extensive urgent demands placed upon the transportation system by economic development. There are five separate funding categories, four of which are applicable to Marquette County. Two programs are of a competitive nature and two are a formula allocation to the road commission.

Category A: Economic Development Road Projects: These are road projects related to target industry development and redevelopment opportunities. Eligible projects are those that address a transportation need that is critical to an economic development project in one of the following target industries: manufacturing, high technology research, agriculture/food research, forestry, mining, tourism and office centers. This is a statewide competitive grant program.

Category D: Secondary All-Season Road System: This category provides road improvements in rural counties to create an all-season road network. These funds can only be used for construction and not for right-of-way acquisition or engineering, which are not eligible costs. This is a formula based program that benefits the Marquette County Road Commission.

CHAPTER 7.0-TRANSPORTATION

7.7 Financing continued

Michigan Transportation Economic Development Fund (TEDF) continued

Category E: Forest Roads: This category provides for construction or reconstruction of roads essential to the development of commercial forests in Michigan. Eligible recipients are the county road commissions in each county in which a National Lakeshore or National Park is located or in which 34 percent or more of the land is commercial forestland. This is another formula based program that benefits the Marquette County Road Commission.

Category F: Cities in Rural Counties: This category addresses road and street improvements within Small Urban Areas designed to create continuity with the established all-season road network. The road improvement project must be to a Federal-Aid road (arterial or a major or minor collector). This is a statewide competitive grant program.

Federal assistance

Federal assistance is supported mainly through motor fuel taxes. Construction and repair costs associated with state trunkline systems are generated from these motor fuel taxes. The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), and its reauthorization as the Transportation Equity Act for the 21st Century (TEA-21), has resulted in allocation changes that have benefited Michigan. Under the concept of "intermodalism," transportation planning is expected to encourage capital investments that include integrated modes of transportation which improve the reliability, safety, usability, and attractiveness of the regional public transportation system, including walking paths and bicycle lanes.

7.8 Road Improvements

Humboldt Township currently levies a road millage of 0.9487 mils for road improvements. Humboldt Township committed to making a number of road improvements in 2019. The following road repair work has been put out for bids; **HMA Resurfacing:** CR FN CR FA to US41/M28, CR FA CR FNO to M95, CR FB CR FH to CR FNO, CR FH CR FB to M95 and Humboldt Township Driveway, **Flex-patch**: CR FNO, US41to CR FB, and **Chip Seal & Fog Seal:** CR FNO, US-41 to CR FB. According to the MCRC, there have not been any paving projects completed in Humboldt Township since 1991. Several roads have been re-graveled and minor culvert replacements have occurred when financially possible.

County Road 601 was reconstructed and widened in 2012. Funding for the project was provided by the Michigan Transportation Economic Development Fund and Lundin Mining Corporation's subsidiary Eagle Mine. County Road 601 provides direct access to the Humboldt Mill and was a narrow road not built to all-season standards. In addition to the widening and reconstruction, a steep hill was flattened, and two sharp curves were realigned to improve traffic safety and allow year-round access. Due to the anticipated increase in commercial traffic generated between the Eagle Mine and Humboldt Mill, M-95 was widened at its intersection with County Road 601 and a center left-turn lane was added to accommodate southbound M-95 traffic turning east onto County Road 601 and to improve safety at the intersection.

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7.9 Public Transportation

The Marquette County Transit Authority (Marq-Tran) operates throughout Marquette County every day of the week. Marquette County Transit Authority (MARQ-TRAN) was created in 1985 through the consolidation of three public transit systems within Marquette County. Marq-Tran offers door to door service in the Ishpeming-Negaunee area, the greater Marquette area and the Gwinn-Little Lake-KI Sawyer area. All thirty-three (33) buses are lift equipped and accessible to persons with disabilities. In 2018 there were over 360,000 passengers served.

7.10 Intercity Transportation

Indian Trails provides daily inter-community bus service within Marquette County. The local ticket agent is at the Marq-Tran office, located at 1325 Commerce Drive in Marquette Township. The north-south route runs along US-41 from Calumet to Milwaukee and Chicago. Southbound service is offered late night, while northbound service is available in the early morning.

7.11 Rail Service

There are active rail lines traversing Humboldt Township. A Canadian National rail line passes through Humboldt Township from east to west; rail traffic travels daily in the morning from Sault Ste. Marie to L'Anse and returns from L'Anse back to Sault Ste. Marie in the afternoon. Rail service upgrades included rail reinstatement from the Humboldt Mill, crossing US-41 west to the switch north of Koski's Korner (north of US-41). There maybe a need for an additional rail siding along the former Mesabi industrially zoned property on County Road FN. The Mineral Range Railroad owns and maintains the track from the Humboldt junction to Ishpeming, where Canadian National takes over from its yard.

Humboldt Township officials acquired and restored a section of abandoned railroad grade which has been utilized for industrial purposes, including shipping Eagle Mine ore from the Humboldt Mill to Sudbury, Ontario. Humboldt Township acquired the property known as the Humboldt Mill Grade in perpetuity for the benefit of economic development for Humboldt Township and western Marquette County. The length of the former Lake Superior & Ishpeming Railroad line involved is less than two miles. It was previously used as part of the Iron Ore Heritage Trail, which was relocated. The associated land parcel contains a total of about 35 acres. The spur begins at the property line of the Eagle Mine's Humboldt Mill, and moves west across M-95, then north across US-41, before curving to the east to connect with the Canadian National Railroad line at Humboldt Junction.

Cliffs Natural Resources owned the rail spur from 1952 until 2004. The following year, 2005, the rails were removed and the land was managed under terms of an interim banking agreement via the National Transportation Board. That agreement allows a third party to reactivate the rail line, if Cliffs Natural Resources agrees, and Humboldt Township achieved its reactivation.

Humboldt and Republic Townships have entered into a preliminary agreement regarding the

CHAPTER 7.0-TRANSPORTATION

7.11 Rail Service continued

In the event that significant additional and economically accessible ore body(ies) are discovered in the region near Humboldt Township (e.g. Sidnaw & Covington area), the Township might find it in their interests to take additional ownership interest in other railroad assets to facilitate ore shipment. This rail connection might be made in the same direction via Channing as the Republic connection mentioned above.

7.12 Air Transportation

The Marquette County Airport operations moved from its location in Negaunee Township to the former K.I. Sawyer Air Force Base in September 1999. It is one of six airports in the Upper Peninsula and it is the only U.P. airport that has an operating air traffic control tower. Sawyer International Airport is classified as a "Primary, Non-Hub, Commercial Airport" Facility. Primary Airports have more than 10,000 enplanements within a year. Charter air service is available at Sawyer International. The airport offers daily jet service to Detroit and Chicago.

7.13 Non-motorized Transportation Facilities

In recent years, the construction of Non-Motorized Facilities has increased in response to public interest. Walking (walking is number one), hiking, bicycling and running/jogging are among the top ten individual exercise activities according to a national survey[1]. Alternate modes of transportation are encouraged and made safer by facilities such as bike lanes and walking paths. Ten percent of each state's Surface Transportation Program (STP) funding is set aside for transportation enhancement projects. The Transportation Enhancement Program (TEP) is designed to strengthen cultural, aesthetic and environmental aspects of the transportation system. One category of funding for the TEP is Non-Motorized Facilities. Funding is available for bicycle and pedestrian facilities, preservation of abandoned railway corridors and pedestrian and bicycle safety and educational activities. There are several Multi-Use Trails traversing Humboldt Township.

7.14 Complete Streets

Michigan Public Act 135, defines complete streets as "...roadways planned, designed, and constructed to provide appropriate access to all legal users in a manner that promotes safe and efficient movement of people and goods whether by car, truck, transit, assistive devices, foot or bicycle." Communities across the United States are instituting policies to "complete the streets" and provide "roads for all modes." All modes of transportation may not be appropriate for all of the roads in a community. Establishing a complete streets policy helps to ensure that transportation planners and engineers consistently design the entire roadway with all users in mind, including cyclists, public transportation vehicles as well as riders and pedestrians of all ages and abilities.

[1] National Sporting Goods Association, Sports Participation in 2017

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7.14 Complete Streets continued

Complete streets policies can improve safety for all users. A Federal Highway Administration review found that streets designed with sidewalks, raised medians, improved bus stop placement, traffic-calming measures and treatments for disabled travelers improved safety. Complete streets also encourage walking and bicycling for health and address climate change and oil dependence. These policies may also provide transportation options for residents who do not drive, including children under 16, the elderly, disabled or low income residents.

Complete streets also play an important role in developing a livable community; providing connections to key destinations is essential. There is no one design recommendation for complete streets. Components that may be found on a complete street include sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent crossing opportunities, median islands, accessible pedestrian signals and curb extensions.

One of the issues often mentioned when discussing implementation of a complete streets policy is concern for the additional costs. Careful planning can minimize costs. When complete streets policies are in place, engineers can incorporate a variety of facilities into road projects during the planning and design process that will accommodate various users.

MDOT is currently using context sensitive solutions for their road projects, which creates road projects that blend with the current aesthetics and infrastructure in a community. Humboldt Township may have the opportunity to work with MDOT and the MCRC to plan for and implement improvements related to non-motorized facilities, transit, carpooling and commercial vehicle infrastructure.

7.15 Access Management

The MDOT publication entitled **Reducing Traffic Congestion and Improving Traffic Safety in Michigan Communities: The Access Management Guidebook** defines access management as follows: *"Access management is a set of proven techniques that can help reduce traffic congestion, preserve the flow of traffic, improve traffic safety, prevent crashes, preserve existing road capacity and preserve investment in roads by managing the location, design and type of access to property."*

In 2004, the Cities of Marquette, Negaunee and Ishpeming as well as Chocolay, Marquette, Negaunee, Ishpeming and Ely Townships worked with CUPPAD and MDOT to create an access management plan, an integrated access management review process and ordinance regulations for the US-41/M-28 corridor. The project was initiated because of the concern that safety and capacity along the trunklines had suffered due to poor access management and accommodation of local traffic. Humboldt Township declined to participate in the original 2004 planning process,

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7.15 Access Management continued

however, due to concerns about future development along the US-41/M-28 corridor and in the interest of providing for a safe transportation network, Humboldt Township took action to adopt a Memorandum of Understanding recognizing the need to participate in a coordinated planning effort for the US-41/M-28 corridor in 2012.

The US-41/M-28 Access Management Action Plan sets forth an analysis of beneficial safety improvements along the US-41/M-28 corridor and identifies proposed driveway closures, consolidations and alternative access options. Therefore, those elements of the US-41/M-28 Access Management Action Plan that apply within Humboldt Township are hereby adopted by reference as the guide for future corridor and access management improvements within this jurisdiction. The Planning Area is defined as "1,000 feet on both sides of the centerline of US-41/M-28 from the US-41/M-28 intersection in the east to the US-41/M-95 intersection in the west." The US-41/M-28 Access Management Action Plan will need to be amended to include specific recommendations pertaining to the corridor located within Humboldt Township.

In order to implement the US-41/M-28 Access Management Action Plan and the Memorandum of Understanding all of the participating jurisdictions signed to be a part of the team leading to the development of the US-41/M-28 Access Management Action Plan. To carry out the intent of the Plan, the Zoning Ordinance of participating jurisdictions were amended to reflect a uniform approach to access management advocated by the Plan. Those zoning amendments are based on the model access management ordinance sanctioned and promoted by the MDOT in the Access Management Guidebook published by the MDOT in 2001.

In addition, implementation of the recommendations in the US-41/M-28 Access Management Action Plan will be further facilitated by active participation by Humboldt Township in future corridor site plan review meetings as they relate to a particular site plan pending within Humboldt Township or an adjoining community. These meetings will involve review of access management issues and corridor improvement issues related to a particular site plan. These joint meetings will include representatives from Humboldt Township, CUPPAD, MDOT, Marquette County Resource Management and Development and the other corridor communities.

7.16 County Road 595

County Road 595 was the roughly 22-mile proposed north-south route from the Triple A Road in Michigamme Township to the intersection of US-41 with County Road FY located within Humboldt Township. Draft documents from the MCRC indicate that the dual purpose of the route was "to construct a primary north-south road that (1) connects and improves emergency, commercial, industrial and recreational access to a somewhat isolated, but key, industrial, commercial and recreational area in northwest Marquette County to US-41, and (2) to reduce truck travel from this area through Marquette County's population centers."

7.16 County Road 595 continued

Humboldt Township indicated several needs for the road project. The County Road 595 project would enhance public safety by rerouting truck traffic away from existing residential areas. The project was considered essential to the industrial development of Humboldt Township and also to facilitate and enhance the protection of Township residents' health, safety and welfare.

The executive summary of the application cites that the County Road 595 project was necessary for the mining, timber, aggregate and recreation industries as well as for the emergency services within Marquette County. One of the economic benefits of County Road 595 would be the overall reduction of travel distance required to access these activities in northwest Marquette County by replacing the existing seasonal and circuitous current routes.

The project was expected to impact approximately 23.25 acres of wetlands. Road commission officials intended to mitigate the wetlands impacts as required at five sites, located in three of the four watersheds involved in the project. Some stream restoration work was also planned, which was expected to increase the benefits to the ecosystems involved. The proposed CR 595 was to be a public road, with all of the associated benefits that go with that designation.

In the fall of 2011, the MCRC voted unanimously to move forward with securing environmental permits for the construction of County Road 595. The MCRC previously held several public meetings and received public comment regarding the proposed route.

The Humboldt Township Board went on record as supporting the Eagle Mine project and by resolution endorsed the proposed County Road 595, with the stipulation that the location of the proposed route would not be located, nor impact Township residents currently residing within Humboldt Township along the existing Wolf Lake Road and County Road FX right-of-way. This resolution was initially adopted by the Township Board shortly after the announcement of Kennecott Mineral Co.'s plan proposed for the Eagle Project and once again ratified by the Humboldt Township Board at the February 2012 regular meeting. This resolution was to assure that the public health, safety and welfare of the residents residing in the established residential areas located along Wolf Lake Road and the County Road FX right-of-way situated within Humboldt Township would be protected.

7.17 Issues and Opportunities

- Two State Trunklines traverse Humboldt Township; US-41 travels in an east-west direction and M-95 travels a north-south route ending at its intersection with US-41.

- Given the current fiscal situation, the Marquette County Road Commission appears to have limited ability to fund its 40 percent match required for road improvement projects within Humboldt Township.