
Appendix E

Financial Analysis

Cost Feasibility Analysis

The annual budget to maintain the transportation system has remained relatively flat for the last decade. The main emphasis for operation of the transportation system is safety of users, with culvert replacements and gravel re-surfacing remaining the biggest annual expenses. Roadside mowing and brushing are also required to keep the vegetation from encroaching on the driving surface.

The CNNF has entered cooperative maintenance agreements with 66 local Townships on most of the ML 3, 4, and 5 roads. The State of Wisconsin allows Townships to collect gas tax for roads in which they share maintenance responsibilities with other entities like the Forest Service. Based on Wisconsin State Statute, 86.30(2)(a)3, local townships are able to collect gas tax at the rate of \$2,117 per mile to maintain these roads. In 2015, local Townships collected around \$4,554,200 annually for those miles of road under cooperative road agreements with the CNNF. This is a little over half of the total gas tax collected by these same Townships overall according to the Wisconsin Department of Transportation website.

The Forest Service provides gravel, culverts, engineering technical support, and heavy equipment support as part of these cooperative agreements with the Townships. Over the last 3 years, the CNNF has provided over \$1.2 Million in services and materials. The Forest Service also provides assistance through capital improvement projects when funding is available for larger projects like road resurfacing, large culvert and bridge replacements, and road realignments. The Forest Service Manual 7703.3 provides guidance regarding jurisdiction over Forest Transportation Facilities and provides for the opportunity to relinquish full jurisdiction to local governments when certain criteria are met. The Forest evaluates these opportunities from time to time. If it is found that the Forest Service should not have jurisdiction, then the Forest will work toward relinquishing jurisdiction to the applicable local government and the road comes off the Forest Road System.

In addition to contributions of Townships to road maintenance, contributions are also made by timber purchasers. Roads needed specifically for timber harvest and hauling are maintained, rebuilt, or constructed by the loggers through the timber sale contract. In addition to the road work outlined as part of the timber sale, road maintenance deposits are collected from the timber purchasers to take care of any other deferred maintenance on other roads used as haul routes outside of the timber sale.

Some of timber haul roads are left open after timber sale activities are complete and provide open public access into the forest. These roads are displayed on the Motor Vehicle Use Map and most are maintained for high clearance vehicles, Maintenance Level 2.

OML 1 roads are closed to public use. Maintenance only occurs on these roads in preparation for those specific periods of time in which the road will be used, such as for a timber sale or access to private property. In these cases, the user bears the primary maintenance cost. In very rare instances, has the Forest needed to open these for its own access and therefore the maintenance costs borne by the Forest has been negligible.

Table 4: Cost of Maintaining List of “Likely needed for future use” Roads

Maintenance Level	Cost /Mile*	Miles**	Cost
1 - BASIC CUSTODIAL CARE (CLOSED)	\$125	1148.62	\$143,378
2 - HIGH CLEARANCE VEHICLES	\$1,500	1891.95	\$2,837,926
3 - SUITABLE FOR PASSENGER CARS	\$4,600	846.37	\$3,893,295
4 - MODERATE DEGREE OF USER COMFORT (Asphalt)	\$5,600	179.78	\$1,006,764
4 - MODERATE DEGREE OF USER COMFORT (Gravel)	\$5,300	957.16	\$5,072,937
5 - HIGH DEGREE OF USER COMFORT	\$8,000	162.40	\$1,299,221
Total		5186.28	\$14,253,721

*Cost set by the regional office. 02/2013 Local costs may vary.

**Miles of National Forest System Roads

Table 5: Cost of Maintaining Existing Road System

Maintenance Level	Cost /Mile*	Miles**	Cost
1 - BASIC CUSTODIAL CARE (CLOSED)	\$125	1231.64	\$153,955
2 - HIGH CLEARANCE VEHICLES	\$1,500	1950.03	\$2,925,051
3 - SUITABLE FOR PASSENGER CARS	\$4,600	846.97	\$3,896,073
4 - MODERATE DEGREE OF USER COMFORT (Asphalt)	\$5,600	179.78	\$1,006,764
4 - MODERATE DEGREE OF USER COMFORT (Gravel)	\$5,300	957.16	\$5,072,937
5 - HIGH DEGREE OF USER COMFORT	\$8,000	162.53	\$1,300,256
Total		5328.12	\$14,355,036

*Cost set by the regional office. 02/2013 Local costs may vary.

**Miles of National Forest System Roads

The difference in cost from the existing road system to the road system determined to be 'likely needed for future use' is a total decrease of around \$100,000.

The next section discusses the types and availability of funding based on the last 5 years of financial data. This data represents two types of funding:

- appropriated dollars which come through spending and budget bills passed by Congress
 - CMRD are specifically funds to support road maintenance and construction
 - CMLG are funds set aside to specifically address issues on legacy roads and trails where they are creating watershed issues
 - NFWW contains funding specifically geared towards watershed improvement
 - GLRI was funding provided under the Great Lakes Restoration Initiative which focuses on improvement and restoration of the Great Lakes Watershed
- non-appropriated dollars collected under special authorities granted to the Forest Service by Congress (discussion regarding each of these follows the table)

Under each of these funding types are a number of programs and initiatives that contribute funding sources in support of the road network. The following table shows type and amount over the last five years followed by a discussion of funding projections and additional funding opportunities that may be used in support the forest transportation network.

Table 6: Historic Road Funding on CNNF

Funding Source	FY 2011 \$k	FY 2012 \$k	FY 2013 \$k	FY 2014 \$k	FY 2015 \$k	AVER AGE \$k
Appropriated						
CMRD	2135	2120	2180	2042	2026	2101
CMLG	382	356	201	0	74	203
NFVW	0	0	0	149	355	101
Federal Highways	115	71	11	25	57	56
GLRI	150	181	235	445	303	263
Non-Appropriated						
Town Coop Roads Gas Tax	(4554)	(4554)	4554	4554	4554	4554
OML1 User Credit **	144	144	144	144	144	144
Timber Sales	173	293	184	80	166	179
Timber Sale Road Mtc Deposits***	33	53	76	103	120	77
Trust Fund CWK2	66	0	0	187	0	51
Other Partners	0	0	0	0	48	9
Stewardship	53	16	4	297	80	90
Total	7805	7780	7589	8026	7927	7959

* Federal Highways Funding varies from year to year and is distributed for specific projects on a competitive basis and allocated through the Congressional Transportation Budget Bill on an annual basis. CNNF and partners have not received a project every year. However, the CNNF will continue to compete for these and has a reasonable expectation that it will receive some of these projects from time to time.

** OML 1 Roads are only opened for a specific use at time of need therefore maintenance only occurs at that time. The users (in most cases, timber purchasers) bear the cost of the maintenance rather than the Forest. Therefore, the cost of having an OML1 system has been credited back for purposes of this analysis.

*** Timber Purchasers provide deposits in support of road maintenance needed for haul routes outside of ML 1 and 2 roads requiring reconstruction within the timber sales. This varies on an annual basis since each sale has different miles of roads associated with it. Collections of an additional set of deposits for Reconstruction Engineering Services will begin in 2015 adding about \$40k per year in support of road maintenance.

Other funding sources are coming on line in FY16 and beyond. These have not been included in the total funding available because that calculation was based solely on historical funding trends over the last five years. Future funding opportunities projections are as follows:

- Timber sale road maintenance deposits are expected to increase from \$120,000 in 2015 up to \$200,000 or more annually by 2017 based on updated Road Maintenance Deposit rates and increases in amount of timber sold on an annual basis

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- Forest Service Manual allows for the collection of timber sale deposits for road reconstruction engineering services (DRES). This is being implemented in 2016 and is projected to be about \$30,000 to \$40,000 per year depending on the size of road package required for that timber sale.
 - Congress passed the MAP-21 Transportation Bill that specifically sets aside funding to be utilized for the upkeep of the existing transportation system where it specifically accesses Federal Land. One of these programs, the Federal Lands Transportation Program (FLTP), provides millions of dollars each year to Federal agencies to fund major projects on roads that provide key recreation and economic access to Federal lands. While the Forest did not receive specific funding in 2015 or 2016, it is expected to start seeing large projects in 2017. This program replaced the old Forest Highways Program. In 2015, over \$1 million was provided in support of 1 major road project and one bridge replacement project. The CNNF can reasonably expect some level of specific project funding through Federal Highways on a regular basis. Not enough data is available to quantify this. However, it will help close the gap between the projected cost of the system 'likely to be needed for future use' and the currently available funding.
 - Timber Sale Stewardship authority allows the agency to trade forest products for services or bank timber sale receipts for restoration activities. The Forest continues to increase its use of this authority. Over the next few years several projects related to roads and their stream crossings have been approved and are underway. This will provide higher rates of funding than historic trends show.

Based on the current budget data, there is about \$6 Million less funding available than what the list of roads likely needed for future use will require. The gap between funding available and funding needed is expected to decrease over the next few year based on projected increases in funding opportunities. The cost feasibility of the road system may change depending on Congressional budget decisions regarding appropriations for the Forest Service and Transportation, both significant sources of road-related funding. Ability to support road infrastructure may also depend on the continued availability of special project funds aimed at reducing deferred maintenance and/or improving watershed condition through road-related maintenance and improvements.