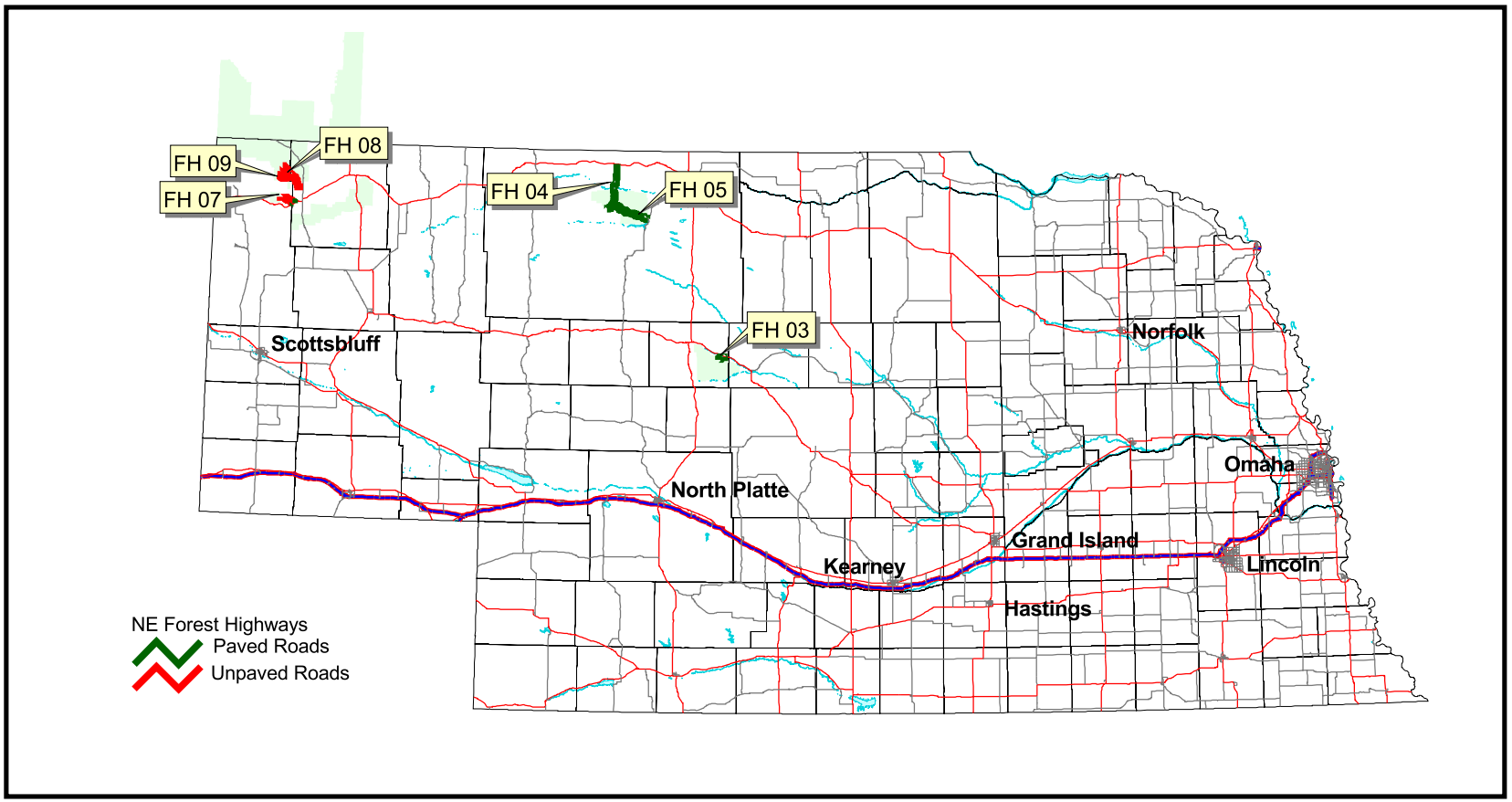
NEBRASKA

Forest Highway Network
and
Planning Data
2006



Prepared by:
Federal Highway Administration
Central Federal Lands Division

July - 2006

SUMMARY:

The following is a report on the status of the Forest Highway Network in the State of Nebraska. The data was taken from Nebraska Department of Roads (NDOR) road evaluation and an automatic data collection contract in the summer of 2004. The purpose of the report is to document the condition of the Forest Highway Network and provide data for pavement and bridge management systems. The report identifies potential sections for 3R projects. Nonetheless, the sections should be reviewed in the field by those involved in programming and project development before any specific projects are selected. The sections are based on political boundaries (county lines) and HPMS traffic data rather than condition changes. Therefore, each section should be scrutinized before project limits are determined. Lengths of segments have been scrutinized for errors and changed where needed. All the bridges are in the National Bridge Inventory System and therefore have the data for structural deficiency and functional obsolescence and have been assigned a sufficiency rating by the Headquarters of the FHWA.

The Nebraska Forest Highway Network contains 6 routes amounting to 61.91 miles (161.52 km).

CONTENTS AND DESCRIPTION OF THIS REPORT:

Graphs: Show the average conditions of all state-owned highways over time, starting in 1998. There are three sections: miles-by-condition rating, average condition by route, and average condition by county.

Description Sheets: Show a basic map of the route with segments plus a description of the route's termini, functional class, and other useful information. (Recommendations have been removed from the descriptions)

Pavement Condition Sheets: Show the condition data, averaged by segment, of the route along with traffic data. The map shows the condition of the route by color code, plus termini descriptions and other features along the route. The map shows the actual un-averaged condition of the route, which may not correspond to the averaged data. This change was made to allow for faster evaluation of potential projects.

Bridge Condition Sheets: Show the bridge locations and length, width, and condition information from the National Bridge Inventory.

POTENTIAL 3R PROJECTS:

All the Nebraska FH routes were inspected by the NDOR Planning and Pavement Management personnel. Nebraska uses the International Road Index (IRI) to evaluate their pavements. IRI is measured directly in inches of vertical roughness per mile of pavement. Vertical mounted accelerometers over each wheel path are used to measure the roughness over the full length of each section. The values reported are the "half car simulation" IRI. This factors both the left and right wheel path providing the ride quality felt by the vehicle occupants, not the roughness of the individual wheel paths.

Pavement Condition Ratings (PCR) are determined using distress ratings based primarily on the IRI. With the current formulas, a road is considered failed when its PCR falls to 60 or below. Fair roads have a PCR between 61 and 70, good roads have a PCR between 71 and 80, and excellent roads have a PCR of 81 and above.

FH Route	Segment	Local Route #	Route Name	County	Start MP	End MP	Length (mi)	Length (km)	ADT	Width (ft)	IRI	PCR	Distress
3	1	SR S86B	Bessey Nursery-Scott Lookout	Thomas	0.00	3.20	3.20	5.15	338	24	253	35	Poor
3	2	SR S86B	Bessey Nursery-Scott Lookout	Thomas	3.20	3.42	0.22	0.35	338	28	234	38	Poor
5	1		Niobrara-Merritt Dam Road	Cherry	0.00	13.37	13.37	21.51	70	24	159	52	Poor
5	2		Niobrara-Merritt Dam Road	Cherry	13.37	15.25	1.91	3.07	70	24	238	38	Poor
7	1		Soldiers Creek Road	Dawes	0.00	0.81	1.06	1.30	100	24	203	43	Poor

The following is the relative pavement rating based on the IRI value:

IRI Values	PCR	Pavement Rating
Below 53	81 to 100	Excellent
53 to 86	71 to 80	Good
87 to 122	61 to 70	Fair
Above 122	Below 61	Poor

POTENTIAL BRIDGE REPLACEMENT PROJECTS:

There are 8 bridges on the Forest Highway Network in Nebraska. All the bridge data was taken from the National Bridge Inventory System (NBIS). Bridges having a sufficiency rating less than 50, or 80 and less and structurally deficient or functionally obsolete qualify for the National Bridge Replacement Program and should be considered for replacement. Note that some bridges are in the recent or current construction program.

FH	State or Local Route	NBIS Number	MP	Facility	Owner	Width (ft)	Width (m)	Length (ft)	Length (m)	SD	FO	SR
8	FDR 904	C002330705	2.66	Little Cottonwood	Dawes Co.	19.40	5.91	37.10	11.31	X		35.8
8	FDR 904	C002300505	5.00	Sand Creek	Dawes Co.	20.30	6.19	24.90	7.59			42.3

Definition of terms:

Structurally deficient (SD): A bridge that (1) has been restricted to light vehicles only, (2) is closed, or (3) requires immediate rehabilitation to remain open.

Functionally obsolete (FO): A bridge for which the deck geometry, load carrying capacity (comparison of the original design load to the State legal load), clearance, or approach roadway alignment no longer meets the usual criteria for the system of which it is an integral part.

Sufficiency rating (SR): The numerical rating of a bridge based on its structural adequacy and safety, essentiality for public use, and its serviceability and functional obsolescence.

CHANGES SINCE LAST REPORT:

No significant changes since last report.

LIST OF THE CURRENT APPROVED FOREST HIGHWAY NETWORK IN THE STATE OF NEBRASKA

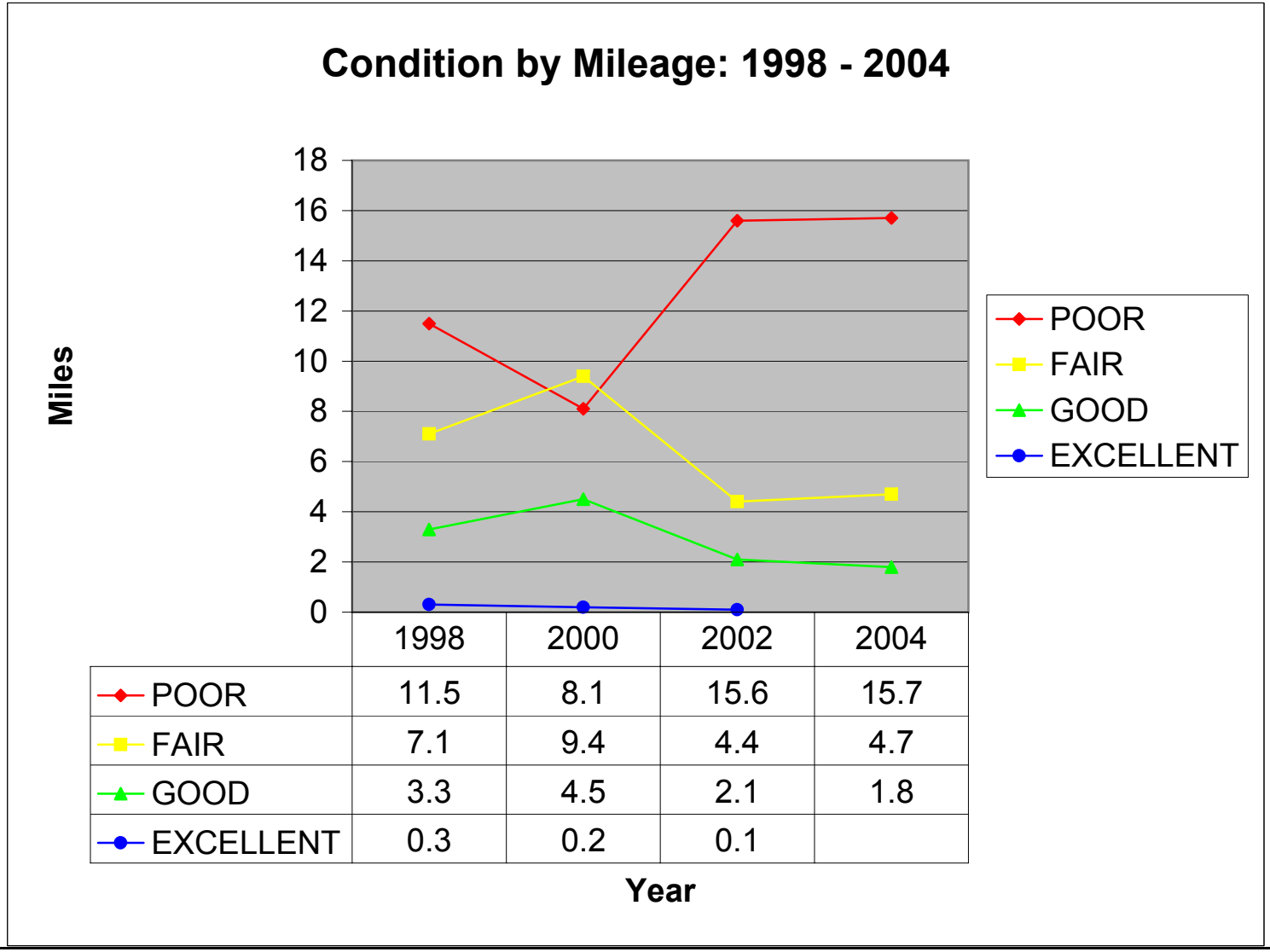
(as of July 2006)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Nebraska Forest Highway Route Descriptions
July 2006

TOTAL ROUTES	TOTAL MI/KM
6	61.91
	161.52

FH ROUTE NO.	ROUTE NAME	DESCRIPTION OF TERMINI	NATIONAL FOREST	COUNTY	LENGTH MI.	LENGTH KM.
3	Bessey Nursery-Scott Lookout	This route starts at the junction with SR-2 west of Halsey and proceeds southerly 3.42 miles (5.5 km) over SR-S86B via Bessey Nursery to Scott Lookout.	Nebraska	Thomas	3.42	5.50
4	Nenzel Ranger Station Road	This route starts at the Forest Boundary west of Niobrara Ranger Station and proceeds northerly 18.88 miles (30.38 km) over SR-S16F to the junction with US-20 in Nenzel.	Samuel R. Mckelvie	Cherry	18.88	30.38
5	Niobrara- Merritt Dam	This route starts at the junction with SR-S16A (FH-4) near the Niobrara Ranger Station and proceeds easterly 15.27 miles (24.57 km) over a county road to SR-97 near Merritt Dam.	Samuel R. Mckelvie	Cherry	15.27	24.57
7	Soldiers Creek Road	This route starts at the junction with US-20 at Fort Robinson and proceeds northwesterly over a county road 6.05 miles (9.73 km) to the Forest	Nebraska	Dawes Sioux	6.05	9.73
8	Toadstool Park Road	This route starts at the junction with SR-2/71 approximately four miles north of Crawford and proceeds northwesterly 11.97 miles (19.26 km) over FDR-904 to FDR-902, the entrance to Toadstool Park.	Oglala National Grasslands	Dawes Sioux	11.97	19.26
9	Sand Creek Road	This route starts at the junction with FDR-904 (FH-8) at the Sioux/Dawes County Line and proceeds westerly 6.32 miles (10.17 km) over FDR-905 to FDR-918 near the Hudson-Meng Bison Kill Site.	Oglala National Grasslands	Sioux	6.32	10.17

Nebraska Forest Highway Network - Condition by Mileage

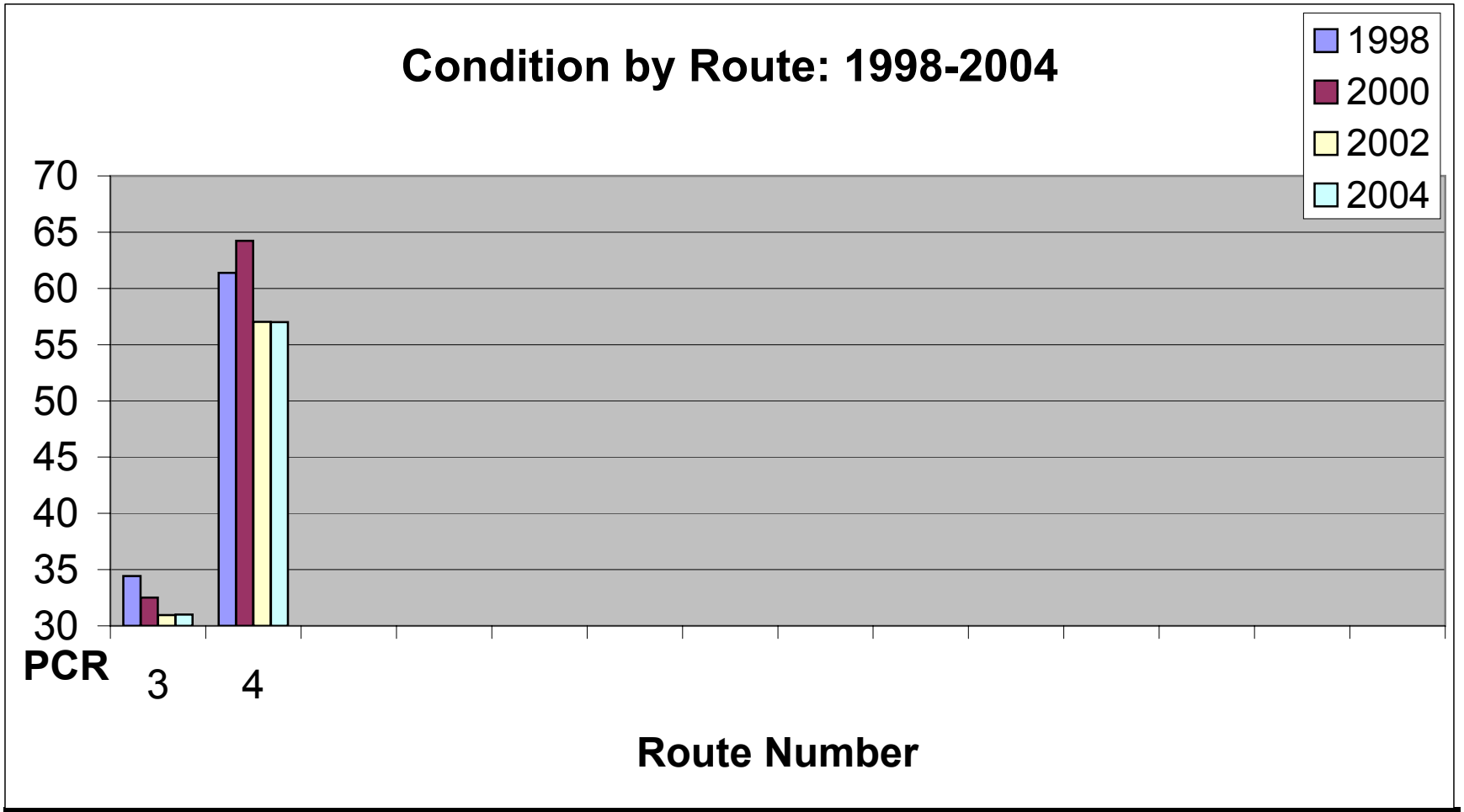


	1998	2000	2002	2004
POOR	11.5	8.1	15.6	15.7
FAIR	7.1	9.4	4.4	4.7
GOOD	3.3	4.5	2.1	1.8
EXCELLENT	0.3	0.2	0.1	

Note: For comparison, road segments with no rating data for one or more years are not included in the above graph.

(Figure 1)

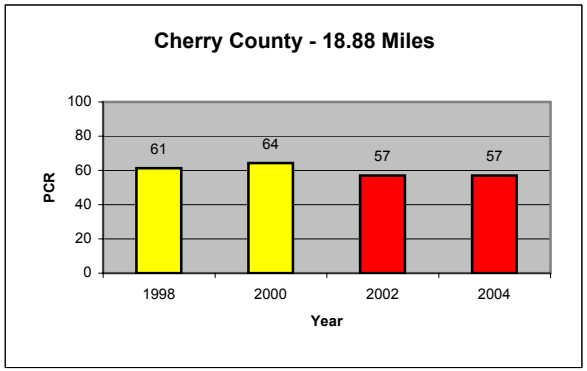
Nebraska Forest Highway Network -Condition by Route

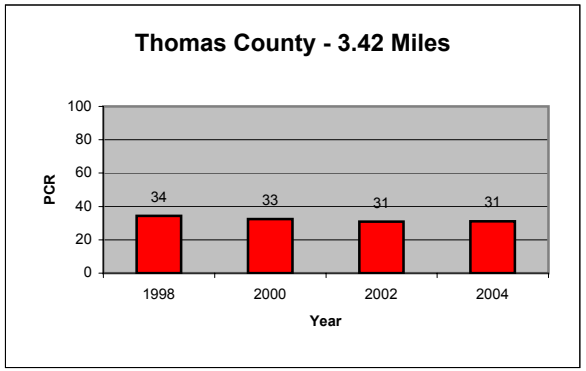


Route	3	4
PCR 1998	34	61
PCR 2000	33	64
PCR 2002	31	57
PCR 2004	31	57

(Figure 2)

Nebraska Forest Highway Network - Pavement Condition Ratings by County





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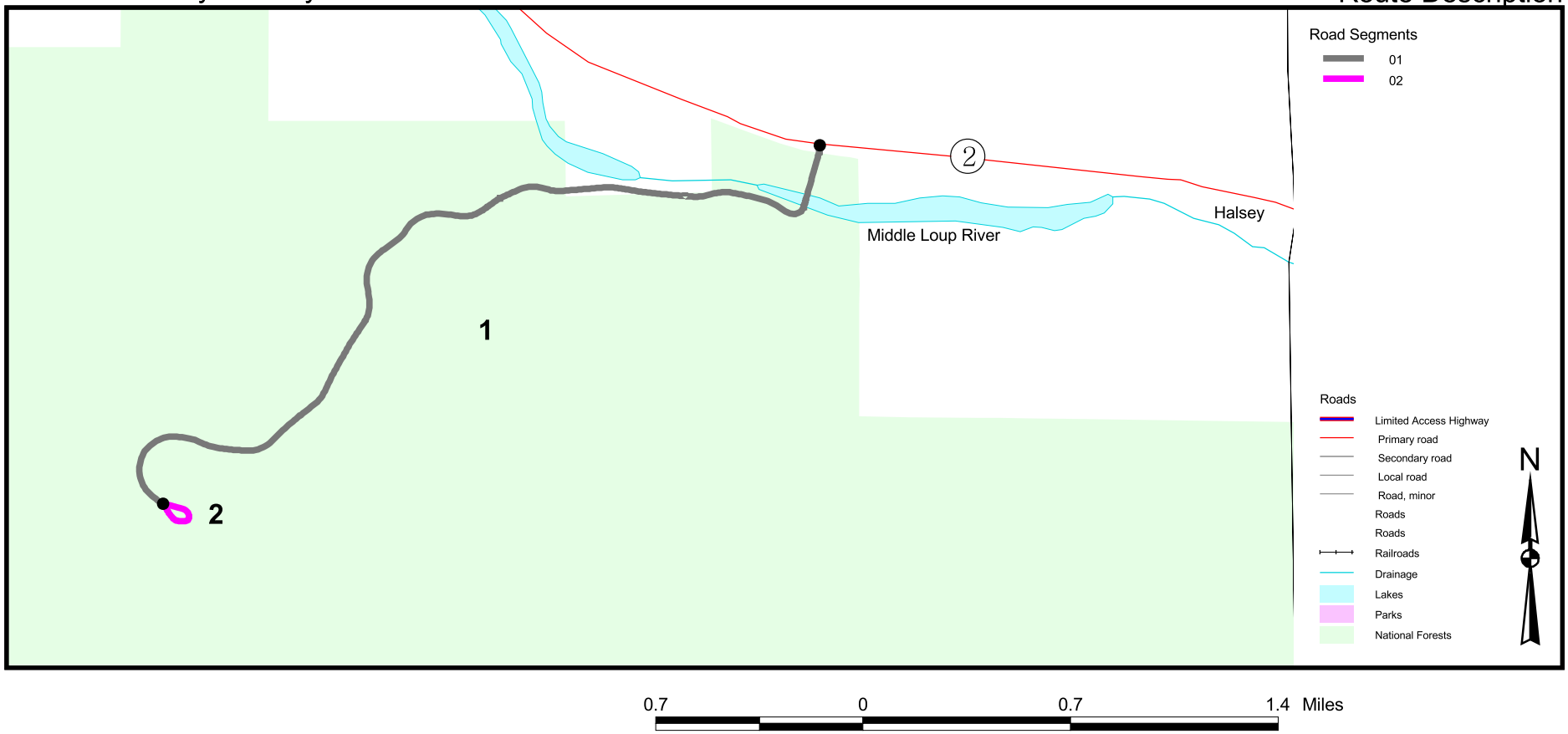
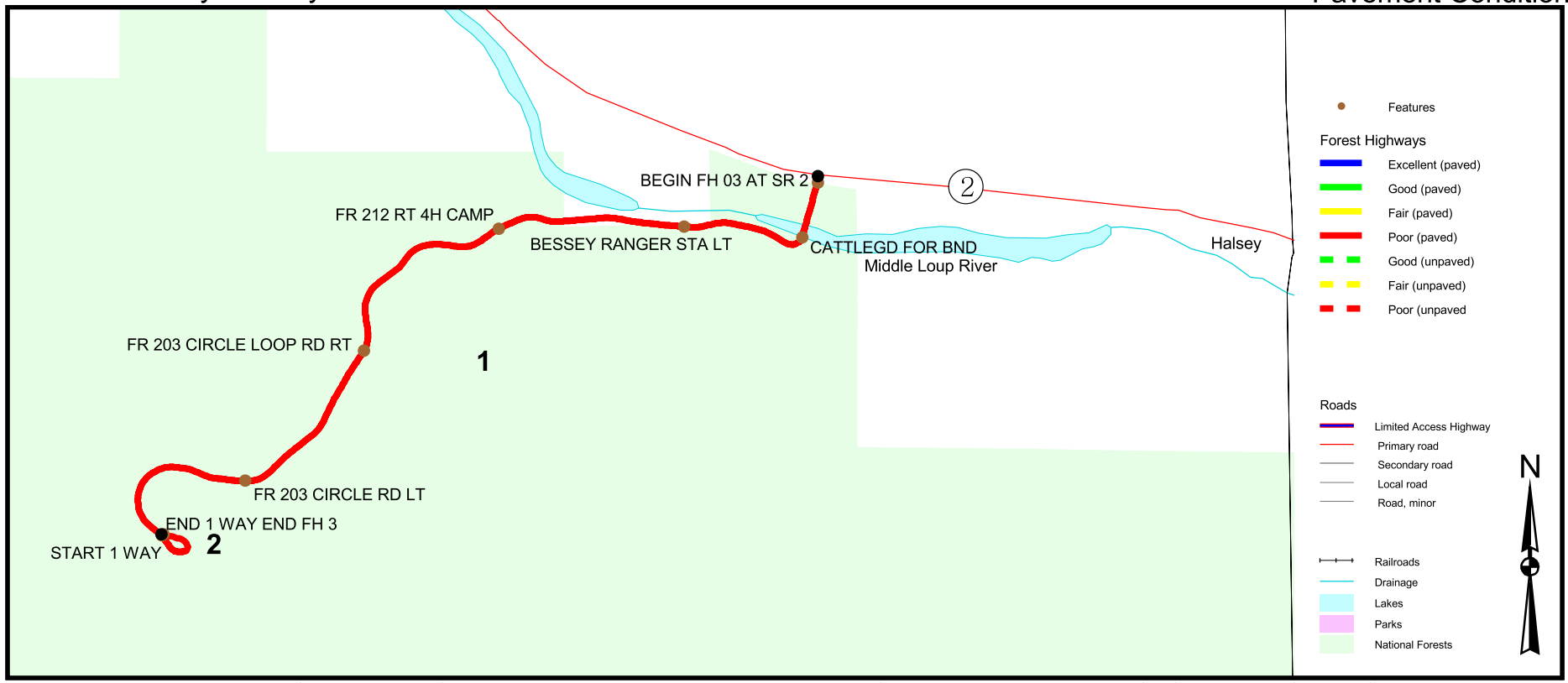


FH-03, Bessey Nursery-Scott Lookout. This route starts at the junction with SR-2 west of Halsey and proceeds southerly 3.42 miles (5.5 km) over SR-S86B via Bessey Nursery to Scott Lookout.

Evaluation: SR-S86B is owned and operated by the Nebraska Department of Roads. It is functionally classified as a major collector serving the Nebraska National Forest (Bessey District). According to Forest Service data, 80% of the traffic is Forest related. The principal Forest resources served are recreation and grazing. The route also serves other local needs including school buses, mail delivery and commercial supply. It serves one Forest Service owned campground, the Bessey Nursery (Forest Service Owned), the Bessey Ranger Station, a 4-H camp and the Scott Lookout. The Bessey area of the Nebraska National Forest is a completely man made forest that was established by Theodore Roosevelt in 1902 and created by Dr. Charles Bessey of the University of Nebraska to demonstrate that trees could be grown in the Great Plains.

FH 3 Bessey Nursery-Scott Lookout

Pavement Condition



Map above shows the actual condition (paved sections only) which may not correspond to the average condition reported for each segment in the chart below. See Summary page i for more information.

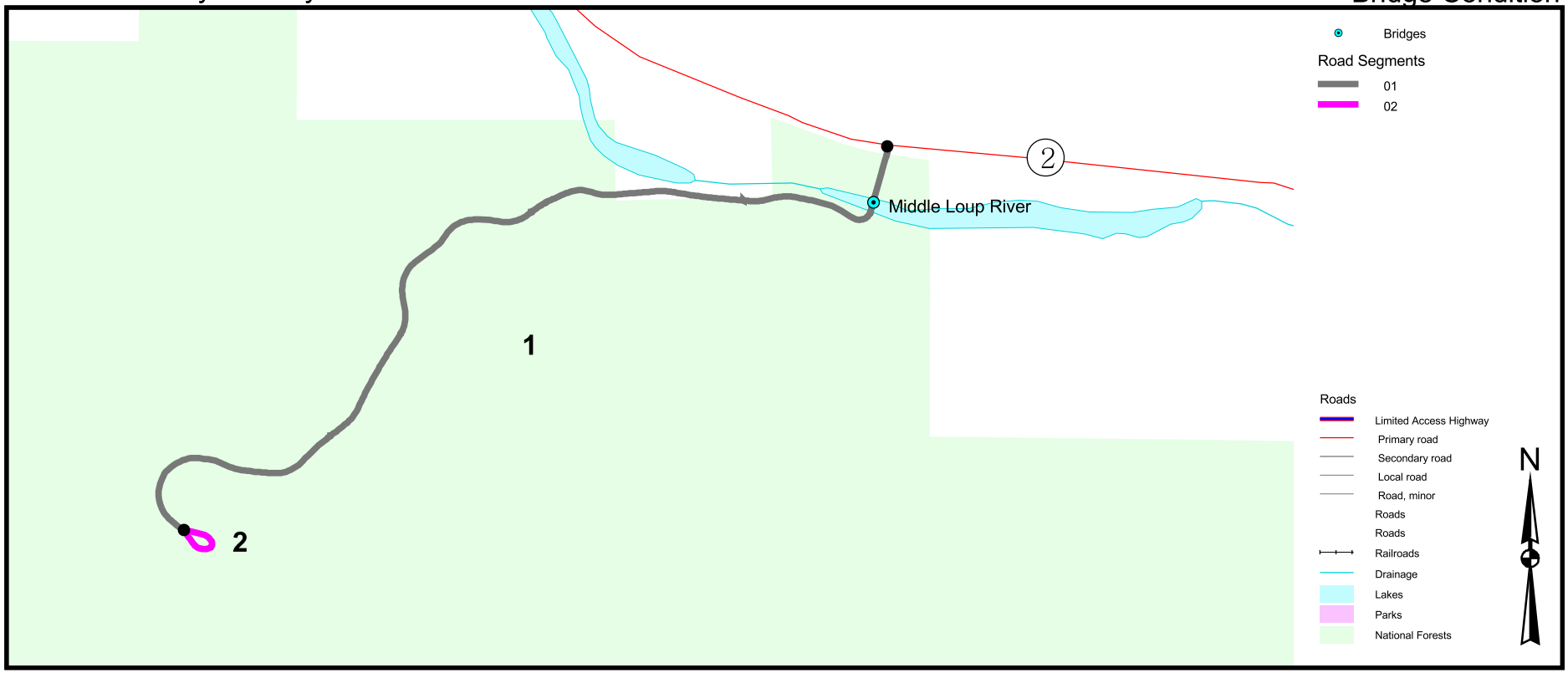
0.6 0 0.6 1.2 Miles

TOTAL ROUTE LENGTH:3.42 Miles

FH	SEG NUM	STATE/LOCAL ROUTE	START MP	END MP	SEG LENGTH	ADT	WIDTHS		SURFACE TYPE	IRI	REMAINING SURFACE LIFE (YEARS)	CONDITION RATING	CONDITION
							ROADWAY	PAVED					
3	1	SR S86B	0.00	3.20	3.20	338	24	20	Flexible	253	0	35	Poor
3	2	SR S86B	3.20	3.42	0.22	338	28	20	Flexible	234	0	38	Poor

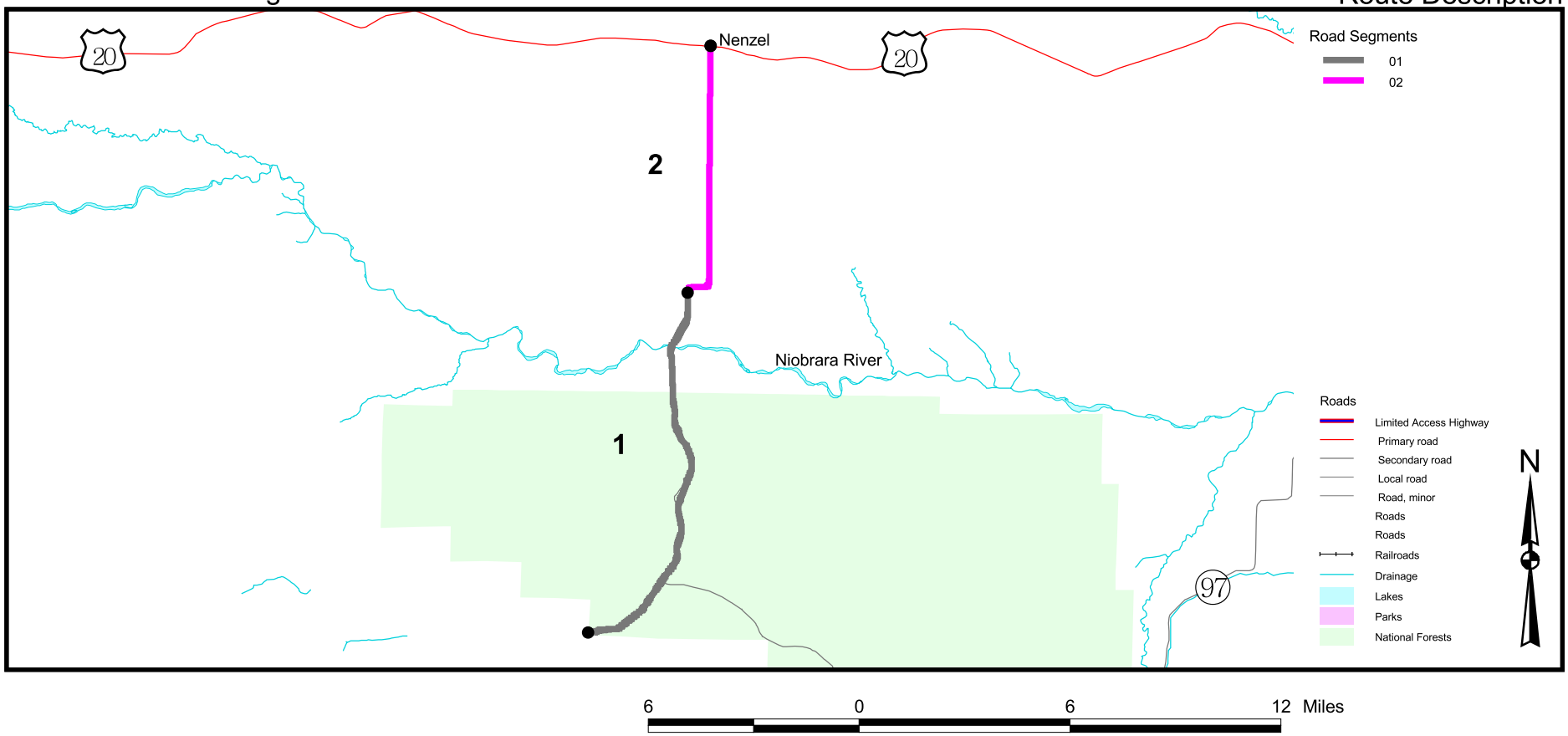
FH 3 Bessey Nursery-Scott Lookout

Bridge Condition



0.7 0 0.7 1.4 Miles

FH	STATE/LOCAL ROUTE	NBIS NUMBER	MP	FACILITY	OWNER	WIDTH (FEET)	LENGTH (FEET)	STRUCTURALLY DEFICIENT?	FUNCTIONALLY OBSOLETE?	SUFF. RATING
3	SR 86B	SS86B00021	0.18	Middle Loup River	State	26.00	74.10	-	-	83.4

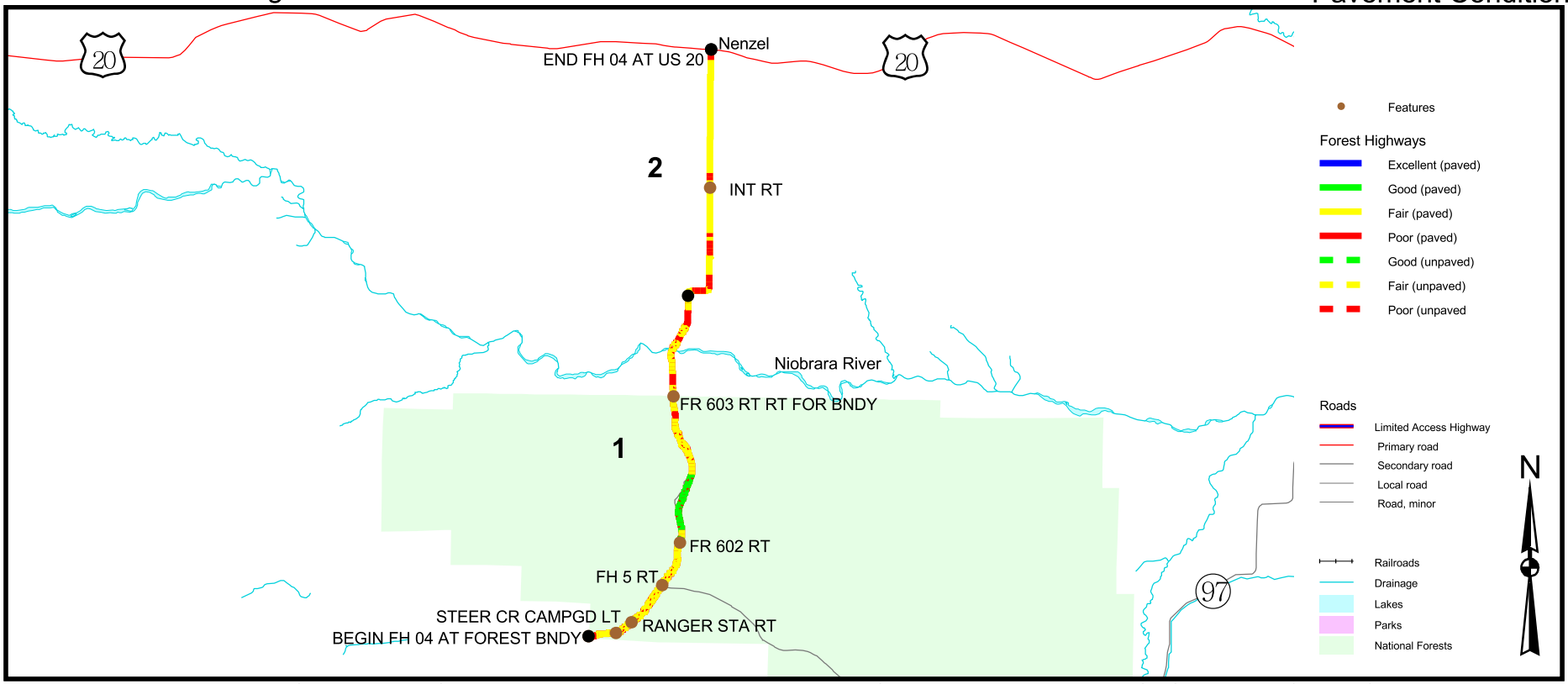


FH-4, Nenzel Ranger Station Road. This route starts at the Forest Boundary west of Niobrara Ranger Station and proceeds northerly 18.88 miles (30.38 km) over SR-S16F to the junction with US-20 in Nenzel.

Evaluation: SR-S16F is owned and operated by the Nebraska Department of Roads. It is functionally classified as a major collector serving the Samuel R. McKelvie National Forest. According to Forest Service data, 60% of the traffic is Forest related. The principal Forest resources served are recreation and grazing. The route also serves other local needs including school buses, mail delivery and commercial supply. It serves one Forest Service owned campground, the Niobara Ranger Station, and provides canoe access to the Niobara River which is a National Scenic River starting downstream at Valentine. Segment 1 of this route has been recently resurfaced.

FH 4 Nenzel Ranger Station Rd

Pavement Condition



Map above shows the actual condition (paved sections only) which may not correspond to the average condition reported for each segment in the chart below. See Summary page i for more information.

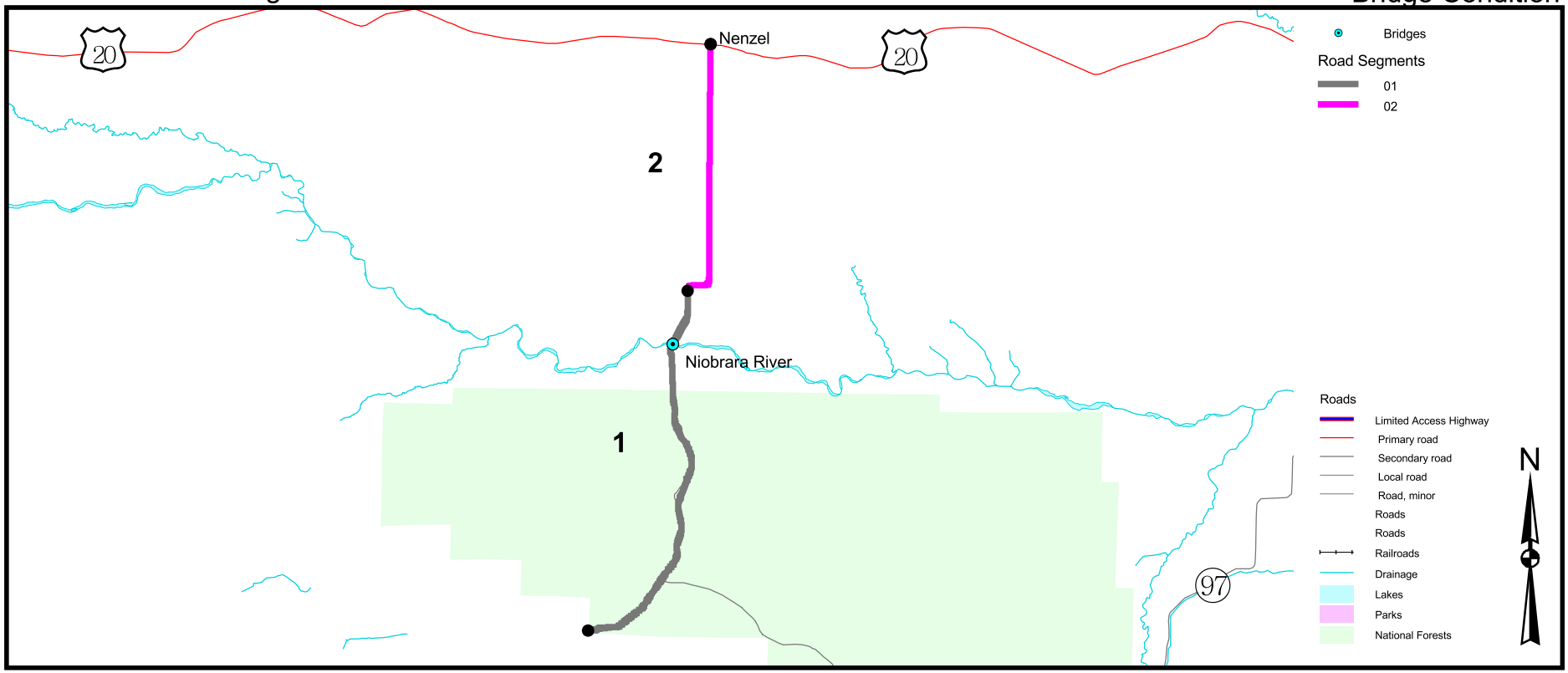
5 0 5 10 Miles

TOTAL ROUTE LENGTH:18.88 Miles

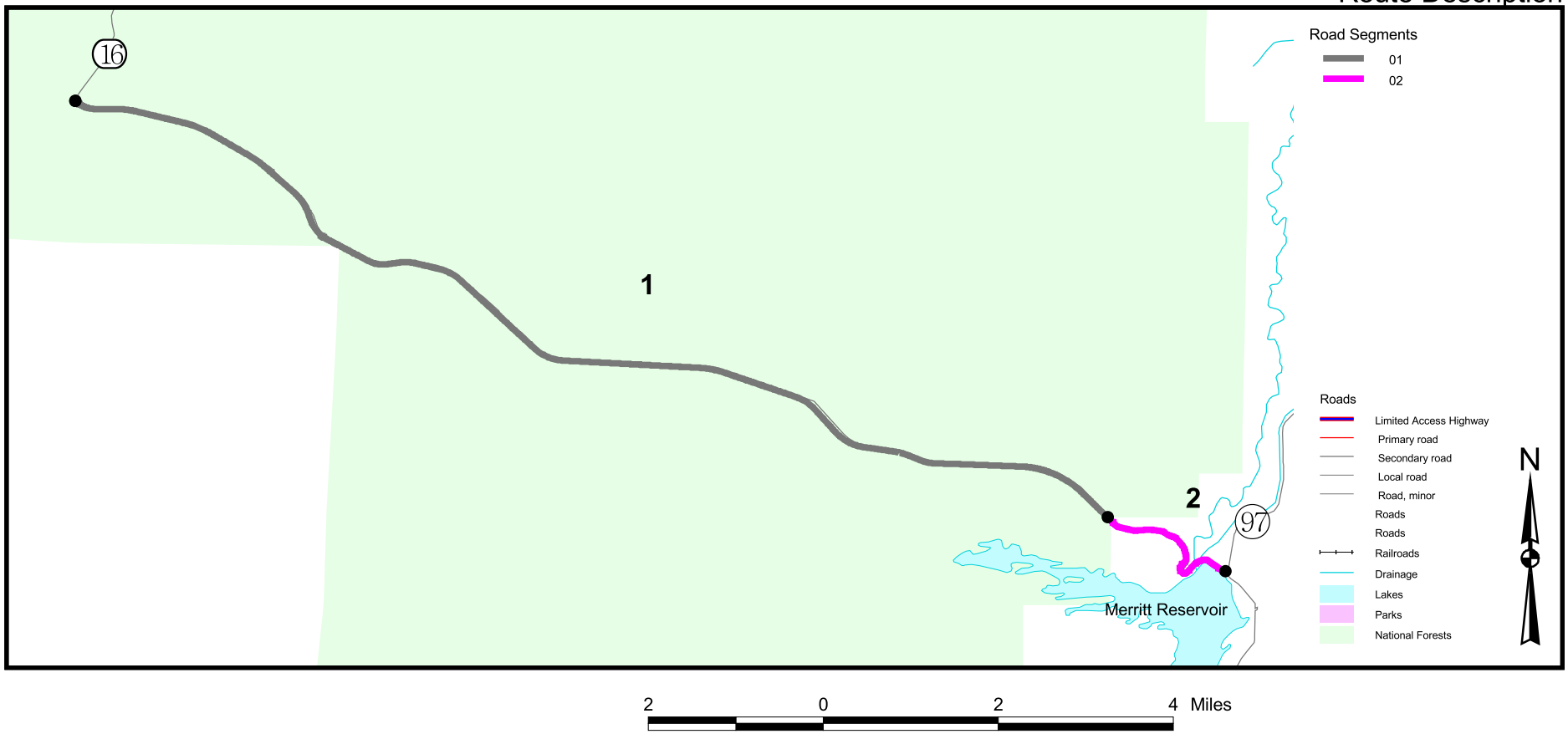
FH	SEG NUM	STATE/LOCAL ROUTE	START MP	END MP	SEG LENGTH	ADT	WIDTHS		SURFACE TYPE	IRI	REMAINING SURFACE LIFE (YEARS)	CONDITION RATING	CONDITION
							ROADWAY	PAVED					
4	1	SR S16F	0.00	11.42	11.42	120	22	22	Flexible	105	7	65	Fair
4	2	SR S16F	11.42	18.88	7.46	120	22	22	Flexible	116	6	62	Fair

FH 4 Nenzel Ranger Station Road

Bridge Condition



FH	STATE/LOCAL ROUTE	NBIS NUMBER	MP	FACILITY	OWNER	WIDTH (FEET)	LENGTH (FEET)	STRUCTURALLY DEFICIENT?	FUNCTIONALLY OBSOLETE?	SUFF. RATING
4	S16F	SS16F00917	10.0	Niobrara River	State	28.00	213.90	-	-	91.9

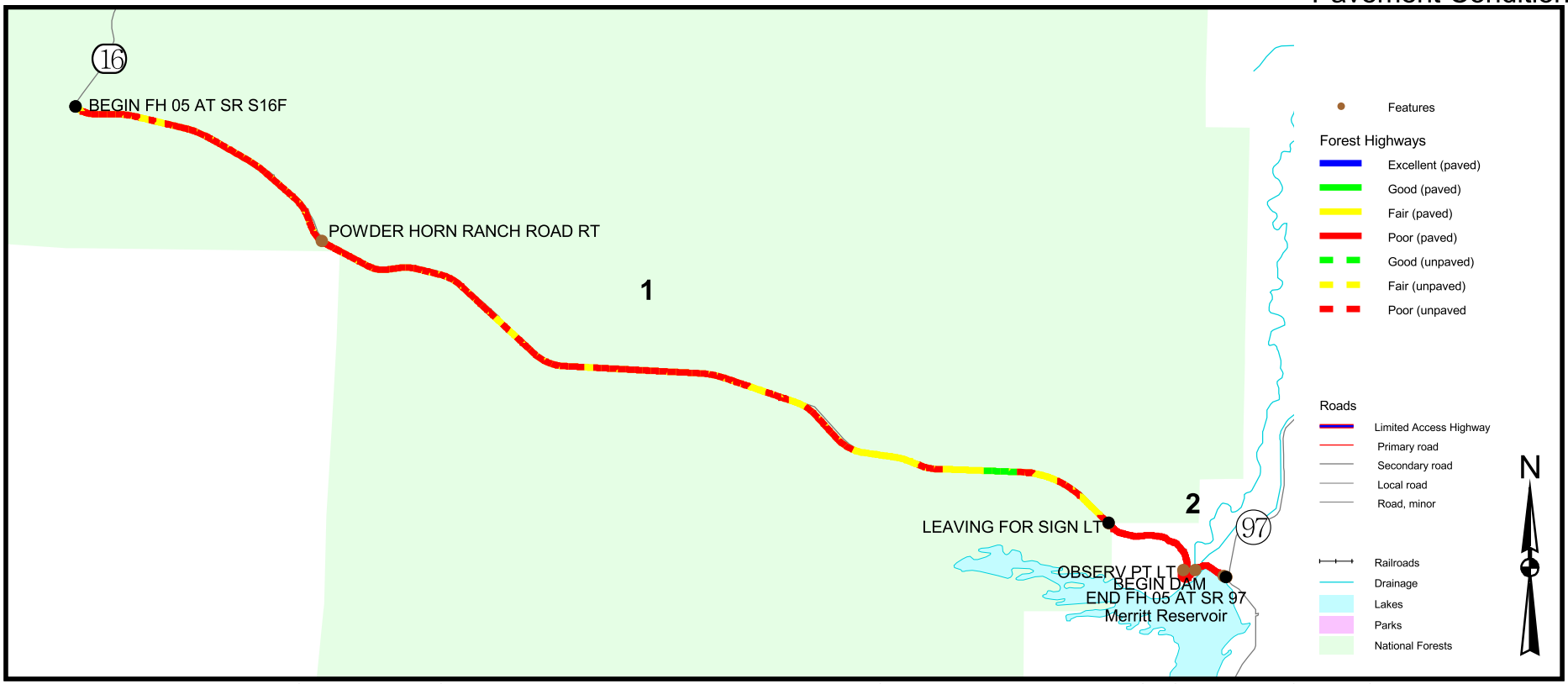


FH-5, Niobrara- Merritt Dam. This route starts at the junction with SR-S16F (FH-4) near the Niobrara Ranger Station and proceeds easterly 15.27 miles (24.57 km) over a county road to SR-97 near Merritt Dam.

Evaluation: FH-5 is owned and operated by Cherry County with the exception of the section across Merritt Dam which is State maintained. It is functionally classified as a minor collector serving the Samuel R. McKelvey National Forest. According to Forest Service data, 80% of the traffic is Forest related. The principal Forest resources served are recreation and grazing. The route also serves other local needs including commercial supply and the Merritt Reservoir State Park.

FH 5 Niobrara-Merritt Dam Rd

Pavement Condition

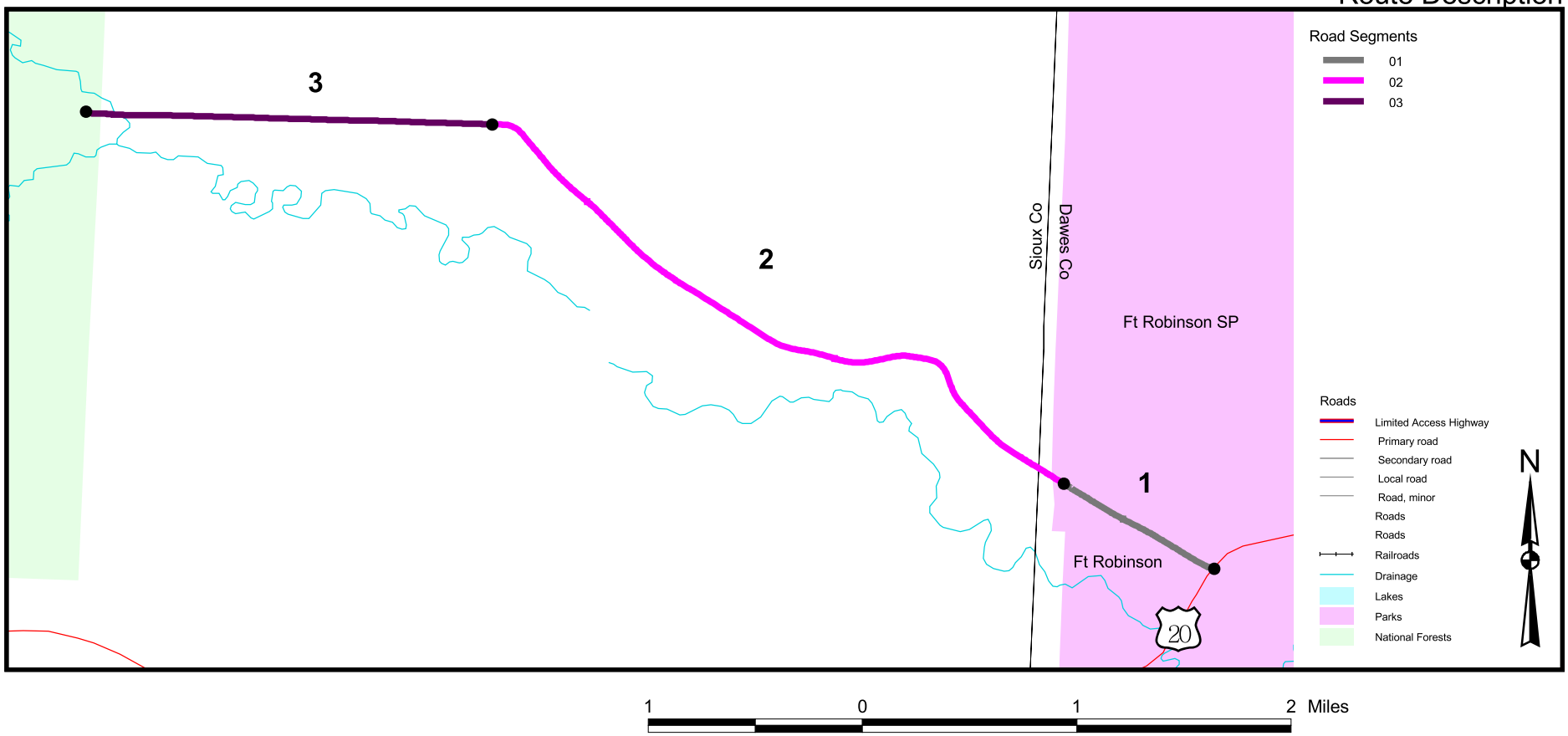


Map above shows the actual condition (paved sections only) which may not correspond to the average condition reported for each segment in the chart below. See Summary page i for more information.

2 0 2 4 Miles

TOTAL ROUTE LENGTH:15.27 Miles

FH	SEG NUM	STATE/LOCAL ROUTE	START MP	END MP	SEG LENGTH	ADT	WIDTHS		SURFACE TYPE	IRI	REMAINING SURFACE LIFE (YEARS)	CONDITION RATING	CONDITION
							ROADWAY	PAVED					
5	1	Niobrara-Merritt Dam R	0.00	13.37	13.36	70	30	24	Flexible	159	3	52	Poor
5	2	Niobrara-Merritt Dam R	13.37	15.25	1.91	70	30	24	Flexible	238	0	38	Poor

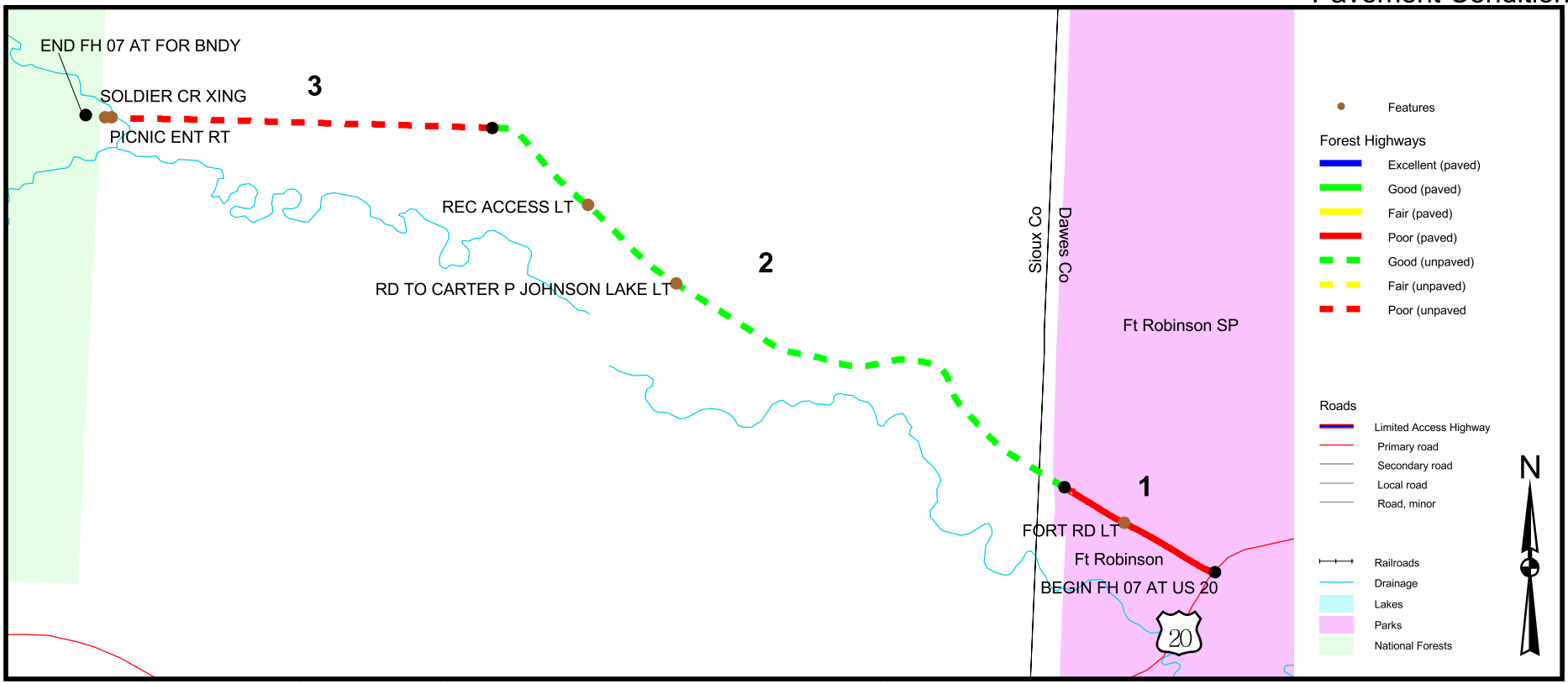


FH-7, Soldiers Creek Road. This route starts at the junction with US-20 at Fort Robinson and proceeds northwesterly 6.05 miles (9.73 km) over a county road to the Forest Boundary.

Evaluation: FH-7 is operated by the Nebraska Game and Parks Commission. It is functionally classified as a local road serving the Nebraska National Forest. According to Forest Service data, 25% of the traffic is Forest related. The principal Forest resources served are recreation and grazing. The route also serves Fort Robinson State Park.

FH 7 Soldiers Creek Road

Pavement Condition



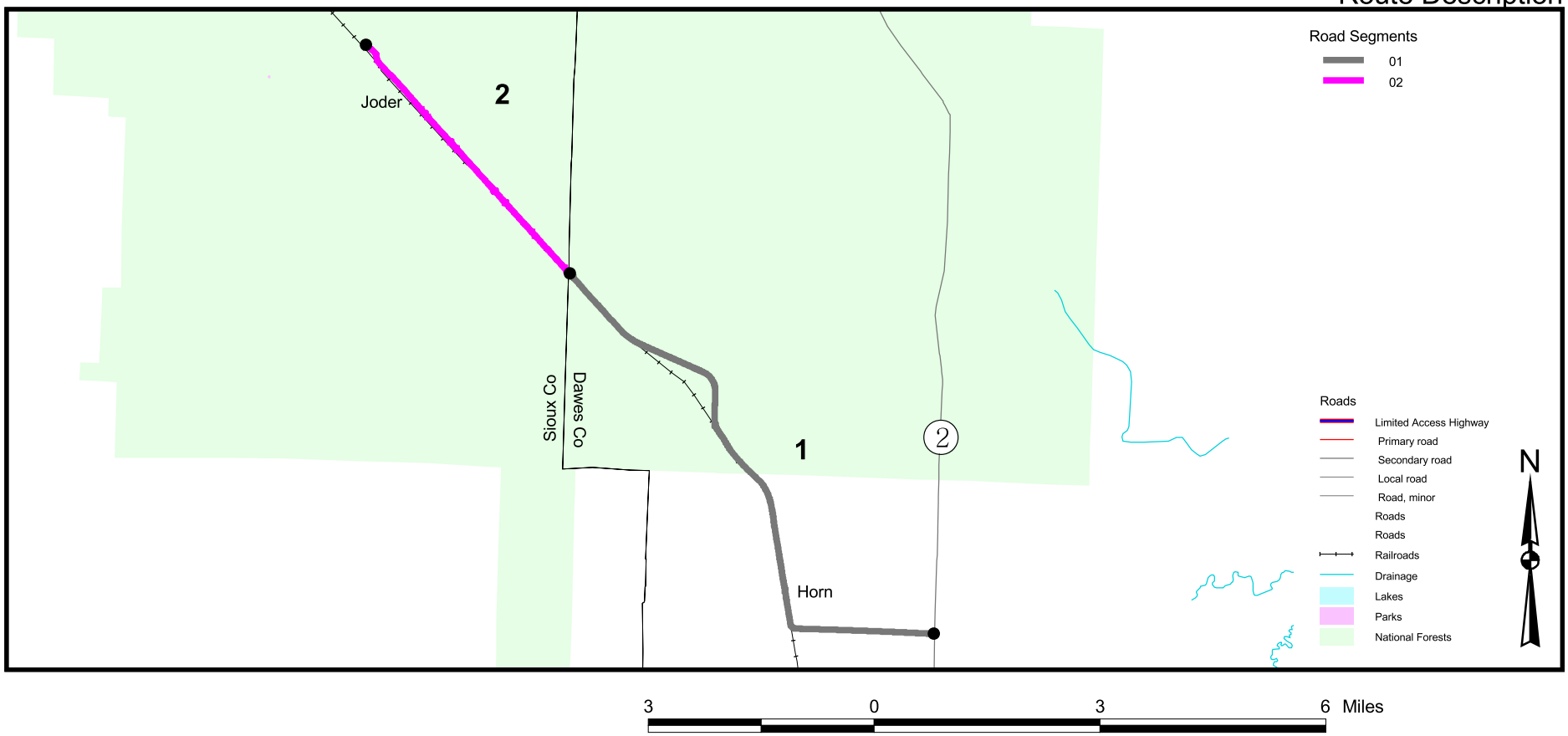
Map above shows the actual condition (paved sections only) which may not correspond to the average condition reported for each segment in the chart below. See Summary page i for more information.

0.8 0 0.8 1.6 Miles

TOTAL ROUTE LENGTH:6.05 Miles

FH	SEG NUM	STATE/LOCAL ROUTE	START MP	END MP	SEG LENGTH	ADT	WIDTHS		SURFACE TYPE	IRI	REMAINING SURFACE LIFE (YEARS)	CONDITION RATING	CONDITION
							ROADWAY	PAVED					
7	1	Soldiers Creek Rd	0.00	0.81	0.81	100	24	24	Flexible	203	1	43	Poor
7	2	Soldiers Creek Rd	0.81	4.13	3.32	100	24	24	Granular	N/A	0	N/A	Good
7	3	Soldiers Creek Rd	4.13	6.05	1.92	100	18	18	Granular	N/A	0	N/A	Poor

FH 8 Toadstool Park Road

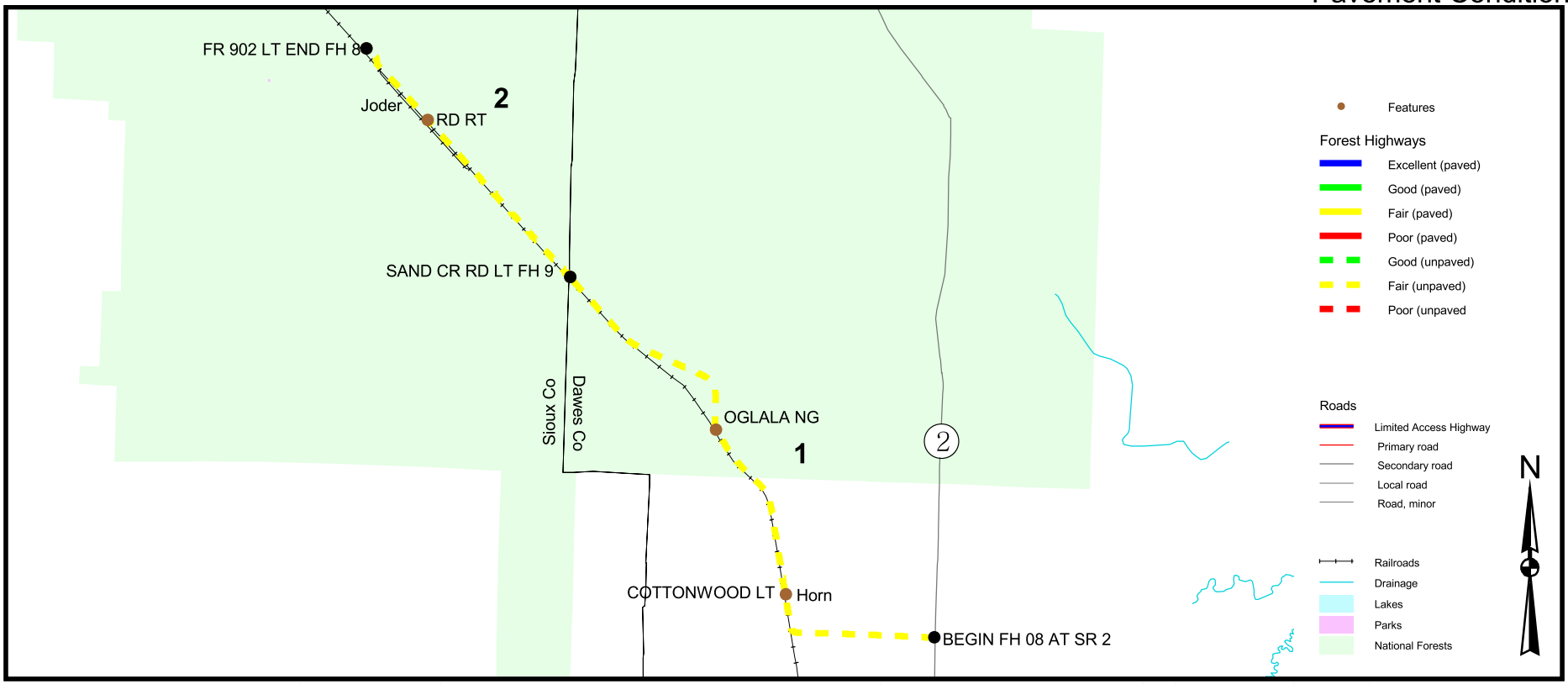


FH-8, Toadstool Park Road. This route starts at the junction with SR-2/71 approximately four miles north of Crawford and proceeds northwesterly 11.97 miles (19.26 km) over FDR-904 to FDR-902, the entrance to Toadstool Park.

Evaluation: FH-8 is owned and operated by Dawes and Sioux Counties. There appears to be drainage problems at various points along the route. It is functionally classified as a local road serving the Oglala National Grasslands. According to Forest Service data, 25% of the traffic is Forest related. The principal Forest resources served are recreation and grazing. The route serves Toadstool Park, a Forest Service facility. The route also serves other local needs including school buses, mail delivery and commercial supply.

FH 8 Toadstool Park Road

Pavement Condition



Map above shows the actual condition (paved sections only) which may not correspond to the average condition reported for each segment in the chart below. See Summary page i for more information.

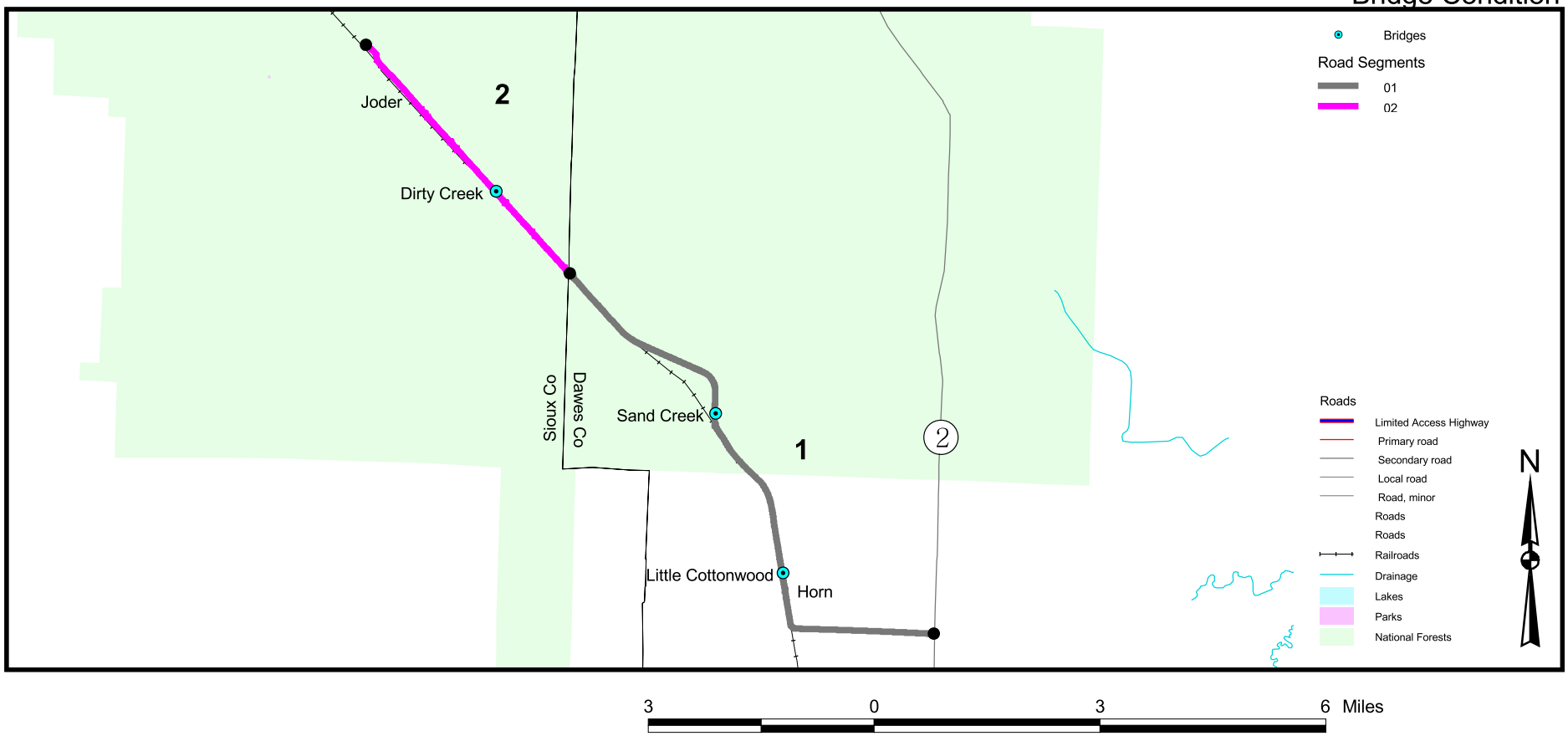
2 0 2 4 Miles

TOTAL ROUTE LENGTH:11.97 Miles

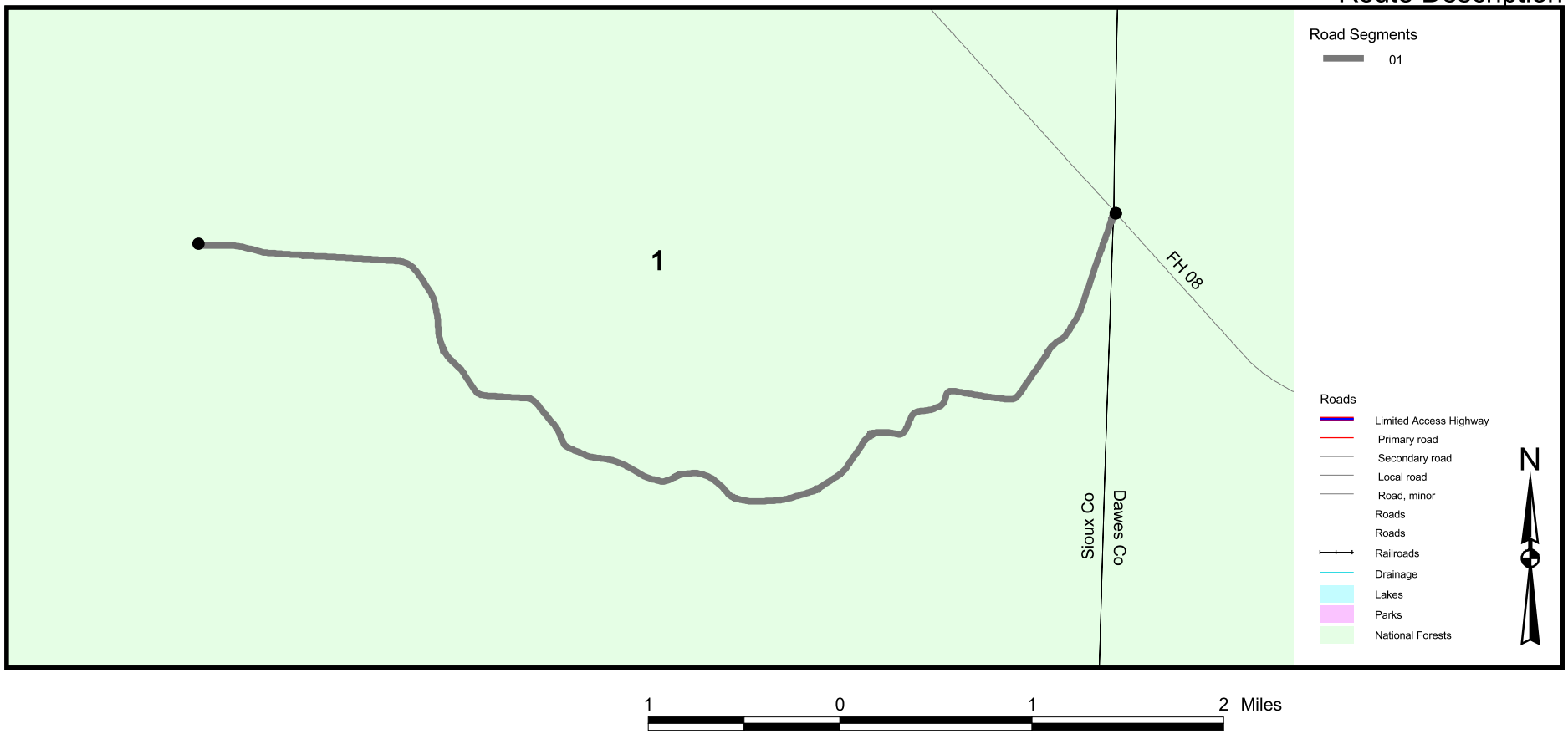
FH	SEG NUM	STATE/LOCAL ROUTE	START MP	END MP	SEG LENGTH	ADT	WIDTHS		SURFACE TYPE	IRI	REMAINING SURFACE LIFE (YEARS)	CONDITION RATING	CONDITION
							ROADWAY	PAVED					
8	1	FDR 904	0.00	7.88	7.88	110	18	18	Granular	N/A	0	N/A	Fair
8	2	FDR 904	7.88	11.97	4.09	60	18	18	Granular	N/A	0	N/A	Fair

FH 8 Toadstool Park Road

Bridge Condition



FH	STATE/LOCAL ROUTE	NBIS NUMBER	MP	FACILITY	OWNER	WIDTH (FEET)	LENGTH (FEET)	STRUCTURALLY DEFICIENT?	FUNCTIONALLY OBSOLETE?	SUFF. RATING
8	FDR 904	C002330705	2.66	Little Cottonwood	Dawes Co.	19.40	37.10	X	-	35.8
8	FDR 904	C002300505	5.00	Sand Creek	Dawes Co.	20.30	24.90	-	-	42.3
8	FDR 904	C008345515	9.40	Dirty Creek	Sioux Co.	27.90	40.00	-	-	99.9

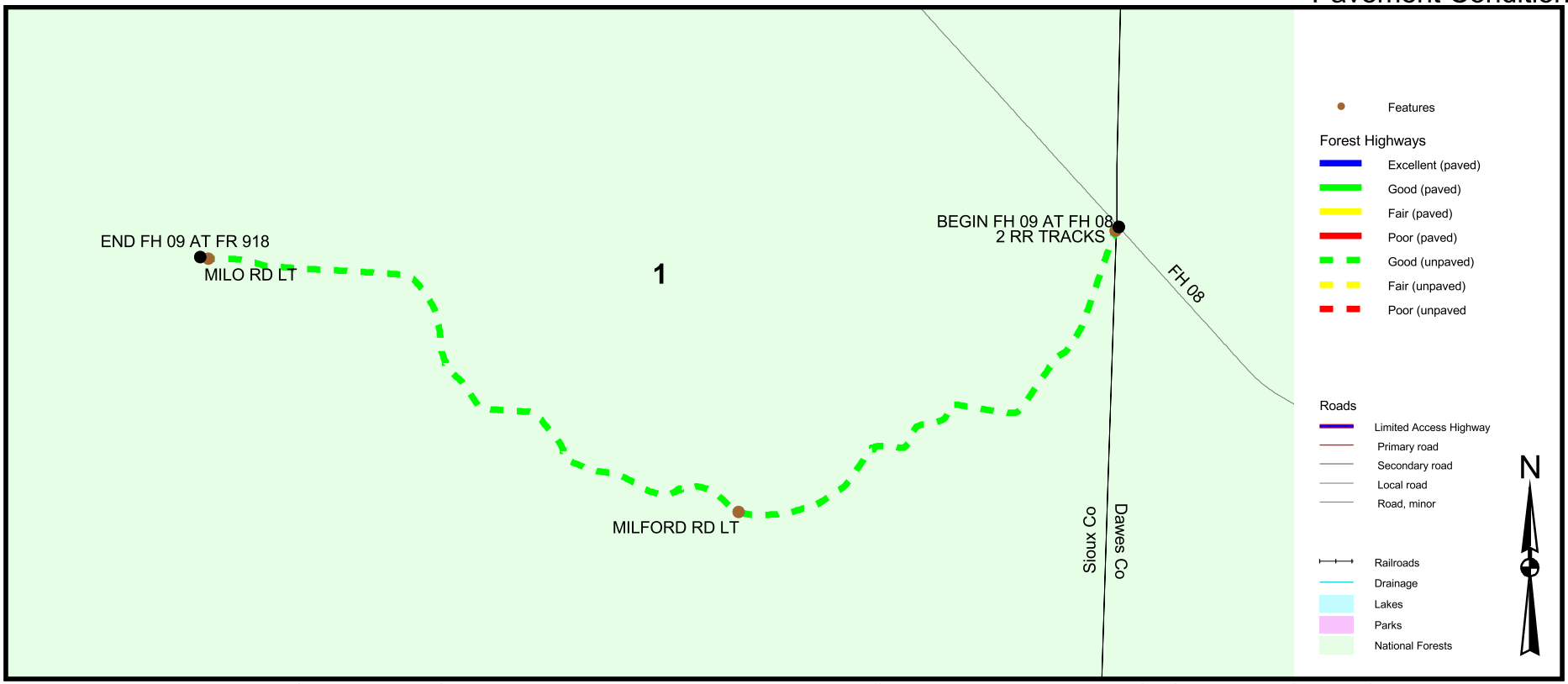


FH-9, Sand Creek Road. This route starts at the junction with FDR-904 (FH-8) at the Sioux/Dawes County Line and proceeds westerly 6.32 miles (10.17 km) over FDR-905 to FDR-918 near the Hudson-Meng Bison Kill Site.

Evaluation: FH-9 is owned and operated by the Forest Service. It is a one lane road with turnouts. It is functionally classified as a local road serving the Oglala National Grasslands. According to Forest Service data, 50% of the traffic is Forest related. The principal Forest resources served are recreation and grazing. The route serves the Hudson-Meng Bison Kill Site, a Forest Service facility. The route also serves other local needs including school buses, mail delivery and commercial supply. This route should be considered as a Public Forest Service Road if that program is established.

FH 9 Sand Creek Road

Pavement Condition



Map above shows the actual condition (paved sections only) which may not correspond to the average condition reported for each segment in the chart below. See Summary page i for more information.

0.9 0 0.9 1.8 Miles

TOTAL ROUTE LENGTH:6.32 Miles

FH	SEG NUM	STATE/LOCAL ROUTE	START MP	END MP	SEG LENGTH	ADT	WIDTHS		SURFACE TYPE	IRI	REMAINING SURFACE LIFE (YEARS)	CONDITION RATING	CONDITION
							ROADWAY	PAVED					
9	1	FDR 905	0.00	6.32	6.32	20	24	24	Granular	N/A	0	N/A	Good