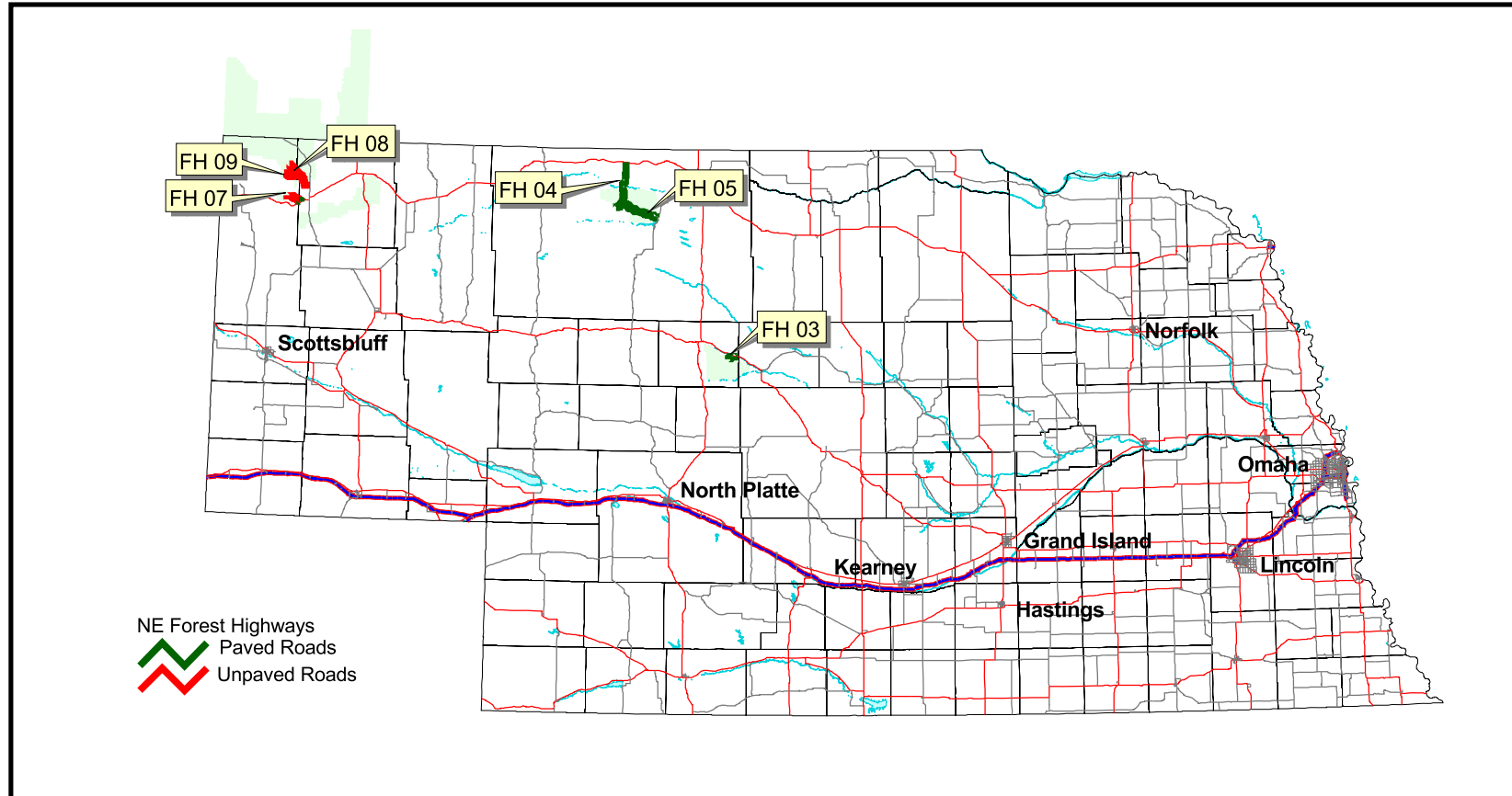




NEBRASKA

Forest Highway Network and Planning Data 2008



Prepared by:
Federal Highway Administration
Central Federal Lands Division

June - 2008



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 in the summer of 2007 and an automatic data collection contract in the summer of 2006. 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: Shows 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: Shows a basic map of the route with segments plus a description of the route's termini, functional class, and other useful information.

Pavement Condition Sheets: Shows 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: Shows 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 Roughness 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 40 or below. Poor roads have a PCR between 41 and 50, fair roads have a PCR between 51 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 |
|----------|---------|---------------|------------------------------|--------|----------|--------|-------------|-------------|-----|------------|-----|-----|----------|
| 5 | 2 | | Niobrara-Merritt Dam Rd | Cherry | 13.37 | 15.25 | 1.91 | 3.07 | 70 | 24 | 272 | 33 | Failed |
| 3 | 3 | SR S86B | Bessey Nursery-Scott Lookout | Thomas | 3.20 | 3.42 | 0.22 | 0.35 | 116 | 20 | 234 | 38 | Failed |
| 7 | 2 | | Soldiers Creek Road | Dawes | 0.00 | 0.81 | 0.81 | 1.30 | 100 | 24 | 229 | 39 | Failed |
| 3 | 1 | SR S86B | Bessey Nursery-Scott Lookout | Thomas | 0.00 | 3.20 | 3.20 | 5.15 | 116 | 20 | 230 | 39 | Failed |

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 166 | 51 to 70 | Fair |
| 167 to 220 | 41 to 50 | Poor |
| Above 220 | 40 and Below | Failed |

POTENTIAL BRIDGE REPLACEMENT PROJECTS:

There are 5 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 | 35.9 |
| 8 | FDR 904 | C002300505 | 5.00 | Sand Creek | Dawes Co. | 20.30 | 6.19 | 24.90 | 7.59 | | | 49.5 |

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:

There are no significant changes since the last report.

PAVED CONDITION RATING CHANGES

In order to more accurately define potential 3R projects, significant changes have been made to the condition rating scale used to determine fair and poor roads. While the formula used to transform IRI to PCR has not changed, the limits used to define fair and poor roads has. These new limits also closely resemble those used by the Federal Highway Administration in their effort to report road conditions based solely on IRI. The new rating scale as defined on pages iii-iv puts the majority of road segments into the fair category. Poor category road segments are now split between poor and failed categories, where failed is anything with an IRI above 220. The new color code for poor is orange, while failed is now red. In addition, all historical ratings have been adjusted to this new scale in the succeeding graphs in this report. Please see the following web document for more information on ride quality and the new rating scale: <http://www.fhwa.dot.gov/policy/2002cpr/ch3b.htm> (Exhibit 3-3).

Please note that FHWA has since simplified their rating scale for their Highway Condition and Performance Reports to include only three categories: Good, Acceptable, and Unacceptable. These categories are useful for reporting generalities in road condition, but for finding potential 3R projects, we feel that their older, diversified condition rating scale is more suitable.

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

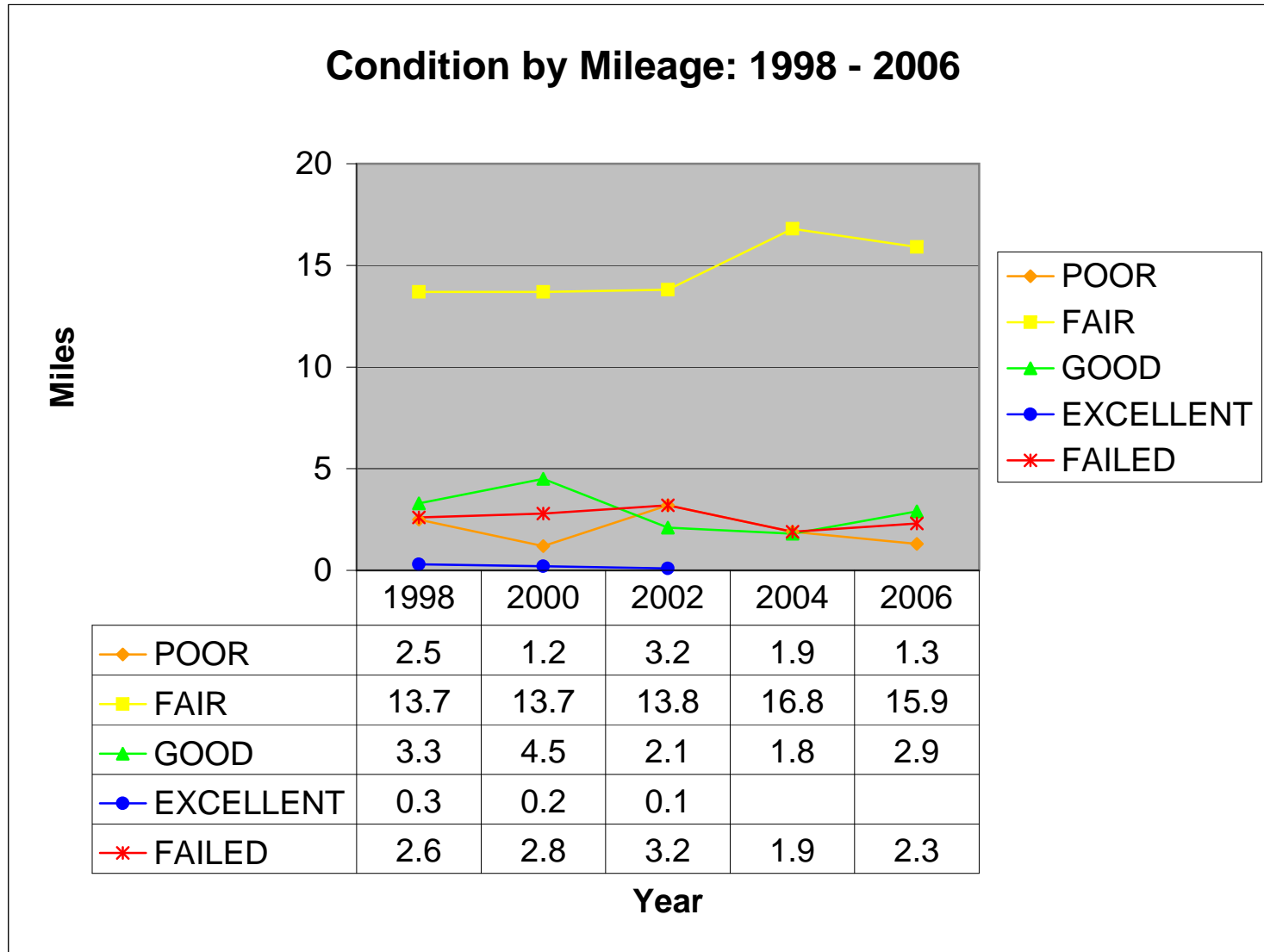
(as of June 2008)

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Nebraska Forest Highway Route Descriptions
June 2008**

**TOTAL TOTAL
ROUTE# 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 |

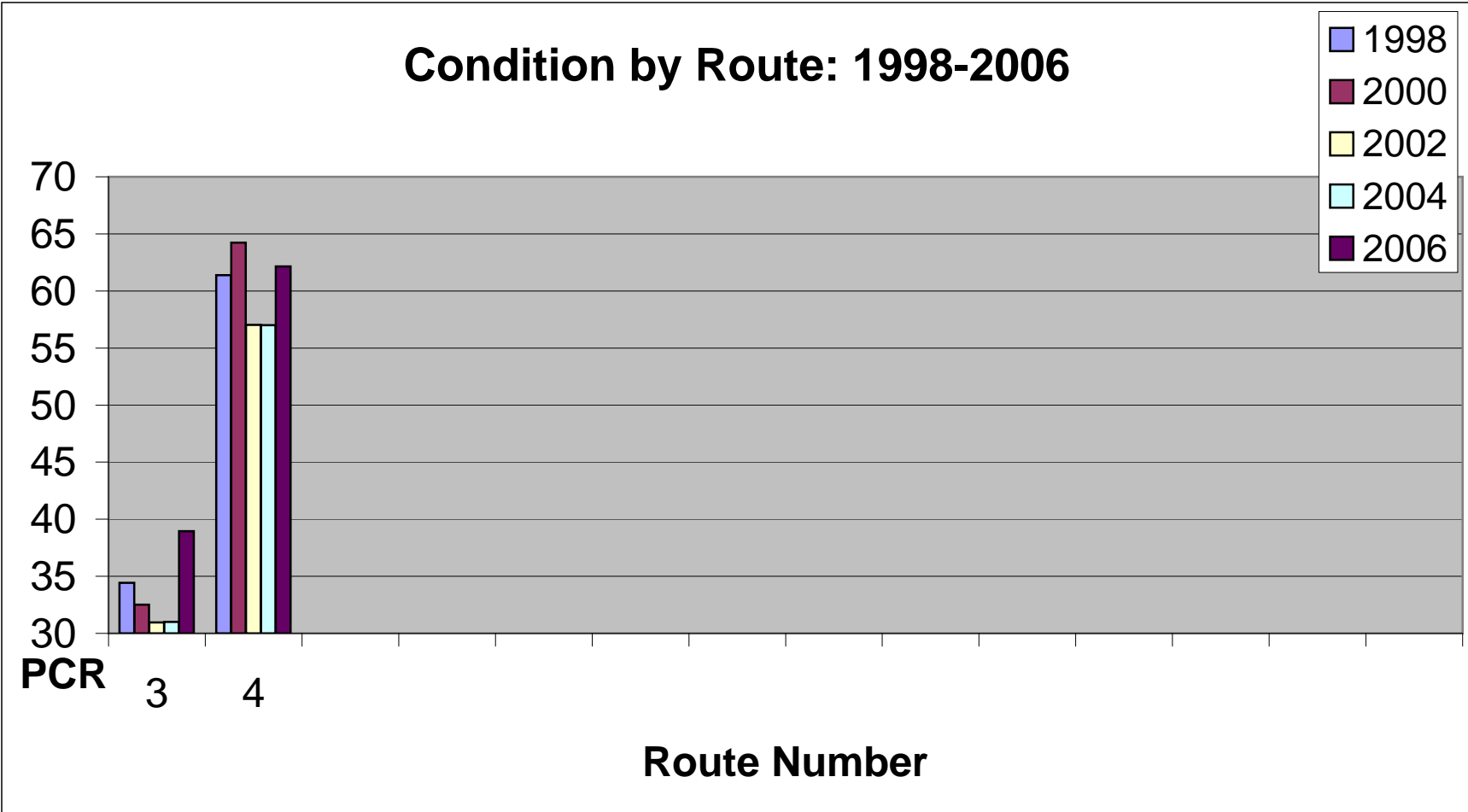
Nebraska Forest Highway Network - Condition by Mileage



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

(Figure 1)

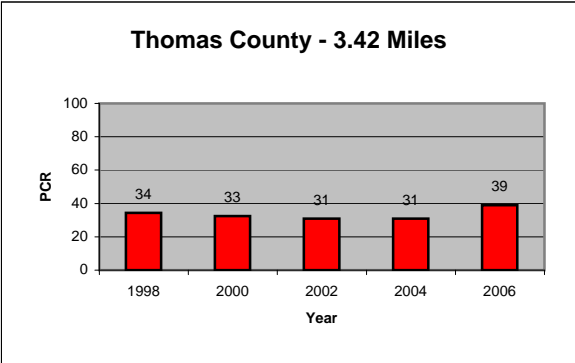
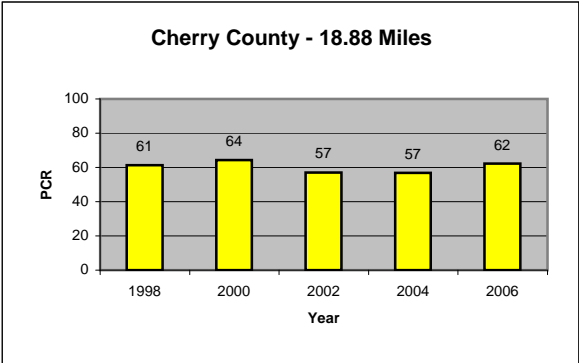
Nebraska Forest Highway Network -Condition by Route



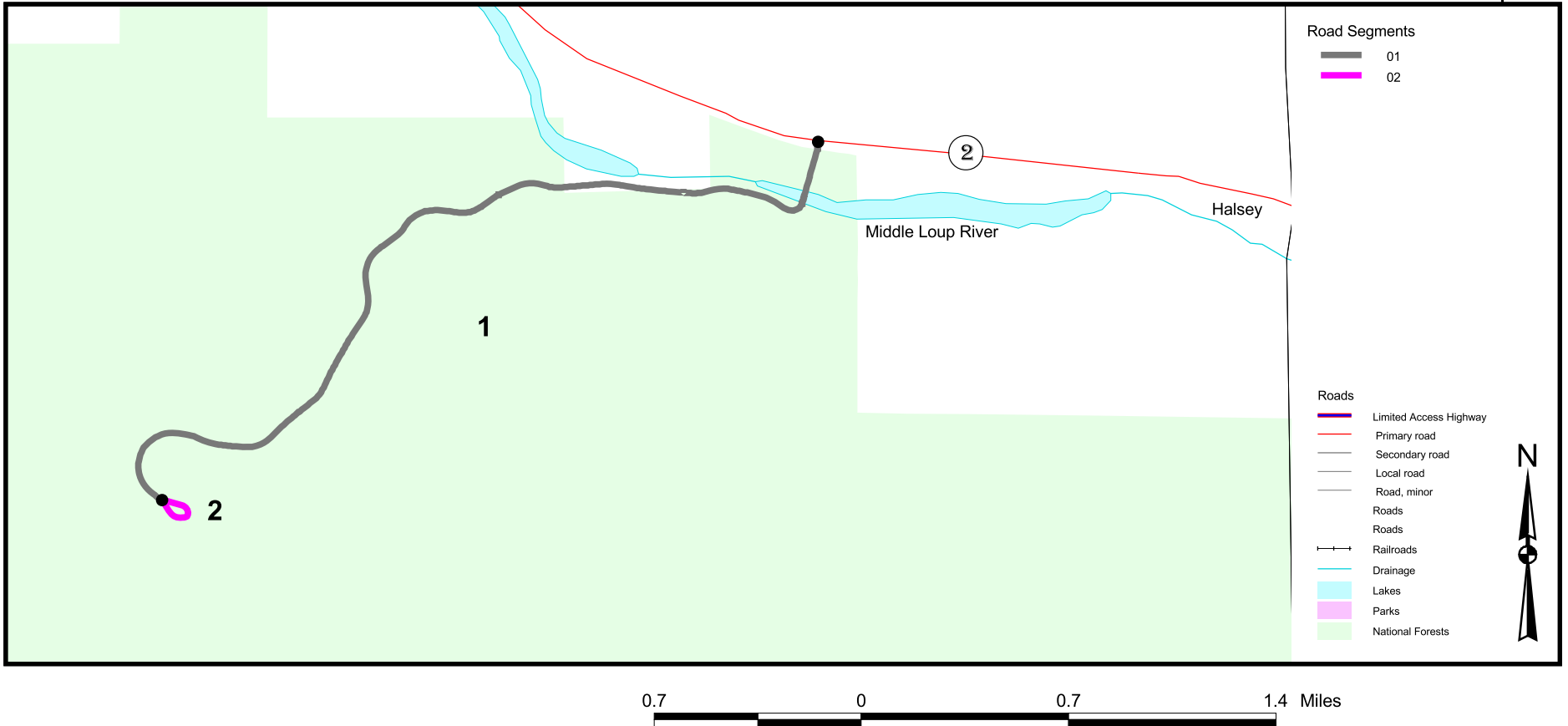
| Route | 3 | 4 | | | | | | | | | | | | |
|----------|----|----|--|--|--|--|--|--|--|--|--|--|--|--|
| PCR 1998 | 34 | 61 | | | | | | | | | | | | |
| PCR 2000 | 33 | 64 | | | | | | | | | | | | |
| PCR 2002 | 31 | 57 | | | | | | | | | | | | |
| PCR 2004 | 31 | 57 | | | | | | | | | | | | |
| PCR 2006 | 39 | 62 | | | | | | | | | | | | |

(Figure 2)

Nebraska Forest Highway Network - Pavement Condition Ratings by County

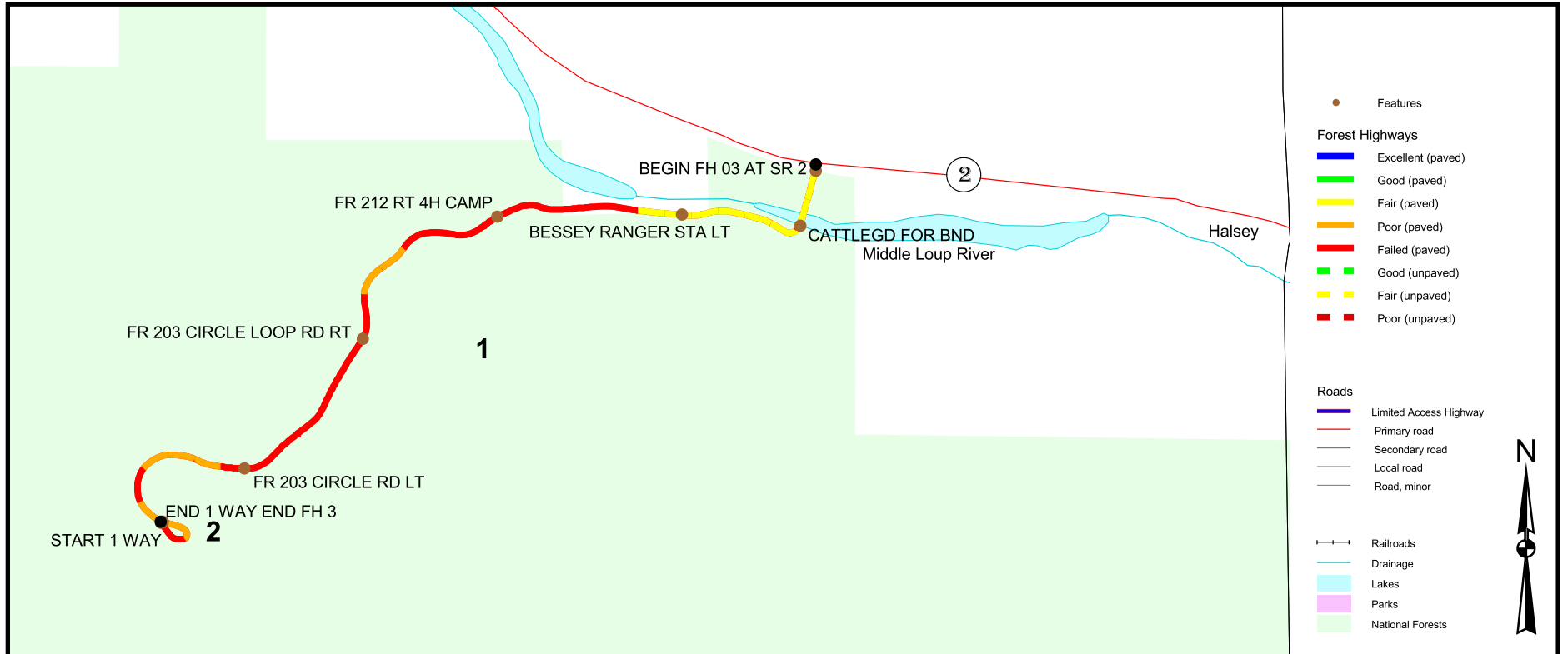


(Figures 3 4)



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.

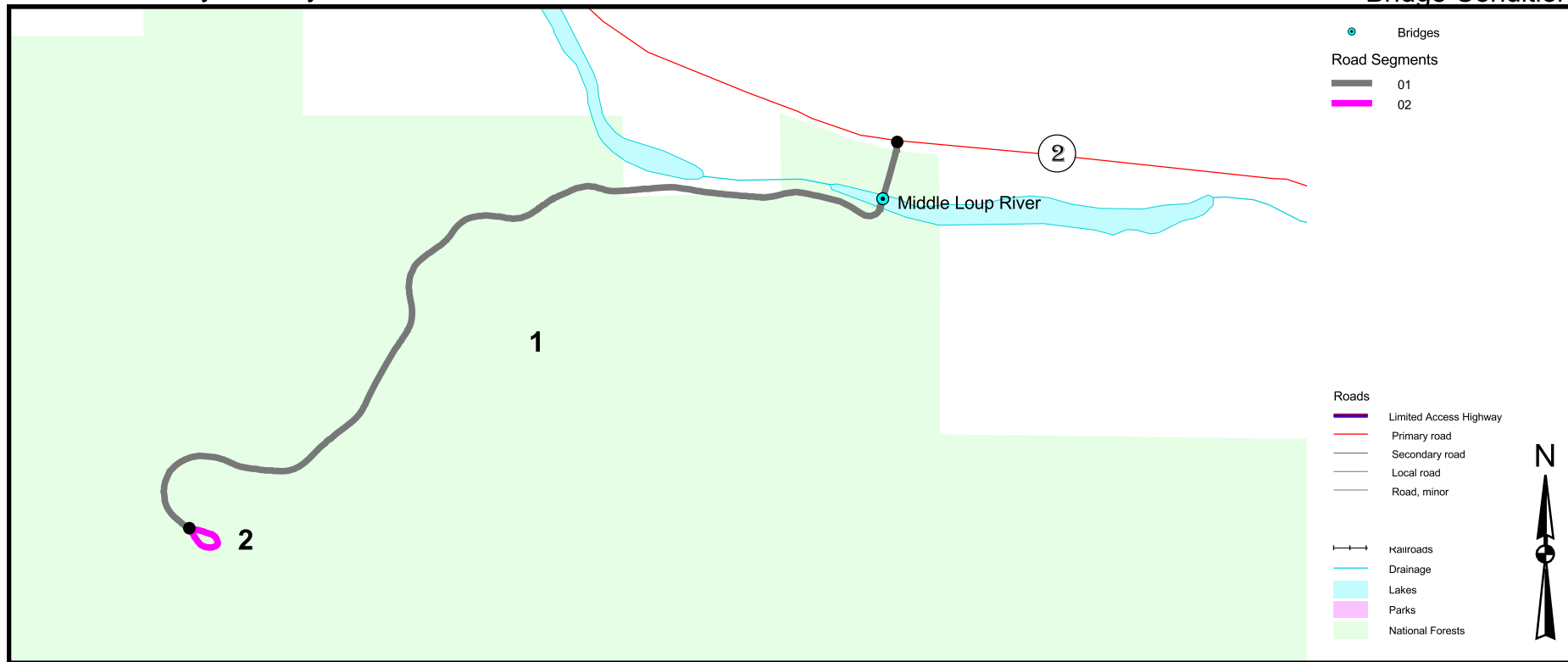


Map above shows the actual condition (paved sections only) which may not correspond to the average condition reported for each segment in the chart below. See Summary page i for more information.

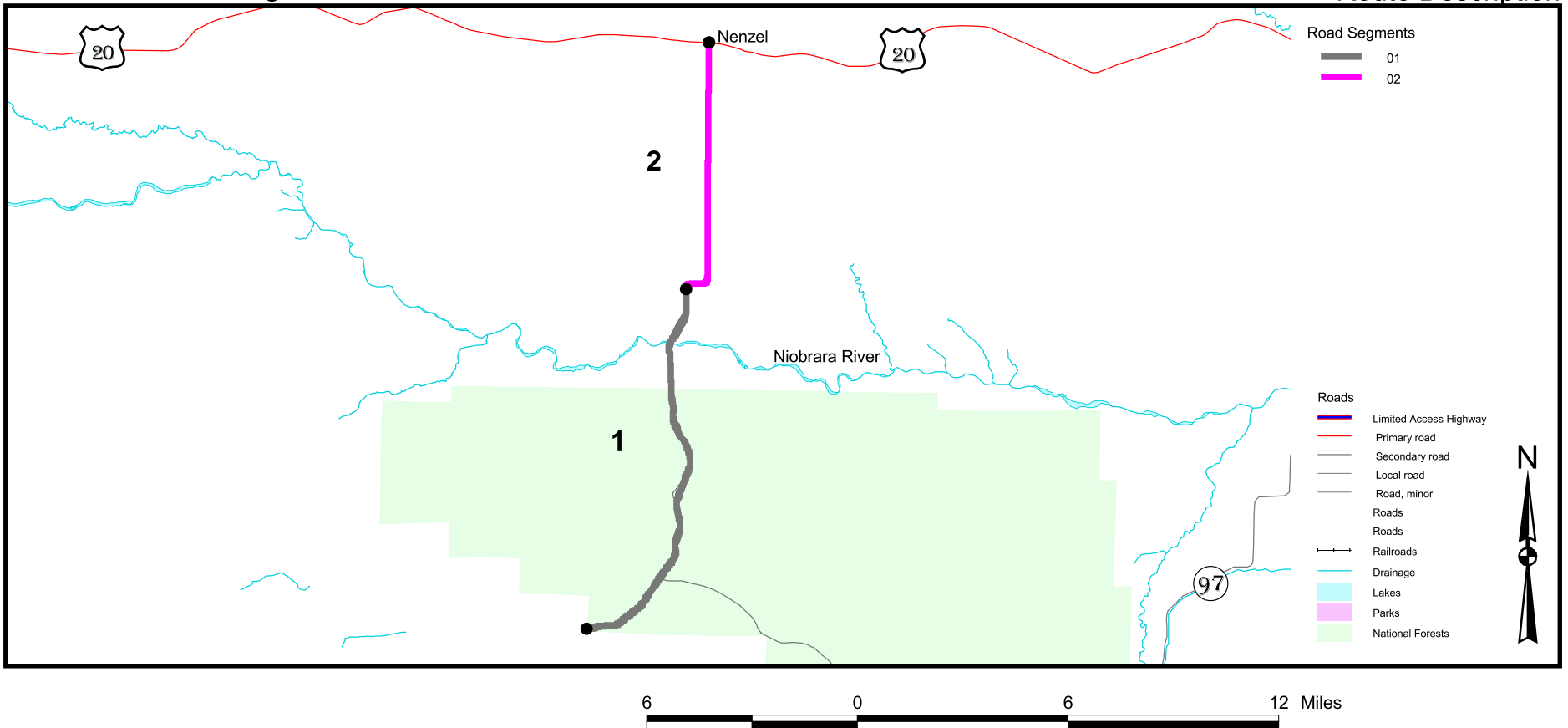


TOTAL ROUTE LENGTH: 3.42 Miles

| 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 | 116 | 24 | 20 | Flexible | 230 | 0 | 39 | Failed |
| 3 | 2 | SR S86B | 3.20 | 3.42 | 0.22 | 116 | 28 | 20 | Flexible | 234 | 0 | 38 | Failed |



| FH | STATE/LOCAL ROUTE | NBIS NUMBER | MP | FACILITY | OWNER | WIDTH (FEET) | LENGTH (FEET) | STRUCTURALLY DEFICIENT? | FUNCTIONALLY OBSOLETE? | SUFF. RATING |
|----|-------------------|-------------|------|-------------------|-------|--------------|---------------|-------------------------|------------------------|--------------|
| 3 | SR 86B | SS86B00021 | 0.20 | Middle Loup River | State | 26.00 | 74.10 | - | - | 83.60 |

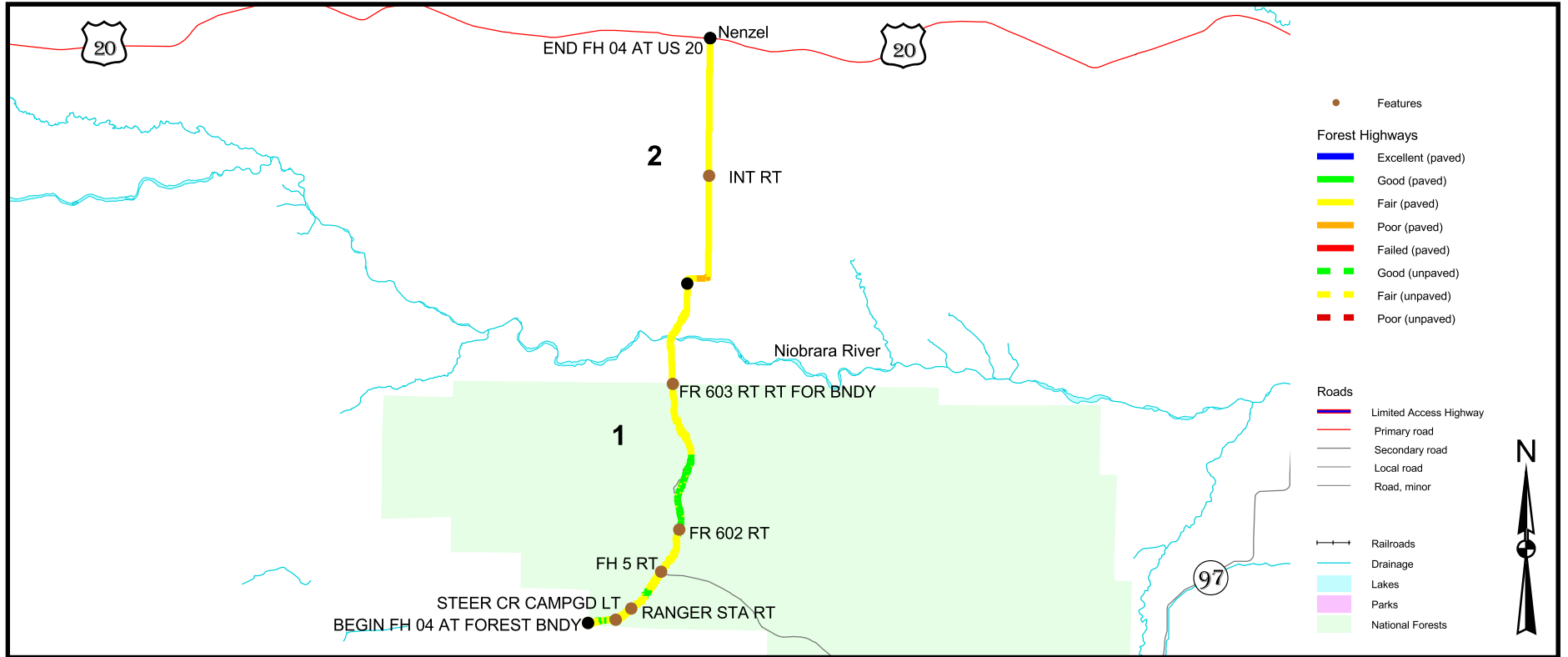


FH-4, Nenzel Ranger Station Road. This route starts at the Forest Boundary west of Niobrara Ranger Station and proceeds northerly 18.88 miles (30.38 km) over SR-S16F to the junction with US-20 in Nenzel.

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 Niobrara Ranger Station, and provides canoe access to the Niobrara 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.

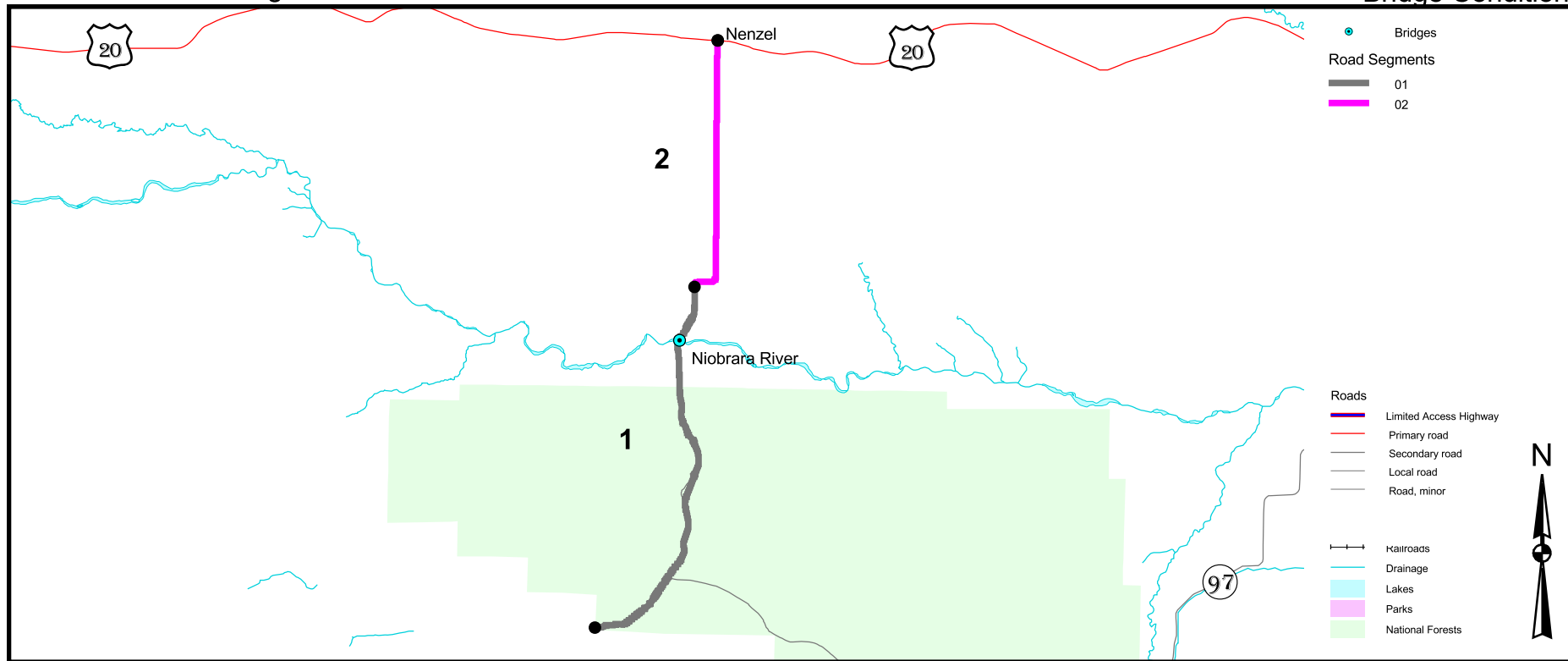


TOTAL ROUTE LENGTH: 18.88 Miles

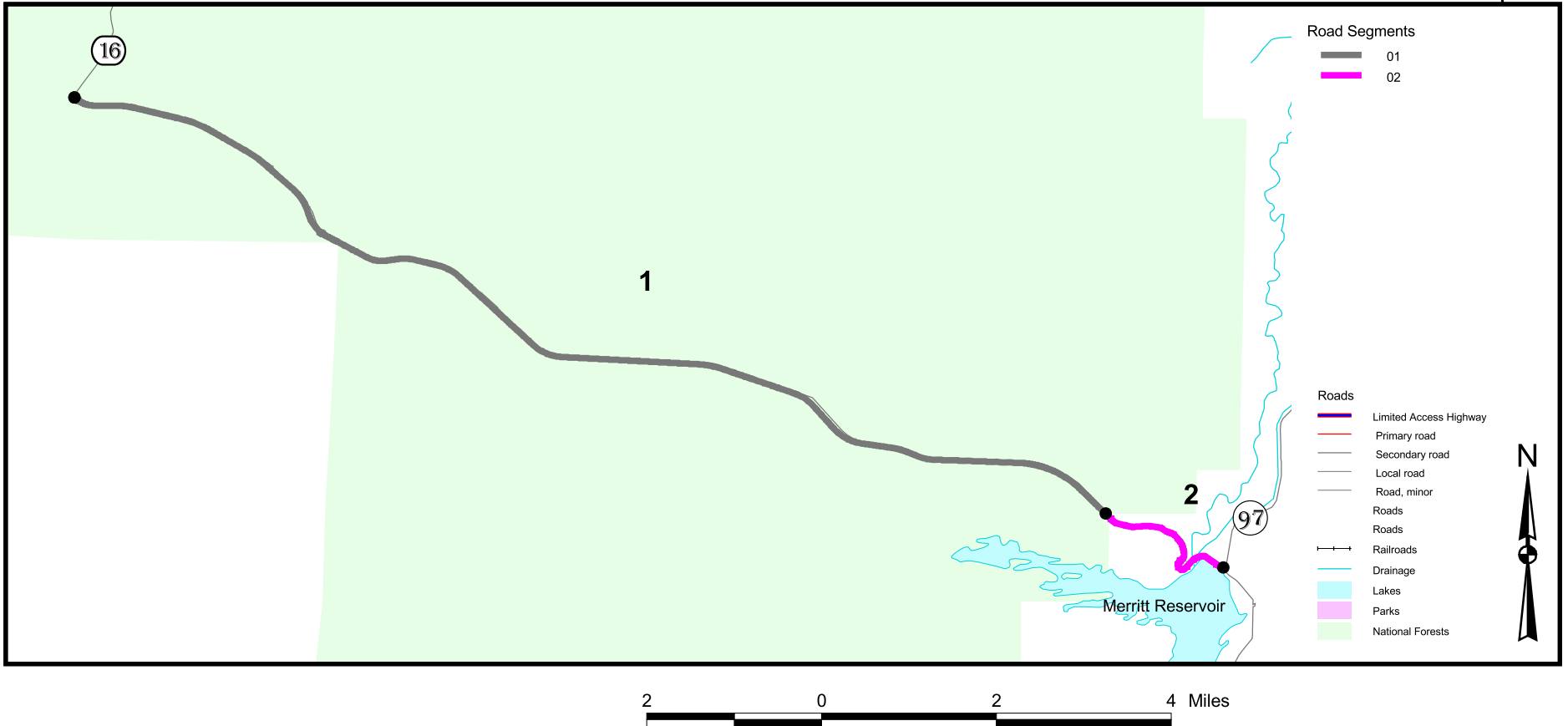
| FH | SEG NUM | STATE/LOCAL ROUTE | START MP | END MP | SEG LENGTH | ADT | WIDTHS | | SURFACE TYPE | IRI | REMAINING SURFACE LIFE (YEARS) | CONDITION RATING | CONDITION |
|----|---------|-------------------|----------|--------|------------|-----|---------|-------|--------------|-----|--------------------------------|------------------|-----------|
| | | | | | | | ROADWAY | PAVED | | | | | |
| 4 | 1 | SR S16F | 0.00 | 11.42 | 11.42 | 95 | 22 | 22 | Flexible | 109 | 13 | 64 | Fair |
| 4 | 2 | SR S16F | 11.42 | 18.88 | 7.46 | 95 | 22 | 22 | Flexible | 128 | 11 | 59 | 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 | 10.00 | Niobrara River | State | 28.00 | 213.90 | - | - | 91.70 |



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.



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.



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 | 161 | 7 | 52 | Fair |
| 5 | 2 | Niobrara-Merritt Dam R | 13.37 | 15.25 | 1.91 | 70 | 30 | 24 | Flexible | 272 | 0 | 33 | Failed |

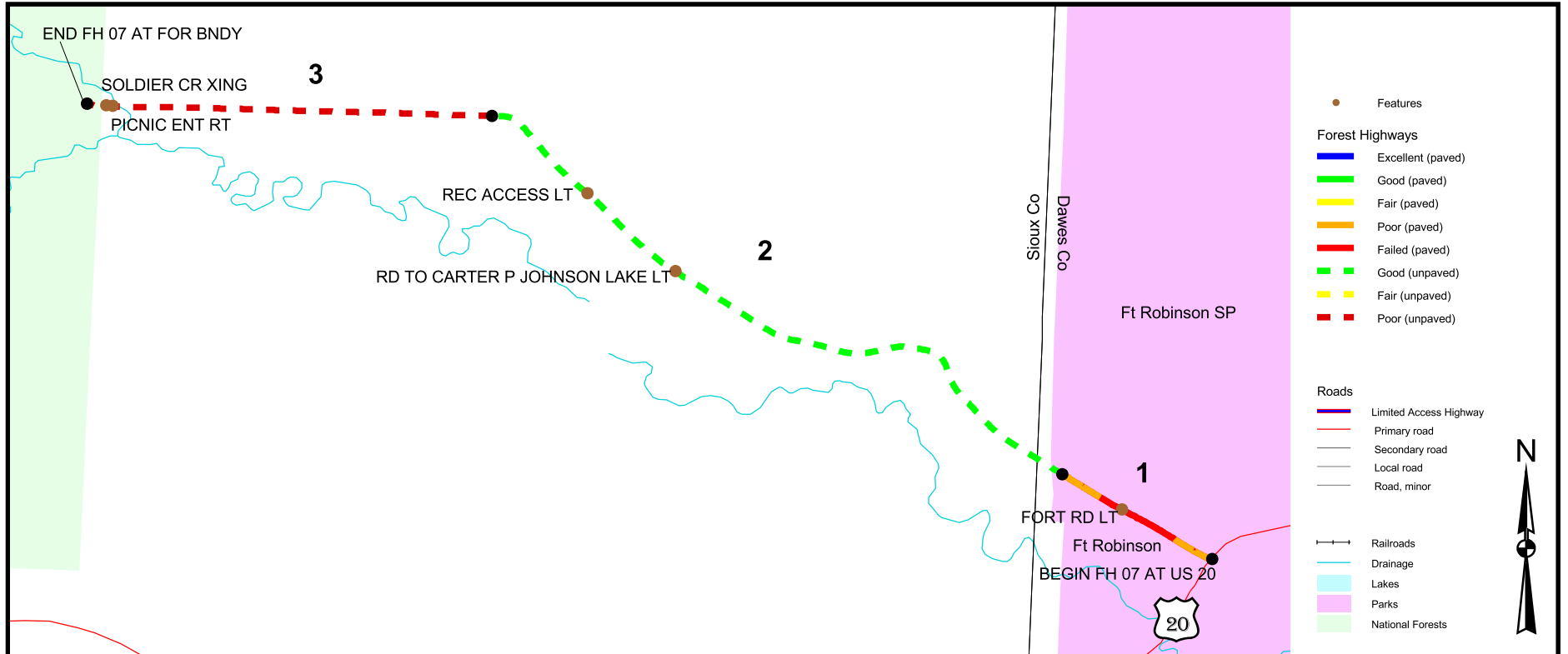


FH-7, Soldiers Creek Road. This route starts at the junction with US-20 at Fort Robinson and proceeds northwesterly 6.05 miles (9.73 km) over a county road to the Forest Boundary.

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

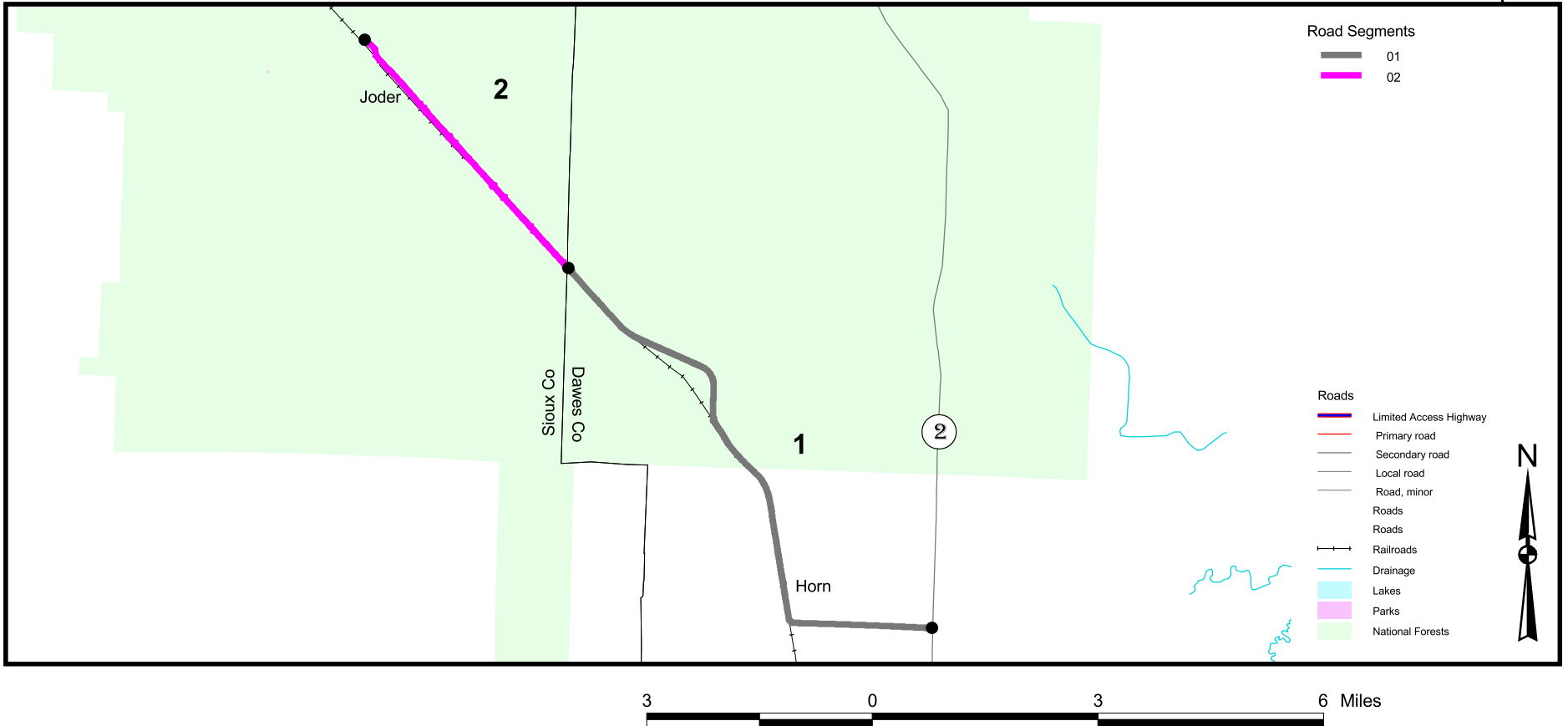


Map above shows the actual condition (paved sections only) which may not correspond to the average condition reported for each segment in the chart below. See Summary page i for more information.



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 | 229 | 0 | 39 | Failed |
| 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 |

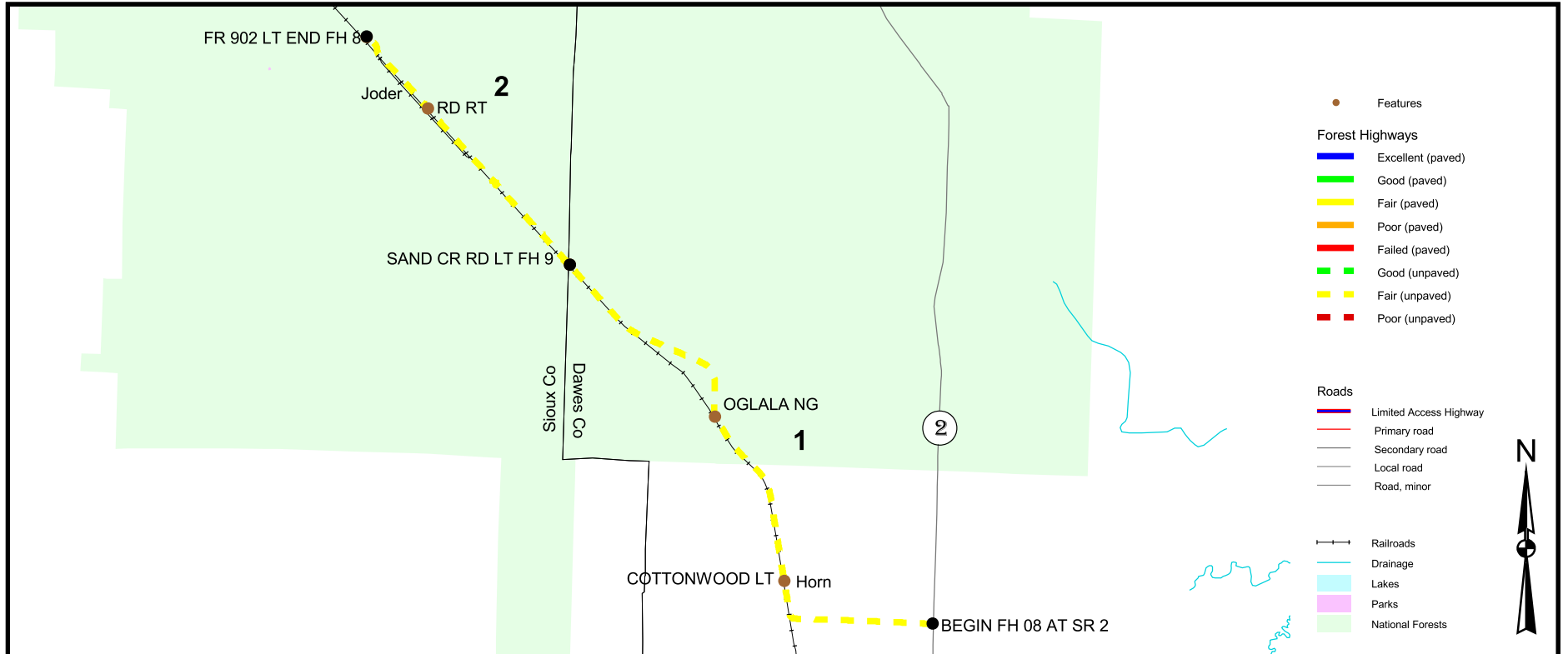


FH-8, Toadstool Park Road. This route starts at the junction with SR-2/71 approximately four miles north of Crawford and proceeds northwesterly 11.97 miles (19.26 km) over FDR-904 to FDR-902, the entrance to Toadstool Park.

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

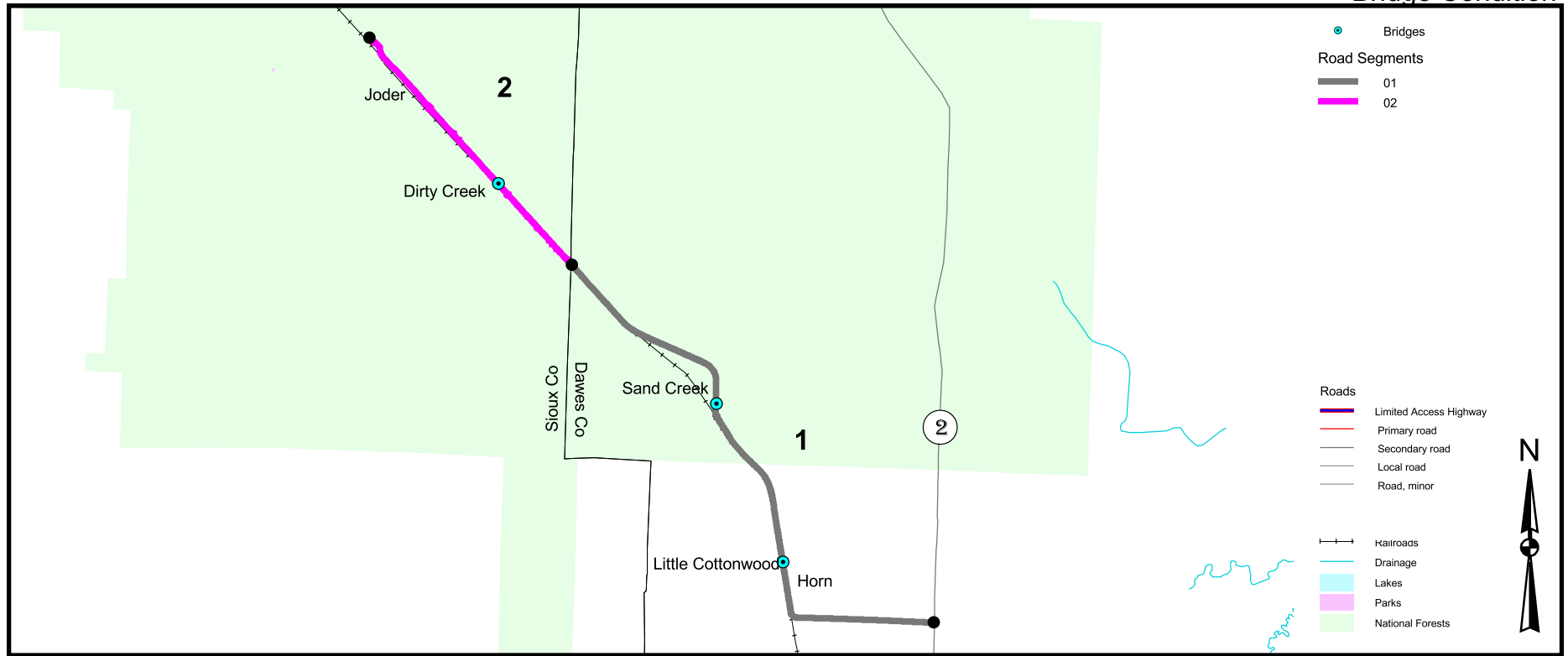


Map above shows the actual condition (paved sections only) which may not correspond to the average condition reported for each segment in the chart below. See Summary page i for more information.

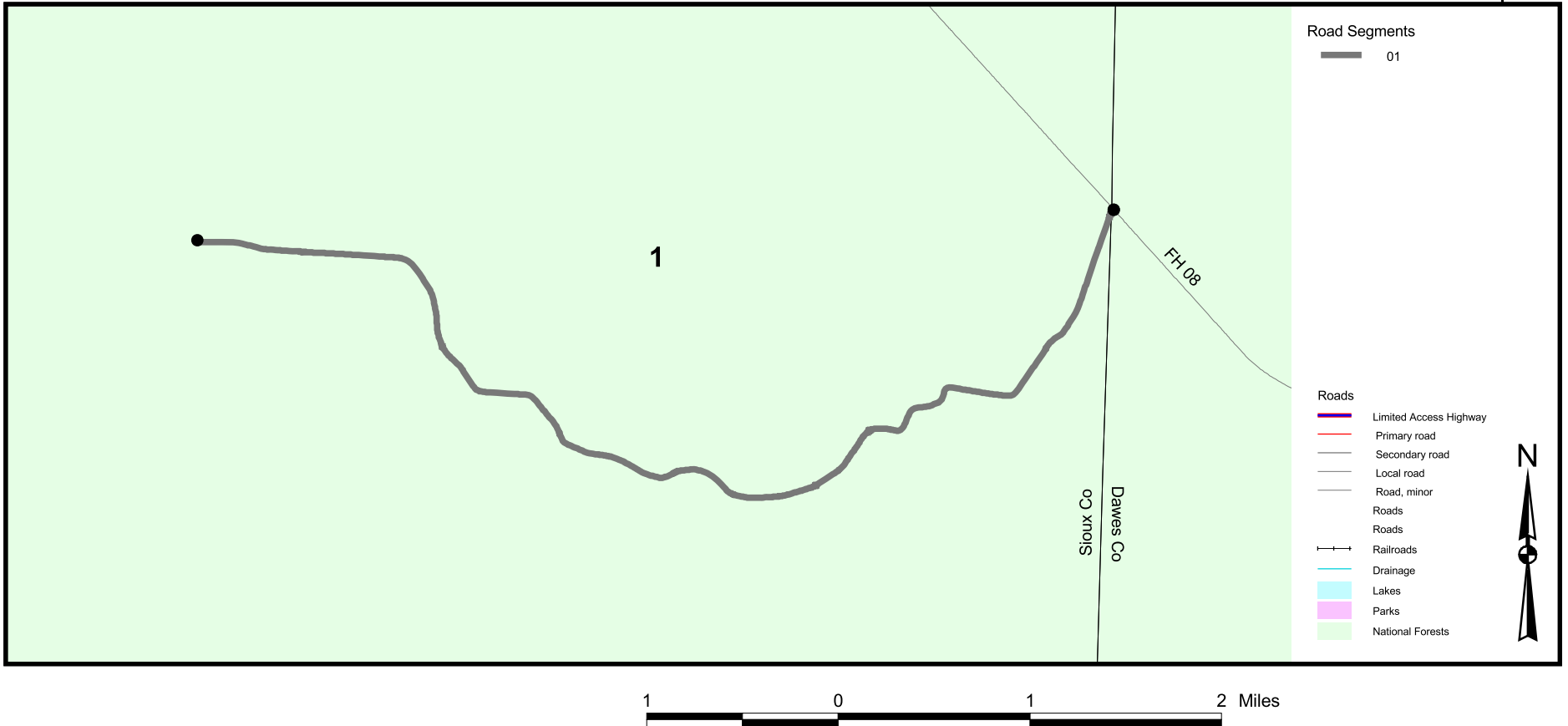


TOTAL ROUTE LENGTH: 11.97 Miles

| 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 |

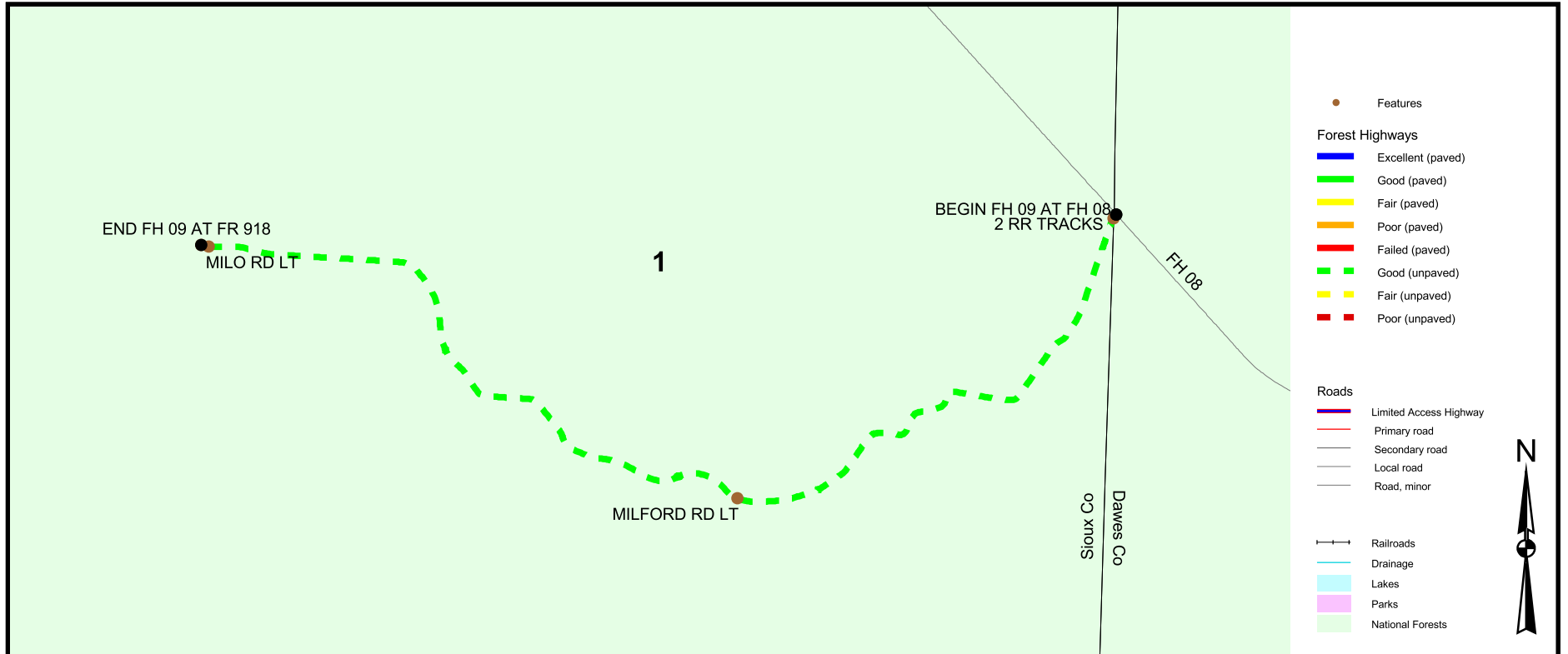


| FH | STATE/LOCAL ROUTE | NBIS NUMBER | MP | FACILITY | OWNER | WIDTH (FEET) | LENGTH (FEET) | STRUCTURALLY DEFICIENT? | FUNCTIONALLY OBSOLETE? | SUFF. RATING |
|----|-------------------|-------------|------|-------------------|-----------|--------------|---------------|-------------------------|------------------------|--------------|
| 8 | FDR 904 | C002330705 | 2.66 | Little Cottonwood | Dawes Co. | 19.40 | 37.10 | X | - | 35.80 |
| 8 | FDR 904 | C002300505 | 5.00 | Sand Creek | Dawes Co. | 20.30 | 24.90 | - | - | 42.30 |
| 8 | FDR 904 | C008345515 | 9.40 | Dirty Creek | Sioux Co. | 27.90 | 40.00 | - | - | 99.90 |



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.



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.



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 |