

Attachment A:
Commissioner's Order of 4-13-17
Removing Certain Water Courses from the
Public Waters Inventory



**STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES**

In the Matter of the Improper Inclusion) **FINDINGS OF FACT,**
Of Certain Water Courses within PWI Maps) **CONCLUSIONS AND ORDER**
for 71 Counties) **REVISING PWI MAPS**

FINDINGS OF FACT AND CONCLUSIONS

A. The Public Waters Inventory Process

1. In 1979, the Minnesota Legislature directed the Commissioner of the Minnesota Department of Natural Resources (DNR) make a preliminary designation of public waters and wetlands for each county and deliver a copy of the preliminary public waters inventory (PWI) list and PWI map to the county board for each county. 1979 Minn. Laws, ch. 199, § 7.

2. Within 90 days of receipt of the preliminary PWI list and PWI map for a county, the county board had the opportunity to submit any recommended changes to the DNR. 1979 Minn. Laws ch. 199, § 7. During this 90-day period, county boards were directed to hold at least one public informational meeting on the preliminary PWI list and PWI map developed for the county. *Id.*

3. After reviewing any county board response to the preliminary PWI list and PWI map, the DNR had the opportunity to make revisions. 1979 Minn. Laws. ch. 199, § 7. The revised list and map were then filed with the county recorder and published in the official county newspaper. *Id.* The published notice detailed an appeal process available to those counties or citizens wishing to challenge the inclusion of a water basin, watercourse, or wetland on the PWI list and PWI map. *Id.*

4. The PWI maps developed through this process “show the waters of this state that are designated as public waters under the public waters inventory and classification procedures prescribed” by the Legislature in 1979. See Minn. Stat. § 103G.201(a) (2016).

B. PWI Mapping Errors Are Identified During Development of Buffer Protection Map

5. In 2015, the Legislature directed the DNR to establish and maintain the buffer protection map identifying water resources subject to buffer requirements under the state’s new buffer legislation. 2015 Minn. Laws. ch. 4, § 79 codified in Minn. Stat. § 103F.48 (2016).

6. During the development and refinement of the buffer protection map in 2016 and 2017, the DNR discovered that a subset of watercourses mapped on PWI maps as public ditches, indicated by heavy dashed lines, were in fact not public ditches. The DNR verified

public ditch data with all public drainage authorities. This subset of the watercourses incorrectly mapped on the PWI maps as public ditches are hereinafter referred to as the “subject watercourses.”

7. The subject watercourses had been depicted on the PWI maps with heavy dashed lines because it was believed, based on data available at the time of the development of the PWI, that they were part of public ditch systems and were also altered natural watercourses within the definition of “public waters” under applicable law. See Minn. Stat. § 105.38, subd. 14(i) (1980) *recodified* in Minn. Stat. § 103G.005, subd. 15(9) (2016).

8. The DNR’s determination that the subject watercourses were public ditches was based on information then available from public drainage authorities and otherwise within DNR’s records at the time of the creation of the PWI maps and lists.

9. The determination that the subject watercourses were altered natural watercourses within the definition of “public waters” under applicable law was based on the same criteria applied to other watercourses evaluated for inclusion in the PWI—i.e., defined bed and bank and drainage area greater than two square miles. See Minn. Stat. § 105.38, subd. 10 (1980) (defining “natural watercourse”), subd. 11 (1980) (defining “altered natural watercourse”) and subd. 14(i) (1980) (including natural watercourse and altered natural watercourse with total drainage area in excess of two miles within statutory definition of “public waters”).

10. The legend on the PWI maps notes that “Watercourses are identified with a heavy, dark line” and that “Public Ditches are identified with a dashed line.” Hence, the subject watercourses, being identified at the time as public ditches and altered natural watercourses were depicted on the PWI maps with heavy dashed lines.

11. The subject watercourses were included on the PWI maps developed in the inventory process, but were not included in the PWI lists created as part of that process. The subject watercourses, totaling approximately 640 miles, are located in 71 counties and are identified in Exhibit A, which is attached hereto and incorporated herein by reference.

12. Because the subject watercourses were not identified on the PWI lists, landowners did not necessarily know that these waters were, in fact, being designated as public waters. Accordingly, landowners affected by inclusion of the subject watercourses in the PWI did not have adequate notification regarding their opportunity to object or request a hearing to dispute subject watercourses proposed inclusion in the PWI. See 1979 Minn. Laws, ch. 199 § 7. In addition, the preliminary PWI maps incorrectly identified these public waters as public ditches that would be regulated by public drainage authorities.

13. The subject watercourses were included in the final PWI maps, but were not included on the PWI lists when then-DNR Commissioner Joseph Alexander published the PWI lists for each county.

C. Legal Authority to Revise PWI

14. The Legislature detailed the procedures for preparing the PWI lists and maps and the appeal process available to individuals and counties to challenge the inclusion of public waters or wetlands in the PWI. See 1979 Minn. Laws, ch. 199 § 7.

15. In 2005, the Legislature gave the DNR the authority to revise the PWI map and list of each county “as needed to correct errors in the original inventory.” 2005 Minn. Laws, ch. 138, § 1 *codified at* Minn. Stat. § 103G.201 (e)(2)(i) (2016).

16. The DNR addresses requests to “correct errors in the original inventory” on a case-by-case basis. In undertaking its case-by-case analysis, the DNR considers the history of the water feature at issue and whether the watercourse in question meets the statutory definition of “public waters” set forth in Minnesota Statutes Section 103G.005, subd. 15 (2016).

D. The Subject Watercourses Should Be Removed from the PWI

17. The PWI process of designating public waters for inclusion on PWI lists and PWI maps mistakenly identified the subject watercourses identified in Exhibit A as part of public ditch systems. The subject watercourses were identified as public waters that were part of a public ditch system and were depicted by heavy dashed lines on the PWI maps. The subject watercourses are a subset of all watercourses shown on the PWI map as heavy dashed lines.

18. Although depicted as heavy dashed lines on the PWI maps, the subject watercourses were not listed in the PWI lists provided to counties for comment or in the PWI lists published for comment in official county newspapers. Accordingly, proper notification that the subject watercourses were intended to be designated as public waters was not provided to counties or adjacent landowners such that they would have had sufficient notice to allow them to contest the inclusion of these watercourses in the PWI.

19. The failure to include the subject watercourses in the relevant PWI lists that were circulated and published for comment constitutes as an error in the original inventory within the meaning of Minnesota Statutes Section 103G.201(e)(2)(i) (2016).

20. Because proper notice of the inclusion of the subject watercourses in the PWI lists was not provided as required by Chapter 199 of 1979 Minnesota Laws, the subject watercourses should be **removed** from the PWI.

21. The DNR may review the subject watercourses for possible inclusion in the PWI in the future, subject to requisite public comment opportunity prior to any additions to the PWI.

ORDER

Based upon the foregoing Findings of Fact and Conclusions contained herein and records before the agency, the DNR directs the following revisions to the relevant PWI maps in order to correct errors in the original inventory process:

1. The subject watercourses identified in Exhibit A are removed from the county PWI maps.
2. The subject watercourses identified in Exhibit A are removed from the buffer protection map.
3. Notice of any revision to the county PWI maps resulting from this Order shall be sent to the auditor of each affected county in accordance with Minnesota Statutes Section 103G.201(a) (2016).

APPEAL

The foregoing constitutes a final Order of the Commissioner and is subject to review by certiorari in accordance with the procedures of Minnesota Statutes chapter 606.

Approved and adopted this 13th day of April 2017.

STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES



Luke Skinner
Director, Division of Ecological and Water Resources

Appendix A: Watercourses to be removed from the Public Waters Inventory Map

County	Start Point			End Point			Segment Length (mi)
	UTM X	UTM Y	TWN-RNG-SEC	UTM X	UTM Y	TWN-RNG-SEC	
Aitkin	484092.6	5130054.6	T:44 R:23 S:2	484430.6	5129857.1	T:44 R:23 S:2	0.30
Aitkin	483738.0	5131878.7	T:45 R:23 S:35	484238.0	5132045.0	T:45 R:23 S:35	0.45
Aitkin	442244.2	5157019.5	T:47 R:27 S:9	442533.5	5158449.4	T:47 R:27 S:4	1.97
Aitkin	454210.7	5142464.9	T:46 R:26 S:26	452634.7	5141987.4	T:46 R:26 S:34	1.16
Aitkin	443214.2	5199097.9	T:52 R:27 S:34	442429.5	5199811.9	T:52 R:27 S:34	0.66
Aitkin	458298.4	5192707.4	T:51 R:25 S:20	457633.0	5192978.6	T:51 R:25 S:19	0.47
Aitkin	454806.6	5175702.8	T:49 R:26 S:14	454763.0	5174797.9	T:49 R:26 S:14	0.70
Aitkin	441759.6	5199779.5	T:52 R:27 S:33	442040.8	5200353.2	T:52 R:27 S:34	0.44
Aitkin	454114.9	5196181.2	T:51 R:26 S:11	453250.7	5194554.6	T:51 R:26 S:14	2.62
Aitkin	457363.1	5199435.9	T:52 R:25 S:31	457358.6	5198918.1	T:51 R:25 S:6	0.32
Aitkin	464275.6	5173185.0	T:49 R:25 S:23	464871.5	5173368.7	T:49 R:25 S:24	0.46
Aitkin	489960.6	5163268.0	T:48 R:22 S:28	490711.4	5162969.0	T:48 R:22 S:27	0.55
Aitkin	486368.0	5162965.8	T:48 R:22 S:30	487522.4	5161253.4	T:48 R:22 S:32	1.37
Aitkin	490282.0	5163279.0	T:48 R:22 S:22	490648.2	5163339.4	T:48 R:22 S:22	0.23
Aitkin	473708.2	5194520.0	T:51 R:24 S:14	471680.4	5196486.8	T:51 R:24 S:10	1.97
Aitkin	474394.9	5203593.0	T:52 R:24 S:13	473670.0	5203910.0	T:52 R:24 S:14	0.54
Becker	265691.9	5209797.6	T:141 R:43 S:25	266732.2	5207256.5	T:141 R:43 S:36	1.97
Becker	266516.4	5213725.5	T:141 R:43 S:12	265708.1	5210599.1	T:141 R:43 S:24	2.26
Becker	266259.1	5209278.3	T:141 R:43 S:25	266233.1	5209697.4	T:141 R:43 S:25	0.27
Becker	267879.4	5199492.8	T:140 R:43 S:25	266848.8	5198130.1	T:140 R:43 S:36	1.31
Becker	275572.4	5193383.1	T:139 R:42 S:14	275630.6	5192898.9	T:139 R:42 S:14	0.35
Becker	273656.2	5208753.8	T:141 R:42 S:27	273265.7	5208602.9	T:141 R:42 S:27	0.33
Becker	275435.5	5195921.9	T:139 R:42 S:2	275691.8	5195669.3	T:139 R:42 S:2	0.25
Becker	275898.2	5178767.4	T:138 R:42 S:36	275338.7	5178956.6	T:138 R:42 S:36	0.40
Becker	271292.7	5183683.0	T:138 R:42 S:16	271016.2	5183775.5	T:138 R:42 S:16	0.19
Becker	305790.7	5176747.7	T:138 R:38 S:31	306283.9	5179627.4	T:138 R:38 S:30	2.77
Becker	304385.1	5177880.2	T:138 R:39 S:36	302044.9	5184670.4	T:138 R:39 S:10	5.79
Becker	304861.3	5177989.8	T:138 R:39 S:36	305743.4	5178342.7	T:138 R:38 S:31	0.79
Becker	304433.7	5177866.4	T:138 R:39 S:36	304385.1	5177880.2	T:138 R:39 S:36	0.03
Beltrami	318610.7	5367472.5	T:157 R:37 S:7	318625.6	5367457.0	T:157 R:37 S:7	0.02
Beltrami	318553.9	5367541.5	T:157 R:37 S:7	318575.7	5367519.1	T:157 R:37 S:7	0.03
Beltrami	318261.5	5367934.3	T:157 R:37 S:6	318453.3	5367712.2	T:157 R:37 S:7	0.29
Beltrami	387971.2	5324120.0	T:153 R:30 S:21	388874.5	5324149.0	T:153 R:30 S:21	0.85
Beltrami	385515.0	5323765.0	T:153 R:30 S:19	385853.7	5322110.2	T:153 R:30 S:30	1.26
Beltrami	388874.5	5324149.0	T:153 R:30 S:21	389210.8	5324267.9	T:153 R:30 S:22	0.26
Benton	433961.5	5049276.2	T:36 R:28 S:20	435917.2	5049841.4	T:36 R:28 S:21	1.35
Benton	415750.4	5068090.3	T:38 R:30 S:28	416117.9	5067782.5	T:38 R:30 S:28	0.42

County	Start Point			End Point			Segment Length (mi)
	UTM X	UTM Y	TWN-RNG-SEC	UTM X	UTM Y	TWN-RNG-SEC	
Big Stone	230351.1	5048981.6	T:124 R:46 S:20	230411.0	5047479.9	T:124 R:46 S:28	1.24
Big Stone	245760.5	5053167.9	T:125 R:45 S:36	245532.4	5051580.4	T:124 R:45 S:1	1.30
Big Stone	245676.1	5050096.9	T:124 R:45 S:12	246281.9	5049016.6	T:124 R:45 S:13	0.78
Big Stone	245380.4	5038563.1	T:123 R:45 S:24	245410.1	5038762.4	T:123 R:45 S:13	0.18
Big Stone	245525.4	5038184.4	T:123 R:45 S:24	245377.7	5038515.0	T:123 R:45 S:24	0.25
Big Stone	241952.2	5028917.1	T:122 R:45 S:22	242377.0	5028973.0	T:122 R:45 S:22	0.37
Big Stone	240931.6	5028668.4	T:122 R:45 S:21	241249.4	5028872.5	T:122 R:45 S:21	0.44
Big Stone	239346.4	5038132.3	T:123 R:45 S:20	238588.2	5039858.1	T:123 R:45 S:17	1.42
Big Stone	239346.4	5038132.3	T:123 R:45 S:20	242362.0	5040522.0	T:123 R:45 S:10	2.96
Big Stone	209364.6	5046348.4	T:124 R:48 S:31	210068.3	5046248.1	T:124 R:48 S:32	0.50
Big Stone	216579.4	5050798.3	T:124 R:48 S:13	217666.1	5050684.5	T:124 R:48 S:13	0.69
Blue Earth	424192.6	4897823.6	T:109 R:26 S:21	425070.9	4898605.7	T:109 R:26 S:22	1.41
Blue Earth	424904.6	4881219.9	T:107 R:26 S:10	425044.7	4880390.0	T:107 R:26 S:15	0.89
Blue Earth	429217.1	4877926.0	T:107 R:25 S:30	429376.3	4877788.5	T:107 R:25 S:30	0.14
Blue Earth	435600.0	4879651.4	T:107 R:25 S:14	437015.9	4880137.5	T:107 R:25 S:13	1.84
Blue Earth	398751.5	4860175.3	T:105 R:29 S:24	398345.8	4859529.5	T:105 R:29 S:24	0.62
Blue Earth	396514.2	4861469.7	T:105 R:29 S:14	393228.1	4858474.1	T:105 R:29 S:29	3.94
Blue Earth	390509.2	4888369.4	T:108 R:29 S:19	390508.8	4888369.5	T:108 R:30 S:24	0.00
Brown	373209.2	4886368.4	T:108 R:31 S:32	373205.1	4886789.9	T:108 R:31 S:32	0.26
Brown	390508.8	4888369.5	T:108 R:30 S:24	388095.0	4887086.0	T:108 R:30 S:26	2.06
Brown	383531.0	4898214.9	T:109 R:30 S:20	382387.3	4897429.4	T:109 R:30 S:30	1.16
Brown	376728.2	4896004.1	T:109 R:31 S:34	376270.4	4896028.0	T:109 R:31 S:34	0.35
Brown	364876.8	4903501.5	T:109 R:32 S:4	362098.7	4904579.0	T:109 R:32 S:6	2.13
Brown	345909.8	4905023.4	T:110 R:34 S:33	345466.0	4904893.2	T:109 R:34 S:4	0.35
Brown	352115.1	4899180.1	T:109 R:33 S:19	349392.3	4900481.7	T:109 R:34 S:13	2.02
Brown	342412.1	4897656.4	T:109 R:34 S:30	344491.0	4896685.9	T:109 R:34 S:33	1.81
Carlton	513610.8	5159911.2	T:48 R:20 S:36	515717.3	5166604.7	T:48 R:19 S:7	8.75
Carlton	515836.0	5167104.1	T:48 R:19 S:7	516253.4	5167965.8	T:48 R:19 S:6	0.65
Carlton	514762.2	5164339.8	T:48 R:19 S:19	514803.5	5164360.1	T:48 R:19 S:19	0.04
Carlton	515802.2	5165400.5	T:48 R:19 S:18	515779.8	5165434.4	T:48 R:19 S:18	0.03
Carlton	515758.1	5165468.9	T:48 R:19 S:18	515671.6	5165604.2	T:48 R:19 S:18	0.16
Carlton	524802.0	5178194.5	T:49 R:18 S:6	524334.0	5172326.0	T:49 R:19 S:25	4.23
Carlton	523228.8	5177218.6	T:49 R:19 S:12	520359.4	5179139.3	T:49 R:19 S:3	2.36
Carlton	523233.8	5177218.4	T:49 R:19 S:12	523232.0	5177218.5	T:49 R:19 S:12	0.00
Carlton	523363.6	5177179.7	T:49 R:19 S:12	523318.4	5177183.7	T:49 R:19 S:12	0.03
Carlton	524400.6	5177125.0	T:49 R:19 S:12	524071.2	5177119.3	T:49 R:19 S:12	0.21
Carlton	521904.4	5171120.1	T:49 R:19 S:35	520298.1	5170325.4	T:49 R:19 S:34	1.40
Carlton	522609.2	5171463.5	T:49 R:19 S:26	521928.8	5171132.7	T:49 R:19 S:35	0.47
Carlton	521690.2	5171009.9	T:49 R:19 S:35	521885.0	5169110.1	T:48 R:19 S:2	1.21
Carlton	521885.0	5169110.1	T:48 R:19 S:2	521912.9	5168516.6	T:48 R:19 S:2	0.39
Carlton	521918.2	5168517.3	T:48 R:19 S:2	521925.0	5168518.3	T:48 R:19 S:2	0.00
Carlton	520796.1	5170407.1	T:49 R:19 S:34	520755.4	5170361.6	T:49 R:19 S:34	0.04

	Start Point			End Point			
County	UTM X	UTM Y	TWN-RNG-SEC	UTM X	UTM Y	TWN-RNG-SEC	Segment Length (mi)
Carver	438706.5	4963698.0	T:116 R:25 S:25	436046.1	4966250.8	T:116 R:25 S:22	4.39
Carver	439495.6	4964674.1	T:116 R:24 S:19	440384.8	4965307.4	T:116 R:24 S:19	0.96
Carver	438654.1	4960673.3	T:115 R:25 S:1	438119.0	4958384.7	T:115 R:25 S:12	2.03
Carver	436316.4	4957866.0	T:115 R:25 S:14	436013.7	4958045.5	T:115 R:25 S:15	0.22
Carver	437234.5	4958022.5	T:115 R:25 S:14	437225.8	4958000.2	T:115 R:25 S:14	0.01
Carver	431132.6	4953509.2	T:115 R:25 S:29	430966.6	4953456.9	T:115 R:25 S:31	0.12
Carver	430820.4	4949717.0	T:114 R:25 S:7	430688.5	4949479.6	T:114 R:25 S:7	0.18
Carver	424369.8	4956418.5	T:115 R:26 S:21	423987.8	4956824.0	T:115 R:26 S:21	0.39
Carver	430215.6	4957257.3	T:115 R:25 S:18	430391.9	4956745.4	T:115 R:25 S:18	0.44
Carver	428217.2	4978564.9	T:117 R:26 S:11	427798.6	4978428.8	T:117 R:26 S:11	0.29
Carver	432983.9	4969406.5	T:116 R:25 S:9	432991.4	4969323.9	T:116 R:25 S:9	0.05
Carver	433212.7	4968082.0	T:116 R:25 S:9	433968.6	4966691.5	T:116 R:25 S:16	1.16
Cass	372806.6	5137955.5	T:134 R:32 S:36	372046.5	5139459.6	T:134 R:32 S:25	1.31
Cass	365931.9	5159119.3	T:136 R:32 S:20	368577.5	5163710.7	T:136 R:32 S:10	3.81
Cass	368577.5	5163710.7	T:136 R:32 S:10	369971.6	5165048.2	T:136 R:32 S:3	1.38
Cass	397071.4	5168010.5	T:137 R:29 S:28	396566.1	5168205.3	T:137 R:29 S:28	0.35
Cass	380287.4	5178899.2	T:138 R:31 S:23	380657.3	5180842.1	T:138 R:31 S:14	1.48
Cass	368975.0	5134363.7	T:133 R:32 S:10	368958.1	5134347.5	T:133 R:32 S:10	0.01
Chippewa	321914.5	4983831.6	T:118 R:37 S:36	321176.7	4984419.7	T:118 R:37 S:36	0.66
Chippewa	280251.5	4989393.8	T:118 R:41 S:15	277420.5	4991514.6	T:118 R:41 S:8	2.43
Chippewa	279978.5	4989430.1	T:118 R:41 S:15	280054.6	4989091.3	T:118 R:41 S:22	0.30
Chippewa	279585.9	4995808.2	T:119 R:41 S:28	279486.1	4995896.3	T:119 R:41 S:28	0.10
Chippewa	319038.7	4997666.7	T:119 R:37 S:15	319076.0	4997804.5	T:119 R:37 S:15	0.10
Chippewa	319973.8	4996014.9	T:119 R:37 S:23	321917.6	4997513.8	T:119 R:37 S:24	2.10
Chippewa	319072.0	4997813.3	T:119 R:37 S:15	319082.7	5000881.8	T:119 R:37 S:3	2.68
Chisago	505681.4	5041608.0	T:35 R:21 S:14	504962.1	5041623.1	T:35 R:21 S:14	0.64
Chisago	498256.5	5054094.3	T:36 R:21 S:6	494214.0	5053757.9	T:36 R:22 S:3	2.91
Chisago	505297.1	5051303.7	T:36 R:21 S:11	505500.6	5050500.0	T:36 R:21 S:14	0.71
Chisago	503103.5	5044876.7	T:36 R:21 S:34	502699.7	5044894.2	T:36 R:21 S:33	0.26
Clay	242751.1	5213378.6	T:141 R:45 S:15	249494.4	5214360.6	T:141 R:44 S:8	5.47
Clay	235570.3	5181185.5	T:138 R:46 S:35	235268.1	5181482.2	T:138 R:46 S:27	0.38
Clay	235268.1	5181482.2	T:138 R:46 S:27	234894.3	5182833.5	T:138 R:46 S:27	0.91
Clay	231101.5	5195255.3	T:139 R:46 S:18	231603.6	5195159.8	T:139 R:46 S:17	0.35
Cottonwood	321092.2	4872058.4	T:106 R:37 S:13	320604.3	4872054.8	T:106 R:37 S:13	0.31
Cottonwood	302240.5	4863008.3	T:105 R:38 S:18	302223.5	4863011.4	T:105 R:39 S:13	0.01
Cottonwood	337512.6	4881442.6	T:107 R:35 S:15	336632.4	4881507.8	T:107 R:35 S:16	0.85
Cottonwood	336160.2	4880976.0	T:107 R:35 S:21	336632.4	4881507.8	T:107 R:35 S:16	0.59
Cottonwood	314677.4	4877892.8	T:107 R:37 S:32	315196.3	4877260.6	T:107 R:37 S:32	0.60
Cottonwood	317141.2	4872745.5	T:106 R:37 S:15	317180.6	4872025.8	T:106 R:37 S:15	0.54
Cottonwood	306317.9	4885193.3	T:107 R:38 S:9	306170.9	4885388.6	T:107 R:38 S:4	0.25
Cottonwood	337420.0	4881530.6	T:107 R:35 S:15	337370.9	4881584.0	T:107 R:35 S:15	0.05
Crow Wing	431305.7	5131751.8	T:45 R:28 S:33	428583.5	5131145.2	T:44 R:28 S:6	2.24

County	Start Point			End Point			Segment Length (mi)
	UTM X	UTM Y	TWN-RNG-SEC	UTM X	UTM Y	TWN-RNG-SEC	
Crow Wing	402078.8	5125032.1	T:44 R:31 S:28	402968.3	5123594.9	T:44 R:31 S:28	1.22
Crow Wing	412273.0	5142719.2	T:46 R:30 S:28	411848.4	5142227.9	T:134 R:28 S:12	0.43
Crow Wing	420099.2	5135432.0	T:45 R:29 S:20	420337.4	5136108.4	T:45 R:29 S:20	0.45
Crow Wing	414300.8	5143621.7	T:46 R:30 S:27	413795.7	5144571.5	T:134 R:27 S:6	0.72
Crow Wing	413184.5	5144332.3	T:134 R:27 S:6	413154.4	5144331.8	T:134 R:27 S:6	0.02
Crow Wing	398061.4	5167267.0	T:137 R:29 S:27	397071.4	5168010.5	T:137 R:29 S:27	0.88
Crow Wing	434603.2	5156924.2	T:47 R:28 S:15	434618.0	5156630.2	T:47 R:28 S:14	0.18
Crow Wing	413810.5	5129280.3	T:44 R:30 S:10	413724.0	5128942.8	T:44 R:30 S:10	0.23
Crow Wing	414318.6	5128686.8	T:44 R:30 S:10	414581.7	5128676.0	T:44 R:30 S:10	0.16
Dodge	500596.2	4874423.5	T:107 R:18 S:33	500801.5	4874213.5	T:106 R:18 S:4	0.19
Dodge	497127.3	4873606.5	T:106 R:18 S:6	496347.2	4873729.6	T:106 R:18 S:6	0.52
Dodge	513712.4	4866733.5	T:106 R:17 S:26	512430.2	4866861.6	T:106 R:17 S:27	1.10
Douglas	296962.2	5088369.5	T:128 R:39 S:7	296971.3	5089034.0	T:128 R:39 S:6	0.82
Douglas	299835.2	5090039.1	T:129 R:39 S:34	301168.1	5090911.7	T:129 R:39 S:34	1.32
Douglas	298683.5	5090309.6	T:129 R:39 S:33	298723.1	5090308.1	T:129 R:39 S:33	0.02
Douglas	299170.0	5090213.2	T:129 R:39 S:33	299311.4	5090140.4	T:129 R:39 S:33	0.10
Douglas	297128.0	5089549.1	T:128 R:39 S:6	298192.0	5090040.5	T:129 R:39 S:33	0.85
Douglas	293083.2	5100750.3	T:130 R:40 S:35	293074.3	5101290.0	T:130 R:40 S:35	0.38
Douglas	304862.4	5105676.7	T:130 R:39 S:13	305044.7	5105533.9	T:130 R:39 S:13	0.31
Douglas	327468.4	5078077.1	T:127 R:36 S:4	328282.4	5079279.0	T:128 R:36 S:33	1.32
Douglas	322432.6	5086714.0	T:128 R:37 S:11	322839.9	5086819.8	T:128 R:37 S:12	0.26
Faribault	432278.6	4845679.6	T:104 R:25 S:33	436514.9	4840464.1	T:103 R:25 S:23	5.23
Faribault	433978.9	4845150.6	T:103 R:25 S:3	438168.5	4843797.1	T:103 R:25 S:12	2.99
Faribault	435197.3	4843555.1	T:103 R:25 S:11	438146.8	4841828.0	T:103 R:25 S:13	2.45
Faribault	441410.4	4849667.4	T:104 R:24 S:21	444621.5	4848552.3	T:104 R:24 S:27	2.52
Faribault	439291.1	4850124.8	T:104 R:24 S:19	440829.9	4849203.2	T:104 R:24 S:20	1.34
Faribault	409895.4	4835575.2	T:102 R:27 S:6	408441.6	4835352.2	T:102 R:28 S:1	1.56
Faribault	438637.7	4835287.4	T:102 R:24 S:6	440095.9	4836219.7	T:103 R:24 S:32	1.29
Faribault	414203.5	4830807.8	T:102 R:27 S:22	414979.4	4829927.6	T:102 R:27 S:22	1.36
Faribault	437344.2	4821967.6	T:101 R:25 S:13	437615.8	4816864.0	T:101 R:25 S:36	3.53
Faribault	443930.5	4841096.7	T:103 R:24 S:15	445094.9	4841494.9	T:103 R:24 S:14	0.85
Faribault	410044.1	4832595.5	T:102 R:27 S:18	404971.0	4830515.6	T:102 R:28 S:22	6.30
Faribault	407268.8	4831720.2	T:102 R:28 S:14	406896.2	4829869.9	T:102 R:28 S:23	2.14
Freeborn	481188.2	4841067.3	T:103 R:20 S:16	480995.2	4840491.3	T:103 R:20 S:16	0.51
Freeborn	480551.5	4849554.2	T:104 R:20 S:21	481560.3	4850065.1	T:104 R:20 S:21	0.87
Freeborn	477282.5	4844491.2	T:103 R:20 S:6	477348.0	4843951.9	T:103 R:20 S:6	0.38
Freeborn	471375.0	4817061.2	T:101 R:21 S:33	470998.5	4816997.4	T:101 R:21 S:33	0.25
Freeborn	479085.5	4824378.8	T:101 R:20 S:8	479508.5	4825176.4	T:101 R:20 S:5	0.97
Freeborn	470163.9	4843702.7	T:103 R:21 S:5	469885.0	4843979.3	T:103 R:21 S:5	0.30
Freeborn	469885.0	4843979.3	T:103 R:21 S:5	469250.2	4844302.0	T:103 R:21 S:5	0.85
Freeborn	465532.0	4832298.6	T:102 R:22 S:13	465420.0	4832070.6	T:102 R:22 S:14	0.16
Freeborn	478523.8	4855043.4	T:105 R:20 S:31	478528.1	4855023.5	T:104 R:20 S:5	0.01

County	Start Point			End Point			Segment Length (mi)
	UTM X	UTM Y	TWN-RNG-SEC	UTM X	UTM Y	TWN-RNG-SEC	
Goodhue	509568.2	4931373.3	T:112 R:17 S:5	509043.8	4931684.8	T:112 R:17 S:5	0.51
Grant	268773.3	5077341.1	T:127 R:42 S:17	271099.6	5075590.5	T:127 R:42 S:21	2.44
Grant	274782.4	5081316.7	T:128 R:42 S:36	275015.4	5081399.5	T:128 R:42 S:36	0.22
Grant	275259.6	5081671.0	T:128 R:42 S:36	276207.5	5081867.0	T:128 R:42 S:36	0.66
Grant	267932.5	5083398.2	T:128 R:42 S:30	268230.0	5083576.5	T:128 R:42 S:29	0.22
Grant	279686.0	5076840.1	T:127 R:41 S:16	279867.6	5076252.5	T:127 R:41 S:16	0.42
Hennepin	469844.4	4970655.0	T:116 R:21 S:6	468790.1	4971689.0	T:117 R:21 S:31	1.27
Hennepin	464444.8	4965153.8	T:116 R:22 S:22	464134.2	4967721.0	T:116 R:22 S:15	2.15
Hennepin	464853.1	4967231.0	T:116 R:22 S:15	465047.1	4967714.0	T:116 R:22 S:15	0.37
Hennepin	460481.5	4972619.0	T:117 R:22 S:32	460506.9	4973683.5	T:117 R:22 S:29	0.69
Hennepin	454597.6	4980046.5	T:117 R:23 S:3	455184.7	4980658.6	T:117 R:23 S:3	0.71
Hennepin	468207.6	4980773.1	T:118 R:22 S:36	467486.7	4982463.5	T:118 R:22 S:25	1.36
Hennepin	473318.7	4983414.8	T:29 R:24 S:18	472334.5	4983988.3	T:118 R:21 S:21	1.05
Hennepin	472048.0	4984308.4	T:118 R:21 S:21	471829.4	4984711.2	T:118 R:21 S:21	0.29
Hennepin	475375.0	4987868.3	T:118 R:21 S:11	474847.6	4987710.9	T:118 R:21 S:10	0.36
Hennepin	476705.2	4995084.9	T:119 R:21 S:13	471896.1	4995106.2	T:119 R:21 S:16	3.08
Hennepin	452593.4	4999892.2	T:119 R:23 S:4	452486.2	4999520.2	T:119 R:23 S:4	0.26
Hennepin	457190.6	4987590.8	T:118 R:23 S:11	457064.6	4987842.8	T:118 R:23 S:11	0.20
Hennepin	446913.1	4994904.5	T:119 R:24 S:23	447254.2	4995284.5	T:119 R:24 S:14	0.32
Hennepin	446878.5	4994775.0	T:119 R:24 S:23	446890.4	4994821.4	T:119 R:24 S:23	0.03
Isanti	484412.6	5055852.5	T:37 R:23 S:34	484935.6	5054960.1	T:37 R:23 S:34	0.87
Isanti	465296.1	5058003.4	T:37 R:25 S:22	466033.7	5060322.8	T:37 R:25 S:15	1.74
Isanti	465005.4	5057524.7	T:37 R:25 S:27	465017.6	5057528.1	T:37 R:25 S:27	0.01
Isanti	464741.9	5056288.7	T:37 R:25 S:33	464874.8	5057465.9	T:37 R:25 S:27	0.90
Isanti	485459.3	5060808.5	T:37 R:23 S:15	484991.3	5059746.2	T:37 R:23 S:15	0.78
Isanti	464748.7	5056285.0	T:37 R:25 S:33	464741.9	5056288.7	T:37 R:25 S:33	0.00
Jackson	350448.4	4834933.4	T:102 R:33 S:7	349604.1	4835423.5	T:102 R:34 S:12	1.00
Jackson	335983.5	4825109.5	T:101 R:35 S:10	334201.2	4829642.2	T:102 R:35 S:33	3.62
Jackson	335161.4	4828076.0	T:101 R:35 S:4	334463.3	4828453.9	T:102 R:35 S:33	0.58
Jackson	337413.5	4833366.7	T:102 R:35 S:15	334532.1	4832637.1	T:102 R:35 S:21	2.51
Jackson	336324.4	4838375.7	T:103 R:35 S:34	333601.4	4837917.2	T:103 R:35 S:32	2.97
Jackson	329069.5	4853970.1	T:104 R:36 S:14	328105.8	4853995.0	T:104 R:36 S:15	0.81
Jackson	329472.2	4850131.7	T:104 R:36 S:26	328162.2	4849943.6	T:104 R:36 S:27	1.25
Jackson	314952.5	4836322.1	T:102 R:37 S:8	314501.5	4836663.4	T:102 R:37 S:8	0.40
Jackson	324566.2	4833241.1	T:102 R:36 S:17	327847.4	4835632.3	T:102 R:36 S:10	3.63
Jackson	323454.4	4829779.9	T:102 R:36 S:32	326143.7	4831954.1	T:102 R:36 S:21	3.16
Jackson	317699.5	4827554.3	T:101 R:37 S:3	314721.4	4827132.8	T:101 R:37 S:4	3.07
Jackson	317362.6	4830752.7	T:102 R:37 S:27	314054.8	4830985.4	T:102 R:37 S:29	3.17
Jackson	308426.3	4835096.8	T:102 R:38 S:14	306386.7	4835232.0	T:102 R:38 S:16	1.37
Jackson	302410.1	4821255.0	T:101 R:38 S:30	301632.0	4821194.2	T:101 R:38 S:30	0.70
Jackson	309844.8	4822225.3	T:101 R:38 S:25	309805.3	4821278.4	T:101 R:38 S:25	1.03
Jackson	342566.1	4842021.5	T:103 R:34 S:20	341849.1	4841589.0	T:103 R:34 S:19	0.65

County	Start Point			End Point			Segment Length (mi)
	UTM X	UTM Y	TWN-RNG-SEC	UTM X	UTM Y	TWN-RNG-SEC	
Jackson	342409.2	4841742.4	T:103 R:34 S:19	342477.2	4837885.9	T:103 R:34 S:32	3.29
Jackson	342494.6	4838484.0	T:103 R:34 S:32	342469.8	4838484.7	T:103 R:34 S:32	0.02
Jackson	342698.9	4847636.9	T:104 R:34 S:32	337704.5	4847763.0	T:104 R:35 S:34	3.51
Jackson	340671.5	4850441.6	T:104 R:35 S:25	338587.6	4852215.7	T:104 R:35 S:14	3.03
Kandiyohi	325818.8	5001198.9	T:119 R:36 S:5	325536.0	5002119.5	T:119 R:36 S:5	0.70
Kandiyohi	329816.0	5011752.1	T:120 R:36 S:3	329716.3	5012009.0	T:121 R:36 S:35	0.19
Kandiyohi	328235.4	5014236.7	T:121 R:36 S:27	327939.3	5014322.2	T:121 R:36 S:27	0.24
Kandiyohi	323481.6	5029011.2	T:122 R:36 S:7	324491.8	5028441.8	T:122 R:36 S:7	0.88
Kandiyohi	346229.3	5026197.7	T:122 R:34 S:16	344748.6	5028009.8	T:122 R:34 S:8	2.44
Kittson	209810.7	5427427.6	T:163 R:49 S:23	209828.0	5427699.6	T:163 R:49 S:14	0.17
Kittson	209520.7	5421271.3	T:162 R:49 S:2	210220.6	5421237.6	T:162 R:49 S:1	0.44
Kittson	209455.1	5422406.3	T:162 R:49 S:2	210273.8	5422373.9	T:162 R:49 S:1	0.51
Kittson	210273.9	5422373.9	T:162 R:49 S:1	210355.1	5424037.5	T:163 R:49 S:36	1.03
Kittson	210047.4	5424484.1	T:163 R:49 S:26	210383.5	5425170.8	T:163 R:49 S:26	0.53
Kittson	216154.7	5411927.3	T:161 R:48 S:4	227418.0	5410907.8	T:161 R:47 S:3	8.21
Kittson	201551.1	5393393.7	T:159 R:50 S:1	201834.5	5392114.2	T:159 R:50 S:12	0.92
Kittson	216835.5	5401922.9	T:160 R:48 S:4	217077.5	5401581.5	T:160 R:48 S:4	0.32
Lac qui Parle	254548.4	5001407.6	T:119 R:44 S:13	254270.6	5001734.7	T:119 R:44 S:12	0.27
Lac qui Parle	241395.5	5001660.2	T:119 R:45 S:16	241390.8	5000837.0	T:119 R:45 S:16	0.65
Le Sueur	449816.5	4903535.6	T:110 R:23 S:31	448021.7	4903495.1	T:109 R:24 S:1	1.19
Le Sueur	454532.6	4912348.6	T:110 R:23 S:3	454319.2	4912045.1	T:110 R:23 S:3	0.29
Le Sueur	452120.0	4919548.7	T:111 R:23 S:16	451942.8	4918503.8	T:111 R:23 S:16	0.90
Le Sueur	444952.2	4930900.5	T:112 R:24 S:3	444909.7	4930526.9	T:112 R:24 S:10	0.27
Le Sueur	444243.1	4932498.2	T:113 R:24 S:34	443430.9	4930901.6	T:112 R:24 S:4	1.79
Le Sueur	456952.8	4921071.5	T:111 R:23 S:12	457351.8	4919638.4	T:111 R:23 S:12	1.66
Le Sueur	433632.2	4931409.0	T:112 R:25 S:4	433583.2	4932550.7	T:113 R:25 S:33	0.78
Le Sueur	438859.3	4915869.8	T:111 R:24 S:30	440167.6	4916434.4	T:111 R:24 S:30	1.64
Le Sueur	436459.9	4929526.2	T:112 R:25 S:11	440813.1	4926077.0	T:112 R:24 S:29	6.05
Le Sueur	437934.5	4923414.4	T:112 R:25 S:36	439400.2	4923037.7	T:112 R:24 S:31	1.21
Le Sueur	439025.3	4929213.0	T:112 R:24 S:18	439742.6	4929671.0	T:112 R:24 S:7	0.80
Le Sueur	436720.4	4916130.2	T:111 R:25 S:26	436958.0	4915516.2	T:111 R:25 S:26	0.56
Lincoln	242618.5	4923152.6	T:111 R:45 S:14	242709.4	4922739.2	T:111 R:45 S:23	0.67
Lincoln	249717.5	4922014.5	T:111 R:44 S:21	248348.6	4921868.3	T:111 R:44 S:21	0.87
Lincoln	239556.2	4926468.2	T:111 R:45 S:4	238530.7	4925080.7	T:111 R:45 S:8	1.29
Lincoln	238005.2	4924568.5	T:111 R:45 S:17	238001.2	4924556.2	T:111 R:45 S:17	0.01
Lincoln	236437.9	4937610.0	T:113 R:45 S:31	236595.8	4937380.3	T:112 R:45 S:6	0.18
Lyon	269362.4	4898668.3	T:109 R:42 S:34	269439.5	4897724.8	T:109 R:42 S:34	1.25
Lyon	276070.3	4923144.3	T:111 R:41 S:17	275824.9	4923232.1	T:111 R:41 S:17	0.17
Lyon	263922.1	4904407.6	T:109 R:42 S:7	263818.2	4904402.6	T:109 R:43 S:12	0.06
Lyon	263818.2	4904402.6	T:109 R:43 S:12	263813.1	4904402.6	T:109 R:43 S:12	0.00
Lyon	263818.2	4904402.6	T:109 R:43 S:12	262969.8	4904435.8	T:109 R:43 S:12	0.53
Mahnomen	274690.4	5253286.8	T:145 R:42 S:10	275143.2	5253664.8	T:145 R:42 S:10	0.37

County	Start Point			End Point			Segment Length (mi)
	UTM X	UTM Y	TWN-RNG-SEC	UTM X	UTM Y	TWN-RNG-SEC	
Marshall	265849.5	5369526.9	T:157 R:43 S:11	266687.9	5369786.0	T:157 R:43 S:11	0.62
Marshall	266687.9	5369786.0	T:157 R:43 S:11	268937.5	5368518.6	T:157 R:43 S:12	2.85
Marshall	243046.3	5341437.9	T:154 R:45 S:9	243865.7	5341459.6	T:154 R:45 S:9	0.52
Marshall	295071.4	5357096.6	T:156 R:40 S:15	307667.0	5352614.5	T:156 R:39 S:25	11.54
Marshall	293376.9	5373058.7	T:158 R:40 S:27	303423.5	5369990.5	T:158 R:39 S:34	7.76
Marshall	290612.5	5373661.3	T:158 R:40 S:29	293379.3	5373370.8	T:158 R:40 S:27	2.12
Marshall	306360.3	5369087.9	T:157 R:39 S:1	307598.1	5369129.2	T:157 R:39 S:1	0.81
Marshall	306360.3	5369087.9	T:157 R:39 S:1	306413.2	5369045.5	T:157 R:39 S:1	0.04
Martin	357836.4	4821996.1	T:101 R:33 S:23	351888.0	4826937.3	T:101 R:33 S:5	6.13
Martin	387385.0	4855944.9	T:104 R:30 S:2	386809.4	4853381.5	T:104 R:30 S:11	2.80
Martin	379964.8	4856082.9	T:104 R:31 S:1	377615.4	4855438.8	T:104 R:31 S:2	1.75
Martin	376978.8	4855610.3	T:104 R:31 S:2	373581.3	4853530.3	T:104 R:31 S:9	3.02
Martin	376735.1	4855316.1	T:104 R:31 S:3	371941.7	4852362.7	T:104 R:31 S:17	5.11
Martin	375114.7	4848172.0	T:104 R:31 S:27	373781.8	4848146.8	T:104 R:31 S:28	0.94
Martin	390396.3	4834454.8	T:102 R:29 S:7	390169.1	4834036.3	T:102 R:29 S:7	0.32
Martin	390104.8	4833835.8	T:102 R:29 S:7	390092.8	4833792.9	T:102 R:29 S:7	0.03
Martin	390960.6	4834808.7	T:102 R:29 S:7	390643.9	4834536.4	T:102 R:29 S:7	0.33
Martin	373755.5	4840073.7	T:103 R:31 S:21	373315.0	4839276.2	T:103 R:31 S:28	0.64
Martin	379785.1	4831242.4	T:102 R:30 S:19	378424.9	4831381.0	T:102 R:31 S:24	2.30
Martin	389402.1	4820219.5	T:101 R:30 S:25	388669.7	4819792.5	T:101 R:30 S:25	0.80
McLeod	400333.1	4944273.1	T:114 R:29 S:25	397854.3	4943044.1	T:114 R:29 S:35	2.52
McLeod	407702.3	4962704.9	T:116 R:28 S:35	404073.0	4960143.0	T:115 R:28 S:8	5.75
McLeod	409718.4	4980354.2	T:117 R:28 S:1	408372.6	4979247.6	T:117 R:28 S:11	1.39
McLeod	419740.4	4978038.3	T:117 R:27 S:12	419097.5	4978553.2	T:117 R:27 S:12	0.63
McLeod	408372.6	4979247.6	T:117 R:28 S:11	405733.0	4979184.5	T:117 R:28 S:10	1.83
McLeod	403959.1	4966210.5	T:116 R:28 S:20	402602.3	4967354.3	T:116 R:28 S:17	1.36
McLeod	385312.2	4970410.9	T:116 R:30 S:9	385097.9	4970268.6	T:116 R:30 S:9	0.16
Meeker	373898.1	4976829.4	T:117 R:31 S:20	373376.7	4976576.3	T:117 R:31 S:20	0.41
Meeker	363607.2	4972436.9	T:117 R:32 S:32	362818.0	4972455.4	T:117 R:32 S:32	0.49
Meeker	399645.3	4983478.2	T:118 R:29 S:25	398953.3	4983196.5	T:118 R:29 S:26	0.58
Meeker	362179.7	4997193.3	T:119 R:32 S:18	362125.5	4998262.0	T:119 R:32 S:18	0.79
Meeker	369157.1	5008368.6	T:120 R:32 S:11	367807.3	5006152.4	T:120 R:32 S:15	1.97
Meeker	362598.4	5001467.3	T:120 R:32 S:31	361860.5	4999859.1	T:119 R:32 S:7	1.17
Meeker	389956.6	5018734.5	T:121 R:30 S:2	389634.0	5018499.7	T:121 R:30 S:11	0.27
Mille Lacs	460101.7	5059554.4	T:37 R:26 S:24	460136.0	5060983.2	T:37 R:26 S:13	0.89
Mille Lacs	455964.2	5067687.0	T:38 R:26 S:27	456290.0	5069552.9	T:38 R:26 S:22	1.38
Mille Lacs	451880.7	5062166.5	T:37 R:26 S:7	449662.6	5062950.2	T:37 R:27 S:12	1.93
Mille Lacs	447936.8	5068192.0	T:38 R:27 S:23	447252.0	5067814.6	T:38 R:27 S:26	0.53
Morrison	407460.2	5078681.3	T:39 R:31 S:22	407152.7	5080005.9	T:39 R:31 S:15	0.89
Morrison	392477.9	5120428.6	T:132 R:30 S:24	391178.5	5121521.9	T:132 R:30 S:13	1.17
Morrison	392895.8	5121387.6	T:132 R:29 S:19	392701.8	5123140.9	T:132 R:30 S:12	1.23
Mower	501631.2	4819082.1	T:101 R:18 S:27	502045.5	4819232.1	T:101 R:18 S:27	0.29

County	Start Point			End Point			Segment Length (mi)
	UTM X	UTM Y	TWN-RNG-SEC	UTM X	UTM Y	TWN-RNG-SEC	
Mower	498697.2	4823839.2	T:101 R:18 S:8	496973.6	4824894.8	T:101 R:18 S:6	1.40
Mower	496956.3	4840078.4	T:103 R:18 S:19	496042.2	4841092.6	T:103 R:18 S:18	0.97
Mower	503147.0	4840241.3	T:103 R:18 S:23	501313.3	4841303.5	T:103 R:18 S:15	1.75
Mower	521790.3	4842826.3	T:103 R:16 S:11	521555.3	4842540.9	T:103 R:16 S:10	0.26
Murray	296490.4	4858101.5	T:105 R:39 S:33	294256.1	4860262.2	T:105 R:39 S:29	2.64
Murray	294079.9	4860444.3	T:105 R:39 S:30	294512.4	4862425.4	T:105 R:39 S:20	1.69
Murray	294240.0	4860259.7	T:105 R:39 S:29	294079.9	4860444.3	T:105 R:39 S:30	0.19
Murray	302223.5	4863011.4	T:105 R:39 S:13	300638.3	4864240.8	T:105 R:39 S:13	1.29
Murray	290505.3	4884091.1	T:107 R:40 S:14	288966.9	4885257.2	T:107 R:40 S:10	1.41
Murray	291824.9	4883181.2	T:107 R:40 S:13	291855.6	4883284.6	T:107 R:40 S:13	0.07
Murray	293408.5	4882083.9	T:107 R:39 S:19	293033.4	4882677.5	T:107 R:40 S:13	0.54
Murray	291578.9	4882661.8	T:107 R:40 S:13	291564.4	4882665.1	T:107 R:40 S:14	0.01
Murray	293879.8	4881170.6	T:107 R:39 S:19	293781.8	4881193.1	T:107 R:39 S:19	0.06
Murray	294339.8	4880863.1	T:107 R:39 S:19	294335.3	4880893.5	T:107 R:39 S:19	0.02
Murray	294407.2	4880712.5	T:107 R:39 S:30	294361.9	4880755.3	T:107 R:39 S:19	0.04
Murray	294714.0	4880555.8	T:107 R:39 S:29	294682.3	4880566.1	T:107 R:39 S:30	0.02
Murray	296023.1	4878378.4	T:107 R:39 S:32	295237.2	4880100.6	T:107 R:39 S:29	1.43
Murray	260689.0	4886782.6	T:107 R:43 S:10	260486.1	4887152.4	T:107 R:43 S:3	0.31
Murray	271593.3	4878309.6	T:107 R:42 S:35	270431.1	4877918.3	T:106 R:42 S:3	0.80
Murray	273585.0	4874781.5	T:106 R:42 S:13	272480.9	4873435.9	T:106 R:42 S:13	1.54
Murray	265497.6	4873706.6	T:106 R:42 S:18	265928.6	4873671.6	T:106 R:42 S:20	0.28
Murray	266049.7	4873245.9	T:106 R:42 S:20	268267.1	4872238.8	T:106 R:42 S:21	2.69
Murray	268678.2	4872020.6	T:106 R:42 S:22	269137.1	4871131.4	T:106 R:42 S:27	0.73
Murray	260538.3	4876776.0	T:106 R:43 S:10	259180.2	4877123.6	T:106 R:43 S:10	1.79
Murray	259165.4	4877123.4	T:106 R:43 S:9	256115.8	4881117.0	T:107 R:43 S:29	4.35
Murray	268935.5	4897584.8	T:108 R:42 S:4	268217.8	4896080.6	T:108 R:42 S:9	1.67
Murray	268209.7	4896077.7	T:108 R:42 S:9	267037.9	4894217.3	T:108 R:42 S:17	2.51
Murray	266954.8	4891592.7	T:108 R:42 S:20	266144.4	4891542.5	T:108 R:42 S:20	0.72
Murray	297990.8	4882329.1	T:107 R:39 S:15	297057.5	4883874.9	T:107 R:39 S:9	1.23
Murray	300157.4	4880534.1	T:107 R:39 S:26	299854.8	4880599.7	T:107 R:39 S:23	0.22
Murray	291937.2	4893721.3	T:108 R:40 S:12	291340.6	4893242.5	T:108 R:40 S:14	0.52
Murray	256418.2	4892480.0	T:108 R:43 S:19	254973.5	4892907.8	T:108 R:43 S:19	1.01
Nicollet	419593.4	4913533.5	T:111 R:26 S:31	418781.1	4913593.2	T:111 R:27 S:36	1.03
Nicollet	398845.9	4899215.8	T:109 R:29 S:24	400027.3	4900291.7	T:109 R:29 S:13	1.73
Nobles	296534.4	4857390.6	T:104 R:39 S:4	296490.4	4858101.5	T:105 R:39 S:33	0.57
Nobles	282582.5	4854747.4	T:104 R:41 S:13	282303.4	4853791.9	T:104 R:41 S:13	0.71
Nobles	288895.8	4840712.9	T:103 R:40 S:27	288691.8	4841497.4	T:103 R:40 S:27	0.64
Nobles	287861.2	4843104.9	T:103 R:40 S:21	286264.3	4844257.6	T:103 R:40 S:17	1.41
Nobles	287693.0	4843102.8	T:103 R:40 S:21	287058.1	4842990.9	T:103 R:40 S:21	0.45
Nobles	287050.5	4843001.5	T:103 R:40 S:21	284585.4	4841998.5	T:103 R:40 S:29	1.84
Nobles	288865.3	4833320.6	T:102 R:40 S:22	289174.1	4834263.1	T:102 R:40 S:14	0.62
Nobles	290398.4	4832485.9	T:102 R:40 S:26	290217.7	4832509.2	T:102 R:40 S:26	0.11

County	Start Point			End Point			Segment Length (mi)
	UTM X	UTM Y	TWN-RNG-SEC	UTM X	UTM Y	TWN-RNG-SEC	
Nobles	289174.1	4834263.1	T:102 R:40 S:14	289179.1	4834509.2	T:102 R:40 S:14	0.15
Nobles	282451.1	4822720.8	T:101 R:40 S:30	282398.3	4823066.2	T:101 R:40 S:30	0.22
Nobles	280318.8	4821674.3	T:101 R:41 S:26	279788.6	4821808.5	T:101 R:41 S:26	0.35
Nobles	279788.6	4821808.5	T:101 R:41 S:26	279071.4	4821742.5	T:101 R:41 S:26	0.46
Nobles	276391.1	4838667.7	T:102 R:41 S:5	276218.8	4839017.0	T:102 R:41 S:5	0.30
Norman	262890.3	5265498.4	T:147 R:43 S:33	263198.0	5263844.2	T:146 R:43 S:4	1.10
Norman	236093.2	5250482.2	T:145 R:46 S:23	241713.1	5247434.2	T:145 R:45 S:32	4.63
Norman	243351.1	5250945.0	T:145 R:45 S:21	243494.3	5251743.9	T:145 R:45 S:16	0.92
Norman	242643.7	5250230.2	T:145 R:45 S:21	243089.1	5250145.8	T:145 R:45 S:28	0.76
Norman	239319.1	5250705.5	T:145 R:46 S:24	237027.8	5251223.2	T:145 R:46 S:23	1.61
Norman	252435.9	5257881.7	T:146 R:44 S:32	253897.3	5258717.2	T:146 R:44 S:28	1.25
Norman	217835.4	5233266.5	T:143 R:48 S:23	218216.6	5233309.5	T:143 R:48 S:23	0.56
Norman	224588.8	5234768.5	T:143 R:47 S:16	225357.1	5234860.5	T:143 R:47 S:10	0.60
Norman	247314.6	5246386.1	T:144 R:45 S:2	248213.2	5248332.1	T:145 R:45 S:36	1.91
Norman	264093.3	5251821.9	T:145 R:43 S:15	265335.7	5254562.2	T:145 R:43 S:3	2.38
Norman	257147.1	5238369.3	T:144 R:44 S:25	257541.9	5234996.9	T:143 R:44 S:1	3.11
Norman	236096.2	5250570.7	T:145 R:46 S:23	236093.2	5250482.2	T:145 R:46 S:23	0.06
Otter Tail	249442.7	5144829.4	T:134 R:44 S:20	250149.9	5144254.4	T:134 R:44 S:20	0.64
Otter Tail	250282.6	5144011.7	T:134 R:44 S:20	250260.2	5144000.1	T:134 R:44 S:20	0.02
Otter Tail	250183.5	5143944.3	T:134 R:44 S:20	250179.1	5143931.2	T:134 R:44 S:20	0.01
Otter Tail	250950.4	5143150.1	T:134 R:44 S:29	251346.1	5143043.8	T:134 R:44 S:28	0.42
Otter Tail	316678.5	5165586.7	T:136 R:37 S:6	318796.2	5169864.6	T:137 R:37 S:28	4.21
Otter Tail	314275.4	5166566.8	T:136 R:38 S:1	312619.2	5170902.0	T:137 R:38 S:23	3.96
Otter Tail	317061.9	5168005.7	T:137 R:37 S:32	316874.0	5168371.2	T:137 R:37 S:31	0.27
Otter Tail	317702.8	5168449.9	T:137 R:37 S:29	317233.6	5169607.3	T:137 R:37 S:29	0.93
Otter Tail	326539.7	5109623.4	T:131 R:36 S:32	326683.9	5110026.6	T:131 R:36 S:29	0.28
Otter Tail	319001.5	5122024.1	T:132 R:37 S:21	318453.7	5122049.9	T:132 R:37 S:20	0.34
Otter Tail	327883.2	5140984.0	T:134 R:36 S:20	322924.4	5136042.0	T:133 R:37 S:2	5.54
Otter Tail	322295.7	5135062.7	T:133 R:37 S:11	322543.1	5134452.3	T:133 R:37 S:11	0.42
Otter Tail	322061.3	5134461.2	T:133 R:37 S:11	322079.5	5132870.1	T:133 R:37 S:14	1.07
Otter Tail	319770.0	5136923.5	T:133 R:37 S:4	319786.2	5136492.4	T:133 R:37 S:4	0.27
Otter Tail	312638.7	5136375.5	T:133 R:38 S:2	312377.0	5134762.9	T:133 R:38 S:11	1.57
Otter Tail	318246.3	5125907.3	T:132 R:37 S:8	317377.1	5124930.3	T:132 R:37 S:8	0.93
Pennington	243006.2	5340618.8	T:154 R:45 S:16	243054.9	5341441.1	T:154 R:45 S:9	0.51
Pennington	246027.0	5339920.0	T:154 R:45 S:15	242960.2	5339875.2	T:154 R:45 S:16	2.03
Pennington	250439.4	5320830.0	T:152 R:44 S:18	248392.9	5319356.8	T:152 R:45 S:13	2.22
Pennington	247475.0	5319729.1	T:152 R:45 S:14	247113.5	5321556.9	T:152 R:45 S:11	1.40
Pine	510132.5	5077467.8	T:39 R:20 S:20	512229.4	5080169.9	T:39 R:20 S:16	3.05
Pine	505555.3	5080883.1	T:39 R:21 S:11	505299.5	5083355.8	T:40 R:21 S:35	1.77
Pine	505572.3	5080813.0	T:39 R:21 S:11	505567.4	5080844.8	T:39 R:21 S:11	0.02
Pine	505583.7	5080701.8	T:39 R:21 S:11	505583.9	5080705.4	T:39 R:21 S:11	0.00
Pine	489940.9	5069883.2	T:38 R:22 S:18	488950.6	5065278.1	T:38 R:22 S:31	3.05

County	Start Point			End Point			Segment Length (mi)
	UTM X	UTM Y	TWN-RNG-SEC	UTM X	UTM Y	TWN-RNG-SEC	
Pine	499717.0	5109229.0	T:42 R:21 S:9	499873.7	5109321.6	T:42 R:21 S:9	0.12
Pine	500281.8	5111106.8	T:42 R:21 S:4	499873.7	5109321.6	T:42 R:21 S:9	1.53
Pine	510381.9	5101466.5	T:41 R:20 S:3	508672.2	5103550.2	T:42 R:20 S:32	2.64
Pine	516425.5	5120178.8	T:43 R:19 S:6	516737.4	5120704.8	T:43 R:19 S:6	0.43
Pine	506561.5	5137223.4	T:45 R:20 S:18	503718.8	5137903.6	T:45 R:21 S:11	2.52
Pine	516787.9	5104140.6	T:42 R:19 S:30	516869.7	5104449.5	T:42 R:19 S:29	0.21
Pine	519198.2	5119319.9	T:43 R:19 S:9	519996.5	5119581.5	T:43 R:19 S:9	0.53
Pine	518842.0	5094046.4	T:41 R:19 S:28	516845.3	5094237.5	T:41 R:19 S:29	1.54
Pine	518909.8	5094023.0	T:41 R:19 S:28	518842.0	5094046.4	T:41 R:19 S:28	0.05
Polk	195526.1	5334734.7	T:153 R:50 S:9	195434.0	5334205.1	T:153 R:50 S:9	0.39
Polk	211500.7	5311444.0	T:151 R:48 S:18	211834.5	5311473.5	T:151 R:48 S:18	0.23
Polk	240618.4	5287840.0	T:149 R:45 S:29	242014.5	5287916.8	T:149 R:45 S:29	0.89
Polk	228075.5	5302535.8	T:150 R:47 S:13	229712.7	5302778.1	T:150 R:47 S:12	1.20
Polk	282513.4	5270031.1	T:147 R:41 S:16	284429.9	5267878.8	T:147 R:41 S:22	2.14
Pope	322053.2	5065322.6	T:126 R:37 S:14	321971.1	5065852.1	T:126 R:37 S:14	0.34
Pope	304775.8	5067426.9	T:126 R:38 S:7	305989.0	5067638.0	T:126 R:38 S:7	1.09
Pope	308075.1	5069719.9	T:126 R:38 S:4	308521.3	5070262.8	T:127 R:38 S:33	0.63
Pope	304918.7	5067722.2	T:126 R:38 S:7	304754.7	5068990.1	T:126 R:39 S:1	1.17
Pope	331291.3	5062060.4	T:126 R:36 S:26	331490.0	5062483.6	T:126 R:36 S:26	0.33
Pope	331701.3	5058695.0	T:125 R:36 S:2	332555.2	5059836.6	T:125 R:36 S:1	0.91
Ramsey	495070.0	4990034.9	T:30 R:22 S:28	496572.8	4990713.7	T:30 R:22 S:22	1.13
Ramsey	493159.3	4988725.2	T:30 R:22 S:30	494400.5	4989042.5	T:30 R:22 S:29	1.07
Ramsey	496185.9	4985854.5	T:29 R:22 S:4	497271.5	4985811.6	T:29 R:22 S:3	0.90
Ramsey	496462.1	4986086.6	T:29 R:22 S:3	496392.8	4987504.6	T:30 R:22 S:34	1.05
Ramsey	484109.1	4996325.3	T:30 R:23 S:5	484225.4	4996222.1	T:30 R:23 S:5	0.10
Ramsey	500016.6	4993401.8	T:30 R:22 S:12	500151.0	4993281.6	T:30 R:22 S:13	0.13
Red Lake	272524.6	5312314.5	T:151 R:42 S:4	278469.5	5315359.2	T:152 R:42 S:25	9.93
Red Lake	260692.1	5303891.7	T:150 R:43 S:5	260768.3	5303707.5	T:150 R:43 S:5	0.14
Red Lake	268885.5	5303712.8	T:150 R:42 S:6	282885.9	5303206.0	T:150 R:41 S:3	20.65
Red Lake	281281.5	5302867.2	T:150 R:41 S:4	281275.6	5302694.1	T:150 R:41 S:4	0.11
Red Lake	287246.9	5300072.2	T:150 R:41 S:13	287642.0	5299784.3	T:150 R:41 S:13	0.31
Red Lake	268962.2	5303639.5	T:150 R:42 S:6	269113.0	5303444.7	T:150 R:42 S:6	0.17
Redwood	324503.2	4930439.7	T:112 R:36 S:17	324574.8	4931231.4	T:112 R:36 S:17	0.99
Redwood	317500.0	4910905.0	T:110 R:37 S:15	317332.3	4910658.0	T:110 R:37 S:21	0.21
Redwood	301767.8	4915776.7	T:110 R:39 S:1	302054.0	4914700.6	T:110 R:39 S:1	1.15
Redwood	301819.9	4916051.5	T:111 R:39 S:36	302006.5	4916448.3	T:111 R:39 S:36	0.65
Redwood	295455.3	4907054.1	T:110 R:39 S:32	295422.4	4906502.6	T:110 R:39 S:32	0.34
Redwood	297382.5	4908893.4	T:110 R:39 S:28	294599.8	4904798.9	T:109 R:39 S:8	4.15
Redwood	294464.8	4910975.6	T:110 R:39 S:19	294773.3	4910962.0	T:110 R:39 S:20	0.19
Redwood	293619.3	4908018.9	T:110 R:39 S:31	293108.2	4907487.7	T:110 R:39 S:31	0.60
Redwood	342044.1	4928342.3	T:112 R:34 S:19	341914.7	4928543.1	T:112 R:35 S:24	0.25
Redwood	316262.2	4928105.7	T:112 R:37 S:29	315861.9	4928239.1	T:112 R:37 S:29	0.31

County	Start Point			End Point			Segment Length (mi)
	UTM X	UTM Y	TWN-RNG-SEC	UTM X	UTM Y	TWN-RNG-SEC	
Redwood	324478.7	4942692.8	T:113 R:36 S:5	324211.4	4942930.1	T:113 R:36 S:5	0.35
Renville	362274.6	4925162.6	T:112 R:32 S:31	363575.0	4925147.0	T:112 R:32 S:32	0.99
Renville	343190.6	4940492.9	T:113 R:34 S:8	343170.6	4942368.5	T:113 R:34 S:6	2.60
Renville	334849.1	4956736.2	T:115 R:35 S:29	332431.4	4960092.5	T:115 R:36 S:12	3.65
Renville	342089.4	4951097.2	T:114 R:34 S:7	343484.7	4955144.9	T:115 R:34 S:30	3.25
Renville	334030.0	4942008.3	T:113 R:35 S:8	333964.7	4942210.1	T:113 R:35 S:8	0.16
Renville	321471.2	4953875.5	T:114 R:37 S:1	321205.3	4962281.9	T:115 R:37 S:2	6.12
Renville	305798.3	4963859.1	T:115 R:38 S:5	304610.4	4964429.2	T:116 R:38 S:31	1.04
Rice	496771.3	4908352.4	T:110 R:19 S:13	496283.7	4908578.9	T:110 R:19 S:13	0.40
Rice	494388.6	4916271.5	T:111 R:19 S:23	493770.7	4915041.1	T:111 R:19 S:26	0.96
Rice	465568.5	4919978.5	T:111 R:22 S:11	464169.9	4919882.7	T:111 R:22 S:10	0.98
Rice	475279.6	4904778.2	T:110 R:21 S:35	473267.8	4907775.3	T:110 R:21 S:22	3.40
Rice	462771.2	4927371.9	T:112 R:22 S:21	464775.9	4926845.0	T:112 R:22 S:22	1.64
Roseau	337882.1	5416954.6	T:162 R:35 S:6	337740.4	5411993.5	T:162 R:35 S:19	3.10
Roseau	277531.0	5408636.4	T:161 R:42 S:1	274873.1	5411415.1	T:162 R:42 S:34	3.10
Roseau	299817.3	5418708.8	T:162 R:39 S:6	300038.5	5418274.4	T:162 R:39 S:6	0.36
Roseau	278091.5	5403639.3	T:161 R:42 S:25	278912.3	5404501.4	T:161 R:42 S:24	1.00
Roseau	274422.5	5411964.5	T:162 R:42 S:28	274441.5	5411919.7	T:162 R:42 S:27	0.03
Scott	471512.7	4946872.5	T:114 R:21 S:17	471319.1	4946600.0	T:114 R:21 S:20	0.21
Scott	460947.0	4948691.7	T:114 R:22 S:8	460856.9	4948521.0	T:114 R:22 S:17	0.12
Scott	451025.5	4951666.0	T:114 R:23 S:5	451730.3	4951547.0	T:114 R:23 S:5	0.83
Scott	457127.0	4951079.2	T:114 R:23 S:2	459457.5	4952298.5	T:115 R:22 S:31	2.89
Scott	457529.6	4950740.5	T:114 R:23 S:1	458734.7	4949741.0	T:114 R:22 S:7	1.25
Scott	466171.1	4940897.5	T:113 R:22 S:2	466477.7	4940949.4	T:113 R:22 S:2	0.21
Scott	444254.8	4932512.7	T:113 R:24 S:34	444243.1	4932498.2	T:113 R:24 S:34	0.01
Scott	441500.9	4935648.5	T:113 R:24 S:29	441057.9	4933983.7	T:113 R:24 S:32	1.13
Scott	447542.8	4935552.1	T:113 R:24 S:24	449517.0	4933440.7	T:113 R:23 S:31	2.45
Scott	456322.4	4936207.9	T:113 R:23 S:23	456286.8	4936033.4	T:113 R:23 S:23	0.14
Scott	462408.2	4933103.5	T:113 R:22 S:33	462548.8	4932931.6	T:113 R:22 S:33	0.14
Scott	433583.2	4932550.7	T:113 R:25 S:33	433584.6	4932551.2	T:113 R:25 S:33	0.00
Sherburne	448191.9	5021371.1	T:33 R:27 S:14	452017.6	5025367.3	T:33 R:26 S:6	4.29
Sherburne	454607.3	5028199.3	T:34 R:26 S:28	454775.8	5029306.4	T:34 R:26 S:21	0.84
Sherburne	454830.6	5029202.4	T:34 R:26 S:21	454816.3	5029581.4	T:34 R:26 S:21	0.25
Sherburne	454650.3	5029581.0	T:34 R:26 S:21	454816.3	5029581.4	T:34 R:26 S:21	0.10
Sherburne	447782.9	5035681.8	T:35 R:27 S:35	446782.0	5034807.7	T:34 R:27 S:3	0.86
Sherburne	446321.7	5034575.5	T:34 R:27 S:3	446411.1	5035324.0	T:34 R:27 S:3	0.53
Sibley	413262.2	4935223.7	T:113 R:27 S:28	410077.7	4935678.5	T:113 R:27 S:30	2.32
Sibley	411855.9	4946771.0	T:114 R:27 S:19	411741.7	4946890.1	T:114 R:27 S:19	0.11
Sibley	385194.4	4940598.1	T:113 R:30 S:9	385185.4	4941255.8	T:113 R:30 S:9	0.41
St. Louis	505276.0	5264952.0	T:58 R:20 S:6	507838.9	5263694.8	T:58 R:20 S:8	2.05
St. Louis	545403.8	5180777.6	T:50 R:16 S:29	545287.5	5179797.9	T:50 R:16 S:31	0.67
St. Louis	542442.3	5190790.8	T:51 R:17 S:25	543974.8	5190597.9	T:51 R:16 S:30	1.11

County	Start Point			End Point			Segment Length (mi)
	UTM X	UTM Y	TWN-RNG-SEC	UTM X	UTM Y	TWN-RNG-SEC	
St. Louis	528159.2	5182459.0	T:50 R:18 S:28	528036.9	5182305.6	T:50 R:18 S:28	0.13
St. Louis	527932.9	5181287.4	T:50 R:18 S:28	527693.1	5180951.3	T:50 R:18 S:28	0.26
St. Louis	528499.4	5182775.9	T:50 R:18 S:21	528249.9	5182543.5	T:50 R:18 S:21	0.21
St. Louis	524018.3	5181434.5	T:50 R:19 S:25	523234.2	5182714.6	T:50 R:19 S:25	1.18
St. Louis	514553.3	5256193.9	T:58 R:20 S:36	514755.0	5257178.5	T:58 R:19 S:31	0.69
St. Louis	513935.4	5254952.5	T:57 R:20 S:1	512933.4	5255058.6	T:57 R:20 S:1	0.67
St. Louis	540350.0	5243151.7	T:56 R:17 S:14	539940.1	5241408.7	T:56 R:17 S:22	1.23
St. Louis	547663.6	5263267.4	T:58 R:16 S:10	547667.6	5263269.0	T:58 R:16 S:10	0.00
St. Louis	545625.5	5261910.2	T:58 R:16 S:17	547663.6	5263267.4	T:58 R:16 S:10	1.64
St. Louis	547663.6	5263267.4	T:58 R:16 S:10	548219.9	5263492.0	T:58 R:16 S:10	0.37
St. Louis	554126.9	5255600.0	T:57 R:15 S:5	554986.3	5255119.8	T:57 R:15 S:5	0.67
Stearns	336626.9	5039349.8	T:123 R:35 S:5	336633.5	5039564.0	T:123 R:35 S:5	0.13
Stearns	336650.0	5040221.2	T:123 R:35 S:4	336648.7	5040501.4	T:124 R:35 S:32	0.17
Stearns	345544.3	5051101.1	T:125 R:34 S:32	345566.9	5051497.8	T:125 R:34 S:29	0.25
Stearns	412024.2	5027670.5	T:122 R:27 S:7	411931.2	5028340.3	T:122 R:27 S:6	0.43
Stearns	412758.5	5026620.8	T:122 R:27 S:8	412201.4	5026045.1	T:122 R:27 S:18	0.71
Stearns	412366.7	5026558.9	T:122 R:27 S:7	412019.1	5026307.8	T:122 R:27 S:7	0.28
Stearns	404216.7	5040134.8	T:124 R:28 S:32	403659.4	5039787.9	T:124 R:28 S:32	0.47
Stearns	401256.1	5045048.4	T:124 R:29 S:13	400872.3	5043186.7	T:124 R:29 S:24	1.33
Stearns	372379.8	5033696.6	T:123 R:31 S:19	372140.2	5033404.4	T:123 R:31 S:19	0.24
Stearns	371203.8	5061879.2	T:126 R:32 S:25	371448.2	5062157.8	T:126 R:32 S:25	0.28
Stearns	392967.1	5050745.2	T:125 R:29 S:30	393040.9	5051045.5	T:125 R:29 S:30	0.22
Stearns	380811.5	5054096.5	T:125 R:31 S:13	380617.2	5053967.2	T:125 R:31 S:24	0.18
Steele	483919.8	4860631.7	T:105 R:20 S:14	485044.0	4860325.7	T:105 R:20 S:14	1.26
Steele	472519.2	4859671.8	T:105 R:21 S:22	471442.0	4858291.5	T:105 R:21 S:21	1.28
Stevens	282297.7	5035735.7	T:123 R:41 S:26	281952.7	5036770.4	T:123 R:41 S:23	0.79
Stevens	254276.7	5035585.1	T:123 R:44 S:26	254373.5	5035929.6	T:123 R:44 S:26	0.41
Stevens	267139.3	5052710.9	T:125 R:42 S:31	267613.5	5053145.4	T:125 R:42 S:32	0.54
Swift	282880.0	5005007.8	T:120 R:41 S:35	283306.2	5005794.5	T:120 R:41 S:26	0.70
Swift	287814.2	5019935.0	T:121 R:40 S:8	285180.1	5025332.4	T:122 R:40 S:30	3.96
Swift	296296.2	5030753.5	T:122 R:39 S:5	296302.5	5031269.7	T:122 R:39 S:5	0.45
Swift	316900.2	5010607.7	T:120 R:37 S:5	318016.6	5010059.4	T:120 R:37 S:9	0.81
Swift	256373.3	5013919.5	T:120 R:44 S:1	256866.7	5014262.5	T:120 R:43 S:6	0.62
Swift	258584.4	5016040.6	T:121 R:43 S:29	259784.1	5017346.6	T:121 R:43 S:21	1.33
Todd	360511.8	5072767.1	T:127 R:33 S:23	360254.4	5073283.0	T:127 R:33 S:23	0.51
Todd	360183.4	5075846.0	T:127 R:33 S:11	360204.9	5075982.5	T:127 R:33 S:11	0.10
Todd	360204.9	5075983.7	T:127 R:33 S:11	360204.9	5076004.5	T:127 R:33 S:11	0.01
Todd	360205.1	5076011.3	T:127 R:33 S:11	358025.4	5076617.5	T:127 R:33 S:10	2.54
Todd	367840.4	5125744.1	T:132 R:32 S:4	367897.7	5124966.1	T:132 R:32 S:9	1.24
Todd	367874.6	5123980.9	T:132 R:32 S:9	367501.7	5122978.9	T:132 R:32 S:16	3.34
Todd	368084.7	5127856.2	T:133 R:32 S:34	367711.0	5126001.0	T:132 R:32 S:4	1.70
Todd	356494.8	5123009.1	T:132 R:33 S:17	356027.6	5121823.6	T:132 R:33 S:20	0.99

County	Start Point			End Point			Segment Length (mi)
	UTM X	UTM Y	TWN-RNG-SEC	UTM X	UTM Y	TWN-RNG-SEC	
Todd	351827.2	5106750.7	T:130 R:34 S:1	350683.3	5106086.1	T:130 R:34 S:11	1.18
Todd	368946.7	5134283.0	T:133 R:32 S:10	368677.0	5133713.7	T:133 R:32 S:10	0.48
Todd	356703.5	5117971.0	T:132 R:33 S:32	357239.0	5117701.8	T:132 R:33 S:33	0.39
Todd	368958.1	5134347.5	T:133 R:32 S:10	368946.7	5134283.0	T:133 R:32 S:10	0.04
Traverse	239710.9	5101950.4	T:130 R:45 S:32	240193.9	5101393.2	T:129 R:45 S:5	0.52
Traverse	246975.6	5096777.2	T:129 R:45 S:24	246978.5	5096777.0	T:129 R:45 S:24	0.00
Traverse	230982.2	5057007.1	T:125 R:46 S:21	231055.5	5056412.7	T:125 R:46 S:28	0.61
Wadena	362440.1	5152054.2	T:135 R:33 S:13	363155.2	5151947.0	T:135 R:33 S:13	0.47
Wadena	363337.8	5152204.4	T:135 R:33 S:13	363526.0	5152666.0	T:135 R:33 S:12	0.34
Waseca	450391.0	4858057.3	T:105 R:23 S:29	451039.7	4857885.4	T:105 R:23 S:29	0.54
Waseca	461062.6	4872048.1	T:106 R:22 S:9	461820.3	4872959.4	T:106 R:22 S:4	1.08
Waseca	461769.6	4871801.5	T:106 R:22 S:9	462116.7	4870618.4	T:106 R:22 S:16	0.94
Waseca	445815.5	4881677.4	T:107 R:24 S:11	446511.7	4881485.5	T:107 R:24 S:11	0.52
Waseca	453617.3	4872894.7	T:106 R:23 S:10	453599.5	4872293.6	T:106 R:23 S:10	0.44
Waseca	453500.3	4877710.3	T:107 R:23 S:27	453781.2	4878356.2	T:107 R:23 S:22	0.60
Waseca	457670.3	4859331.7	T:105 R:22 S:19	458563.1	4859969.5	T:105 R:22 S:19	0.74
Waseca	446511.7	4881485.5	T:107 R:24 S:11	446552.6	4881498.2	T:107 R:24 S:11	0.03
Waseca	446168.2	4881546.8	T:107 R:24 S:11	446349.8	4881541.2	T:107 R:24 S:11	0.11
Waseca	453013.7	4855724.7	T:105 R:23 S:34	453102.4	4855690.9	T:105 R:23 S:34	0.06
Washington	501258.8	5015920.8	T:33 R:21 S:32	502000.5	5015186.1	T:32 R:21 S:4	0.77
Washington	501145.5	5015825.0	T:32 R:21 S:5	500707.9	5015043.5	T:32 R:21 S:5	0.60
Washington	500827.5	5015178.4	T:32 R:21 S:5	500951.0	5015175.3	T:32 R:21 S:5	0.08
Washington	501398.7	4995874.8	T:30 R:21 S:6	501326.7	4996644.3	T:30 R:21 S:6	0.49
Washington	501273.4	4998301.8	T:31 R:21 S:32	501312.5	4996630.2	T:30 R:21 S:6	1.22
Washington	498435.8	5004540.8	T:31 R:21 S:7	498983.1	5003957.0	T:31 R:21 S:7	0.86
Washington	498977.1	5003961.8	T:31 R:21 S:7	503720.3	5007230.7	T:32 R:21 S:34	4.39
Washington	504476.2	5006988.3	T:32 R:21 S:34	504491.3	5007915.2	T:32 R:21 S:34	0.59
Watonwan	380128.3	4856595.0	T:105 R:31 S:36	379964.8	4856082.9	T:104 R:31 S:1	0.36
Watonwan	369854.7	4857194.9	T:105 R:32 S:36	368264.8	4857331.2	T:105 R:32 S:36	1.25
Wilkin	225013.7	5130766.9	T:132 R:47 S:3	226191.2	5130656.5	T:132 R:47 S:3	1.02
Wright	445348.0	5007286.1	T:120 R:24 S:10	443343.5	5006337.4	T:120 R:24 S:16	1.64
Wright	405581.0	5005454.6	T:120 R:28 S:21	406103.9	5006102.3	T:120 R:28 S:16	0.71
Wright	435040.2	5017958.7	T:121 R:25 S:4	432515.6	5018670.0	T:121 R:25 S:5	1.82
Wright	434580.2	5016896.1	T:121 R:25 S:9	434329.7	5016643.1	T:121 R:25 S:9	0.23
Wright	432539.9	5018665.1	T:121 R:25 S:5	431448.9	5020217.1	T:122 R:25 S:31	1.28
Wright	426338.5	5025988.1	T:122 R:26 S:15	426241.9	5025264.8	T:122 R:26 S:15	0.68
Wright	426388.9	5026076.0	T:122 R:26 S:15	426338.5	5025988.1	T:122 R:26 S:15	0.06
Yellow							
Medicine	309587.3	4938362.2	T:113 R:38 S:23	307840.5	4940963.6	T:113 R:38 S:15	2.42
Yellow							
Medicine	303869.5	4940677.5	T:113 R:38 S:18	304012.3	4940465.3	T:113 R:38 S:18	0.17
Medicine	300742.7	4951647.6	T:114 R:39 S:11	300472.4	4951661.2	T:114 R:39 S:11	0.17

County	Start Point			End Point			Segment Length (mi)
	UTM X	UTM Y	TWN-RNG-SEC	UTM X	UTM Y	TWN-RNG-SEC	
Yellow Medicine	265168.8	4947410.4	T:114 R:42 S:31	265595.3	4946181.7	T:114 R:42 S:31	0.93
Yellow Medicine	265202.8	4957655.5	T:115 R:42 S:30	263980.2	4957502.1	T:115 R:43 S:36	0.96
Yellow Medicine	296354.8	4963258.2	T:115 R:39 S:5	295843.8	4962987.3	T:115 R:39 S:5	0.48
Yellow Medicine	291646.3	4961371.0	T:115 R:40 S:14	291891.2	4961044.2	T:115 R:40 S:14	0.26
Yellow Medicine	263434.2	4958587.7	T:115 R:43 S:25	263140.0	4958337.8	T:115 R:43 S:26	0.28