

Appendix A—Detailed Map Supplement (not included here)

Appendix B—GIS Data Sources

Appendix C—Cultural Resources

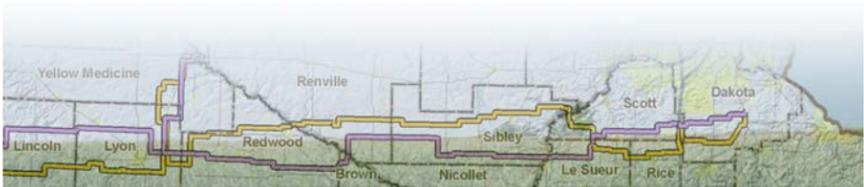
Appendix D—Rare and Unique Resources

Appendix E—Data Summary Table

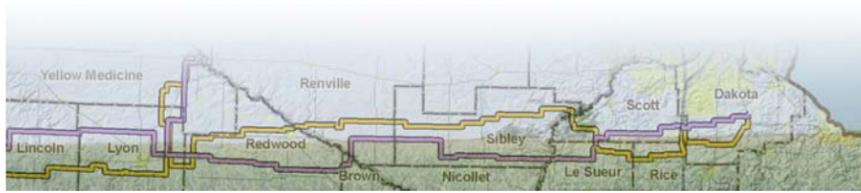
Appendix F—Scoping Decision Document

Appendix G—North-South Connector Route Examples

Appendix A—Detailed Map Supplement



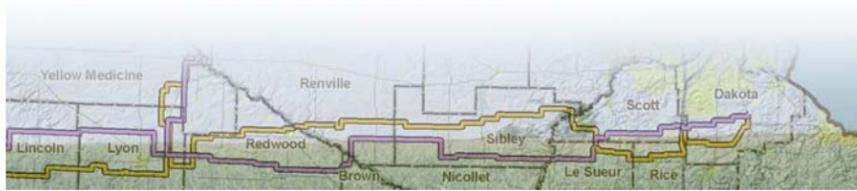
Appendix A (Detailed Map Supplement) is not included in this document.
A DVD version is available upon request or can be viewed on the Public Utilities Commission's website at: <http://energyfacilities.puc.state.mn.us/Docket.html?Id=19860>



Appendix B—GIS Data Sources

Appendix B

GIS Data Type	GIS Data Source
24k Streams	DNR, MIS Bureau 10/10/2003
Airports	Federal Aviation Administration (Aeronautical Information Services) 2009
Cemeteries	Field survey observations, comments from project public meetings and aerial photograph interpretation by HDR. 12/29/08, updated by Barr Engineering 7/21/09
Churches	Field survey observations, comments from project public meetings and aerial photograph interpretation by HDR. 12/29/08, updated by Barr Engineering 7/21/09
Cultural Resources (archaeology)	State Historic Preservation Office
Cultural Resources (historical)	State Historic Preservation Office
GAP	DNR, Department of Forestry 06/06/2002
Residences	Field survey observations, comments from project public meetings and aerial photograph interpretation by HDR. 12/29/08, updated by Barr Engineering September 2009
Hospitals	MN Department of Health. 09/04/2003 (Published by LMIC)
MCBS	The Minnesota County Biological Survey, Minnesota Department of Natural Resources, Division of Ecological Resources
Natural Heritage	Natural Heritage Information System Rare Features Data
Nursing Homes	Copyright 2009 State of Minnesota, Department of Natural Resources
PWI Lakes	MN Department of Health. 09/04/2003 (Published by LMIC)
PWI Streams	DNR - Division of Waters 07/31/2008
PWI Wetlands	DNR - Division of Waters 07/31/2008
Recreation	DNR - Division of Waters 07/31/2008
Scenic Byways	Field survey observations, comments from project public meetings and aerial photograph interpretation by HDR. 12/29/08
Schools (Charter)	http://byways.exploreminnesota.com/Byways.html
Schools (Non-public)	http://byways.exploreminnesota.com/Byways.html
Schools (Public)	Minnesota Department of Education 08/27/2007 (Published by LMIC)
Shallow Lakes	Minnesota Department of Education 08/27/2007 (Published by LMIC)
SNA	Minnesota Department of Education 09/18/2008 (Published by LMIC)
Snowmobile Trails	DNR - Division of Fish and Wildlife 02/19/2009
Soils	DNR - Division of Ecological Services - Scientific & Natural Areas Program 09/04/2003
State Parks	DNR - Division of Trails and Waterways 06/01/2003
Towers	U.S. Department of Agriculture, Natural Resources Conservation Service
Trails (MN State Parks)	DNR - Division of Parks and Recreation 01/01/2002
Trails (MN DNR)	Federal Communications Commission. Data added by HDR based on public comments 12/29/08, updated by Barr Engineering September 2009
Trout Streams	DNR - Division of Parks and Recreation 01/01/2002
Wetland (NWI)	DNR - Division of Trails & Waterways 06/01/2003
Wild/Scenic Rivers	DNR - Division of Fisheries 03/29/2002
WMA	U.S. Fish and Wildlife Service, Division of Habitat and Resource Conservation
WPA	DNR - Division of Waters 11/10/2006



Brookings County to Lyon County: Historical Architectural Resources within One Half Mile of Proposed Route Centerline

Inventory Number	County	NRHP Status	Route Alternatives						
			Preferred Route	1P-01	1P-02	Alternate Route	1A-01	1A-02	1A-03
LN-SHK-005	Lincoln	Not Evaluated				X	X	X	X
LY-GRN-002	Lyon	Not Evaluated	X	X					
LN-HNC-020	Lincoln	Not Evaluated	X	X	X				
LN-HNC-009	Lincoln	Not Evaluated	X	X	X				
LN-HNC-012	Lincoln	Not Evaluated	X	X	X				
LN-HNC-015	Lincoln	Not Evaluated	X	X	X				
LN-HNC-024	Lincoln	Not Evaluated	X	X	X				
LY-LYT-018	Lyon	Not Evaluated	X	X					
LN-ROY-002	Lincoln	Not Evaluated	X	X	X				
LY-GRN-004	Lyon	Not Evaluated			X				
LY-GHC-007	Lyon	Not Evaluated			X				

Lyon County to MN Valley: Historical Architectural Resources within One Half Mile of Proposed Route Centerline

Inventory Number	County	NRHP Status	Route Alternatives			
			Preferred Route	2B-01	2B-02	Alternate Route
CP-GRN-001	Chippewa	Not Evaluated	X	X	X	X
CP-GRN-002	Chippewa	Not Evaluated	X	X	X	X
CP-GRN-003	Chippewa	Not Evaluated	X	X	X	X
CP-GRN-007	Chippewa	Not Evaluated	X	X	X	X
CP-GRN-014	Chippewa	Not Evaluated	X	X	X	X
CP-GRN-015	Chippewa	Not Evaluated	X	X	X	X
CP-GRN-016	Chippewa	Not Evaluated	X	X	X	X
CP-GRN-017	Chippewa	Not Evaluated	X	X	X	X
LY-CWC-001	Lyon	Not Evaluated		X		
LY-CWC-003	Lyon	Not Evaluated		X		
LY-CWC-011	Lyon	Not Evaluated		X		
LY-CWC-014	Lyon	Not Evaluated		X		
LY-CWC-018	Lyon	Registered		X		
LY-CWC-021	Lyon	Not Evaluated		X		
LY-LUC-001	Lyon	Not Evaluated		X		
LY-LUC-002	Lyon	Not Evaluated		X		
LY-STL-001	Lyon	Not Evaluated	X	X	X	X
LY-STL-002	Lyon	Not Evaluated	X		X	
YM-GRN-046	Yellow Medicine	Not Evaluated	X	X	X	X
YM-HFC-001	Yellow Medicine	Not Evaluated		X		
YM-HFC-002	Yellow Medicine	Not Evaluated		X		
YM-HFC-003	Yellow Medicine	Not Evaluated		X		
YM-HFC-004	Yellow Medicine	Not Evaluated		X		
YM-HFC-005	Yellow Medicine	Not Evaluated		X		
YM-HFC-006	Yellow Medicine	Not Evaluated		X		
YM-HFC-007	Yellow Medicine	Not Evaluated		X		
YM-HFC-008	Yellow Medicine	Not Evaluated		X		
YM-HFC-009	Yellow Medicine	Not Evaluated		X		
YM-HFC-010	Yellow Medicine	Not Evaluated		X		
YM-HFC-011	Yellow Medicine	Not Evaluated		X		
YM-HFC-012	Yellow Medicine	Not Evaluated		X		
YM-HFC-014	Yellow Medicine	Not Evaluated		X		
YM-HFC-015	Yellow Medicine	Not Evaluated		X		
YM-HFC-016	Yellow Medicine	Not Evaluated		X		
YM-HFC-017	Yellow Medicine	Not Evaluated				X
YM-MNF-004	Yellow Medicine	Not Evaluated		X		
YM-MNF-013	Yellow Medicine	Not Evaluated		X		
YM-MNF-014	Yellow Medicine	Not Evaluated	X	X	X	X
YM-MNF-015	Yellow Medicine	Not Evaluated			X	X

Lyon County to Cedar Mountain: Historical Architectural Resources within One Half Mile of Proposed Route Centerline

Inventory Number	County	NRHP Status	Route Alternatives								
			Preferred Route	3P-01	3P-02	3P-03	3P-04	3P-05	3P-06	Alternate Route	3A-01
RN-BCO-004	Renville	Not Evaluated								X	X
RN-BCO-007	Renville	Not Evaluated								X	X
RN-BFS-003	Renville	Not Evaluated								X	X
RN-BFS-006	Renville	Not Evaluated								X	X
RW-HON-001	Redwood	Not Evaluated								X	X
RW-NRC-003	Redwood	Registered								X	X
RW-NRC-004	Redwood	Not Evaluated								X	X
RW-NRC-007	Redwood	Not Evaluated								X	X
BW-EDN-003	Brown	Not Evaluated				X					
BW-EDN-005	Brown	Not Evaluated	X	X	X	X	X	X	X		
RW-NAV-005	Redwood	Not Evaluated	X	X	X	X	X	X	X		
RW-TLK-002	Redwood	Not Evaluated	X	X	X	X	X	X	X		

Appendix C

Cedar Mountain to Helena: Historical Architectural Resources within One Half Mile of Proposed Route Centerline

Inventory Number	County	NRHP Status	Route Alternatives																Alternate Route
			Preferred Route	4P-01	4P-02	4P-03	4P-04	4P-05	4P-06	4B-01	4B-02	4B-03	4B-04	4B-05	4B-06	4B-07	4B-08	4B-09	
LE-DRN-001	Le Sueur	Not Evaluated											X						
LE-DRN-002	Le Sueur	Not Evaluated											X						
LE-DRN-003	Le Sueur	Not Evaluated							X										
LE-LAN-002	Le Sueur	Not Evaluated														X			
LE-LCC-001	Le Sueur	Not Evaluated	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
LE-LCC-002	Le Sueur	Not Evaluated	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
LE-LCC-005	Le Sueur	Not Evaluated	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
LE-LCC-006	Le Sueur	Not Evaluated	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
LE-LCC-007	Le Sueur	Not Evaluated	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
LE-LCC-008	Le Sueur	Not Evaluated	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
LE-LCC-009	Le Sueur	Not Evaluated	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
LE-LCC-010	Le Sueur	Not Evaluated	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
LE-LCC-011	Le Sueur	Not Evaluated	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
LE-LCC-012	Le Sueur	Not Evaluated	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
LE-LCC-013	Le Sueur	Not Evaluated	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
LE-LCC-03	Le Sueur	Not Evaluated	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
LE-LCC-04	Le Sueur	Not Evaluated	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
LE-TYR-004	Le Sueur	Not Evaluated												X					
LE-TYR-005	Le Sueur	Not Evaluated	X	X	X	X	X	X	X				X	X	X	X	X	X	
LE-TYR-006	Le Sueur	Not Evaluated	X	X	X	X	X	X	X				X		X	X	X	X	
LE-TYR-007	Le Sueur	Registered	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
LE-TYR-009	Le Sueur	Not Evaluated	X	X	X	X	X	X	X			X	X	X	X	X	X	X	
RN-BAN-001	Renville	Not Evaluated								X	X	X							X
RN-CAM-002	Renville	Not Evaluated		X															
RN-CAM-003	Renville	Not Evaluated		X															
RN-CAM-004	Renville	Not Evaluated		X															
RN-WEL-001	Renville	Not Evaluated								X	X	X							X
SB-ALF-003	Sibley	Not Evaluated	X	X	X	X	X	X	X				X	X	X	X	X	X	
SB-BSK-003	Sibley	Not Evaluated								X	X	X							X
SB-COR-003	Sibley	Not Evaluated	X		X	X	X	X	X				X	X	X	X	X	X	
SB-COR-004	Sibley	Not Evaluated	X		X	X	X	X	X				X	X	X	X	X	X	
SB-DRY-001	Sibley	Not Evaluated								X	X	X							X
SB-DRY-002	Sibley	Not Evaluated								X	X	X							X
SB-GBC-012	Sibley	Not Evaluated	X		X	X	X	X	X				X	X	X	X	X	X	
SB-KEL-001	SB-KEL-001	Not Evaluated				X													
SB-KEL-002	SB-KEL-002	Not Evaluated				X													
SB-KEL-003	SB-KEL-003	Not Evaluated				X													
SB-SIB-001	Sibley	Not Evaluated	X	X	X	X	X	X	X				X	X	X	X	X	X	
SB-TRS-002	Sibley	Not Evaluated								X	X	X							X
SC-BLK-001	Scott	Not Evaluated												X					
SC-BLK-002	Scott	Not Evaluated												X					
SC-BLK-003	Scott	Not Evaluated												X					
SC-BLK-004	Scott	Not Evaluated												X					
SC-BLK-005	Scott	Not Evaluated								X	X								
SC-BLK-012	Scott	Not Evaluated								X	X	X							X
SC-BPT-004	Scott	Not Evaluated											X						
SC-HEL-008	Scott	Not Evaluated														X			

Helena to Lake Marion: Historical Architectural Resources within One Half Mile of Proposed Route Centerline

Inventory Number	County	NRHP Status	Route Alternatives											
			Preferred Route	5P-01	5P-02	5P-03	5B-01	5B-02	5B-03	Alternate Route	5A-01	5A-02	5A-03	5A-04
LE-LAN-002	Le Sueur	Not Evaluated							X					
LE-LAN-004	Le Sueur	Not Evaluated					X			X	X	X	X	X
LE-LAN-007	Le Sueur	Not Evaluated					X	X		X	X	X		X
LE-LAN-008	Le Sueur	Not Evaluated					X	X		X		X		X
LE-LCC-007	Le Sueur	Not Evaluated						X						
RC-WEB-005	Rice	Registered					X	X		X	X	X	X	X
RC-WEB-010	Rice	Not Evaluated					X	X		X	X	X	X	X
RC-WHE-006	Rice	Not Evaluated					X	X		X	X	X		X
SC-HEL-008	Scott	Not Evaluated							X					
SC-HEL-010	Scott	Not Evaluated	X	X	X	X			X					
LE-HLC-001	Le Sueur	Not Evaluated						X						
SC-NMC-001	Scott	Not Evaluated				X								
SC-NMC-002	Scott	Not Evaluated				X								
SC-NMC-003	Scott	Not Evaluated				X								
SC-NMC-004	Scott	Not Evaluated				X								
SC-NMC-005	Scott	Not Evaluated				X								
SC-NMC-006	Scott	Not Evaluated				X								
SC-NMC-007	Scott	Registered				X								
SC-NMT-004	Scott	Not Evaluated				X								
SC-NMT-005	Scott	Registered	X	X	X	X			X					
SC-NMT-007	Scott	Not Evaluated				X	X	X		X	X	X	X	X

Appendix C

Lake Marion to Hampton: Historical Architectural Resources within One Half Mile of Proposed Route Centerline

Inventory Number	County	NRHP Status	Route Alternatives										Alternate Route	6A-01	6A-02	6A-03	6A-04
			Preferred Route	6P-01	6P-02	6P-03	6P-04	6P-05	6P-06	6P-07	6P-08						
DK-CRK-001	Dakota	Registered	X	X	X	X	X	X	X	X	X	X					
DK-CRK-002	Dakota	Not Evaluated											X	X	X	X	X
DK-CRK-004	Dakota	Not Evaluated	X	X	X	X	X	X	X	X	X						
DK-CRK-005	Dakota	Not Evaluated															X
DK-CRK-006	Dakota	Not Evaluated	X	X	X	X	X	X	X	X	X						
DK-CRK-008	Dakota	Not Evaluated	X	X	X	X	X	X	X	X	X						
DK-EMP-006	Dakota	Not Evaluated				X				X							
DK-EUR-003	Dakota	Not Evaluated	X		X	X				X	X						
DK-EUR-005	Dakota	Not Evaluated										X					
DK-EUR-006	Dakota	Not Evaluated	X		X	X				X	X						
DK-EUR-007	Dakota	Not Evaluated	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DK-EUR-008	Dakota	Not Evaluated	X		X					X	X						
DK-FMC-005	Dakota	Not Evaluated		X													
DK-FMC-013	Dakota	Not Evaluated		X					X								
DK-FMC-022	Dakota	Not Evaluated		X					X								
DK-FMC-024	Dakota	Not Evaluated		X													
DK-FMC-025	Dakota	Not Evaluated		X													
DK-FMC-026	Dakota	Not Evaluated		X				X									
DK-FMC-027	Dakota	Not Evaluated		X				X									
DK-FMC-028	Dakota	Not Evaluated		X				X									
DK-FMC-029	Dakota	Not Evaluated		X				X									
DK-FMC-030	Dakota	Not Evaluated		X				X	X								
DK-FMC-031	Dakota	Not Evaluated		X				X	X								
DK-FMC-036	Dakota	Not Evaluated		X				X									
DK-FMC-037	Dakota	Not Evaluated		X				X	X								
DK-FMC-041	Dakota	Not Evaluated		X				X	X								
DK-FMC-042	Dakota	Not Evaluated		X				X	X								
DK-FMC-043	Dakota	Not Evaluated		X				X	X								
DK-FMC-044	Dakota	Not Evaluated		X				X	X								
DK-FMC-045	Dakota	Not Evaluated		X				X	X								
DK-FMC-046	Dakota	Not Evaluated		X				X	X								
DK-FMC-047	Dakota	Not Evaluated		X				X	X								
DK-GRV-001	Dakota	Not Evaluated										X					
DK-GRV-003	Dakota	Not Evaluated										X					
DK-GRV-005	Dakota	Not Evaluated										X					
DK-HMC-001	Dakota	Not Evaluated											X		X		X
DK-HMC-002	Dakota	Not Evaluated											X		X		X
DK-HMC-003	Dakota	Not Evaluated											X		X	X	X
DK-HMC-004	Dakota	Not Evaluated											X		X	X	X
DK-HMC-005	Dakota	Not Evaluated											X		X	X	X
DK-HMC-006	Dakota	Not Evaluated											X		X	X	X
DK-HMC-007	Dakota	Not Evaluated											X		X	X	X
DK-HMC-008	Dakota	Not Evaluated											X		X	X	X
DK-HMC-009	Dakota	Not Evaluated											X		X	X	X
DK-HMT-001	Dakota	Not Evaluated											X		X	X	X
DK-HMT-002	Dakota	Not Evaluated												X			
DK-HMT-003	Dakota	Not Evaluated												X			
DK-HMT-004	Dakota	Not Evaluated											X		X	X	X
DK-HMT-005	Dakota	Not Evaluated											X	X	X	X	X
DK-HMT-006	Dakota	Not Evaluated												X			
DK-LKC-014	Dakota	Not Evaluated		X				X	X								
DK-LKC-015	Dakota	Not Evaluated		X				X	X								
DK-LKC-016	Dakota	Not Evaluated		X				X	X								
DK-LKC-017	Dakota	Not Evaluated		X				X	X								
DK-VMT-006	Dakota	Not Evaluated												X	X	X	
DK-VMT-015	Dakota	Not Evaluated												X	X	X	
DK-VMT-017	Dakota	Not Evaluated	X	X	X	X	X	X	X	X	X	X	X				X
DK-VMT-033	Dakota	Not Evaluated				X				X							
DK-VMT-034	Dakota	Not Evaluated	X	X	X	X	X	X	X	X	X						
DK-VMT-035	Dakota	Not Evaluated	X	X	X	X	X	X	X	X	X						
DK-WTR-006	Dakota	Not Evaluated											X	X	X	X	X
SC-NMT-001	Scott	Not Evaluated		X				X	X								
SC-NMT-007	Scott	Not Evaluated	X		X	X				X			X	X	X	X	X

Brookings County to Lyon County: Archaeological Resources Within One Half Mile of Proposed Route Centerline

County	Site Number	NRHP Status	Route Alternatives						
			Preferred Route	1P-01	1P-02	1A-Original	1A-01	1A-02	1A-03
Lyon	21LY0030	Not Evaluated				X	X		
Lincoln	21LN0038	Not Evaluated				X	X	X	
Lincoln	21LN0037	Not Evaluated				X	X	X	
Lincoln	21LN0047	Not Evaluated				X	X	X	
Lincoln	21LN0039	Not Evaluated				X	X	X	
Lyon	21LY0026	Not Evaluated						X	X
Lyon	21LY0025	Not Evaluated						X	X
Lyon	21LY0023	Not Evaluated						X	X
Lyon	21LY0024	Not Evaluated						X	X
Lincoln	21LN0038	Not Evaluated							X
Lincoln	21LN0037	Not Evaluated							X
Lincoln	21LN0047	Not Evaluated							X
Lincoln	21LN0039	Not Evaluated							X
Lyon	21LY0031	Not Evaluated			X				

Appendix C

Lyon County to MN Valley: Archaeological Resources within One Half Mile of Proposed Route Centerline

County	Site Number	NRHP Status	Route Alternatives			
			Preferred Route	2B-01	2B-02	Alternate Route
Chippewa	21CP0050	Not Evaluated	X	X	X	X
Chippewa	21CP0030	Not Evaluated	X	X	X	X
Chippewa	21CP0055	Not Evaluated	X	X	X	X
Lyon	21LYa	Not Evaluated		X		
Yellow Medicine	21YM0031	Not Evaluated	X	X	X	X
Yellow Medicine	21YM0096	Not Evaluated	X	X		
Yellow Medicine	21YM0074	Not Evaluated	X	X	X	
Yellow Medicine	21YM0032	Not Evaluated	X	X		
Yellow Medicine	21YM0034	Not Evaluated	X	X		
Yellow Medicine	21YM0035	Not Evaluated		X		
Yellow Medicine	21YM0072	Not Evaluated	X	X		
Yellow Medicine	21YM0073	Not Evaluated		X		
Yellow Medicine	21YM0084	Not Evaluated	X	X	X	X
Yellow Medicine	21YM0094	Not Evaluated	X	X	X	X
Yellow Medicine	21YM0092	Not Evaluated	X	X	X	X
Yellow Medicine	21YM0093	Not Evaluated	X	X	X	X
Yellow Medicine	21YM0033	Not Evaluated		X		
Yellow Medicine	21YMo	Not Evaluated	X	X		
Yellow Medicine	21YMy	Not Evaluated		X		X
Yellow Medicine	21YM0099	Not Evaluated		X		
Yellow Medicine	21YM0100	Not Evaluated	X	X		
Yellow Medicine	21YM0014	Not Evaluated		X		
Yellow Medicine	21YM0085	Not Evaluated	X	X		
Yellow Medicine	21YM0080	Not Evaluated	X	X		
Yellow Medicine	21YM0079	Not Evaluated	X	X		
Yellow Medicine	21YM0018	Not Evaluated	X	X	X	X
Yellow Medicine	21YM0036	Not Evaluated	X	X	X	X
Yellow Medicine	21YM0019	Not Evaluated	X	X	X	X
Yellow Medicine	21YM0081	Not Evaluated	X	X	X	X
Yellow Medicine	21YM0101	Not Evaluated	X	X	X	X
Yellow Medicine	21YM0098	Not Evaluated	X	X	X	X
Yellow Medicine	21YM0047	Not Evaluated			X	X
Yellow Medicine	21YM0076	Not Evaluated	X		X	X
Yellow Medicine	21YM0075	Not Evaluated	X		X	X
Yellow Medicine	21YMz	Not Evaluated				X
Yellow Medicine	21YM0078	Not Evaluated	X			
Yellow Medicine	21YM0077	Not Evaluated	X			

Lyon County to Cedar Mountain: Archaeological Resources Within One Half Mile of Proposed Route Centerline

		Route Alternatives								
Site Number	NRHP Status	Preferred Route	3P-01	3P-02	3P-03	3P-04	3P-05	3P-06	Alternate Route	3A-01
21RWq	Not Evaluated	X	X	X	X	X	X	X		
21RWj	Not Evaluated								X	X
21RW0041	Not Evaluated								X	X
21RWI	Not Evaluated								X	X
21RN0014	Not Evaluated								X	X
21RWc	Not Evaluated								X	X
21RW0059	Not Evaluated								X	X

Cedar Mountain to Helena: Archaeological Resources within One Half Mile of Proposed Route Centerline

			Route Alternatives																
County	Site Number	NRHP Status	Preferred Route	4P-01	4P-02	4P-03	4P-04	4P-05	4P-06	4B-01	4B-02	4B-03	4B-04	4B-05	4B-06	4B-07	4B-08	4B-09	Alternate Route
Le Sueur	21LE0043	Not Evaluated	X	X	X	X	X	X	X				X	X	X	X	X	X	
Sibley	21SBk	Not Evaluated	X	X	X	X	X	X	X				X	X	X	X	X	X	
Sibley	21SBe	Not Evaluated	X	X	X	X	X	X	X				X	X	X	X	X	X	
Le Sueur	21LE0007	Not Evaluated	X	X	X	X	X	X	X				X	X	X	X	X	X	
Le Sueur	21LE0006	Not Evaluated	X	X	X	X	X	X	X				X	X	X	X	X	X	
Sibley	21SB0026	Not Evaluated								X	X	X							X
Sibley	21SBf	Not Evaluated								X	X	X							X
Sibley	21SB0006	Not Evaluated								X	X	X							X
Scott	21SC0095	Not Evaluated												X	X				X
Sibley	21SBi	Not Evaluated				X													
Le Sueur	21LE0045	Not Evaluated					X												
Le Sueur	21LEn	Not Evaluated					X												

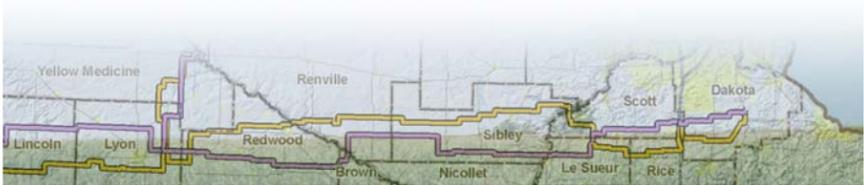
Appendix C

Helena to Lake Marion: Archaeological Resources within One Half Mile of Proposed Route Centerline

			Route Alternatives											
County	Site Number	NRHP Status	Preferred Route	5P-01	5P-02	5P-03	5B-01	5B-02	5B-03	Alternate Route	5A-01	5A-02	5A-03	5A-04
Scott	21SCn	Not Evaluated	X	X	X	X			X					
Scott	21SCm	Not Evaluated				X								
Rice	21RC0037	Not Evaluated					X	X		X	X	X		
Rice	21RC0040	Not Evaluated					X	X		X	X	X	X	X
Rice	21RCaf	Not Evaluated					X	X		X	X	X	X	X
Rice	21RC0042	Not Evaluated					X	X		X	X	X	X	X
Le Sueur	21LEaq	Not Evaluated					X	X		X	X	X	X	X
Rice	21RCae	Not Evaluated											X	
Rice	21RC0041	Not Evaluated												X
Le Sueur	21LEar	Not Evaluated						X						

Lake Marion to Hampton: Archaeological Resources within One Half Mile of Proposed Route Centerline

			Route Alternatives													
County	Site Number	NRHP Status	Preferred Route	6P-01	6P-02	6P-03	6P-04	6P-05	6P-06	6P-07	6P-08	Alternate Route	6A-01	6A-02	6A-03	6A-04
Dakota	21DK0075	Not Evaluated	X	X	X	X	X	X	X	X	X					
Dakota	21DKaj	Not Evaluated	X	X			X	X			X		X		X	X
Dakota	21DKd	Not a Cultural Site									X		X	X	X	X
Dakota	21DKae	Not Evaluated											X	X	X	X
Dakota	21DKaf	Not Evaluated											X	X	X	X
Dakota	21DK0078	Not Evaluated											X	X	X	X
Dakota	21DK0028	Not Evaluated											X	X	X	X
Dakota	21DK0022	Not A Cultural site											X	X	X	X
Dakota	21DK0023	Not A Cultural site											X	X	X	X
Dakota	21DK0021	Not A Cultural site									X		X	X	X	X
Dakota	21DKj	Not A Cultural site											X	X	X	X
Dakota	21DKf	Not Evaluated											X		X	
Dakota	21DKg	Not Evaluated				X			X	X						
Rice	21RC0040	Not Evaluated									X					
Dakota	21DKad	Not Evaluated									X					



Brookings County to Lyon County Substation Segment

Common Name	Scientific Name	Type	MN Status	U.S. Status	Route Alternatives						
					1P-Original	1P-01	1P-02	1A-Original	1A-01	1A-02	1A-03
Ottoo Skipper	<i>Hesperia ottoe</i>	Zoological	THR	None				X	X	X	X
Loggerhead Shrike	<i>Lanius ludovicianus</i>	Zoological	THR	None	X	X	X				
Creek Heelsplitter	<i>Lasmigona compressa</i>	Zoological	SPC	None	X	X	X				
Powesheik Skipper	<i>Oarisma powesheik</i>	Zoological	SPC	None				X	X	X	X
Regal Fritillary	<i>Speyeria idalia</i>	Zoological	SPC	None				X	X	X	X
Slender Milk-vetch	<i>Astragalus flexuosus</i>	Botanical	SPC	None				X	X	X	X
Water-hyssop	<i>Bacopa rotundifolia</i>	Botanical	SPC	None				X	X	X	X
Prairie Moonwort	<i>Botrychium campestre</i>	Botanical	SPC	None				X	X	X	X
Western White Prairie-clover	<i>Dalea candida var. oligophylla</i>	Botanical	SPC	None	X	X	X				
Prairie Vole	<i>Microtus ochrogaster</i>	Zoological	SPC	None	X	X	X				
Low Milk-vetch	<i>Astragalus lotiflorus</i>	Botanical	NON	None				X	X	X	X
Northern Grasshopper Mouse	<i>Onychomys leucogaster</i>	Zoological	NON	None	X	X	X				
Richardson's Ground Squirrel	<i>Spermophilus richardsonii</i>	Zoological	NON	None	X	X	X				
Dry Hill Prairies (Southern)		Ecological	na	na				1	1		
Mesic Prairies (Southern)		Ecological	na	na	1	1		2/2	2/2	2/2	2/2
Calcareous Fens (Southwestern)		Ecological	na	na				2	2		
State-Designated Railroad Prairies			na	na	2	2					
MCBS Sites - Outstanding			na	na							
MCBS Sites - High			na	na							
MCBS Sites - Moderate			na	na							

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Lyon County Substation to Minnesota Valley Substation Segment

Common Name	Scientific Name	Type	MN Status	U.S. Status	Route Alternatives			
					2P-Original	2B-01	2B-02	2A-Original
A Species of Lichen	<i>Buellia nigra</i>	Botanical	END	NONE	X	X	X	X
Mucket	<i>Actinonaias ligamentina</i>	Zoological	THR	NONE	X	X	X	X
Round Pigtoe	<i>Pleurobema coccineum</i>	Zoological	THR	NONE	X	X	X	X
Ellipse	<i>Venustaconcha ellipsiformis</i>	Zoological	THR	NONE	X	X	X	X
Paddlefish	<i>Polyodon spathula</i>	Zoological	THR	NONE		X		
Spike	<i>Elliptio dilatata</i>	Zoological	SPC	NONE	X	X	X	X
Black Sandshell	<i>Ligumia recta</i>	Zoological	SPC	NONE	X	X	X	X
Plains Prickly Pear	<i>Opuntia macrorhiza</i>	Botanical	SPC	NONE	X	X	X	X
Clustered Broomrape	<i>Orobanche fasciculata</i>	Botanical	SPC	NONE	X	X	X	X
Blue Sucker	<i>Cycleptus elongatus</i>	Zoological	SPC	NONE	X	X	X	X
Common Five-lined Skink	<i>Eumeces fasciatus</i>	Zoological	SPC	NONE	X	X	X	X
Carolina Foxtail	<i>Alopecurus carolinianus</i>	Botanical	NON	NONE		X		
Low Milk-vetch	<i>Astragalus lotiflorus</i>	Botanical	NON	NONE	X	X	X	X
Little Barley	<i>Hordeum pusillum</i>	Botanical	NON	NONE	X	X	X	X
Western Fox Snake	<i>Elaphe vulpina</i>	Zoological	NON	NONE	X	X	X	X
Colonial Waterbird Nesting Sites		Zoological	na	na	1/1	1	1/1	1
Mussel Sampling Sites		Zoological	na	na	1	1	1	1
Dry Hill Prairies (Southern)		Ecological	na	na	2	2	3	3
Mesic Prairies (Southern)		Ecological	na	na	1/1	1/1	1/1	1/1
Southern Bedrock Outcrops		Ecological	na	na	1/2	1/2	1/2	1/2
Southern Dry Prairies		Ecological	na	na	2	2	2	2
Metamorphic Compositions (Archean)		Ecological	na	na	1/1	1/1	1/1	1/1
Mixed Unit or Sequences (Archean, Lower Proterozoic)		Ecological	na	na	1/1	1/1	1/1	1/1
Sedimentary Units or Sequences (Quaternary)		Ecological	na	na	1/1	1/1	1/1	1/1
State-Designated Railroad Prairies			na	na	3	1/5	3	1/4
MCBS Sites - Outstanding			na	na				
MCBS Sites - High			na	na	1/2	1/3	1/2	1/2
MCBS Sites - Moderate			na	na	1/5	1/6	1/6	1/6

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Lyon County Substation to Cedar Mountain Substation Segment

Common Name	Scientific Name	Type	MN Status	U.S. Status	Route Alternatives								
					3P-Original	3P-01	3P-02	3P-03	3P-04	3P-05	3P-06	3A-Original	3A-01
Wartyback	<i>Quadrula nodulata</i>	Invertebrate Animal	END	NONE	X	X	X	X	X	X	X		
Wolf's Spike-rush	<i>Eleocharis wolfii</i>	Vascular Plant	END	NONE								X	X
Burrowing Owl	<i>Speotyto cunicularia</i>	Vertebrate Animal	END	NONE								X	X
Mucket	<i>Actinonaias ligamentina</i>	Invertebrate Animal	THR	NONE	X	X	X	X	X	X	X	X	X
Round Pigtoe	<i>Pleurobema coccineum</i>	Invertebrate Animal	THR	NONE								X	X
Prairie Bush Clover	<i>Lespedeza leptostachya</i>	Vascular Plant	THR	THR								X	X
Paddlefish	<i>Polyodon spathula</i>	Vertebrate Animal	THR	NONE	X	X	X	X	X	X	X	X	X
Spike	<i>Elliptio dilatata</i>	Invertebrate Animal	SPC	NONE								X	X
Creek Heelsplitter	<i>Lasmigona compressa</i>	Invertebrate Animal	SPC	NONE								X	X
Fluted-shell	<i>Lasmigona costata</i>	Zoological	SPC	NONE								X	X
Black Sandshell	<i>Ligumia recta</i>	Zoological	SPC	NONE								X	X
Regal Fritillary	<i>Speyeria idalia</i>	Zoological	SPC	NONE	X	X	X	X	X	X	X		
Blue Sucker	<i>Cycleptus elongatus</i>	Zoological	SPC	NONE								X	X
Carolina Foxtail	<i>Alopecurus carolinianus</i>	Botanical	NON	NONE								X	X
Low Milk-vetch	<i>Astragalus lotiflorus</i>	Botanical	NON	NONE	X	X	X	X	X	X	X		
Mouse-ear Chickweed	<i>Cerastium brachypodum</i>	Botanical	NON	NONE								X	X
Forget-me-not	<i>Myosotis verna</i>	Botanical	NON	NONE								X	X
American Bittern	<i>Botaurus lentiginosus</i>	Zoological	NON	NONE								X	X
Western Fox Snake	<i>Elaphe vulpina</i>	Zoological	NON	NONE								X	X
Western Harvest Mouse	<i>Reithrodontomys megalotis</i>	Zoological	NON	NONE								X	X
Shovelnose Sturgeon	<i>Scaphirhynchus platyrhynchus</i>	Zoological	NON	NONE								X	X
Mussel Sampling Sites		Zoological	na	na								1	1
Dry Hill Prairies (Southern)		Ecological	na	na								3	3
Dry Sand - Gravel Prairies (Southern)		Ecological	na	na	1/2	1/2	1/2	1/2	1/2	1/2	1/2		
Mesic Prairies (Southern)		Ecological	na	na								2	2
Native Plant Communities, Undetermined Class		Ecological	na	na	1	1	1	1	1	1	1	3/5	3/5
Silver Maple - (Virginia Creeper) Floodplain Forests		Ecological	na	na				1					
Southern Bedrock Outcrops		Ecological	na	na								2	2
Southern Dry Prairies		Ecological	na	na								1/1	1/1
Fossil Plants (Quaternary)		Ecological	na	na								1	1
Sedimentary Units or Sequences (Cretaceous, Quaternary)		Ecological	na	na								1	1
Weathering (Jurassic, Cretaceous)		Ecological	na	na								1	1
State-Designated Railroad Prairies			na	na									
MCBS Sites - Outstanding			na	na									
MCBS Sites - High			na	na								1/7	1/7
MCBS Sites - Moderate			na	na	14	14	14	17	14	14	14	4/27	4/27

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Cedar Mountain Substation to Helena Substation Segment

Common Name	Scientific Name	Type	MN Status	U.S. Status	Route Alternatives																
					4P-Original	4P-01	4P-02	4P-03	4P-04	4P-05	4P-06	4B-01	4B-02	4B-03	4B-04	4B-05	4B-06	4B-07	4B-08	4B-09	4A-Original
Rock Pocketbook	<i>Arcidens confragosus</i>	Invertebrate Animal	END	NONE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Yellow Sandshell	<i>Lampsilis teres</i>	Invertebrate Animal	END	NONE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Kitten-tails	<i>Besseya bullii</i>	Vascular Plant	THR	NONE								X	X	X							X
Trumpeter Swan	<i>Cygnus buccinator</i>	Vertebrate Animal	THR	NONE		X															
Paddlefish	<i>Polyodon spathula</i>	Vertebrate Animal	THR	NONE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Regal Fritillary	<i>Speyeria idalia</i>	Invertebrate Animal	SPC	NONE	X	X	X	X	X	X	X				X	X	X	X	X	X	
Yellow-fruited Sedge	<i>Carex annectens</i>	Vascular Plant	SPC	NONE								X	X	X							X
American Ginseng	<i>Panax quinquefolius</i>	Vascular Plant	SPC	NONE	X	X	X	X	X	X	X				X	X	X	X	X	X	X
Smooth Softshell	<i>Apalone mutica</i>	Vertebrate Animal	SPC	NONE					X												
Red-shouldered Hawk	<i>Buteo lineatus</i>	Vertebrate Animal	SPC	NONE	X	X	X	X	X	X	X				X	X	X	X	X	X	X
Blue Sucker	<i>Cycleptus elongatus</i>	Vertebrate Animal	SPC	NONE	X	X	X	X	X	X	X				X	X	X	X	X	X	X
Cerulean Warbler	<i>Dendroica cerulea</i>	Vertebrate Animal	SPC	NONE	X	X	X	X	X	X	X				X	X	X	X	X	X	X
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Zoological	SPC	NONE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Kentucky Coffee-tree	<i>Gymnocladus dioica</i>	Botanical	NON	NONE	X	X	X	X	X	X	X				X	X	X	X	X	X	X
Upland Sandpiper	<i>Bartramia longicauda</i>	Zoological	NON	NONE	X	X	X	X	X	X	X				X	X	X	X	X	X	X
Western Fox Snake	<i>Elaphe vulpina</i>	Zoological	NON	NONE	X	X	X	X	X	X	X				X	X	X	X	X	X	X
Colonial Waterbird Nesting Areas		Zoological	na	na	1	1	1	1	1	1	1				1	1	1	1	1	1	1
Elm - Basswood - Black Ash - (Hackberry) Forests		Ecological	na	na	1	1	1	1/1	1	1	1				1	1	1	1	1	1	1
Native Plant Communities, Undetermined Class		Ecological	na	na	10	10	10	1/14	11	10	10	1	1		10	9	10	10	10	10	10
Silver Maple - (Virginia Creeper) Floodplain Forests		Ecological	na	na	1	1	1	1	1	1	1				1	1	1	1	1	1	1
Sugar Maple - Basswood - (Bitternut Hickory) Forests		Ecological	na	na												1					
Dry Sand - Gravel Prairies (Southern) Type		Ecological	na	na								1/2	1/2	1/2							1/2
State-Designated Railroad Prairies			na	na	1/6	1	5/6	1/6	1/6	1/6	1/6	1/5	1/5	1/5	1/6	1/6	1/6	1/6	1/6	1/6	1/5
MCBS Sites - Outstanding			na	na																	
MCBS Sites - High			na	na	1	1	1	1/3	1	1	1	1	1	1	1	4	1	1	1	1	1
MCBS Sites - Moderate			na	na	1/10	10	1/10	1/11	1/11	1/10	1/9	1/4	1/4	1/3	1/9	1/14	1/10	1/10	1/10	1/10	1/3

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Helena Substation to Lake Marion Substation Segment

Common Name	Scientific Name	Type	MN Status	U.S. Status	Route Alternatives											
					5P-Original	5P-01	5P-02	5P-03	5B-01	5B-02	5B-03	5A-Original	5A-01	5A-02	5A-03	5A-04
Kitten-tails	<i>Besseyia bullii</i>	Botanical	THR	NONE	X	X	X	X			X					
Blanding's Turtle	<i>Emydoidea blandingii</i>	Zoological	THR	NONE	X	X	X				X					
Cowbane	<i>Oxypolis rigidior</i>	Botanical	NON	NONE	X	X	X	X	X	X	X	X	X	X	X	X
Colonial Waterbird Nesting Areas		Zoological	na	na					1	1		1	1	1	1	1
Native Plant Communities, Undetermined Class		Ecological	na	na	1	1	1	1	1/5	1/5	1	1/5	1/5	1/5	1/5	1/3
State-Designated Railroad Prairies			na	na												
MCBS Sites - Outstanding			na	na												
MCBS Sites - High			na	na												
MCBS Sites - Moderate			na	na	1	1	1	1	5	6	1	5	5	5	5	3

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Appendix D

Lake Marion Substation to Hampton Substation Segment

Common Name	Scientific Name	Type	MN Status	U.S. Status	Route Alternatives														
					6P-Original	6P-01	6P-02	6P-03	6P-04	6P-05	6P-06	6P-07	6P-08	6A-Original	6A-01	6A-02	6A-03	6A-04	
Kitten-tails	<i>Besseyia bullii</i>	Vascular Plant	THR	NONE											X	X	X	X	
Valerian	<i>Valeriana edulis ssp. ciliata</i>	Vascular Plant	THR	NONE									X		X				
Blanding's Turtle	<i>Emydoidea blandingii</i>	Vertebrate Animal	THR	NONE	X		X	X			X	X							
Loggerhead Shrike	<i>Lanius ludovicianus</i>	Vertebrate Animal	THR	NONE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Creek Heelsplitter	<i>Lasmigona compressa</i>	Invertebrate Animal	SPC	NONE									X						
Black Sandshell	<i>Ligumia recta</i>	Invertebrate Animal	SPC	NONE									X						
Plains Wild Indigo	<i>Baptisia bracteata var. leucophaea</i>	Vascular Plant	SPC	NONE										X	X	X	X		
Small White Lady's-slipper	<i>Cypripedium candidum</i>	Vascular Plant	SPC	NONE									X						
Waterwillow	<i>Decodon verticillatus</i>	Vascular Plant	SPC	NONE										X	X	X	X	X	
Big Tick-trefoil	<i>Desmodium cuspidatum var. longifolium</i>	Vascular Plant	SPC	NONE	X	X	X		X	X		X	X	X	X	X	X	X	X
Rattlesnake-master	<i>Eryngium yuccifolium</i>	Vascular Plant	SPC	NONE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Beach-heather	<i>Hudsonia tomentosa</i>	Vascular Plant	SPC	NONE									X	X	X	X	X	X	
American Ginseng	<i>Panax quinquefolius</i>	Vascular Plant	SPC	NONE	X	X	X		X	X		X	X	X	X	X	X	X	
Long-bearded Hawkweed	<i>Hieracium longipilum</i>	Vascular Plant	NON	NONE									X	X	X	X	X		
Lilia-leaved Twayblade	<i>Liparis liliifolia</i>	Vascular Plant	NON	NONE										X	X	X	X	X	
Cowbane	<i>Oxypolis rigidior</i>	Vascular Plant	NON	NONE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Upland Sandpiper	<i>Bartramia longicauda</i>	Vertebrate Animal	NON	NONE				X			X		X						
Mussel Sampling Sites		Animal Assemblage	na	na									2	2	2	2	2	2	
Mesic Prairies (Southern)		Community	na	na	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Native Plant Communities, Undetermined Class		Community	na	na	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4
Red Oak - Sugar Maple - Basswood - (Bitternut Hickory) Forests		Community	na	na	1	1	1		1	1		1	1						
Willow - Dogwood Shrub Swamps		Community	na	na	1	1	1	1	1	1	1	1	1	1					
Dry Sand - Gravel Prairies (Southern)		Community	na	na									1/1	1	1	1	1		
Wet Prairies (Southern)		Community	na	na									1						
Southern Seepage Meadow/Carr		Community	na	na										1		1	1	1	
State-Designated Railroad Prairies		Community	na	na									1/4						
MCBS Sites - Outstanding		Site	na	na	1	1	1	1	1	1	1	1	1						
MCBS Sites - High		Site	na	na									1	2	1/2	1/2	1/2	1/2	
MCBS Sites - Moderate		Site	na	na	4	3	7	4	4	4	4	4	2/9	1/5	1/2	1/5	1/5	1/5	6

An "X" indicates the presence of that particular species within 1 mile of centerline, while a blank cell indicates that a particular species, community, or site is not within 1 mile of the centerline.

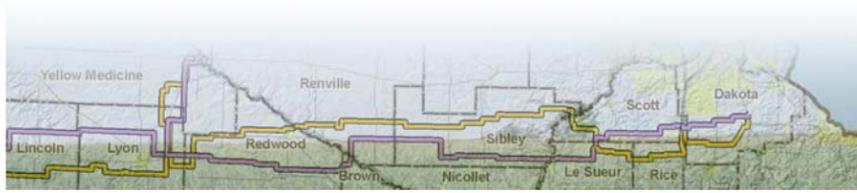
Rows in tan indicate non-aquatic State and/or Federally-threatened or endangered species and rows in blue indicate aquatic State and/or Federally-threatened or endangered species.

Cells in red indicate if and how many of the sites are located within the 150-foot ROW (e.g. 1/2 means that one of two total sites is located in the ROW).

"MCBS" = Minnesota County Biological Survey - data includes sites classified as outstanding, high, and moderate biodiversity significance.

Animal Assemblages includes colonial waterbird nesting sites and/or mussel sampling sites.

"END" = Endangered, "THR" = threatened, "SPC" = special concern, "NON" = no status, "None" = no federal status, "na" = not applicable.



Appendix E—Data Summary Table

Data (Buffer distance)		GAP (acres)													
		Cropland	Grassland	Lowland Deciduous	Upland Shrub	Oak	Cottonwood	Marsh	Aquatic	Maple / Basswood	Developed	Silver Maple	Pine	Lowland Shrub	Upland Deciduous
Segment 1															
Start to Lyon County Sub	Preferred Route	759.05	109.27	0.08	5.14	2.34	0.02	0.00	0	0	0	0	0	0	0
Start to Lyon County Sub	1P-01	755.38	110.85	0.08	6.88	2.34	0.02	0.00	0	0	0	0	0	0	0
Start to Lyon County Sub	1P-02	756.34	109.78	0.08	4.53	6.31	0.00	5.01	0	0	0	0	0	0	0
Start to Lyon County Sub	Alternate Route	755.45	108.47	0.00	5.78	2.06	1.94	0.38	0	0	0	0	0	0	0
Start to Lyon County Sub	1A-01	771.22	110.12	0.00	5.78	2.06	1.94	0.38	0	0	0	0	0	0	0
Start to Lyon County Sub	1A-02	784.72	107.25	0.00	2.75	3.14	0.03	0.38	0	0	0	0	0	0	0
Start to Lyon County Sub	1A-03	779.56	109.66	0.00	2.52	3.29	0.00	0.38	0	0	0	0	0	0	0
Segment 2															
Lyon County Sub to MN Valley Sub	Preferred Route	477.97	36.56	0	6.50	11.92	0.61	2.88	1.81	0	0	0	0	0	0
Lyon County Sub to MN Valley Sub	2B-01	417.08	75.80	0	3.60	4.90	0.00	11.03	1.48	0	0	0	0	0	0
Lyon County Sub to MN Valley Sub	2B-02	476.60	37.54	0	4.09	10.70	0.61	2.19	1.62	0	0	0	0	0	0
Lyon County Sub to MN Valley Sub	Alternate Route	547.77	35.42	0	2.74	7.02	0.00	10.21	1.71	0	0	0	0	0	0
Segment 3															
Lyon County Sub to Cedar Mountain Sub (North)	Preferred Route	866.00	26.36	0	2.10	5.97	0.25	1.95	2.08	3.89	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (North)	3P-01	865.81	25.61	0	2.10	5.97	0.25	1.95	2.08	3.89	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3P-02	865.81	25.61	0	2.10	5.97	0.25	1.95	2.08	3.89	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3P-03	870.20	29.71	0	5.06	5.28	0.25	1.95	2.08	1.86	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3P-04	865.60	25.88	0	2.10	6.22	0.25	1.95	2.08	3.99	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3P-05	866.30	25.61	0	2.10	5.97	0.25	1.95	2.08	3.99	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3P-06	866.25	26.03	0	2.10	5.97	0.25	1.95	2.08	3.89	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (South)	Alternate Route	868.78	31.50	0	11.09	12.33	1.06	1.02	0.80	4.36	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3A-01	869.06	31.34	0	11.09	12.33	1.06	1.02	0.80	4.36	0	0	0	0	0
Segment 4															
Cedar Mountain Sub (North) to Helena Sub (South)	Preferred Route	1182.67	80.61	0.01	10.29	1.79	0.02	1.14	3.88	1.10	4.04	0	0	0	0
Cedar Mountain Sub (North) to Helena Sub (South)	4P-01	1127.19	66.00	0.01	10.46	1.64	0.02	1.14	3.88	1.10	4.04	0	0	0	0
Cedar Mountain Sub (North) to Helena Sub (South)	4P-02	1184.96	81.02	0.01	10.29	1.79	0.02	1.14	3.88	1.10	4.04	0	0	0	0
Cedar Mountain Sub (North) to Helena Sub (South)	4P-03	1190.86	82.13	1.45	14.39	4.66	0.02	1.27	3.88	1.10	4.04	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4P-04	1179.48	89.51	0.01	12.87	1.79	0.02	2.52	0.44	1.27	11.51	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4P-05	1182.57	80.08	0.01	10.29	2.51	0.02	1.14	3.88	1.10	4.04	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4P-06	1097.07	73.33	0.01	9.17	1.79	0.02	1.14	3.88	1.10	4.04	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-01	1304.67	139.23	2.28	11.53	2.03	0.59	12.35	0.68	0.76	0.00	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-02	1302.04	145.85	2.28	11.09	2.03	0.59	13.49	0.68	0.76	0.00	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-03	1211.14	115.25	2.28	10.56	2.03	0.59	15.19	0.68	0.76	0.00	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-04	1143.64	78.12	0.01	9.38	2.55	0.02	0.54	3.88	1.10	4.04	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-05	1158.21	160.85	0.01	9.09	1.44	0.02	3.42	3.88	0.83	4.04	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-06	1215.65	90.27	0.01	10.05	1.79	0.51	2.97	3.88	1.10	4.04	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-07	1226.09	92.60	0.01	11.55	1.79	0.02	1.14	3.88	1.10	4.04	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-08	1186.48	88.87	0.01	9.77	1.79	0.02	2.45	3.88	1.10	4.04	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (South) M	4B-09	1090.91	67.18	0.01	9.11	1.79	0.02	0.40	3.88	1.10	4.04	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (South)	Alternate Route	1217.78	113.20	2.28	10.56	2.03	0.59	14.19	0.68	0.76	0.00	0	0	0	0
Segment 5															
Helena Sub (North) to Lake Marion Sub	Preferred Route	242.43	103.77	0	3.15	0.18	0	6.76	0	0.09	6.35	0.33	0.54	0	0
Helena Sub (North) to Lake Marion Sub	5P-01	233.20	113.23	0	3.15	0.18	0	6.76	0	0.09	6.35	0.33	0.54	0	0
Helena Sub (North) to Lake Marion Sub	5P-02	247.49	100.44	0	3.15	0.18	0	6.76	0	0.09	6.35	0.33	0.54	0	0
Helena Sub (North) to Lake Marion Sub	5P-03	210.20	107.08	0	2.88	0.18	0	4.54	0	0.00	35.66	0.07	0.54	0	0
Helena Sub (South) to Lake Marion Sub	5B-01	349.05	150.89	0	15.77	5.53	0	4.20	0	0.85	20.44	0.00	0.55	0	0
Helena Sub (South) to Lake Marion Sub	5B-02	378.79	148.66	0	15.66	5.53	0	6.34	0	0.85	20.44	0.00	0.55	0	0
Helena Sub (South) to Lake Marion Sub	5B-03	344.06	114.81	0	4.81	0.18	0	6.76	0	0.09	6.35	0.33	0.54	0	0
Helena Sub (South) to Lake Marion Sub	Alternate Route	359.90	146.96	0	15.77	5.53	0	4.20	0	0.85	20.44	0.00	0.55	0	0
Helena Sub (South) M to Lake Marion Sub	5A-01	363.12	141.26	0	16.87	6.85	0	4.20	0	0.85	20.44	0.00	0.55	0	0
Helena Sub (South) to Lake Marion Sub	5A-02	363.30	153.30	0	15.77	5.53	0	4.20	0	0.85	20.44	0.00	0.55	0	0
Helena Sub (South) to Lake Marion Sub	5A-03	340.21	121.09	0	17.32	7.16	0	5.22	0	1.83	18.05	0.00	1.06	0	0
Helena Sub (South) to Lake Marion Sub	5A-04	368.21	131.52	0	23.24	4.65	0	4.20	0	0.00	20.44	0.00	0.55	0	0
Segment 6															
Lake Marion Sub to Hampton Sub	Preferred Route	254.99	55.24	3.05	0.37	2.74	2.04	6.13	0	1.33	8.29	1.32	0	1.71	2.03
Lake Marion Sub to Hampton Sub	6P-01	222.34	57.26	1.17	1.46	2.86	0.00	7.43	0	2.49	95.20	0.00	0	1.71	1.27
Lake Marion Sub to Hampton Sub	6P-02	255.32	55.24	3.11	0.37	2.74	2.04	6.13	0	1.33	8.46	1.32	0	1.71	2.03
Lake Marion Sub to Hampton Sub	6P-03	262.44	60.44	2.35	0.83	0.15	2.04	4.67	0	0.00	7.62	1.32	0	1.34	0.76
Lake Marion Sub to Hampton Sub	6P-04	238.58	57.60	1.17	1.46	2.86	0.23	6.45	0	1.62	70.83	0.00	0	1.71	1.27
Lake Marion Sub to Hampton Sub	6P-05	225.49	61.54	1.17	1.26	2.72	0.00	8.93	0	1.33	64.92	0.06	0	1.71	1.27
Lake Marion Sub to Hampton Sub	6P-06	262.22	60.44	2.35	0.83	0.15	2.04	4.67	0	0.00	7.62	1.32	0	1.34	0.76
Lake Marion Sub to Hampton Sub	6P-07	249.86	53.59	3.05	2.37	2.74	2.04	5.81	0	1.33	7.84	0.00	0	1.71	2.03
Lake Marion Sub to Hampton Sub	6P-08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0	0.00	0.00
Lake Marion Sub to Hampton Sub	Original Alternate	258.04	112.38	2.26	1.89	3.38	0.00	10.96	0	2.36	40.67	0.00	0	5.01	0.00
Lake Marion Sub to Hampton Sub	6A-01	326.26	95.63	3.31	1.89	10.04	0.00	10.04	0	2.38	27.73	0.00	0	4.18	0.00
Lake Marion Sub to Hampton Sub	6A-02	259.90	113.07	2.26	1.89	3.38	0.00	10.36	0	2.36	44.53	0.00	0	6.01	0.00
Lake Marion Sub to Hampton Sub	6A-03	268.62	114.16	2.94	1.89	4.06	0.00	10.36	0	2.36	29.94	0.00	0	4.38	0.00
Suggested S. Lake Marion Sub to Hampton Sub	6A-04	254.43	106.21	1.01	1.89	2.97	0.00	8.57	0	0.01	36.02	0.00	0	3.18	0.00

Appendix E

Route	Data (Buffer distance)	Homes				Prime Farmland (acres)			
		Homes (75 ft)	Homes (150 ft)	Homes (300 ft)	Homes (500 ft)	Farmland of statewide importance	All areas are prime farmland	Prime farmland if protected from flooding or not frequently flooded during the growing season	Prime farmland if drained
Segment 1									
Start to Lyon County Sub	Preferred Route	0	2	19	31	66.44	395.20	26.72	318.70
Start to Lyon County Sub	1P-01	0	2	18	31	71.07	392.09	26.72	329.81
Start to Lyon County Sub	1P-02	0	4	18	31	63.02	427.38	33.44	297.99
Start to Lyon County Sub	Alternate Route	0	2	17	26	74.79	409.13	47.19	271.83
Start to Lyon County Sub	1A-01	0	2	18	28	75.72	415.61	47.19	281.84
Start to Lyon County Sub	1A-02	0	3	23	32	80.33	428.57	50.58	277.20
Start to Lyon County Sub	1A-03	0	4	23	33	77.25	422.77	50.58	283.48
Segment 2									
Lyon County Sub to MN Valley Sub	Preferred Route	1	6	21	33	35.21	219.86	1.16	238.95
Lyon County Sub to MN Valley Sub	2B-01	0	1	7	14	22.72	212.15	1.78	235.43
Lyon County Sub to MN Valley Sub	2B-02	0	4	16	26	28.61	228.19	1.16	231.74
Lyon County Sub to MN Valley Sub	Alternate Route	0	1	9	15	36.36	255.90	7.91	262.48
Segment 3									
Lyon County Sub to Cedar Mountain Sub (North)	Preferred Route	0	7	17	23	28.43	290.05	3.03	573.45
Lyon County Sub to Cedar Mountain Sub (North)	3P-01	0	6	16	23	26.74	288.59	3.03	576.30
Lyon County Sub to Cedar Mountain Sub (South)	3P-02	0	6	16	23	26.10	292.49	3.03	572.92
Lyon County Sub to Cedar Mountain Sub (South)	3P-03	0	6	17	23	27.43	300.36	3.03	566.28
Lyon County Sub to Cedar Mountain Sub (South)	3P-04	0	6	16	23	26.02	288.14	3.03	577.15
Lyon County Sub to Cedar Mountain Sub (South)	3P-05	0	6	16	23	26.66	284.28	3.03	580.55
Lyon County Sub to Cedar Mountain Sub (South)	3P-06	0	7	17	21	29.12	289.81	3.03	571.29
Lyon County Sub to Cedar Mountain Sub (South)	Alternate Route	0	0	5	13	62.68	330.57	4.85	478.69
Lyon County Sub to Cedar Mountain Sub (South)	3A-01	0	0	5	13	59.16	333.94	4.85	478.96
Segment 4									
Cedar Mountain Sub (North) to Helena Sub (South)	Preferred Route	1	14	42	68	104.36	355.29	7.15	759.09
Cedar Mountain Sub (North) to Helena Sub (South)	4P-01	0	11	35	63	86.48	329.22	7.15	730.99
Cedar Mountain Sub (North) to Helena Sub (South)	4P-02	0	12	40	67	101.53	358.02	7.15	761.88
Cedar Mountain Sub (North) to Helena Sub (South)	4P-03	1	15	42	66	104.35	376.62	22.68	739.06
Cedar Mountain Sub (South) to Helena Sub (North)	4P-04	1	14	43	69	111.94	355.14	20.25	759.09
Cedar Mountain Sub (South) to Helena Sub (North)	4P-05	1	15	46	74	107.03	355.31	7.15	756.49
Cedar Mountain Sub (South) to Helena Sub (North)	4P-06	1	10	40	59	79.79	326.00	7.15	727.55
Cedar Mountain Sub (South) to Helena Sub (North)	4B-01	0	11	48	83	116.28	461.28	6.60	846.96
Cedar Mountain Sub (South) to Helena Sub (North)	4B-02	0	10	49	84	115.61	463.34	6.60	851.36
Cedar Mountain Sub (South) to Helena Sub (North)	4B-03	0	6	40	70	93.70	405.15	7.02	811.45
Cedar Mountain Sub (South) to Helena Sub (North)	4B-04	1	12	34	57	94.97	334.90	7.15	756.41
Cedar Mountain Sub (South) to Helena Sub (North)	4B-05	2	10	41	78	91.10	404.61	7.93	776.92
Cedar Mountain Sub (South) to Helena Sub (North)	4B-06	1	12	47	72	101.86	365.20	7.15	793.78
Cedar Mountain Sub (South) to Helena Sub (North)	4B-07	3	18	53	83	105.33	386.39	7.15	792.09
Cedar Mountain Sub (South) to Helena Sub (North)	4B-08	1	14	47	70	103.49	361.63	7.15	767.27
Cedar Mountain Sub (South) to Helena Sub (South) M	4B-09	1	12	36	57	89.22	311.85	7.15	724.07
Cedar Mountain Sub (South) to Helena Sub (South)	Alternate Route	0	7	37	73	93.26	407.02	7.02	804.06
Segment 5									
Helena Sub (North) to Lake Marion Sub	Preferred Route	0	6	54	94	76.12	117.41	2.50	90.18
Helena Sub (North) to Lake Marion Sub	5P-01	0	7	55	101	77.77	113.93	2.50	88.82
Helena Sub (North) to Lake Marion Sub	5P-02	0	6	50	92	77.01	117.82	2.50	89.77
Helena Sub (North) to Lake Marion Sub	5P-03	5	29	94	173	77.29	116.48	3.30	93.20
Helena Sub (South) to Lake Marion Sub	5B-01	1	10	40	79	79.88	137.07	2.63	201.54
Helena Sub (South) to Lake Marion Sub	5B-02	1	20	63	116	81.72	138.51	2.63	226.44
Helena Sub (South) to Lake Marion Sub	5B-03	2	10	64	112	81.90	168.77	2.50	146.40
Helena Sub (South) to Lake Marion Sub	Alternate Route	1	11	40	79	84.89	143.11	2.63	197.41
Helena Sub (South) M to Lake Marion Sub	5A-01	1	10	38	79	87.26	142.73	2.63	198.24
Helena Sub (South) to Lake Marion Sub	5A-02	1	11	39	80	88.09	143.93	2.63	202.76
Helena Sub (South) to Lake Marion Sub	5A-03	2	15	39	72	79.71	133.98	2.63	179.38
Helena Sub (South) to Lake Marion Sub	5A-04	1	12	42	78	89.35	145.02	2.63	194.89
Segment 6									
Lake Marion Sub to Hampton Sub	Preferred Route	1	8	32	67	23.01	200.87	14.18	68.37
Lake Marion Sub to Hampton Sub	6P-01	1	12	70	117	32.52	234.67	10.53	51.33
Lake Marion Sub to Hampton Sub	6P-02	1	8	31	66	22.88	200.17	14.18	68.37
Lake Marion Sub to Hampton Sub	6P-03	1	6	27	54	57.83	182.23	10.00	64.14
Lake Marion Sub to Hampton Sub	6P-04	1	8	42	72	40.94	210.70	9.06	57.18
Lake Marion Sub to Hampton Sub	6P-05	2	14	57	104	20.99	218.30	10.61	52.60
Lake Marion Sub to Hampton Sub	6P-06	1	6	26	52	56.58	183.26	10.00	64.14
Lake Marion Sub to Hampton Sub	6P-07	1	11	38	73	20.46	189.56	13.67	73.09
Lake Marion Sub to Hampton Sub	6P-08	1	8	36	58	20.69	204.69	13.17	154.17
Lake Marion Sub to Hampton Sub	Original Alternate	0	6	56	114	41.17	250.30	3.62	99.29
Lake Marion Sub to Hampton Sub	6A-01	0	11	73	115	57.63	266.42	3.62	93.56
Lake Marion Sub to Hampton Sub	6A-02	0	7	66	128	42.72	255.93	3.62	95.69
Lake Marion Sub to Hampton Sub	6A-03	0	6	62	109	42.44	239.16	3.62	97.36
Suggested S. Lake Marion Sub to Hampton Sub	6A-04	13	53	143	204	42.54	256.80	3.01	76.22

Route	Data (Buffer distance)	Airports			Recreation					
		Airports (within Half Mile)	Airports (1/2 Mile-1 Mile)	Airports (within 1 Mile)	Rec Area (500 ft)	Rec Area (500 ft-1/2 mile)	Park (500 ft)	Park (500 ft-1/2 mile)	Baseball (500 ft)	Golf Course (1/2 mile)
Segment 1										
Start to Lyon County Sub	Preferred Route	0	0	0	0	0	0	0	0	0
Start to Lyon County Sub	1P-01	0	0	0	0	0	0	0	0	0
Start to Lyon County Sub	1P-02	0	0	0	0	0	0	0	0	0
Start to Lyon County Sub	Alternate Route	0	0	0	1	0	0	0	0	0
Start to Lyon County Sub	1A-01	0	0	0	1	0	0	0	0	0
Start to Lyon County Sub	1A-02	0	0	0	1	0	0	0	0	0
Start to Lyon County Sub	1A-03	0	0	0	1	0	0	0	0	0
Segment 2										
Lyon County Sub to MN Valley Sub	Preferred Route	0	0	0	0	0	0	2	0	1
Lyon County Sub to MN Valley Sub	2B-01	1	0	1	0	1	0	3	1	1
Lyon County Sub to MN Valley Sub	2B-02	0	0	0	0	0	0	2	0	1
Lyon County Sub to MN Valley Sub	Alternate Route	0	0	0	0	0	0	3	0	1
Segment 3										
Lyon County Sub to Cedar Mountain Sub (North)	Preferred Route	0	1	1	0	1	0	1	0	0
Lyon County Sub to Cedar Mountain Sub (North)	3P-01	0	1	1	0	1	0	1	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3P-02	0	1	1	0	1	0	1	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3P-03	0	1	1	0	1	0	1	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3P-04	0	1	1	0	1	0	1	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3P-05	0	1	1	0	1	0	1	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3P-06	0	1	1	0	1	0	1	0	0
Lyon County Sub to Cedar Mountain Sub (South)	Alternate Route	0	0	0	0	1	0	1	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3A-01	0	0	0	0	1	0	1	0	0
Segment 4										
Cedar Mountain Sub (North) to Helena Sub (South)	Preferred Route	1	0	1	0	0	0	1	0	0
Cedar Mountain Sub (North) to Helena Sub (South)	4P-01	1	0	1	0	0	0	1	0	0
Cedar Mountain Sub (North) to Helena Sub (South)	4P-02	1	0	1	0	0	0	1	0	0
Cedar Mountain Sub (North) to Helena Sub (South)	4P-03	1	0	1	0	0	0	1	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4P-04	1	0	1	0	0	1	0	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4P-05	1	0	1	0	0	0	1	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4P-06	1	0	1	0	0	0	1	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-01	1	0	1	0	0	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-02	1	0	1	0	0	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-03	1	0	1	0	0	0	0	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-04	1	0	1	0	0	0	2	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-05	2	0	2	0	0	0	1	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-06	1	0	1	0	0	0	1	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-07	1	0	1	0	0	0	1	0	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-08	1	0	1	0	0	0	1	0	0
Cedar Mountain Sub (South) to Helena Sub (South) M	4B-09	1	0	1	0	0	0	1	0	0
Cedar Mountain Sub (South) to Helena Sub (South)	Alternate Route	1	0	1	0	0	0	0	0	0
Segment 5										
Helena Sub (North) to Lake Marion Sub	Preferred Route	0	0	0	0	0	0	1	0	0
Helena Sub (North) to Lake Marion Sub	5P-01	1	0	1	0	0	0	1	0	0
Helena Sub (North) to Lake Marion Sub	5P-02	1	0	1	0	0	0	1	0	0
Helena Sub (North) to Lake Marion Sub	5P-03	0	0	0	0	1	0	1	0	0
Helena Sub (South) to Lake Marion Sub	5B-01	0	0	0	0	0	0	0	0	0
Helena Sub (South) to Lake Marion Sub	5B-02	0	0	0	0	0	0	0	0	0
Helena Sub (South) to Lake Marion Sub	5B-03	0	0	0	0	0	0	1	0	1
Helena Sub (South) to Lake Marion Sub	Alternate Route	1	0	1	0	0	0	0	0	0
Helena Sub (South) M to Lake Marion Sub	5A-01	1	0	1	0	0	0	0	0	0
Helena Sub (South) to Lake Marion Sub	5A-02	1	0	1	0	0	0	0	0	0
Helena Sub (South) to Lake Marion Sub	5A-03	1	0	1	0	0	0	0	0	0
Helena Sub (South) to Lake Marion Sub	5A-04	1	1	2	0	0	0	0	0	0
Segment 6										
Lake Marion Sub to Hampton Sub	Preferred Route	0	3	3	0	0	0	0	0	0
Lake Marion Sub to Hampton Sub	6P-01	0	2	2	0	4	0	0	0	0
Lake Marion Sub to Hampton Sub	6P-02	0	3	3	0	0	0	0	0	0
Lake Marion Sub to Hampton Sub	6P-03	0	3	3	0	0	0	0	0	0
Lake Marion Sub to Hampton Sub	6P-04	0	2	2	0	1	0	0	0	0
Lake Marion Sub to Hampton Sub	6P-05	0	2	2	0	1	0	0	0	0
Lake Marion Sub to Hampton Sub	6P-06	0	3	3	0	0	0	0	0	0
Lake Marion Sub to Hampton Sub	6P-07	0	3	3	0	0	0	0	0	0
Lake Marion Sub to Hampton Sub	6P-08	0	4	4	0	0	0	0	0	0
Lake Marion Sub to Hampton Sub	Original Alternate	0	0	0	0	1	1	0	0	0
Lake Marion Sub to Hampton Sub	6A-01	0	0	0	0	1	0	0	0	0
Lake Marion Sub to Hampton Sub	6A-02	0	0	0	0	1	1	0	0	0
Lake Marion Sub to Hampton Sub	6A-03	0	0	0	0	1	0	1	0	0
Lake Marion Sub to Hampton Sub	6A-04	0	0	0	0	0	0	1	0	0

Appendix E

Route	Data (Buffer distance)	ROW Type								Scenic Byways	Shallow Lakes	SNA
		County or Township Road	Major Highway	Municipal Street	Field Line	Field	Transmission	RR	Pipeline	Scenic Byways (500 ft) (miles)	Lake	SNA 1 mile
Segment 1												
Start to Lyon County Sub	Preferred Route	37.1	0.0	0.0	2.6	0.6	7.9	0.0	0.0	0.4		0
Start to Lyon County Sub	1P-01	35.6	0.0	0.0	3.5	1.2	7.9	0.0	0.0	0.4		0
Start to Lyon County Sub	1P-02	37.6	0.0	0.0	3.7	1.2	6.0	0.0	0.0	0.4		0
Start to Lyon County Sub	Alternate Route	19.4	0.0	0.0	13.0	1.1	14.6	0.0	0.0	0.4		0
Start to Lyon County Sub	1A-01	21.4	0.0	0.0	12.0	1.1	14.6	0.0	0.0	0.4		0
Start to Lyon County Sub	1A-02	18.6	3.5	0.0	12.0	0.8	14.6	0.0	0.0	0.4		0
Start to Lyon County Sub	1A-03	19.1	3.5	0.0	10.7	1.4	14.6	0.0	0.0	0.4		0
Segment 2												
Lyon County Sub to MN Valley Sub	Preferred Route	0.1	0.0	0.0	0.0	0.0	29.5	0.0	0.0	NA		27.93
Lyon County Sub to MN Valley Sub	2B-01	18.6	0.0	0.0	1.5	0.0	8.7	0.0	0.0	NA		27.93
Lyon County Sub to MN Valley Sub	2B-02	2.2	0.8	0.0	4.2	0.6	21.6	0.0	0.0	NA		27.93
Lyon County Sub to MN Valley Sub	Alternate Route	14.3	1.6	0.0	5.7	1.7	10.0	0.0	0.0	NA		27.93
Segment 3												
Lyon County Sub to Cedar Mountain Sub (North)	Preferred Route	31.0	0.0	0.0	14.5	3.5	0.9	0.0	0.0	0.3		0
Lyon County Sub to Cedar Mountain Sub (North)	3P-01	29.6	0.0	0.0	15.9	3.5	0.9	0.0	0.0	0.3		0
Lyon County Sub to Cedar Mountain Sub (South)	3P-02	29.3	0.0	0.0	16.2	3.5	0.9	0.0	0.0	0.2		0
Lyon County Sub to Cedar Mountain Sub (South)	3P-03	29.8	0.0	0.0	17.2	2.5	0.9	0.0	0.0	0.2		0
Lyon County Sub to Cedar Mountain Sub (South)	3P-04	29.3	0.0	0.0	16.2	3.5	0.9	0.0	0.0	0.2		0
Lyon County Sub to Cedar Mountain Sub (South)	3P-05	29.6	0.0	0.0	15.9	3.5	0.9	0.0	0.0	0.2		0
Lyon County Sub to Cedar Mountain Sub (South)	3P-06	29.0	1.0	0.0	15.5	3.5	0.9	0.0	0.0	0.2		0
Lyon County Sub to Cedar Mountain Sub (South)	Alternate Route	11.9	5.9	0.0	27.9	0.5	5.0	0.0	0.0	0.2		0
Lyon County Sub to Cedar Mountain Sub (South)	3A-01	11.1	5.9	0.0	28.7	0.5	5.0	0.0	0.0	0.2		0
Segment 4												
Cedar Mountain Sub (North) to Helena Sub (South)	Preferred Route	47.8	2.9	0.0	13.2	5.7	1.1	0.0	0.0	0.2		0
Cedar Mountain Sub (North) to Helena Sub (South)	4P-01	50.7	0.0	0.0	10.4	5.7	0.0	0.0	0.0	0.2		0
Cedar Mountain Sub (North) to Helena Sub (South)	4P-02	43.0	6.9	0.0	14.2	5.7	1.1	0.0	0.0	0.2		0
Cedar Mountain Sub (North) to Helena Sub (South)	4P-03	44.1	2.9	0.0	15.5	8.2	1.1	0.0	0.0	0.2		0
Cedar Mountain Sub (South) to Helena Sub (North)	4P-04	47.8	4.5	0.0	13.7	4.4	1.1	0.0	0.0	0.2	Sand Lake	0
Cedar Mountain Sub (South) to Helena Sub (North)	4P-05	50.3	3.4	0.0	10.2	5.7	1.1	0.0	0.0	0.2	Sand Lake	0
Cedar Mountain Sub (South) to Helena Sub (North)	4P-06	44.2	2.9	0.0	11.7	5.7	1.1	0.0	0.0	0.2	Sand Lake	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-01	54.0	5.2	0.0	17.1	2.6	2.2	0.0	0.0	0.2	Sand Lake	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-02	55.6	5.2	0.0	17.1	1.3	2.2	0.0	0.0	0.2	Sand Lake	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-03	46.0	4.7	0.0	20.1	2.1	2.2	0.0	0.0	0.2	Sand Lake	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-04	44.6	0.0	0.0	11.2	5.7	6.8	0.0	0.0	0.2	Sand Lake	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-05	41.3	12.5	0.0	12.7	6.2	1.1	0.0	0.0	0.2	Sand Lake	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-06	47.3	2.9	0.0	12.7	9.2	1.1	0.0	0.0	0.2	Sand Lake	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-07	51.5	2.9	0.0	11.7	6.7	1.1	0.0	0.0	0.3	Sand Lake	0
Cedar Mountain Sub (South) to Helena Sub (North)	4B-08	49.5	2.9	0.0	12.2	5.7	1.1	0.0	0.0	0.2	Sand Lake	0
Cedar Mountain Sub (South) to Helena Sub (South) M	4B-09	43.9	2.9	0.0	11.2	5.7	1.1	0.0	0.0	0.2	Sand Lake	0
Cedar Mountain Sub (South) to Helena Sub (South)	Alternate Route	46.5	4.7	0.0	19.6	2.0	2.2	0.0	0.0	0.2	Sand Lake	0
Segment 5												
Helena Sub (North) to Lake Marion Sub	Preferred Route	13.6	0.0	0.0	4.6	1.5	0.3	0.0	0.0	NA		0
Helena Sub (North) to Lake Marion Sub	5P-01	16.6	7.4	0.0	1.9	2.4	1.8	0.0	0.0	NA		0
Helena Sub (North) to Lake Marion Sub	5P-02	22.0	7.4	0.0	0.5	0.0	1.8	0.0	0.0	NA		0
Helena Sub (North) to Lake Marion Sub	5P-03	19.9	0.0	0.0	4.6	1.5	0.3	0.0	0.0	NA		0
Helena Sub (South) to Lake Marion Sub	5B-01	14.6	0.0	0.0	4.6	0.5	0.3	0.0	0.0	NA		0
Helena Sub (South) to Lake Marion Sub	5B-02	12.7	0.0	0.0	4.6	2.5	0.3	0.0	0.0	NA	Sanborn Lake	0
Helena Sub (South) to Lake Marion Sub	5B-03	18.0	1.7	0.0	0.1	0.0	0.0	0.0	0.0	NA		0
Helena Sub (South) to Lake Marion Sub	Alternate Route	17.0	7.4	0.0	1.9	2.4	1.8	0.0	0.0	NA	Sanborn Lake	0
Helena Sub (South) M to Lake Marion Sub	5A-01	16.0	7.4	0.0	2.9	2.4	1.8	0.0	0.0	NA	Sanborn Lake	0
Helena Sub (South) to Lake Marion Sub	5A-02	16.4	7.4	0.0	2.4	3.0	1.8	0.0	0.0	NA	Sanborn Lake	0
Helena Sub (South) to Lake Marion Sub	5A-03	13.0	6.3	0.0	3.5	3.6	1.8	0.0	0.0	NA		0
Helena Sub (South) to Lake Marion Sub	5A-04	16.0	6.7	0.0	3.6	2.4	1.8	0.0	0.0	NA	Sanborn Lake	0
Segment 6												
Lake Marion Sub to Hampton Sub	Preferred Route	4.3	2.5	0.0	8.4	0.9	0.0	1.0	1.5	NA		0
Lake Marion Sub to Hampton Sub	6P-01	8.0	5.3	1.8	4.3	0.7	0.0	0.0	1.5	NA		0
Lake Marion Sub to Hampton Sub	6P-02	4.3	2.3	0.0	8.4	1.2	0.0	1.0	1.5	NA		0
Lake Marion Sub to Hampton Sub	6P-03	5.4	0.0	0.0	8.2	2.3	0.0	1.0	2.1	NA		0
Lake Marion Sub to Hampton Sub	6P-04	4.8	5.3	0.8	7.5	1.2	0.0	0.0	1.5	NA		0
Lake Marion Sub to Hampton Sub	6P-05	8.3	2.5	0.8	5.0	2.2	0.0	0.0	1.5	NA		0
Lake Marion Sub to Hampton Sub	6P-06	5.4	0.0	0.0	7.5	2.3	0.0	1.0	2.7	NA		0
Lake Marion Sub to Hampton Sub	6P-07	5.1	2.5	0.0	7.3	0.9	0.0	1.0	1.5	NA		0
Lake Marion Sub to Hampton Sub	6P-08	3.7	2.5	0.0	6.3	2.1	6.9	1.0	1.5	NA		0
Lake Marion Sub to Hampton Sub	Original Alternate	13.6	2.3	0.0	6.3	1.8	0.0	0.0	0.0	NA		0
Lake Marion Sub to Hampton Sub	6A-01	16.3	0.0	0.0	8.9	1.3	0.0	0.0	0.0	NA		0
Lake Marion Sub to Hampton Sub	6A-02	15.1	1.4	0.0	6.5	1.3	0.0	0.0	0.0	NA		0
Lake Marion Sub to Hampton Sub	6A-03	14.8	0.0	0.0	7.2	2.1	0.0	0.0	0.0	NA		0
Suggested S. Lake Marion Sub to Hampton Sub	6A-04	21.1	1.3	0.0	0.1	0.2	0.0	0.0	0.0	NA		0

Route	Data (Buffer distance)	Snowmobile Trails		Towers	Wild and Scenic Rivers (Crossings)	WPA (acres)			Wildlife Refuges (acres)		
		Number of intersections with snowmobile trails	Miles of snowmobile trail within 500 ft of centerline	Towers (within 500ft)	Intersect	75 ft	500 ft	1 mile	75 ft	500 ft	1 mile
Segment 1											
Start to Lyon County Sub	Preferred Route	2	1.5	7	none	0	0	265	0	0	74
Start to Lyon County Sub	1P-01	2	1.5	7	none	0	0	265	0	0	74
Start to Lyon County Sub	1P-02	2	1.2	10	none	0	0	265	0	0	74
Start to Lyon County Sub	Alternate Route	2	1.7	4	none	8	47	729	0	0	0
Start to Lyon County Sub	1A-01	2	1.7	4	none	8	47	729	0	0	0
Start to Lyon County Sub	1A-02	2	1.7	1	none	8	47	729	0	0	0
Start to Lyon County Sub	1A-03	2	1.7	1	none	8	47	729	0	0	0
Segment 2											
Lyon County Sub to MN Valley Sub	Preferred Route	0	0.0	0	Minnesota River	0	0	0	0	0	0
Lyon County Sub to MN Valley Sub	2B-01	1	10.1	3	Minnesota River	0	0	0	0	0	0
Lyon County Sub to MN Valley Sub	2B-02	0	0.0	0	Minnesota River	0	0	0	0	0	0
Lyon County Sub to MN Valley Sub	Alternate Route	2	0.9	1	Minnesota River	0	0	18	0	0	0
Segment 3											
Lyon County Sub to Cedar Mountain Sub (North)	Preferred Route	2	1.9	1	Minnesota River	0	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (North)	3P-01	2	1.9	1	Minnesota River	0	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3P-02	2	1.9	1	none	0	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3P-03	2	1.9	1	none	0	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3P-04	2	1.9	1	none	0	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3P-05	2	1.9	1	none	0	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3P-06	2	1.9	1	none	0	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (South)	Alternate Route	2	5.3	0	none	0	0	0	0	0	0
Lyon County Sub to Cedar Mountain Sub (South)	3A-01	2	4.8	0	none	0	0	0	0	0	0
Segment 4											
Cedar Mountain Sub (North) to Helena Sub (South)	Preferred Route	4	8.0	13	none	0	0	53.56	0	0	869
Cedar Mountain Sub (North) to Helena Sub (South)	4P-01	4	1.3	6	none	0	0	53.56	0	0	869
Cedar Mountain Sub (North) to Helena Sub (South)	4P-02	4	4.0	14	none	0	0	53.56	0	0	869
Cedar Mountain Sub (North) to Helena Sub (South)	4P-03	4	7.6	11	none	0	0	53.56	0	0	869
Cedar Mountain Sub (South) to Helena Sub (North)	4P-04	4	8.0	13	none	0	0	53.56	0	0	863
Cedar Mountain Sub (South) to Helena Sub (North)	4P-05	4	7.6	13	none	0	0	53.56	0	0	869
Cedar Mountain Sub (South) to Helena Sub (North)	4P-06	3	7.9	13	none	0	0	43.04	0	0	869
Cedar Mountain Sub (South) to Helena Sub (North)	4B-01	4	1.9	7	none	0	0	106.27	5	34	743
Cedar Mountain Sub (South) to Helena Sub (North)	4B-02	4	1.9	7	none	0	0	106.27	5	34	743
Cedar Mountain Sub (South) to Helena Sub (North)	4B-03	3	1.2	5	none	0	0	65.52	5	34	743
Cedar Mountain Sub (South) to Helena Sub (North)	4B-04	4	8.1	13	none	0	0	54.47	0	0	869
Cedar Mountain Sub (South) to Helena Sub (North)	4B-05	4	8.2	13	none	0	0	0.00	0	0	869
Cedar Mountain Sub (South) to Helena Sub (North)	4B-06	4	8.1	13	none	0	0	53.56	0	0	869
Cedar Mountain Sub (South) to Helena Sub (North)	4B-07	3	8.3	13	none	0	0	54.47	0	0	869
Cedar Mountain Sub (South) to Helena Sub (North)	4B-08	4	8.0	13	none	0	0	53.56	0	0	869
Cedar Mountain Sub (South) to Helena Sub (South) M	4B-09	3	7.9	13	none	0	7	54.47	0	0	869
Cedar Mountain Sub (South) to Helena Sub (South)	Alternate Route	3	1.2	5	none	0	0	65.52	5	34	743
Segment 5											
Helena Sub (North) to Lake Marion Sub	Preferred Route	3	2.1	0	none	0	0	0	0	0	0
Helena Sub (North) to Lake Marion Sub	5P-01	3	2.1	0	none	0	0	0	0	0	0
Helena Sub (North) to Lake Marion Sub	5P-02	3	2.1	0	none	0	0	0	0	0	0
Helena Sub (North) to Lake Marion Sub	5P-03	3	2.9	2	none	0	0	0	0	0	0
Helena Sub (South) to Lake Marion Sub	5B-01	3	4.3	5	none	0	11	472	0	0	0
Helena Sub (South) to Lake Marion Sub	5B-02	3	3.9	5	none	0	0	472	0	0	0
Helena Sub (South) to Lake Marion Sub	5B-03	3	2.5	0	none	0	0	54	0	0	0
Helena Sub (South) to Lake Marion Sub	Alternate Route	3	4.3	5	none	0	0	472	0	0	0
Helena Sub (South) M to Lake Marion Sub	5A-01	3	4.3	5	none	0	0	472	0	0	0
Helena Sub (South) to Lake Marion Sub	5A-02	3	4.5	5	none	0	0	472	0	0	0
Helena Sub (South) to Lake Marion Sub	5A-03	3	4.0	5	none	0	0	472	0	0	0
Helena Sub (South) to Lake Marion Sub	5A-04	3	4.5	4	none	8	34	473	0	0	0
Segment 6											
Lake Marion Sub to Hampton Sub	Preferred Route	2	2.5	2	none	0	0	0	0	0	0
Lake Marion Sub to Hampton Sub	6P-01	2	3.3	9	none	0	0	78	0	0	0
Lake Marion Sub to Hampton Sub	6P-02	2	2.5	2	none	0	0	0	0	0	0
Lake Marion Sub to Hampton Sub	6P-03	2	4.3	2	none	0	0	0	0	0	0
Lake Marion Sub to Hampton Sub	6P-04	2	3.8	3	none	0	0	78	0	0	0
Lake Marion Sub to Hampton Sub	6P-05	2	5.9	3	none	0	0	36	0	0	0
Lake Marion Sub to Hampton Sub	6P-06	2	4.4	2	none	0	0	0	0	0	0
Lake Marion Sub to Hampton Sub	6P-07	2	3.5	2	none	0	0	0	0	0	0
Lake Marion Sub to Hampton Sub	6P-08	2	2.9	4	none	0	0	0	0	0	0
Lake Marion Sub to Hampton Sub	Original Alternate	4	2.6	9	none	0	0	0	0	0	0
Lake Marion Sub to Hampton Sub	6A-01	4	3.1	2	none	0	0	0	0	0	0
Lake Marion Sub to Hampton Sub	6A-02	4	2.6	11	none	0	0	0	0	0	0
Lake Marion Sub to Hampton Sub	6A-03	4	2.6	10	none	0	0	0	0	0	0
Suggested S. Lake Marion Sub to Hampton Sub	6A-04	3	1.8	12	none	0	0	0	0	0	0

Appendix E

Route	Data (Buffer distance)	WMA (acres)						State Parks	Hospitals (500 ft)	Nursing Homes (500 ft)	Trails
		1 mile	500 feet	75 feet	501 feet - 1 mile	76 - 500 feet	0-75 feet	No State Parks within 1 mile	No hospitals within 500 ft	No nursing homes within 500 ft	No State Trails within 1 mile
Segment 1											
Start to Lyon County Sub	Preferred Route	568	0	0	568	0	0				
Start to Lyon County Sub	1P-01	568	0	0	568	0	0				
Start to Lyon County Sub	1P-02	932	95	18	819	77	18				
Start to Lyon County Sub	Alternate Route	1047	70	12	964	58	12				
Start to Lyon County Sub	1A-01	1047	70	12	964	58	12				
Start to Lyon County Sub	1A-02	1047	70	12	964	58	12				
Start to Lyon County Sub	1A-03	1047	70	12	964	58	12				
Segment 2											
Lyon County Sub to MN Valley Sub	Preferred Route	343	61	9	273	51	9				
Lyon County Sub to MN Valley Sub	2B-01	84	13	4	67	10	4				
Lyon County Sub to MN Valley Sub	2B-02	343	61	9	273	51	9				
Lyon County Sub to MN Valley Sub	Alternate Route	110	29	1	81	28	1				
Segment 3											
Lyon County Sub to Cedar Mountain Sub (North)	Preferred Route	904	72.1	7.7	824.2	64.4	7.7				
Lyon County Sub to Cedar Mountain Sub (North)	3P-01	904	72.1	7.7	824.2	64.4	7.7				
Lyon County Sub to Cedar Mountain Sub (South)	3P-02	904	72.1	7.7	824.2	64.4	7.7				
Lyon County Sub to Cedar Mountain Sub (South)	3P-03	904	72.1	7.7	824.2	64.4	7.7				
Lyon County Sub to Cedar Mountain Sub (South)	3P-04	904	72.1	7.7	824.2	64.4	7.7				
Lyon County Sub to Cedar Mountain Sub (South)	3P-05	904	72.1	7.7	824.2	64.4	7.7				
Lyon County Sub to Cedar Mountain Sub (South)	3P-06	904	72.1	7.7	824.2	64.4	7.7				
Lyon County Sub to Cedar Mountain Sub (South)	Alternate Route	808.5	33.7	7.1	767.7	26.6	7.1				
Lyon County Sub to Cedar Mountain Sub (South)	3A-01	808.5	33.7	7.1	767.7	26.6	7.1				
Segment 4											
Cedar Mountain Sub (North) to Helena Sub (South)	Preferred Route	651.90	0.90	0.20	650.80	0.70	0.20				
Cedar Mountain Sub (North) to Helena Sub (South)	4P-01	558.10	0.90	0.20	557.00	0.70	0.20				
Cedar Mountain Sub (North) to Helena Sub (South)	4P-02	651.90	0.90	0.20	650.80	0.70	0.20				
Cedar Mountain Sub (North) to Helena Sub (South)	4P-03	651.90	0.90	0.20	650.80	0.70	0.20				
Cedar Mountain Sub (South) to Helena Sub (North)	4P-04	651.90	0.90	0.20	650.80	0.70	0.20				
Cedar Mountain Sub (South) to Helena Sub (North)	4P-05	682.60	0.90	0.20	681.50	0.70	0.20				
Cedar Mountain Sub (South) to Helena Sub (North)	4P-06	446.80	0.00	0.00	446.80	0.00	0.00				
Cedar Mountain Sub (South) to Helena Sub (North)	4B-01	834.70	0.00	0.00	834.70	0.00	0.00				
Cedar Mountain Sub (South) to Helena Sub (North)	4B-02	829.90	0.00	0.00	829.90	0.00	0.00				
Cedar Mountain Sub (South) to Helena Sub (North)	4B-03	640.10	0.00	0.00	640.10	0.00	0.00				
Cedar Mountain Sub (South) to Helena Sub (North)	4B-04	446.80	0.00	0.00	446.80	0.00	0.00				
Cedar Mountain Sub (South) to Helena Sub (North)	4B-05	357.10	31.20	3.90	322.00	27.30	3.90				
Cedar Mountain Sub (South) to Helena Sub (North)	4B-06	795.10	0.00	0.00	795.10	0.00	0.00				
Cedar Mountain Sub (South) to Helena Sub (North)	4B-07	513.50	0.00	0.00	513.50	0.00	0.00				
Cedar Mountain Sub (South) to Helena Sub (North)	4B-08	651.90	0.90	0.20	650.80	0.70	0.20				
Cedar Mountain Sub (South) to Helena Sub (South) M	4B-09	513.50	0.00	0.00	513.50	0.00	0.00				
Cedar Mountain Sub (South) to Helena Sub (South)	Alternate Route	640.10	20.10	4.00	616.00	16.10	4.00				
Segment 5											
Helena Sub (North) to Lake Marion Sub	Preferred Route	129	0	0	129	0	0				
Helena Sub (North) to Lake Marion Sub	5P-01	129	0	0	129	0	0				
Helena Sub (North) to Lake Marion Sub	5P-02	61	0	0	61	0	0				
Helena Sub (North) to Lake Marion Sub	5P-03	129	0	0	129	0	0				
Helena Sub (South) to Lake Marion Sub	5B-01	65	0	0	65	0	0				
Helena Sub (South) to Lake Marion Sub	5B-02	153	0	0	153	0	0				
Helena Sub (South) to Lake Marion Sub	5B-03	59	0	0	59	0	0				
Helena Sub (South) to Lake Marion Sub	Alternate Route	65	0	0	65	0	0				
Helena Sub (South) M to Lake Marion Sub	5A-01	65	0	0	65	0	0				
Helena Sub (South) to Lake Marion Sub	5A-02	65	0	0	65	0	0				
Helena Sub (South) to Lake Marion Sub	5A-03	65	0	0	65	0	0				
Helena Sub (South) to Lake Marion Sub	5A-04	17	0	0	17	0	0				
Segment 6											
Lake Marion Sub to Hampton Sub	Preferred Route	17	0	0	17	0	0				
Lake Marion Sub to Hampton Sub	6P-01	17	0	0	17	0	0				
Lake Marion Sub to Hampton Sub	6P-02	17	0	0	17	0	0				
Lake Marion Sub to Hampton Sub	6P-03	17	0	0	17	0	0				
Lake Marion Sub to Hampton Sub	6P-04	17	0	0	17	0	0				
Lake Marion Sub to Hampton Sub	6P-05	17	0	0	17	0	0				
Lake Marion Sub to Hampton Sub	6P-06	17	0	0	17	0	0				
Lake Marion Sub to Hampton Sub	6P-07	17	0	0	17	0	0				
Lake Marion Sub to Hampton Sub	6P-08	0	0	0	0	0	0				
Lake Marion Sub to Hampton Sub	Original Alternate	220	17	4	200	13	4				
Lake Marion Sub to Hampton Sub	6A-01	220	17	4	200	13	4				
Lake Marion Sub to Hampton Sub	6A-02	220	17	4	200	13	4				
Lake Marion Sub to Hampton Sub	6A-03	220	17	4	200	13	4				
Suggested S. Lake Marion Sub to Hampton Sub	6A-04	220	17	4	200	13	4				