

Chapter Three: Priority Issues

Chapter Three presents the priority issues of the District, as determined by input from the public informational meeting, Watershed Management Plan Taskforce (WMPT), and Advisory Committee. Included in this Chapter is a description on how priority issues were identified, along with profiles of each of the District's ten subwatersheds. Each subwatershed profile contains information on area, minor subwatersheds, surface water resources, local governmental units, land use characteristics, and priority issues and recommendations.

A. Identification of Priority Issues

A multifaceted approach was taken to identify the priority water resource-related issues of the District. An initial Public Informational Meeting was held on March 30, 2006; minutes from this meeting are included as Appendix B. Input from this meeting was then forwarded to the WMPT for further assessment. The Taskforce met three times during the planning process to identify the priority issues that are specific to each of the District's ten subwatersheds, as well as formulate recommendations on how the District should address each issue. Minutes from each of the WMPT meetings are included in Appendix C. The findings of the Taskforce were then submitted to the Advisory Committee for their comments. Comments submitted by Committee members are included in Appendix D. The priority issues identified through this process were used to guide the development of the Implementation Plan contained in Chapter Four.

B. Subwatershed Profiles

Each subwatershed profile contains information on area, minor subwatersheds, surface water resources, local governmental units, land use characteristics, and priority issues and recommendations. Land use data on agriculture, urban/developed, and water was derived from the Minnesota 2000 Level 1 Landsat Landcover Classification. Wetland data was acquired from the USFWS's NWI and RWI databases. Information on erodible land was derived from the NRCS's SSURGO database. Finally, each of the counties within the District provided data on public drainage ditches and feedlots. Each of these land use characteristics are ranked among the subwatersheds; characteristics that received a ranking of three or higher are shown in yellow. Overall, the WMPT utilized this data, in conjunction with the input from the public informational meeting, to identify the priority issues of each subwatershed. Listed below are the most prominent issues of the District, provided in alphabetical order:

- Agricultural Drainage
- Erosion and Sediment Control
- Feedlot Management
- Groundwater Contamination
- Invasive Aquatic Species Control
- Lake Management
- Shoreland Management
- Stormwater Management
- Wellhead Protection
- Wetland Preservation/Restoration

Subwatershed #1 - Judicial Ditch 3, Mainstem



Area: 14,719 ac

Minor Subwatersheds:

1804500 (69 ac)
1804501 (12,608 ac)
1803803 (2,042 ac)

Surface Water Resources:

Middle Fork of the Crow River

Local Governmental Units:

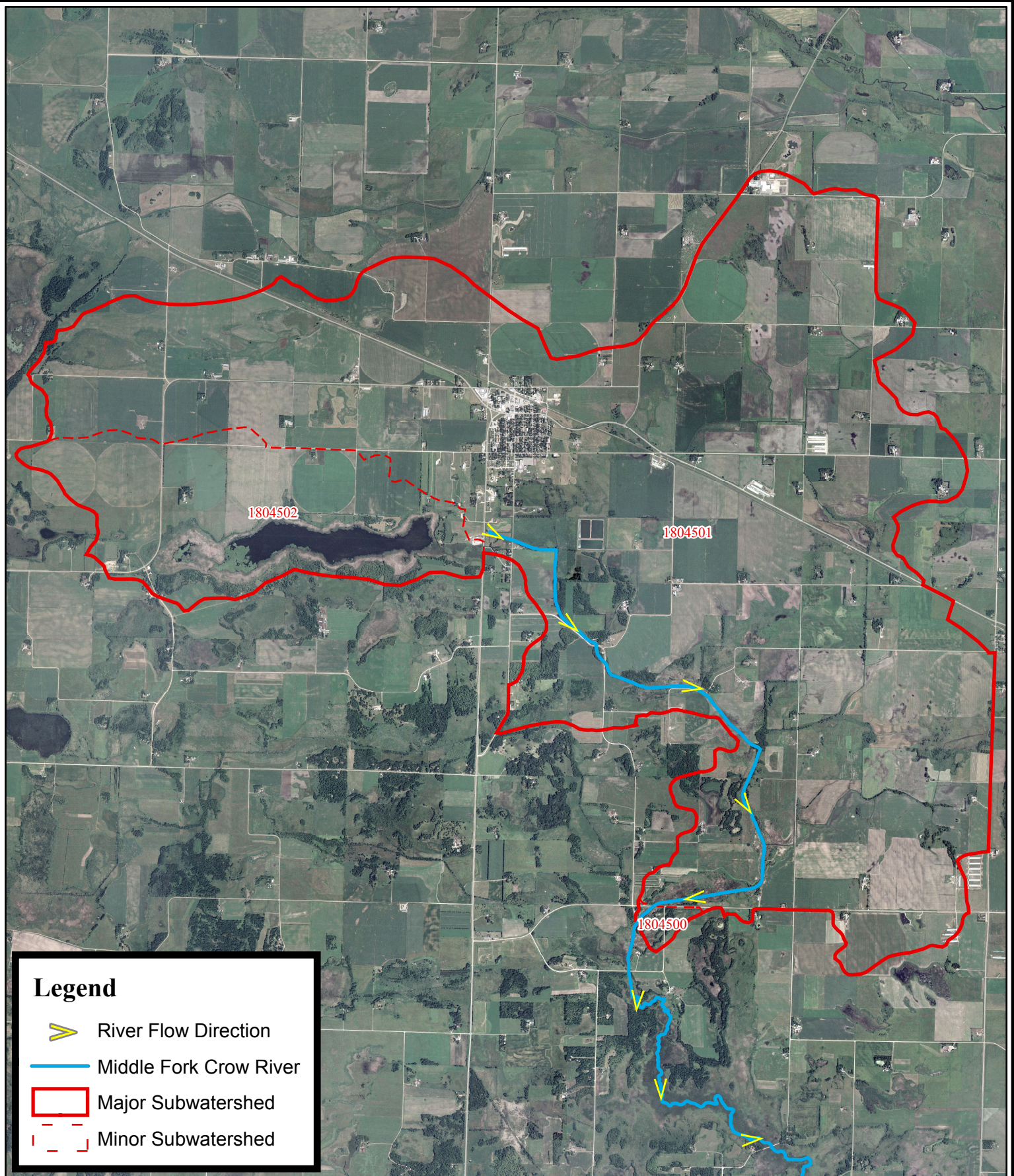
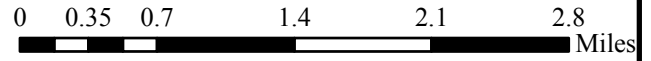
Cities: Belgrade
Counties: Stearns and Kandiyohi
Townships: Crow Lake,
Crow River, and Burbank

Land Use Characteristic	Subwatershed		
	Total	Percent	Ranking
Agriculture	10,166 ac	69%	4
Urban/Developed	1,384 ac	9%	4
Water	192 ac	1%	8
Wetlands	2,458 ac	17%	8
Restorable Wetlands	1,802 ac	12%	3
Erodible Land (HEL/PHEL)	201 ac	1%	9
Public Drainage Ditches	14 mi	--	5
Feedlots	15	--	7





Priority Issues and Recommendations:

- **Groundwater Contamination.** The surficial geology of the subwatershed causes many areas to be vulnerable to groundwater contamination. The District should take an active role in educating agricultural producers on the need for nutrient/pesticide management; as well as inform residents and business owners on how to properly dispose of wastes that could potentially contaminate groundwater resources.
- **Irrigation Water Management.** The use of irrigation is common in the Belgrade Area. The District should minimize potential water use conflicts by reviewing and providing comments, as necessary, on all water appropriation permit applications submitted to the DNR.
- **Stormwater Management.** The City of Belgrade does not regulate stormwater management. In addition, very little information is known about the impact of the City's storm sewer system on water resources. The District should cooperatively work with the City to increase stormwater management through the implementation of BMPs and regulations.
- **Wellhead Protection.** The City of Belgrade is the only public water supplier in the subwatershed. The District should assist the City with the development and implementation of a Wellhead Protection Plan.
- **Wetland Preservation/Restoration.** There are many existing and restorable wetlands in the subwatershed. The District should cooperatively work with partnering agencies to preserve and restore these areas through the enforcement of existing regulations and promotion of various conservation programs.

**Map 3A: Subwatershed #1 - Judicial Ditch 3, Main Stem
Middle Fork Crow River Watershed District
(2003 FSA Aerial Photo)**



Legend

-  River Flow Direction
-  Middle Fork Crow River
-  Major Subwatershed
-  Minor Subwatershed

Subwatershed #2 - Judicial Ditch 3, Branch 6



Area: 10,900 ac

Minor Subwatersheds

1803800 (9,296 ac)
 1803801 (767 ac)
 1803802 (837 ac)

Surface Water Resources

Middle Fork of the Crow River

Local Governmental Units

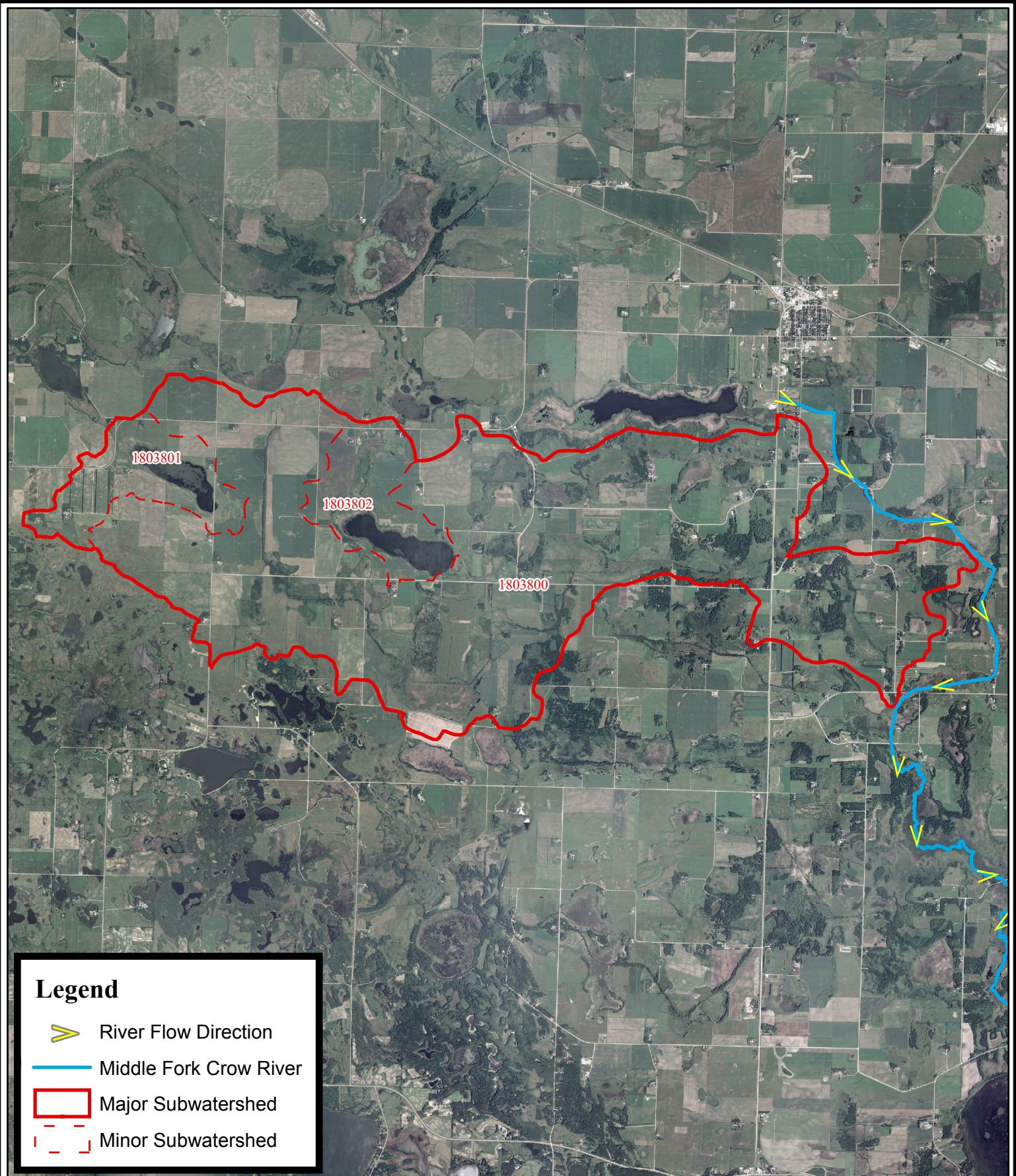
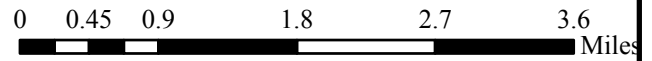
Counties: Stearns, Kandiyohi,
 and Pope
 Townships: Crow Lake, Crow
 River, Burbank, Colfax, and
 Lake Johanna

Land Use Characteristic	Subwatershed		
	Total	Percent	Ranking
Agriculture	6,042 ac	55%	7
Urban/Developed	919 ac	8%	10
Water	184 ac	2%	9
Wetlands	2,820 ac	26%	4
Restorable Wetlands	1,529 ac	14%	2
Erodible Land (HEL/PHEL)	316 ac	3%	8
Public Drainage Ditches	11 mi	--	7
Feedlots	19	--	5





Priority Issues and Recommendations:

- **Groundwater Contamination.** The surficial geology of the subwatershed causes many areas to be vulnerable to groundwater contamination. The District should take an active role in educating agricultural producers on the need for nutrient/pesticide management; as well as inform residents and business owners on how to properly dispose of wastes that could potentially contaminate groundwater resources.
- **Wetland Preservation/Restoration.** There are many existing and restorable wetlands in the subwatershed. The District should cooperatively work with partnering agencies to preserve and restore these areas through the enforcement of existing regulations and promotion of various conservation programs.

**Map 3B: Subwatershed #2 - Judicial Ditch 3, Branch 6
Middle Fork Crow River Watershed District
(2003 FSA Aerial Photo)**



Legend

-  River Flow Direction
-  Middle Fork Crow River
-  Major Subwatershed
-  Minor Subwatershed

Subwatershed #3 - Kandiyohi County Ditch 37



Area: 14,463 ac

Minor Subwatersheds:

1802400 (519 ac)
 1802401 (4,500 ac)
 1802402 (644 ac)
 1802403 (8,800 ac)

Surface Water Resources:

Middle Fork of the Crow River

Local Governmental Units:

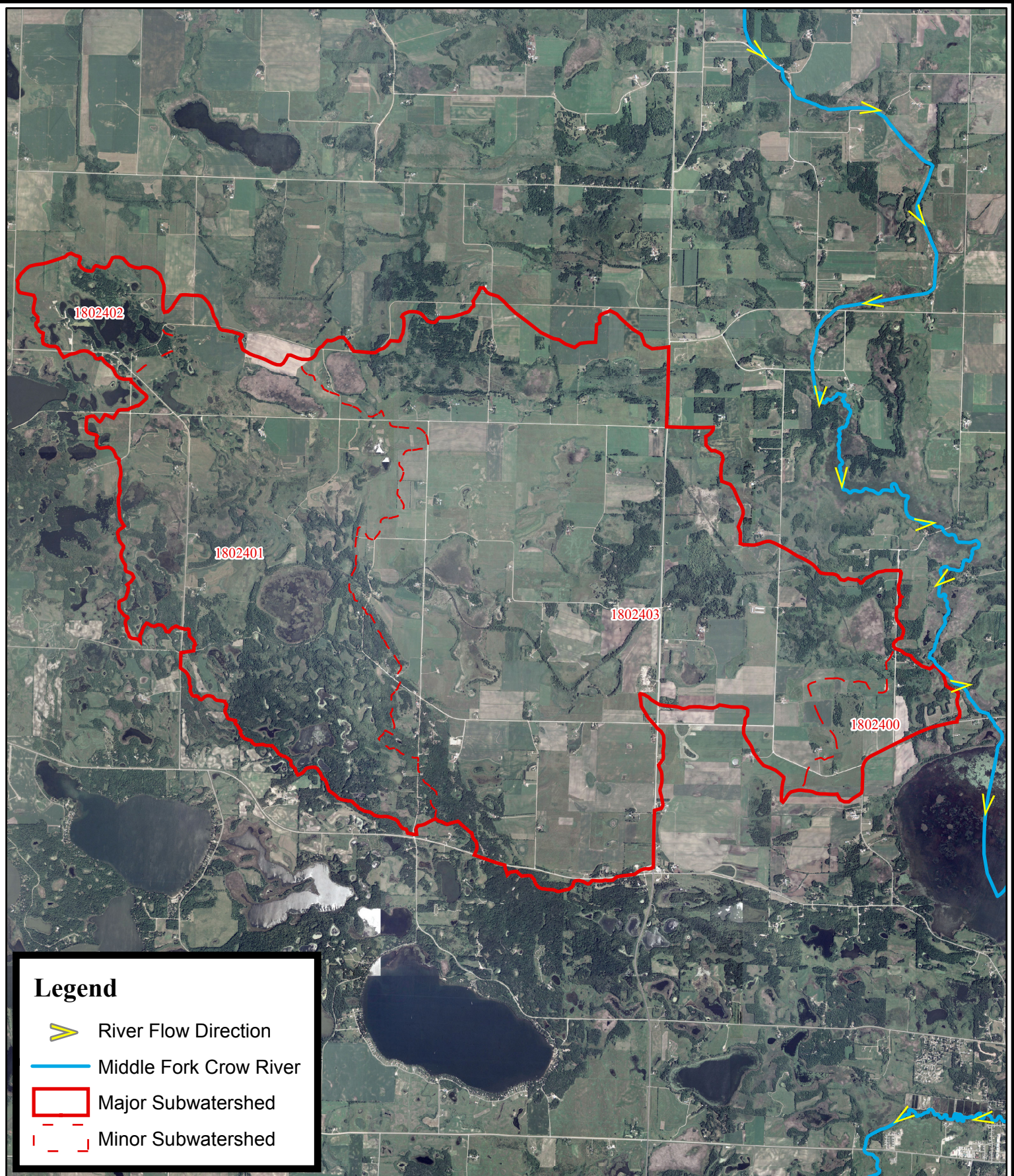
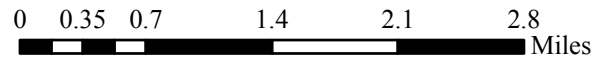
Counties: Kandiyohi
 Townships: Colfax and Burbank

Land Use Characteristic	Subwatershed		
	Total	Percent	Ranking
Agriculture	5,612 ac	39%	8
Urban/Developed	1,230 ac	9%	7
Water	134 ac	1%	10
Wetlands	3,648 ac	25%	5
Restorable Wetlands	3,148 ac	22%	1
Erodible Land (HEL/PHEL)	3,538 ac	25%	3
Public Drainage Ditches	18 mi	--	3
Feedlots	18	--	3





Priority Issues and Recommendations:

- **Agricultural Drainage.** There is an extensive network of public drainage systems in the subwatershed. The District should cooperatively work with the drainage authority and other partners to minimize the impact of these systems on water resources through the enforcement of existing regulations (MN Statutes Ch. 103E) and promotion of BMPs.
- **Erosion and Sediment Control.** Many of the soils of the subwatershed are classified as erodible. The District should reduce erosion and sedimentation associated with cultivated agriculture and development through the implementation of BMPs and regulations, including the adoption of rules relating to new land development and public construction projects.
- **Feedlot Management.** There are several feedlots in the subwatershed. The District should cooperatively work with the County feedlot officer to identify and resolve pollution problems related to these facilities.
- **Groundwater Contamination.** The surficial geology of the subwatershed causes many areas to be vulnerable to groundwater contamination. The District should take an active role in educating agricultural producers on the need for nutrient/pesticide management; as well as inform residents and business owners on how to properly dispose of wastes that could potentially contaminate groundwater resources.
- **Wetland Preservation/Restoration.** There are many existing and restorable wetlands in the subwatershed. The District should cooperatively work with partnering agencies to preserve and restore these areas through the enforcement of existing regulations and promotion of various conservation programs.

**Map 3C: Subwatershed #3 - Kandiyohi County Ditch 37
Middle Fork Crow River Watershed District
(2003 FSA Aerial Photo)**



Legend

-  River Flow Direction
-  Middle Fork Crow River
-  Major Subwatershed
-  Minor Subwatershed

Subwatershed #4 - Monongalia Lake



Area: 25,000 ac

Minor Subwatersheds:

1803900 (3,241 ac)
 1803901 (4,839 ac)
 1804000 (11,330 ac)
 1803500 (3,180 ac)
 1803501 (2,410 ac)

Surface Water Resources:

Long Lake
 Monongalia Lake
 Middle Fork of the Crow River

Local Governmental Units:

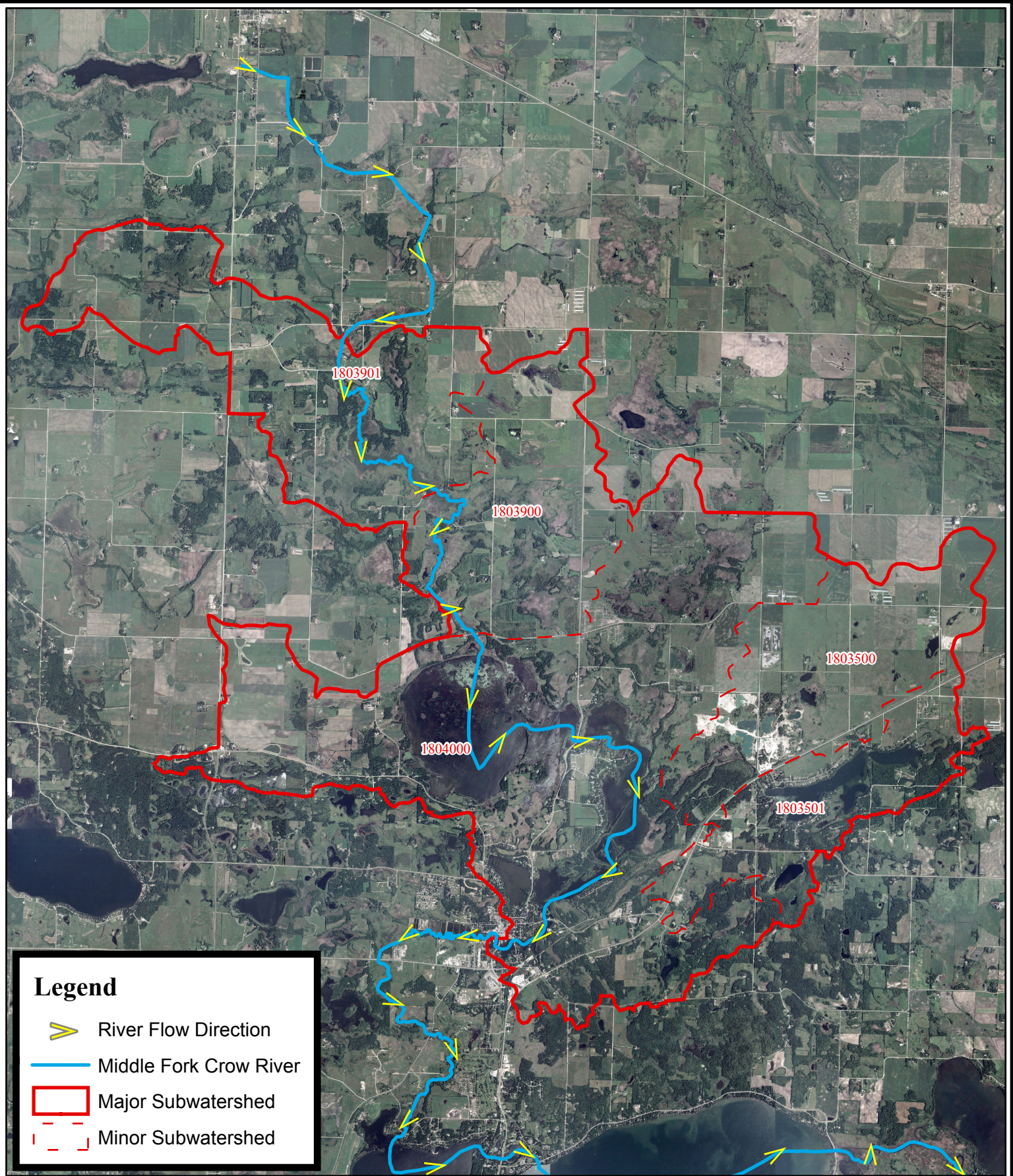
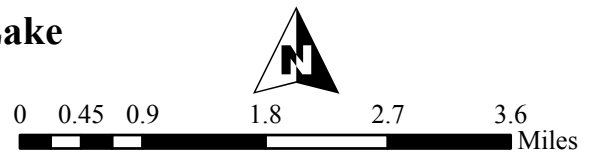
Cities: New London
 Counties: Stearns and Kandiyohi
 Townships: Colfax, Crow Lake, Burbank, Roseville, Irving, and New London

Land Use Characteristic	Subwatershed		
	Total	Percent	Ranking
Agriculture	7,923 ac	32%	6
Urban/Developed	2,809 ac	11%	1
Water	2,345 ac	9%	2
Wetlands	8,144 ac	32%	3
Restorable Wetlands	1,250 ac	5%	5
Erodible Land (HEL/PHEL)	5,329 ac	21%	4
Public Drainage Ditches	3 mi	--	8
Feedlots	24	--	2

Priority Issues and Recommendations:

- **Erosion and Sediment Control.** Many of the soils of the subwatershed are classified as erodible. The District should reduce erosion and sedimentation in agricultural, shoreland, and urban areas through the implementation of BMPs and regulations, including the adoption of rules relating to new land development and public construction projects.
- **Feedlot Management.** There are several feedlots in the subwatershed. The District should cooperatively work with the County feedlot officer to identify and resolve pollution problems related to these facilities.
- **New London Dam.** The New London dam is scheduled to be reconstructed, possible as early as 2008. The new dam will have an emergency spillway and will require less overall operation; this will increase dam safety. The District should actively work with the DNR in planning the reconstruction of the dam.
- **Shoreland Management.** The shoreland areas of Long Lake, Monongalia Lake, and the River have been altered by development. The District should minimize the impact of development within these areas through the implementation of BMPs and promotion of the DNR's new alternative shoreland standards.
- **Stormwater Management.** The New London-Spicer Area is experiencing intense development pressure. The District should cooperatively work with other local governmental units to increase stormwater management within the subwatershed through the implementation of BMPs and regulations.
- **Wellhead Protection.** The Green Lake Sanitary Sewer and Water District (GLSSWD) serves the City of New London. The District should cooperatively work with the GLSSWD to prepare and implement a Wellhead Protection Plan.
- **Wetland Preservation/Restoration.** There are many existing and restorable wetlands in the subwatershed. The District should cooperatively work with partnering agencies to preserve and restore these areas through the enforcement of existing regulations and promotion of various conservation programs.

Map 3D: Subwatershed #4 - Monongalia Lake Middle Fork Crow River Watershed District (2003 FSA Aerial Photo)



Legend

- River Flow Direction
- Middle Fork Crow River
- Major Subwatershed
- Minor Subwatershed

Subwatershed #5 - Nest Lake



Area: 13,046 ac

Minor Subwatersheds:

1802200 (2,512 ac)
 1802201 (450 ac)
 1802202 (2,208 ac)
 1802300 (290 ac)
 1802301 (1,912 ac)
 1802302 (753 ac)
 1802303 (973 ac)
 1802304 (2,357 ac)
 1802305 (1,591 ac)

Land Use Characteristic	Subwatershed		
	Total	Percent	Ranking
Agriculture	2,886 ac	22%	10
Urban/Developed	1,769 ac	14%	2
Water	1,366 ac	10%	4
Wetlands	4,275 ac	33%	2
Restorable Wetlands	631 ac	5%	5
Erodible Land (HEL/PHEL)	5,050 ac	39%	1
Public Drainage Ditches	0 mi	--	9
Feedlots	9	--	9

Surface Water Resources:

George Lake
 Nest Lake
 Middle Fork of the Crow River

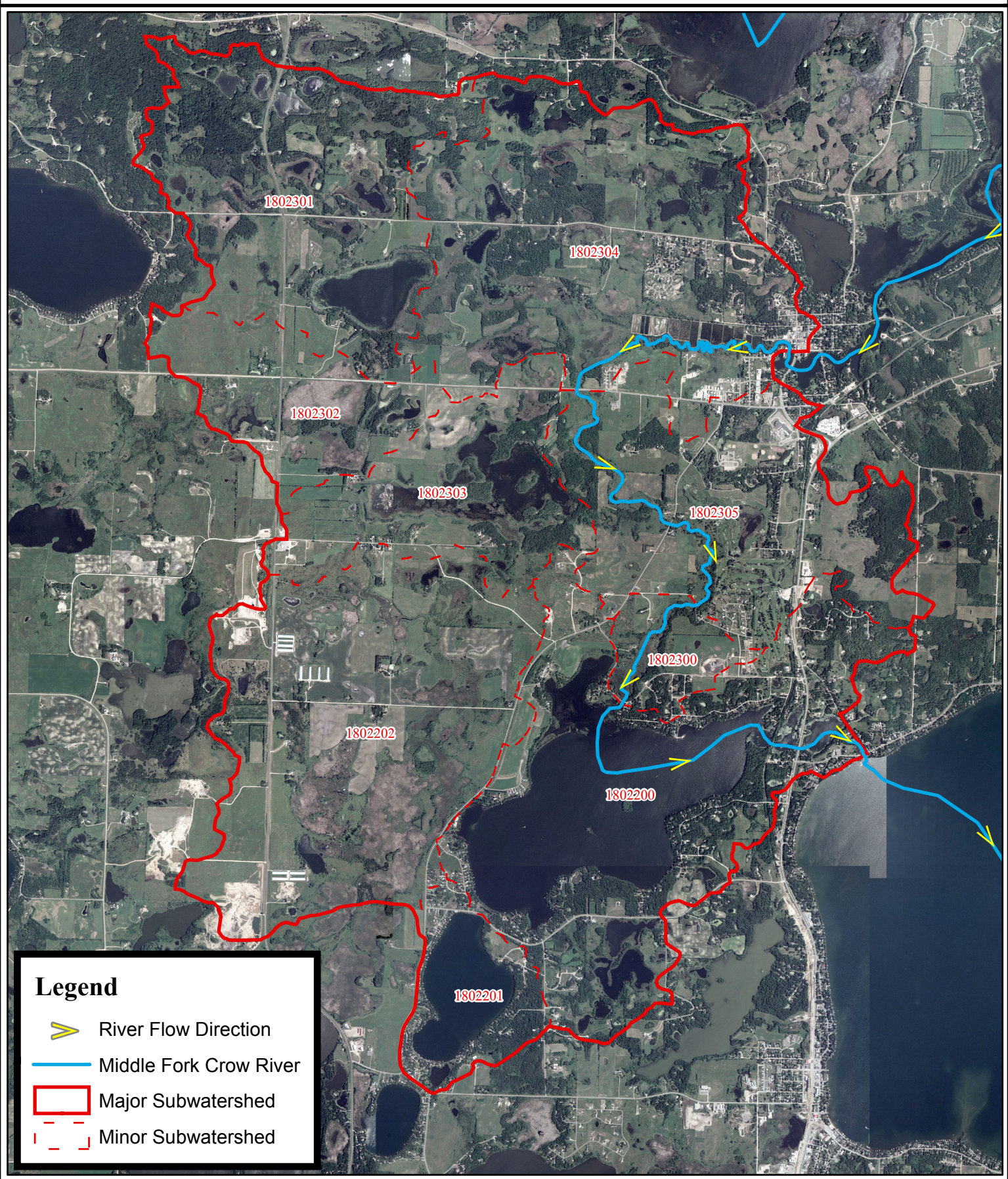
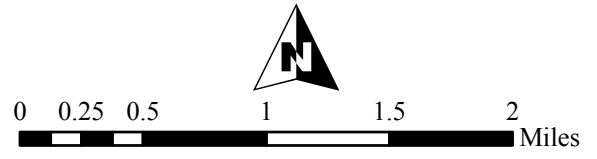
Local Governmental Units:

Cities: New London
 Counties: Kandiyohi
 Townships: Lake Andrew, Colfax, New London, and Green Lake

Priority Issues and Recommendations:

- **Erosion and Sediment Control.** Many of the soils of the subwatershed are classified as erodible. The District should reduce erosion and sedimentation in agricultural, shoreland, and urban areas through the implementation of BMPs and regulations.
- **Invasive Aquatic Species.** Nest Lake is infested with curlyleaf pondweed. The District should work with the DNR, lake associations, and other stakeholders to identify and implement specific management strategies to control the spread of invasive aquatic species.
- **Lake Management.** There are vast surface water resources in the subwatershed including George and Nest Lakes. The District should cooperatively work with all stakeholders to actively manage these lakes to protect and improve their water quality.
- **Shoreland Management.** The shoreland areas of the subwatershed have been highly altered by development. The District should minimize the impact of development within these areas through the implementation of BMPs and promotion of the DNR's new shoreland standards.
- **Stormwater Management.** The New London-Spicer Area is experiencing intense development pressure. The District should cooperatively work with the Cities and County to increase stormwater management within the subwatershed through the implementation of BMPs and regulations, including the adoption of ordinances and rules.
- **Wellhead Protection.** The Green Lake Sanitary Sewer and Water District (GLSSWD) serves the City of New London. The District should cooperatively work with the GLSSWD to prepare and implement a Wellhead Protection Plan.
- **Wetland Preservation.** There are many wetlands in the subwatershed. The District should preserve these areas through the implementation of existing Federal and State wetland regulations and the promotion of conservation easement programs.

**Map 3E: Subwatershed #5 - Nest Lake
Middle Fork Crow River Watershed District
(2003 FSA Aerial Photo)**



Legend

- River Flow Direction
- Middle Fork Crow River
- Major Subwatershed
- Minor Subwatershed

Subwatershed #6 - Green Lake



Area: 16,376 ac

Minor Subwatersheds:

1804100 (9,093 ac)
 1804101 (576 ac)
 1804102 (923 ac)
 1804103 (1,637 ac)
 1804104 (2,858 ac)
 1804105 (223 ac)
 1804106 (1,066 ac)

Land Use Characteristic	Subwatershed		
	Total	Percent	Ranking
Agriculture	3,253 ac	20%	9
Urban/Developed	1,754 ac	11%	3
Water	6,221 ac	38%	1
Wetlands	7,486 ac	45%	1
Restorable Wetlands	627 ac	4%	6
Erodible Land (HEL/PHEL)	4,975 ac	30%	2
Public Drainage Ditches	0 mi	--	9
Feedlots	5	--	10

Surface Water Resources:

Middle Fork of the Crow River
 Green Lake
 Elkhorn Lake

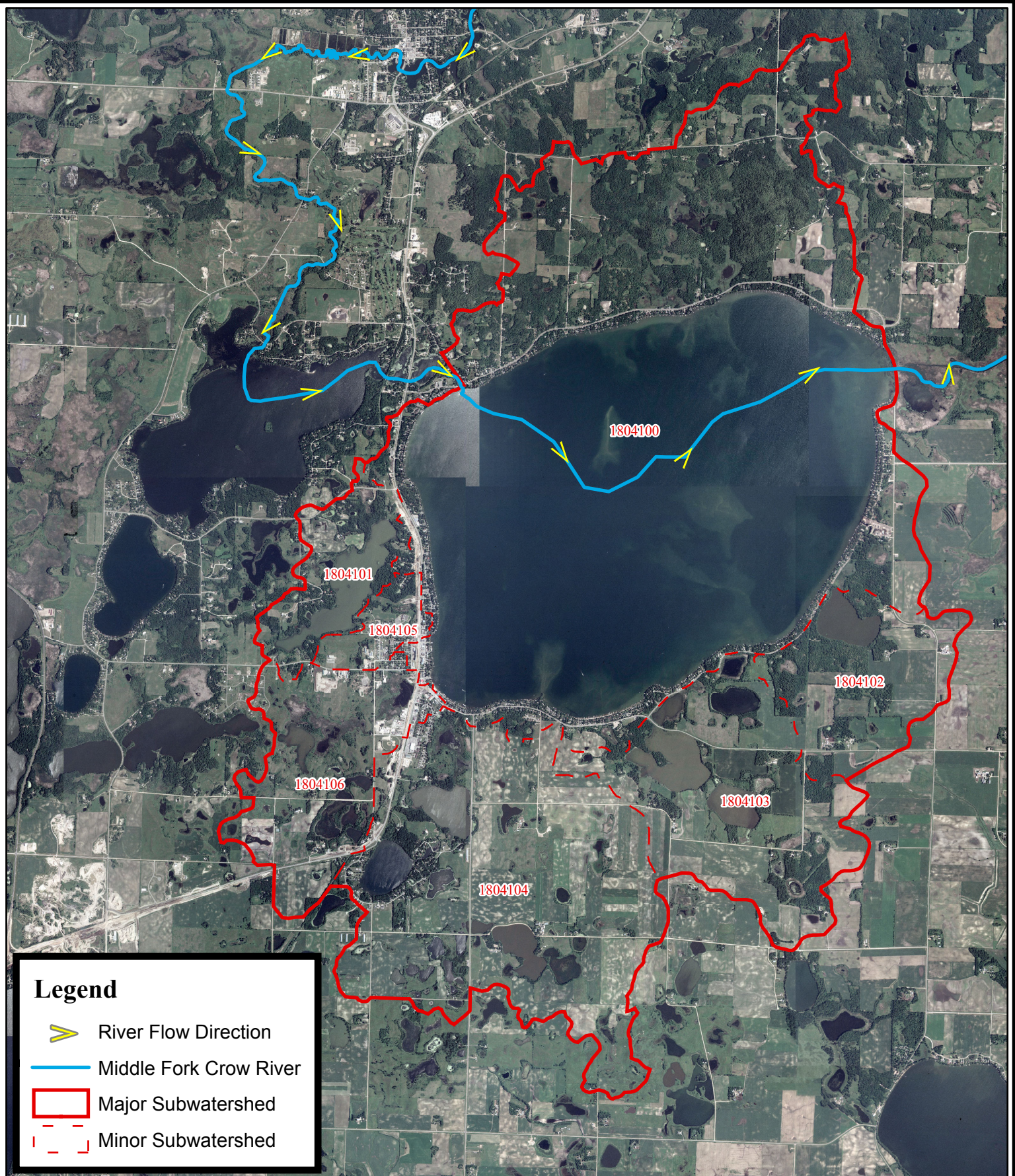
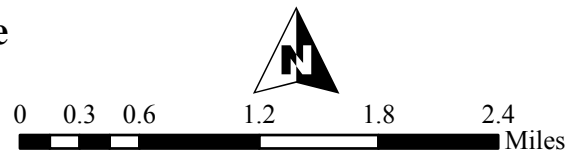
Local Governmental Units:

Cities: Spicer
 Counties: Kandiyohi
 Townships: Green Lake, Harrison, Irving, and New London

Priority Issues and Recommendations:

- **Erosion and Sediment Control.** Many of the soils of the subwatershed are classified as erodible. The District should reduce erosion and sedimentation in agricultural, shoreland, and urban areas through the implementation of BMPs and regulations, including the adoption of rules relating to new land development and public construction projects.
- **Invasive Aquatic Species.** Green Lake is infested with Eurasian watermilfoil and curlyleaf pondweed. The District should work with the DNR, lake associations, and other stakeholders to identify and implement specific management strategies to control the spread of these and other invasive aquatic species.
- **Lake Management.** There are vast surface water resources in the subwatershed including Elkhorn and Green Lakes. The District should cooperatively work with all stakeholders to actively manage these lakes to protect and improve their water quality.
- **Shoreland Management.** The shoreland areas of the subwatershed have been highly altered by development. The District should minimize the impact of development within these areas through the implementation of BMPs and promotion of the DNR's new alternative shoreland standards.
- **Stormwater Management.** The New London-Spicer Area is experiencing intense development pressure. The District should cooperatively work with the Cities and County to increase stormwater management within the subwatershed through the implementation of BMPs and regulations.
- **Wellhead Protection.** The Green Lake Sanitary Sewer and Water District (GLSSWD) serves many areas in the subwatershed, including the City of Spicer. The District should cooperatively work with the GLSSWD to prepare and implement a Wellhead Protection Plan.
- **Wetland Preservation.** There are many wetlands in the subwatershed. The District should preserve these areas through the implementation of existing Federal and State wetland regulations and the promotion of conservation easement programs.

**Map 3F: Subwatershed #6 - Green Lake
Middle Fork Crow River Watershed District
(2003 FSA Aerial Photo)**



Legend

- River Flow Direction
- Middle Fork Crow River
- Major Subwatershed
- Minor Subwatershed

Subwatershed #7 - Lake Calhoun



Area: 17,459 ac

Minor Subwatersheds:

1803300 (3,890 ac)
 1803301 (2,230 ac)
 1803302 (3,898 ac)
 1803400 (2,236 ac)
 1803401 (5,205 ac)

Surface Water Resources:

Calhoun Lake
 Middle Fork of the Crow River

Local Governmental Units:

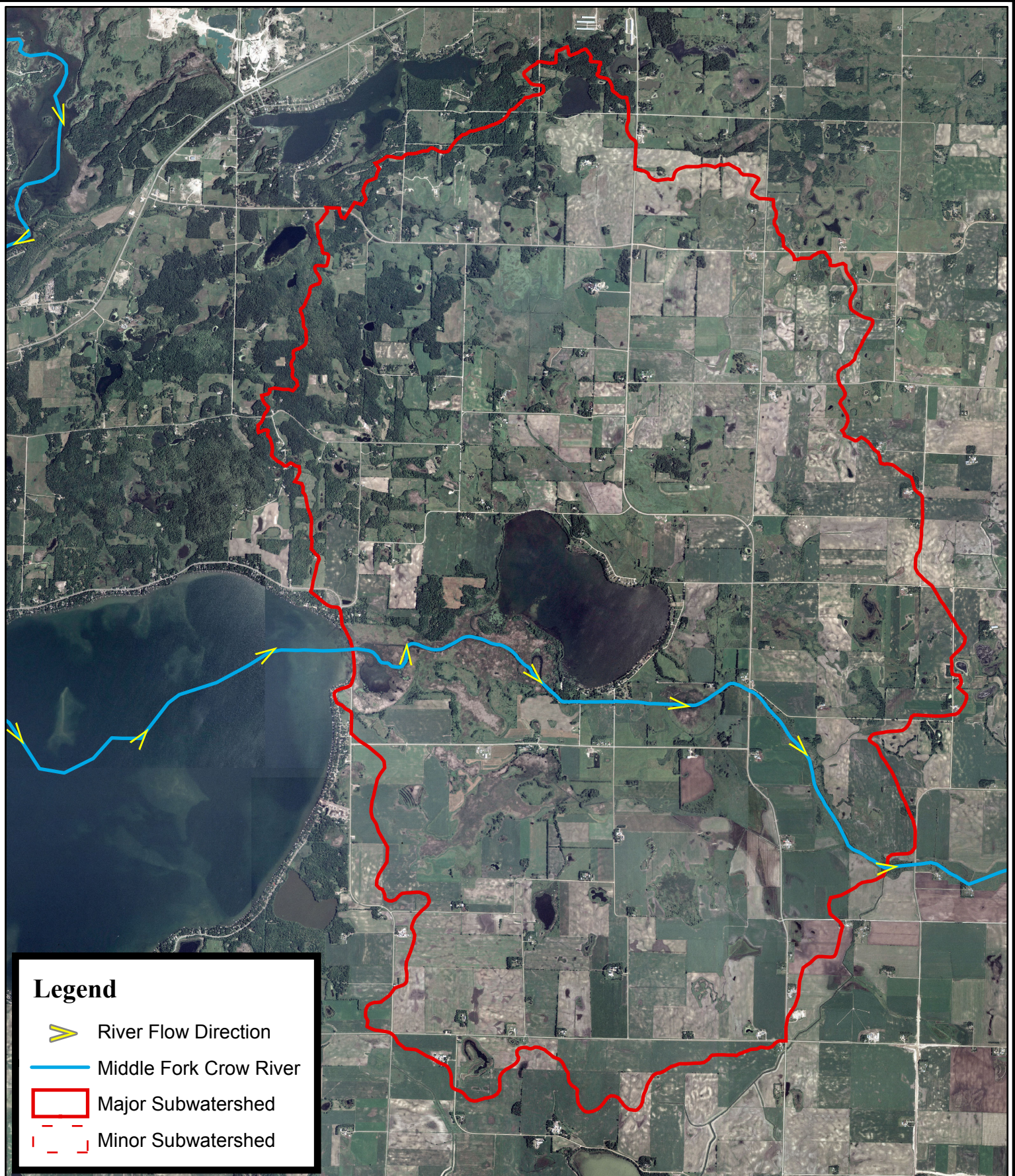
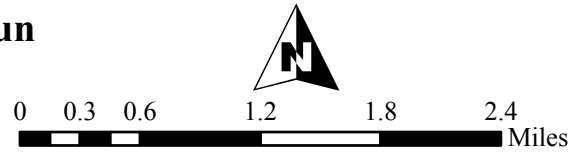
Counties: Kandiyohi
 Townships: Harrison, Irving,
 and Kandiyohi

Land Use Characteristic	Subwatershed		
	Total	Percent	Ranking
Agriculture	9,552 ac	55%	5
Urban/Developed	1,036 ac	6%	8
Water	678 ac	4%	5
Wetlands	4,214 ac	24%	6
Restorable Wetlands	1,508 ac	9%	4
Erodible Land (HEL/PHEL)	2,721 ac	15%	6
Public Drainage Ditches	27 mi	--	1
Feedlots	20	--	4

Priority Issues and Recommendations:

- **Agricultural Drainage.** There is an extensive network of public drainage systems in the subwatershed, particularly north of Lake Calhoun (CD 26). The District should cooperatively work with the drainage authority and other partners to minimize the impact of these systems on water resources through the enforcement of existing regulations (MN Statutes Ch. 103E) and promotion of BMPs.
- **Erosion and Sediment Control.** Several areas around Lake Calhoun are actively eroding, thus contributing sediment to the Lake. In addition, cultivated agricultural land is also a significant contributor of sediment. The District should reduce erosion and sedimentation from these sources by promoting the implementation of BMPs, such as riparian buffers strips and crop residue management.
- **Feedlot Management.** There are several feedlots in the subwatershed. The District should cooperatively work with the County feedlot officer to identify and resolve pollution problems related to these facilities.
- **Invasive Aquatic Species.** While there are no known invasive aquatic species in Lake Calhoun, several lakes in the watershed have documented infestations. The District should work with the DNR, lake associations, and other stakeholders to identify and implement specific management strategies to control the spread of invasive aquatic species.
- **Shoreland Management.** The shoreland area of Calhoun Lake has been altered by development. The District should minimize the impact of development within this area through the implementation of BMPs and promotion of the DNR's new alternative shoreland standards.
- **Water Control Structures.** The Lake Calhoun dams are no longer being operated as designed and may need to be reconstructed. The District should work with the DNR and other partners to evaluate future options for these water control structures.
- **Wetland Preservation/Restoration.** There are many existing and restorable wetlands in the subwatershed. The District should cooperatively work with partnering agencies to preserve and restore these areas through the enforcement of existing regulations and promotion of various conservation programs.

**Map 3G: Subwatershed #7 - Lake Calhoun
Middle Fork Crow River Watershed District
(2003 FSA Aerial Photo)**



Subwatershed #8 - Diamond Lake



Area: 24,151 ac

Minor Subwatersheds:

1803100 (261 ac)
 1803101 (1,518 ac)
 1803102 (5,169 ac)
 1803103 (1,828 ac)
 1803200 (5,091 ac)
 1803201 (9,580 ac)
 1803202 (704 ac)

Land Use Characteristic	Subwatershed		
	Total	Percent	Ranking
Agriculture	14,440 ac	60%	2
Urban/Developed	1,358 ac	6%	5
Water	2,295 ac	10%	3
Wetlands	4,731 ac	20%	7
Restorable Wetlands	3,350 ac	14%	2
Erodible Land (HEL/PHEL)	3,744 ac	16%	5
Public Drainage Ditches	13 mi	--	6
Feedlots	31	--	1

Surface Water Resources:

Diamond Lake
 Middle Fork of the Crow River

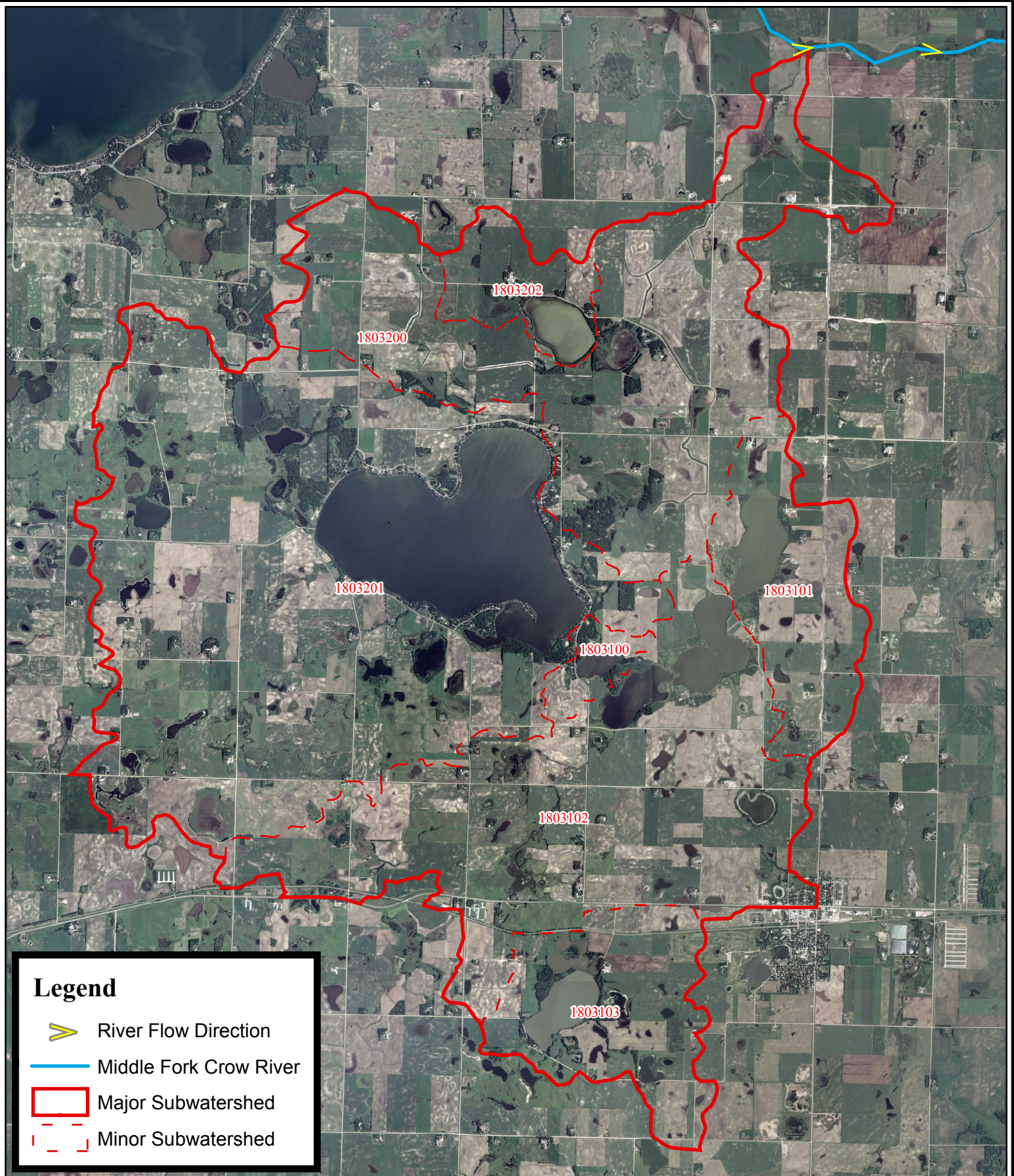
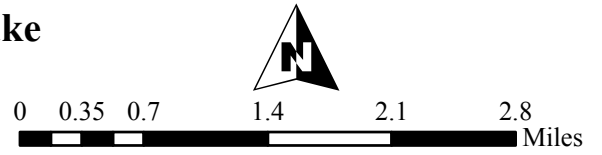
Local Governmental Units:

Cities: Atwater
 Counties: Kandiyohi
 Townships: Genessee, Green Lake, Harrison, Irving, and Kandiyohi





Priority Issues and Recommendations:

- **Excess Nutrients.** Diamond Lake is the most eutrophic lake in the watershed and was recently included on the 2006 Section 303(d) List of Impaired Waters because of excess nutrients. The District should coordinate the preparation and implementation of the TMDL study.
- **Feedlot Management.** There are several feedlots in the subwatershed. The District should work with the County feedlot officer to identify and resolve pollution problems related to these facilities.
- **Invasive Aquatic Species.** Diamond Lake is infested with curlyleaf pondweed. The District should cooperatively work with the DNR, lake associations, and other stakeholders to identify and implement specific management strategies to control the spread of pondweed and other invasive aquatic species.
- **Shoreland Management.** The shoreland area of Diamond Lake has been highly altered by development. The District should minimize the impact of development within this area through the implementation of BMPs and promotion of the DNR's new alternative shoreland standards.
- **Wastewater Treatment.** Diamond Lake is served by individual sewage treatment systems, many of which do not meet the standards set forth in MN Rules Ch. 7080. The District should cooperatively work with the County and lake association to explore wastewater treatment options.
- **Wellhead Protection.** The City of Atwater is the only public water supplier in the subwatershed. The District should work with the City to prepare and implement a Wellhead Protection Plan.
- **Wetland Preservation/Restoration.** There are many existing and restorable wetlands in the subwatershed. The District should cooperatively work with partnering agencies to preserve and restore these areas through the enforcement of existing regulations and promotion of various conservation programs.

**Map 3H: Subwatershed #8 - Diamond Lake
Middle Fork Crow River Watershed District
(2003 FSA Aerial Photo)**



Legend

-  River Flow Direction
-  Middle Fork Crow River
-  Major Subwatershed
-  Minor Subwatershed

Subwatershed #9 - Meeker County Ditch 47



Area: 16,402 ac

Minor Subwatersheds

1802900 (15,128 ac)
 1802901 (957 ac)
 1802902 (317 ac)

Surface Water Resources

Middle Fork of the Crow River

Local Governmental Units

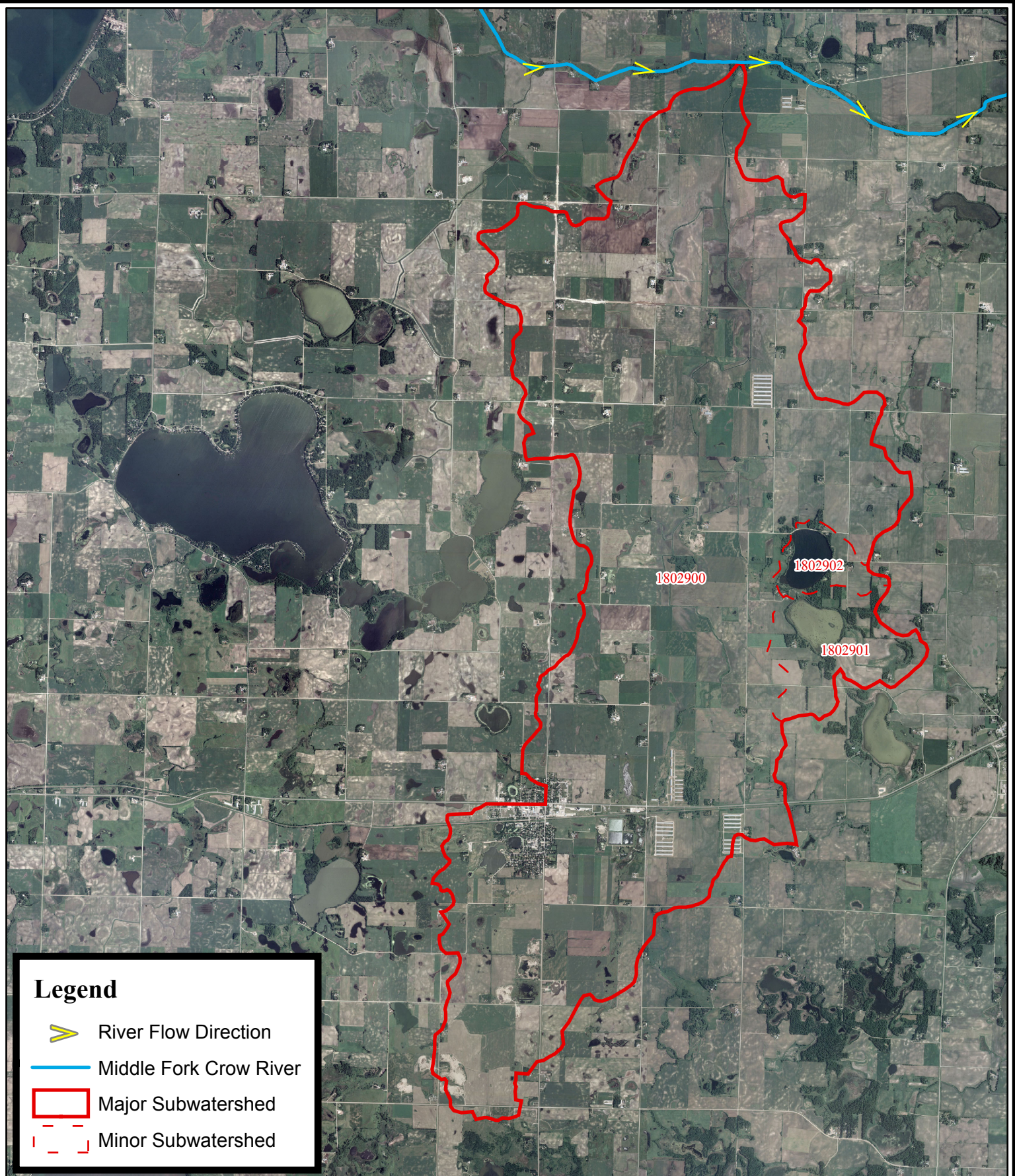
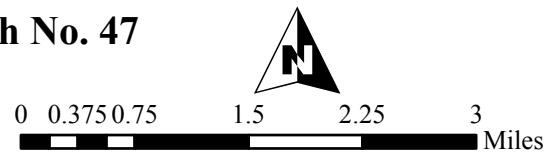
Cities: Atwater
 Counties: Kandiyohi and Meeker
 Townships: Genessee, Acton,
 Swede Grove, Union Grove,
 and Harrison

Land Use Characteristic	Subwatershed		
	Total	Percent	Ranking
Agriculture	12,799 ac	78%	3
Urban/Developed	1,322 ac	8%	6
Water	250 ac	2%	7
Wetlands	1,375 ac	8%	10
Restorable Wetlands	--	--	7
Erodible Land (HEL/PHEL)	1,187 ac	7%	7
Public Drainage Ditches	17 mi	--	4
Feedlots	18	--	6

Priority Issues and Recommendations:

- **Agricultural Drainage.** There is an extensive network of public drainage systems in the subwatershed. The District should cooperatively work with the drainage authority and other partners to minimize the impact of these systems on water resources through the enforcement of existing regulations (MN Statutes Ch. 103E) and promotion of BMPs.
- **Erosion and Sediment Control.** Agricultural land and urban development contribute to the sediment loading of the River. The District should reduce erosion and sedimentation from these sources by promoting the implementation of BMPs and the adoption of rules.
- **Stormwater Management.** The City of Atwater does not regulate stormwater management. The District should work with the City to increase stormwater management through the implementation of BMPs and regulations, including the adoption of ordinances and rules relating to the discharge of stormwater.
- **Wellhead Protection.** The City of Atwater is the only public water supplier in the subwatershed. The District should cooperatively work with the City to prepare and implement a Wellhead Protection Plan.
- **Wetland Preservation/Restoration.** There are many existing and restorable wetlands in the subwatershed. The District should cooperatively work with partnering agencies to preserve and restore these areas through the enforcement of existing regulations and promotion of various conservation programs.

**Map 3I: Subwatershed #9 - Meeker County Ditch No. 47
Middle Fork Crow River Watershed District
(2003 FSA Aerial Photo)**



Subwatershed #10 - Middle Fork Crow River



Area: 20,704 ac

Minor Subwatersheds:

1805300 (12,533 ac)
 1805301 (1,792 ac)
 1805302 (3,248 ac)
 1805303 (161 ac)
 1802800 (2,970 ac)

Surface Water Resources:

Middle Fork of the Crow River

Local Governmental Units:

Counties: Kandiyohi and Meeker
 Townships: Harrison, Irving,
 Union Grove, Manannah,
 Harvey, and Swede Grove

Land Use Characteristic	Subwatershed		
	Total	Percent	Ranking
Agriculture	16,325 ac	79%	1
Urban/Developed	1,015 ac	5%	9
Water	275 ac	1%	6
Wetlands	2,966 ac	14%	9
Restorable Wetlands	--	--	7
Erodible Land (HEL/PHEL)	545 ac	3%	8
Public Drainage Ditches	20 mi	--	2
Feedlots	10	--	8

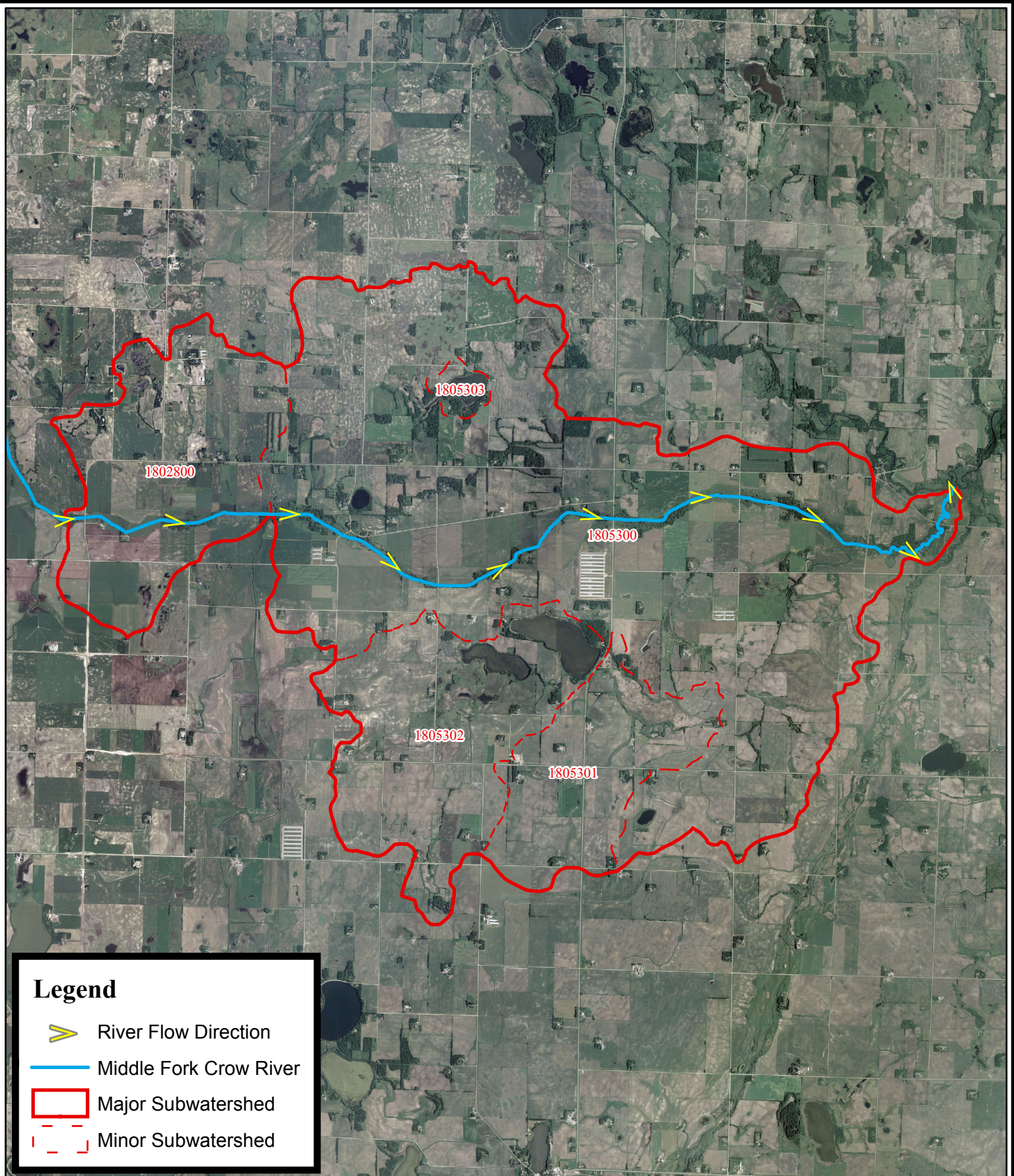
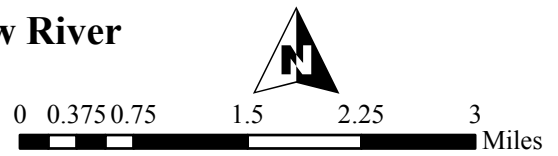
Priority Issues and Recommendations:

- **Agricultural Drainage.** There is an extensive network of public drainage systems in the subwatershed. The District should cooperatively work with the drainage authority and other partners to minimize the impact of these systems on water resources through the enforcement of existing regulations (MN Statutes Ch. 103E) and promotion of BMPs.
- **Erosion and Sediment Control.** Cultivated agricultural land is the primary contributor of sediment to the River. The District should reduce erosion and sedimentation associated with agricultural land by promoting the implementation of BMPs, including riparian buffer strips and crop residue management.
- **River Restoration.** The majority of the River in the subwatershed has been channelized, resulting in downcutting of the streambed in many areas. The District should work with the DNR and other partners to restore segments of the River to a more natural state.
- **Wetland Preservation/Restoration.** There are many existing and restorable wetlands in the subwatershed. The District should cooperatively work with partnering agencies to preserve and restore these areas through the enforcement of existing regulations and promotion of various conservation programs.

Map 3J: Subwatershed #10 - Middle Fork Crow River

Middle Fork Crow River Watershed District

(2003 FSA Aerial Photo)



Legend

- River Flow Direction
- Middle Fork Crow River
- Major Subwatershed
- Minor Subwatershed

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