

MILL AND BLUE MOUNDS CREEKS WATERSHED (LW15)

This watershed is located in northeastern Iowa and western Dane County. Much of the topography of the watershed is rolling and characteristic of the driftless, or unglaciated region of the state. A part of the watershed is also on the Wisconsin River outwash plain. Population in the watershed for 2000 was estimated to be around 6,700 people. All or portions of Ridgeway, Blue Mounds, Barneveld, Mount Horeb, and Arena are in the watershed.

Table 1: Growth in Municipalities in the Watershed

<i>Municipality</i>	<i>1990</i>	<i>2000</i>	<i>% Change</i>
Arena	525	685	31%
Barneveld	660	1,088	65%
Blue Mounds	446	708	59%
Mount Horeb	4,182	5,860	40%
Ridgeway	577	689	19%

The primary land cover in the basin is broad-leaf deciduous forest. The percentage of land in agricultural production in the watershed is lower than in many other watersheds. Despite this, however, agriculture still covers a large percent of land in the watershed. If the watershed continues to experience such high growth rates, changes in these percentages are likely to occur. Grassland is also a major land cover in the watershed. Wetlands in the watershed are predominately small, wet meadow complexes adjacent streams although there are some larger complexes on or near the Wisconsin River.

Table 2: Land Cover in the Watershed

<i>Land Cover</i>	<i>Percent of Watershed</i>
Forest (Total)	49.4%
<i>Broad-Leaf Deciduous</i>	<i>48.5%</i>
<i>Coniferous</i>	<i>0.9%</i>
Agriculture	23.8%
Grassland	18.5%
Wetland (Total)	5.6%
<i>Forested</i>	<i>2.8%</i>
<i>Emergent/Wet Meadow</i>	<i>2.2%</i>
<i>Lowland Shrub</i>	<i>0.6%</i>
Development	0.4%
Other	2.2%

Watershed At A Glance

Drainage Area (m²): 180.0

Total Stream Miles: 175.8

Trout Stream Miles: 55.7

Sport Fishery Miles: 27.4

Lakes: Birch Lake, Twin Valley Lake, Cox Hollow Lake

Exceptional/Outstanding Resource Waters: Bohn, Elvers, Love, Ryan, Strutt, Trout

Municipalities: Ridgeway, Blue Mounds, Mount Horeb, Arena

Major Public Lands:

- ◆ Helena Marsh Unit of LWSR
- ◆ Arena Unit of LWSR
- ◆ Governor Dodge State Park
- ◆ Tower Hill State Park
- ◆ Blue Mounds State Park
- ◆ Trout Creek State Fishery Area
- ◆ Love Creek State Fishery Area

Concerns and Issues:

- ◆ Nonpoint source pollution
- ◆ Urbanization
- ◆ Flood control structures
- ◆ Atrazine

Initiatives and Projects:

- ◆ Wild trout reintroduction
- ◆ Lake Protection Grant to construct stormwater detention basins

Water quality in the watershed has been negatively affected by nonpoint sources of pollution from both rural and urban sources. Some of these problems have been the result of overflowing manure storage pits near streams. In addition, the use of herbicides on agricultural lands in the watershed has posed a possible risk for groundwater contamination. Elevated levels of atrazine, an herbicide used on corn, has been found in some tested private water wells. Soils in the region are permeable which has allowed atrazine to reach groundwater in some locations. As a result of this threat, the portion of the watershed on the Wisconsin River floodplain and a small portion of the Dodgeville and Ridgeway Townships are in atrazine management areas. See Appendix B. Recent urbanization and development of land has increased the potential for further nonpoint pollution to area surface waters as a result of construction site erosion and an increase in stormwater runoff.

Nonpoint source pollution problems in the Mill and Blue Mounds Creeks Watershed are not new. Historically, many of the streams in this system have had problems with severe flooding and in-stream siltation as a result of their high gradients and the surrounding agricultural landuse. In an attempt to address the problem of flooding, flood control structures were built on Mill Creek and its tributaries. While these structures have had some positive results with regard to flooding, these structures have caused problems in streams. The impoundments that result from the structures have organically rich bottom sediments and can warm water and decrease its quality. They can also negatively affect the macroinvertebrate community, increase the growth of periphyton and decrease the fish habitat.

There is one permitted industrial point source in the watershed. The Mill Creek Cheese factory discharges to groundwater. In addition, the Spring Green sanitary district facility discharges to a tributary of Lowery Creek.

The Mill and Blue Mounds Creeks Watershed has a variety of good quality habitats and rare plant communities that are listed on the state's Natural Heritage Inventory, (NHI), kept by the Bureau of Endangered Resources. These communities include:

- ◆ Dry cliff
- ◆ Dry prairie
- ◆ Moist cliff
- ◆ Oak opening
- ◆ Pine relict
- ◆ Sand barrens
- ◆ Sand prairie
- ◆ Southern dry-mesic forest
- ◆ Southern mesic forest
- ◆ Ephemeral pond
- ◆ Emergent aquatic
- ◆ Floodplain forest
- ◆ Forested seep
- ◆ Shrub-carr
- ◆ Southern sedge meadow
- ◆ Fast, cold and hard stream

In addition to these special communities, the watershed is also home for a variety of rare plant and animal species including; 1 species of beetle, 5 species of birds, 4 species of dragonflies, 14 species of fish, 1 species of frog, 9 species of mussels, 44 plant species, 1 species of mammal and 2 species of leafhoppers. These plants and animals are also listed on the state's Natural Heritage Inventory (NHI).

The Helena Marsh and Arena Units of the Lower Wisconsin State Riverway are in the watershed. The Helena Marsh Unit is 919 acres and offers fishing. The Arena Unit is 1,406

acres and offers birdwatching and fishing along the river. Trout Creek (894 acres) and Love Creek (570 acres) State Fishery Areas lie in the watershed. The fishery areas offer hiking, birdwatching in addition to fishing. There are also part or all of three separate state parks in the watershed; Governor Dodge, Tower Hill and Blue Mounds. Governor Dodge State Park is approximately 5,000 acres and contains Twin Valley and Cox Hollow Lakes. Visitors can enjoy swimming, hiking, fishing, boating and camping at the park. In addition, Blue Mounds State Park also has camping and hiking and a swimming pool. Tower Hill State Park offers the opportunity to see how lead shot was made in the early 1800's by exploring the shot tower that gives the park its name.

Note: The Dane County portion of this watershed is also discussed in the Dane County Regional Planning Commission (DCRPC) Dane County Water Quality Plan. The DCRPC plan should also be consulted for additional information, priorities and recommendations.

STREAMS AND RIVERS IN THE MILL AND BLUE MOUNDS CREEKS WATERSHED

Arneson Creek

Limited information is available for this creek.

Blue Mounds Creek

This tributary to the Wisconsin River is fed by surface water runoff and groundwater seepage. The stream has a large volume of flow and is considered to have some potential for sport fishing, especially near its confluence with the Wisconsin River. The stream experiences problems with nonpoint source pollution. A rare aquatic species has been found in the creek in past surveys.

Bohn Creek

Bohn Creek is a spring fed tributary to Elvers Creek. The lower two miles are a Class II trout stream and an exceptional resource water (ERW). The stream has good water quality and suitable in-stream habitat to support a trout population. A cursory habitat evaluation was conducted during the summer of 2001. The evaluation found the creek to have fair water quality. The biggest problem noted during the survey was from nonpoint sources of pollution and a lack of suitable stream bottom as a result of in-stream sedimentation. An evaluation of one of the unnamed tributaries to the creek found good in-stream habitat including good stream bottom substrate.

Canyon Park Creek

Canyon Park Creek is a major tributary to Cutler Creek. The stream has one of the highest stream gradients in Iowa County which contributes to erosion and flooding problems. The creek can support a Class II brown trout fishery. The stream has problems due to hydrologic modification and nonpoint source pollution. These problems have effected trout habitat. Efforts could be made to improve the in-stream conditions of Canyon Park Creek.

Cutler Creek

Cutler Creek is a major tributary to Mill Creek in Iowa County. It is a spring fed stream and has a high gradient that has caused problems due to heavy erosion during runoff events. A

flood control structure exists on Cutler Creek near its mouth. Currently, the stream supports a Class II brown trout fishery, but, with proper management and in stream habitat improvement, the stream shows the potential to be upgraded to a Class I stream.

Duesler Creek

The creek is a spring fed tributary to Trout Creek. As a result of heavy flooding on the stream, a flood control structure was built to help control floodwaters and reduce streambank erosion. This hydrologic modification has had an impact on the stream. The creek is able to support a forage water fishery.

East Branch Blue Mounds Creek

This branch starts at the confluence of Ryan and Elvers creeks. It has a relatively low gradient and portions have been ditched. It is a flashy stream that often floods during spring melts and major storms. As a result, the stream bottom has problems with siltation. Currently, the stream is managed as a Class III trout stream but has the potential to be a Class II stream with the proper management. The stream has public ownership along about one mile of its length. This land provides a diverse mix of habitat types for wildlife and is used as a public hunting ground.

Elvers Creek

Elvers Creek is a small trout stream. The stream is classified as Class II in its lower three miles and Class III in the upper five miles. The stream and overall water quality in the stream are thought to be negatively affected by nonpoint sources of pollution, specifically streambank erosion. In addition, parts of the stream have been ditched in the past. It is thought, that with the proper management, the Class II portion could be upgraded to a Class I trout stream and the Class III portion could be upgraded to a Class II stream. Currently, there is little information available for the stream. As a result of this nonpoint source pollution and the possibility for improvement, the stream has been ranked as a high priority for nonpoint source pollution and would benefit from a nonpoint source pollution reduction project.

Hubbard Creek

Hubbard Creek is a small tributary to Mill Creek. The creek has some problems with flooding and bank erosion. Overall, the creek is able to support a forage fishery.

Irish Hollow

Irish Hollow Creek is a seepage fed tributary to Trout Creek. The creek is susceptible to heavy bank erosion. There is little in-stream habitat in the creek and overall, the creek is only able to support some warm/cool water forage fish.

Kluesendorf Branch

Limited information is available for this creek.

Little Norway Creek

Little Norway Creek is a spring fed tributary to Bohn Creek. The stream flows through a steep valley. The stream has good water quality and seems to have fairly good trout habitat and the water runs cool in the stream. The stream is not currently managed.

Love Creek

Love Creek is a Class I trout stream that supports the natural reproduction of brown trout. It is also considered an outstanding resource water (ORW). There is some sedimentation in the stream near the mouth. Nearly 570 acres of land are publicly owned and make up the Love Creek Fishery Area. The fishery area offers opportunities for fishing, birdwatching and hiking. The stream has been hydrologically modified and experiences some nonpoint source pollution.

Meudt Creek

This stream, also known as Yagers Hollow, is a seepage fed tributary to Mill Creek. The creek is not currently managed for sport fish. Over three-fourths of the watershed has been cleared for agriculture at one point and the stream has problems due to hydrologic modification which affects the stream's flow and the in-stream temperature.

Mill Creek

Mill Creek is a tributary to the Wisconsin River at Tower Hill State Park. It is a Class II trout stream for 4.5 miles of its length. One 4-mile section of trout water is downstream from Twin Valley Lake, the other 0.5 mile stretch is downstream from the mouth of Trout Creek. Below the last stretch of trout water, Mill Creek is considered a warm water sport fishery stream. A rare aquatic species has been found in the creek in past surveys. The stream historically had problems with flooding as a result of intensive agriculture and lumbering. Flood control structures were put into place in the watershed to help lessen the problem. Two of these structures formed Twin Valley and Cox Hollow Lakes in the upstream portion of Mill Creek. These lakes are used primarily for fish, wildlife and recreational purposes. The creek below the lakes and upstream from Trout Creek can have problems with cattle grazing and in-stream sedimentation appears to be a problem.

Moen Creek

Moen Creek is a spring fed tributary to Elvers Creek. The headwaters of Moen Creek begin near Mount Horeb and have been impounded to form Stewart Lake. Moen Creek is considered a Class II trout stream although the creek has the potential to support a Class I fishery if properly managed. A cursory habitat evaluation was completed in the summer of 2001. The evaluation found the creek to have fair to good in-stream habitat. The creek has good bottom substrate and good riffles and runs in some areas, but not in others. This may be attributed to the moderate nonpoint source pollution making its way to the creek from the surrounding watershed. The creek also experiences streambank erosion due to unstable banks in some areas.

Stewart Lake causes some use problems in the headwater area. The creek just below the impoundment has filamentous algae, a sign of a high nutrient load. In addition, monitoring conducted in the summer of 2001 found that the section of the creek just below the lake had lower dissolved oxygen and higher temperatures in the early morning than other locations in the creek. The creek also receives stormwater runoff from Mount Horeb. Stewart Lake County Park provides public access to the headwaters of the creek.

Ryan Creek

Ryan Creek is a Class II trout stream and is considered an exceptional resource water (ERW). The stream meets up with Elvers Creek in Dane County to form the East Branch of Blue Mounds Creek. The creek is affected by hydrologic modification, including the ditching of the stream to drain a nearby wetland. In addition, cattle access to the stream has created significant erosion problems and has affected in-stream habitat. The stream has been ranked as a high priority for nonpoint source pollution would benefit from a nonpoint source pollution reduction project. In 1999, LUNKERS were installed in the creek and part of the streambank was rip-rapped in an effort to improve in-stream habitat in the creek.

Ryan Hollow Creek (Knights Hollow Creek)

Ryan Hollow Creek is a small spring fed tributary to Mill Creek in Iowa County. The creek currently is thought to support a cold water forage fishery, but the creek may have some potential to support a Class II trout fishery. The stream receives much of its flow from White Hollow Creek. Ryan Hollow Creek has been extensively modified by erosion control dams and the creek has some habitat problems. There is limited access to Ryan Hollow Creek.

Strutt Creek

Limited information is available for this creek.

Trout Creek

Trout Creek has five miles of Class I trout waters and three miles of Class II trout waters. The eight miles of trout water are also classified as an outstanding resource water (ORW) and the stream supports the natural reproduction of brown trout. A rare aquatic species has been found in the creek in past surveys. The stream, although considered one of the best trout streams in southern Wisconsin, is threatened by an impoundment in its headwaters that threatens the downstream management of cold water fisheries. The impoundment was built as a flood control structure and affects in-stream habitat and the trout fishery by causing sediment to fill in pools and warming the water. The stream also has some problems with nonpoint source pollution and is considered a high priority for nonpoint source pollution and would benefit from a nonpoint source pollution reduction project. Baseline monitoring was conducted on the stream in the summer of 2000. Much of the stream is in public ownership as the Trout Creek State Fishery Area. The fishery area is approximately 900 acres and offers opportunities for fishing, hiking, and birdwatching. (See Birch Lake)

Walnut Hollow Branch

Limited information is available for this creek.

West Branch Blue Mounds

The West Branch of Blue Mounds is the primary tributary to Blue Mounds Creek. The creek is managed as a Class II trout stream. The stream experiences problems with nonpoint source pollution and hydrologic modification. These modifications affect stream flow, increase water temperatures and decrease the quality of in-stream habitat.

White Hollow Creek

White Hollow Creek is a tributary to Ryan Hollow Creek, which flows into Mill Creek. The stream is fed by seepage. The creek has been hydrologically modified and access to the stream is limited. In addition, the stream experiences some problems as a result of stream bank erosion. Overall, the creek supports a cool water forage fishery, but it may have potential as a Class II trout stream.

Wisconsin River

This watershed is adjacent to a portion of the Wisconsin River. For more information on the Wisconsin River, see page 90.

LAKES IN THE MILL AND BLUE MOUNDS CREEKS WATERSHED

Birch Lake

Birch Lake, located in Iowa County, is an impoundment of Trout Creek created in 1964 as a part of a flood control project. The lake is 11 acres and approximately 15 feet deep at its deepest point. Due to sediment loading, however, the storage capacity of the lake has been reduced. The lake has some public land surrounding it and it is a popular fishing lake that supports largemouth bass and panfish. Due to problems with excessive weedy plant and algae growth in the summer, however, recreational uses of the lake are reduced.

Birch Lake has a significant effect on water quality in Trout Creek. Temperatures recorded during the summer of 1999 found a 15 degree increase in temperature below the impoundment. In addition, water samples found that there was significant nutrient enrichment of the water below the dam. It is suspected that this nutrient loading is the result of the impoundment on the stream. In addition to its effect on the physical and chemical characteristics of the stream, the impoundment has had an effect on the biological aspects of the creek. Sampling found only one fish above the dam and warmwater and pollution tolerant fish below the dam. This may be an indication that the impoundment, in addition to warming the water, also poses a migration barrier. The impoundment was found to cause negative effects on the macroinvertebrate community below the dam. Overall, sampling conducted in 1999 and 2000 found that the impoundment causes significant effects on the cold water habitat in Trout Creek by affecting physical, chemical and biological components of the stream's ecosystem. Monitoring has determined that limited options exist for minimizing the impoundment's impacts to Trout Creek.

Cox Hollow Lake

Cox Hollow Lake, located in Iowa County, is an impoundment on the headwaters of Mill Creek. The lake is 96 acres with a maximum depth of 29 and is located wholly inside of Governor Dodge State Park. The lake was constructed in 1958 and was established for wildlife habitat, recreation and as a flood control structure. The lake has a problem with weed growth in the water. The fishery of Cox Hollow Lake is walleye, largemouth bass and panfish.

Twin Valley

Twin Valley Lake is located in Iowa County just below Cox Hollow Lake and is an impoundment on the headwaters of Mill Creek. The lake is 152 acres with a maximum depth of 32 feet. The lake is located wholly inside of Governor Dodge State Park and was constructed in 1967 for wildlife habitat, recreation and as a flood control structure. The fishery of Twin Valley Lake is musky walleye, largemouth bass, panfish and trout. Monitoring on Twin Valley Lake began in 2001.

Stewart Lake

Stewart Lake is a seven-acre impoundment at the headwaters of Moen Creek. A small county park surrounds the lake. The lake experiences algae blooms and has excessive aquatic plant growth (Day, 1985). Stormwater runoff from the village of Mt. Horeb is thought to be part of the problem. With help through funding through the Lake Protection Grant program, the City of Mount Horeb is constructing stormwater detention basins to reduce sediment delivery to the lake. Dane County has a state lake management planning grant to develop a plan to address nonpoint source pollution and to improve in-lake management techniques. Dane County and the U.S. Geological Survey have begun lake and sediment monitoring in order to better understand and address the problems of the lake.

RECOMMENDATIONS (LW15)

- ◆ **Elvers Creek, Ryan Creek and Trout Creek** should be considered for nonpoint source reduction projects such as the Targeted Runoff Management program (TRM).
- ◆ The flood control structures on the Mill Creek System, including **Cutter, Love, Strutt and Trout Creeks**, should be removed to improve in-stream habitat and cold water fishery within the creeks.
- ◆ The spring ponds in the headwaters of **Blue Mounds Creek** should be removed.
- ◆ Additional funds should be pursued for the purchase of easements and fee titles to aid in streambank and in-stream habitat restoration and to increase public access to streams.
- ◆ Areas in need of critical streambank habitat improvement should be identified to determine which sections of stream in the Mill Creek/Blue Mounds Watershed would best respond to habitat restoration work.
- ◆ **Bohn Creek** should be put back into its original channel.
- ◆ Baseline monitoring should be conducted on the **East Branch Blue Mounds System**, including **Elvers, Bohn, Moen and Ryan Creeks** and on the **West Branch Blue Mounds** and the tributaries to **Mill Creek including Cutler and Love Creeks**.
- ◆ A water quality assessment of **Little Norway Creek** is needed to determine its potential as a trout stream.
- ◆ Baseline monitoring should be conducted on **Twin Valley and Cox Hollow Lakes** in Governor Dodge State Park.

- ◆ Small impoundments on cold water resources should continue to be assessed to find ways to modify the structure and improve water temperature and quality.
- ◆ Vegetation management is needed on the **Bohn Creek** system to increase habitat and expand brook trout range into the upper tributaries.
- ◆ **Blue Mounds Creek, Mill Creek, and Trout Creek** should be surveyed to determine if rare aquatic elements previously found in the streams are still present.
- ◆ Technical assistance on water quality, fisheries and watershed organizational issues should be provided to local landowners and anglers on **Trout Creek**.
- ◆ The WDNR should support Dane County's lake planning management grant for **Stewart Lake** so that monitoring activities needed to complete the project can be continued.
- ◆ A new stream classification survey should be completed for the entire **Blue Mounds Creek system**, including **Elvers, Ryan, Bohn and Moen Creeks**.
- ◆ Monitoring on the **Blue Mounds system** should be conducted. Monitoring should include continuous temperature monitoring to determine the quality and extent of trout water.
- ◆ Remove the dam on **Trout Creek** that forms **Birch Lake** to improve the habitat and fishery of the creek.

Recommendations adapted from the Dane County Water Quality Plan (1995):

- ◆ Stormwater management recommendations proposed in the Stewart Lake Restoration and Watershed Management Plan should be implemented.
- ◆ The Village should develop a wellhead protection program for municipal wells.
- ◆ Municipalities should improve erosion/runoff control ordinance to be consistent with Chapter 14 of Dane County Code of Ordinances if they have not already done so.
- ◆ Land application sites for wastewater biosolids should be reviewed. If located in well protection zones and potential for groundwater contamination, these sites should be relocated or groundwater monitoring and stringent design and operation requirements are recommended.
- ◆ Innovative stormwater management ideas, such as draining roof water to grassed areas, should be developed and used.

Watershed map

Streams in the Mill and Blue Mounds Creeks Watershed (LW15)

Iowa and Dane Counties

Area: 180 sq miles

Stream Name	WBIC	Length (miles)	Existing Use	Potential Use	Supporting Potential Use	Codified Use and Trout Stream Classification	Proposed Codified Use	303(d) Status	Aquatic Endangered/Threatened/Species of Concern	Use Impairment		NPS Rank	Monitored/Evaluated/Unassessed	Data Level	Trend	Ref.*
										Source	Impact					
Arneson Creek	1243500	2	COLD	same	Part	DEF	same	N	N			NR	E		U	16
Blue Mounds Creek	1248400	11	WWSF	same	Full	DEF	same	N	Y	NPS	HAB	M	E		U	8, 16, 22
Bohn Creek	1251900	0-2	COLD II	same	Full	ERW	same	N	N			M	M (2001)	H2	U	1, 3, 4, 8, 15, 22, 26
		2-3	COLD II	same	Part	DEF	same	N							U	
Canyon Park Cr.	1245200	5.3	COLD II	same	Part	DEF	COLD II	N	N	HM	HAB	NR	E (1956)		I	16, 26
Cutler Creek	1245000	2.5	COLD II	COLD I	Part	COLD II	same	N	N	HM,NPS	HAB	NR	E (1968)		U	8, 16, 26
Duesler Creek	1243400	1	COLD	same	U	DEF	same	N	N	HM		NR	U		U	1, 3, 16
E.Br. Blue Mounds	1251100	5.5	COLD III	COLD II	Part	COLD III	same	N	N	HM,NPS	HAB	M	E		U	15, 23, 26
		0-3	COLD II	COLD I	Part	COLD II (ERW)	same	N	N	HM,NPS	HAB	H	E		U	1, 3, 8, 15, 18, 22, 26
Elvers Creek	1251600	3-8	COLD III	COLD II	Part	COLD III (ERW)	same	N								
		3	COLD	same	Part	DEF	same	N	N			NR	U		U	16
Irish Hollow	1243200	2	COLD	same	Part	DEF	same	N	N			NR	U		U	16
Kluesendorf Branch	1243700	1.5	COLD	same	Part	DEF	same	N	N			NR	U		U	16
Little Norway Cr.	1252000	1.3	COLD	same	Part	DEF	same	N	N	NPS	HAB	L	U		U	8, 15, 21
Love Creek	1244400	3.1	COLD I	same	Full	COLD I (ORW)	same	N	N	NPS, HM	HAB	M	E (1968)		U	8, 16, 21, 26
Meudt Creek (Yagers Hollow)	1244600	3	COLD	same	Part	DEF	same	N	N	HM	FLOW,TEMP, HAB	NR	U		U	8, 16
Mill Creek	1215600	0-16.4	WWSF	same	Full	DEF	same	N	Y	HM,NPS	HAB, FLOW	M	E (1968)		U	8, 16, 26, 22
		16.4-16.9	COLD II	same	Part	COLD II	same	N							U	
		16.9-28.5	COLD	same	Part	DEF	same	N							U	
		28.8-32.8	COLD II	same	Part	COLD II	same	N							U	
		32.8-37	COLD	same	Part	DEF	same	N							U	

Stream Name	WBIC	Length (miles)	Existing Use	Potential Use	Supporting Potential Use	Codified Use and Trout Stream Classification	Proposed Codified Use	303(d) Status	Aquatic Endangered/Threatened/Species of Concern	Use Impairment		NPS Ran	Monitored/Evaluated/Unassessed	Data Level	Trend	Ref.*	
										Source	Impact						
Moen Creek	1252100	2	COLD II	COLD I	Part	COLD	same	N	N	NPS	HAB	M	M (2001)	H2	U	1, 3, 4, 8, 15, 26	
Ryan Creek	1251400	0-4	COLD II	same	Full	COLD II (ERW)	same	N	N	NPS	HAB	H	E		U	1, 3, 8, 15, 26	
																	Part
Ryan Creek (Knights Hollow)	1242500	4	COLD	COLD II	Part	DEF	same	N	N	ACC, HM	HAB	NR	U		U	16	
Strutt Creek	1244500	1.8	COLD I	same	Full	COLD II (ORW)	COLD I	N	N	CL	HAB	M	E		I	16, 21, 26	
Trout Creek	1243100	0-5	COLD I	same	Full	COLD I (ORW)	same	N	Y	NPS, HM	HAB, TEMP, MIG	H	M (2000)	B4, H3	U	8, 11, 16, 21, 26	
																	Full
Walnut Hollow Br.	1251000	2	COLD	same	Part	DEF	same	N	N	HM	FLOW, TEMP, HAB	NR	U		U	21	
W.Br. Blue Mounds	1250400	0-6	COLD II	same	Part	COLD II	same	N	N	HM	FLOW, TEMP, HAB	NR	E		U	8, 16, 26	
																	U
White Hollow Cr.	1242600	3	COLD	COLD II	U	DEF	same	N	N	HM, ACC	HAB	NR	U		U	16	
Unnamed streams		52.1				DEF		N									
Total Stream Miles		175.8															
	COLD	38.6															
	COLD I	9.9															
	COLD II	35.3															
	COLD III	10.5															
	WWSF	27.4															
	U	54.1															

***The numbers in this column refer to the References found in the corresponding Watershed Narrative. See Appendix J: "How to Read the Stream Tables," in Chapter 7 of the State of the Lower Wisconsin River Basin Report.**

Lakes in the Mill and Blue Mounds Creeks Watershed (LW15)

Iowa and Dane Counties

Lake Name	WBIC	County	Surface Area (Acres)	Max Depth	Lake Type	Winterkill	Access	SH	Hg	MAC	LMO	TSI	Lake Plan or Prot	P Sens	Comments
Cox Hollow Lake	1246500	Iowa	96	30	DG		BF		R					1	
Twin Valley Lake	1245800	Iowa	152	32	SE		BR		R	EWM				1	

See Appendix K: "How to Read the Lake Tables," in Chapter 7 of the Lower Wisconsin State of the Basin Report.

REFERENCES

1. Dane County Regional Planning Commission. Dane County Water Quality Plan, Appendix B Update: Surface Water Quality Conditions. 1992
2. Dane County Regional Planning Commission. Dane County Water Quality Plan. Summary Plan. 1995.
3. Day, Elizabeth A. et.al. Surface Water Resources of Dane County. Wisconsin Department of Natural Resources. 1985.
4. Derkowski, Neil. Summer 303(d) Monitoring Project for Stream in the Lower Wisconsin Basin. Wisconsin Department of Natural Resources. Unpublished. 2001.
5. Edwards, Rich. Personal Communications. Wisconsin Department of Natural Resources. 2000.
6. Enterprise Information, Technology and Applications, Bureau of. Wisconsin DNR. The WISCLAND Land Cover Data. Data from 1991 to 1993. Published in 1998.
7. Enterprise Information, Technology and Applications, Bureau of. Wisconsin DNR. User's Guide to WISCLAND Land Cover Data. 1998.
8. Fix, Steve. Lower Wisconsin River Basin Water Quality Management Plan. Wisconsin Department of Natural Resources. PUBL-WR-001-94-REV. 1994.
9. Lembcke, Roy. Personal Communications. Wisconsin Department of Natural Resources. 2000.
10. Marshall, Dave. Personal Communications. Wisconsin Department of Natural Resources. 2000.
11. Marshall, Dave. Aquatic Biologist, Wisconsin DNR. Cold Water Habitat Evaluation Final Report. Lower Wisconsin and Grant-Platte-Sugar-Pecatonica River Basins. April 2001.
12. Morton, Andy. Personal Communications. Wisconsin Department of Natural Resources. 1992.
13. North Central Wisconsin Regional Planning Commission. Watershed Population Estimates for the State of Wisconsin. May 2000.
14. Piening, Ronald, and C.W. Threinen. Surface Water Resources of Iowa County. Department of Natural Resources. 1968.
15. Stewart, Scot. Personal Communications. Wisconsin Department of Natural Resources. 2000.
16. Van Dyck, Eugene. Personal Communications. Wisconsin Department of Natural Resources. 2000.
17. Van Vlack, Karin E. Personal Communication, Dane County Lakes and Watershed Commission. 1993
18. Vollrath, Michael. Personal Communications. Wisconsin Department of Natural Resources. 2001.
19. Wisconsin Department of Administration. Population Projections and Census 2000 websites, [Http://www.doa.state.wi.us/dhir/boir/demographic/pop_proj.asp](http://www.doa.state.wi.us/dhir/boir/demographic/pop_proj.asp). Last updated August 2000.
20. Wisconsin Department of Agriculture, Trade and Consumer Protection (WDATCP). Atrazine Prohibition Web site, <http://datcp.state.wi.us/arm/agriculture/pest-fert/atrazine/> and ATCP 30, Wisconsin Administrative Code. 2001.
21. Wisconsin Department of Natural Resources. Fish Management Files in Dodgeville and Fitchburg. Southcentral Region. Through 2000.
22. Wisconsin Department of Natural Resources. Water Resources Management Files – South Central Region. 2001.
23. Wisconsin Department of Natural Resources. Wastewater Management Files. South Central Region.
24. Wisconsin DNR. Wisconsin DNR's Public Wildlife Recreation Land. PUBL-WM-001-98. 1998.
25. Wisconsin DNR. Wisconsin Lakes. Bureau of Water Resources Management and Bureau of Fisheries Management. 1995.
26. Wisconsin Department of Natural Resources. Fisheries Management, Bureau of. Wisconsin Trout Streams. 1980.