

UPPER PINE RIVER WATERSHED (LW13)

The 188.5 square mile Upper Pine River watershed lies mostly in north central Richland County with a small portion in Vernon County. Streams in the watershed have a high gradient and water quality is generally good. Nearly all of the streams in the watershed are cold water streams and can support trout and other cold water species.

Like other watersheds in the Lower Wisconsin Basin, agriculture is the dominant land use in the watershed. Currently, the overall trend in Richland County is from intensive agriculture to hobby farming. The exception to this transition in land use is near the upper end of the Pine River. There are few wetland complexes in the watershed. Many of them are wet meadows adjacent streams that have been degraded by grazing or cultivation. One exception to this is a northern bog wetland complex near Hub City. This type of wetland is very rare in this part of the state. Overall, the watershed is estimated to have a population of around 4,975 people. The Village of Yuba is the largest municipality in the watershed and experienced 19.5% growth in the last decade from 77 people to 92.

Table 1: Land Cover in the Watershed

<i>Land Cover</i>	<i>Percent of Watershed</i>
Agriculture	42.8%
Forest (Total)	36.8%
<i>Broad-Leaf Deciduous</i>	<i>36.7%</i>
<i>Coniferous</i>	<i>0.1%</i>
Grassland	16.8%
Wetland (Total)	2.9%
<i>Emergent/Wet Meadow</i>	<i>2.4%</i>
<i>Lowland Shrub</i>	<i>0.3%</i>
<i>Forested</i>	<i>0.2%</i>
Development	0.3%
Other	0.4%

Despite the generally good water quality in the watershed and the transition from intensive agriculture to less intensive hobby farming, there are still some water quality, habitat and recreational use problems in the streams as a result of nonpoint sources of pollution. As a result of this nonpoint source pollution, some of the cold water and trout streams are in poor condition.

Watershed At A Glance

Drainage Area (m²): 188.5

Total Stream Miles: 214.2

Trout Stream Miles: 85.4

Sport Fishery Miles: 4.9

Lakes: None

Exceptional/Outstanding Resource Waters: Fancy, Gault Hollow, Grinsell, Hanzel, Marshall, Melancthon, four unnamed tributaries to Fancy, one unnamed to Melancthon

Municipalities: Yuba

Major Public Lands: None

Concerns and Issues:

- ◆ Nonpoint source pollution
- ◆ Stream channelization

Initiatives and Projects:

- ◆ Wild trout reintroduction
- ◆ Pine River Study and Information Network (PRISTINE)

There are two permitted point source discharges in the watershed. The Hub City/Rockbridge Sewerage District discharges to the Pine River. In addition, Foremost Farms also has a permit to discharge to the Pine River and to Groundwater.

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

- ◆ Dry cliff
- ◆ Hemlock relict
- ◆ Moist cliff
- ◆ Pine relict
- ◆ Southern dry-mesic forest
- ◆ Southern mesic forest
- ◆ Alder thicket
- ◆ Northern wet forest
- ◆ Shrub-carr
- ◆ Southern sedge meadow

In addition to these special communities, the watershed is also home for a variety of rare plant and animal species including; 2 species of fish, 12 plant species, 1 species of snake, and 1 mammal species. These plants and animals are also listed on the state's Natural Heritage Inventory (NHI).

STREAMS AND RIVERS IN THE UPPER PINE RIVER WATERSHED

Basswood Creek

Basswood Creek is a small, Class II trout stream. Water quality is assumed to be good but no data exists to document this. Soils in this sub-watershed have a high potential for erosion and excess sediment has been observed in the stream. The creek experiences livestock pasturing and streambank erosion and was channelized in the past. This hydrologic modification has had an effect on habitat. The stream has the potential to be a Class I trout stream with proper management and has been ranked as a high priority for nonpoint source pollution and would benefit from a nonpoint source pollution reduction project.

Champion Valley Creek

Champion Valley Creek is a tributary to the Pine River, rising in Vernon County and flowing south to the Pine River in Richland County. Only 0.9 miles of the stream are classified as Class II trout waters although many of the remaining reaches of the stream in Vernon County are thought to be capable of also supporting a Class II fishery. A rare aquatic species has been found in the creek in past surveys. The stream has been channelized in the past and bank erosion contributes excessive amounts of sediment to the stream. Cattle access may also be a problem on the stream. Poor water quality in Champion Valley Creek has a negative impact on the overall health of the sport fish population in the Pine River system. Champion Valley Creek has been ranked as a high priority for nonpoint source pollution and would benefit from a nonpoint source pollution reduction project.

Cherry Valley Creek

Limited information is available for this stream.

Fancy Creek

Of Fancy Creek's 9.6 miles of trout waters, only about one mile in the headwaters is considered an exceptional resource water (ERW). The creek is a Class II trout stream in its lower 4.6 miles and a Class I trout fishery upstream from Cribben Hill Drive. A rare aquatic species has been found in the creek in past surveys. Baseline monitoring was conducted in 2000. The stream supports some natural reproduction of brook trout and the headwater area has good water quality and in-stream habitat. Segments of the stream, however, have been channelized, which has resulted in lost habitat. The stream is also threatened by nonpoint source pollution and sediment from bank erosion and cultivation close to the stream causes a nonpoint problem in some areas of the stream.

Gault Hollow Creek

Gault Hollow Creek is a tributary to the West Branch of the Pine River. It is a trout stream with 2.4 miles listed as Class II and 1.5 Class I trout waters. The Class I portion is also designated an exceptional resource water (ERW). A rare aquatic species has been found in the creek in past surveys. The stream is spring fed and has a fairly high gradient. A fish survey conducted in 1995 found evidence of natural reproduction of brook trout in the stream. The best spawning area appeared to be near the headwater springs. The creek has generally good water quality, but cattle grazing streambanks and bank erosion have contributed to excess sedimentation in some areas of the stream. Soil erosion potential in this watershed is considered high and the stream has been ranked as a high priority for nonpoint source pollution and would benefit from a nonpoint source pollution reduction project. Portions of the stream have heavy growth of reed canary grass

Greenwood Valley

Greenwood Valley Creek is a seepage and spring fed stream that begins in Vernon County and flows into Champion Valley Creek in Richland County. Approximately 0.2 miles of the stream's 5 miles are considered a Class II trout stream. A rare aquatic species has been found in the creek in past surveys. The stream is threatened by nonpoint sources of pollution from streambank pasturing and cropland erosion. Nonpoint source pollution in Greenwood Valley Creek can have a negative impact on the overall health of the sport fish population in the Pine River system.

Grinsell Branch

This stream is a small spring fed tributary to Melancthon Creek. It is a Class I brook trout stream and, therefore, has exceptional resource water status (ERW). The creek flows through a narrow valley and the stream is small which has an impact on fish size. Water quality is considered good. The soil erosion potential for this sub-watershed is considered high and the stream has been ranked as a high priority for nonpoint source pollution reduction. The stream is posted and heavy growth on streambanks further decreases the ability to fish on the stream.

Hanzel Creek

Hanzel Creek is a spring fed Class II trout stream. The stream has a small population of naturally reproducing brook trout. It has been recommended that the stream be upgraded to a Class I trout stream and added to the list of exceptional resource waters (ERW). The creek

has been affected by hydrologic modification and nonpoint source pollution. As a result, the stream has been ranked as a high priority for nonpoint source pollution reduction.

Hawkins Creek

Hawkins Creek is a Class II spring and seepage fed trout stream tributary to the Pine River. A rare aquatic species has been found in the creek in past surveys. A cursory habitat evaluation of the creek was completed in the summer of 2001. The evaluation found the creek to have good in-stream habitat. This includes good available substrate for spawning, and a good variety of habitats including riffles, runs and pools.

Despite the adequate habitat, cattle access to the stream causes streambank erosion and sedimentation problems that do have an affect on the stream. In addition, the creek and its tributaries have been extensively modified which has impacted water quality and habitat. The stream has been ranked as a high priority for nonpoint source pollution reduction and is thought that with proper management, it may have Class I potential. This stream would benefit from a nonpoint source pollution reduction project.

Horse Creek

Horse Creek is a spring and seepage fed tributary to the Pine River. The stream is considered a Class II trout stream and has some natural reproduction of brook trout. A cursory habitat evaluation of the creek was completed in the summer of 2001. The evaluation found the creek to have fair in-stream habitat. The overall problem that affects habitat in this creek is due to nonpoint pollution from streambanks instability and erosion. This sedimentation covers up available stream bottom and limits in-stream habitat. If the sources of nonpoint pollution are controlled, the stream has the potential to become a Class I trout stream. Historically, the stream has had problems with manure discharges adjacent to the stream. This situation is currently being addressed, but the stream still has to deal with over a decade of phosphorus loading from animal waste.

Hynek Hollow Creek

Hynek Hollow Creek is a spring fed tributary to Gault Hollow Creek. It is a Class II trout stream. Overall, stream water quality is considered good. A cursory habitat evaluation of the creek was completed in the summer of 2001 found fair to good habitat in the creek. The main problem that affects habitat is nonpoint source pollution including cattle grazing along the streambank, streambank erosion, and in-stream sedimentation. The stream was channelized in the past, which has affected in-habitat. With proper controls and management, it is thought that this stream could be a Class I trout stream. The soil erosion potential for the Hynek Hollow Creek sub-watershed is considered high and the stream is ranked as a high priority for nonpoint source pollution and would benefit from a nonpoint source pollution reduction project.

Indian Creek

Indian Creek is thought to support a Class II trout fishery. The stream is a tributary to the Pine River. The creek has been hydrologically modified and it has some streambank pasturing.

Johnston Creek

Johnston Creek is a spring fed tributary to Hawkins Creek. The creek currently supports a Class II trout fishery, but the stream has potential to support a Class I fishery. The creek receives cropland runoff and has been hydrologically modified.

Lebansky Creek

Lebansky Creek is a small high gradient spring and seepage fed tributary to Melancthon Creek. The stream is cold but supports only a forage fishery population.

Marshall Creek System

Limited information is available for these streams.

Melancthon Creek

Melancthon Creek is a tributary to the Pine River, rising in Vernon County and flowing south to the Pine. About 6.4 miles are thought to be Class I trout waters. The entire trout stream portion has been designated an exceptional resource water (ERW) and supports some natural reproduction of both brook and brown trout. A rare aquatic species has been found in the creek in past surveys. The sub-watershed has a high potential for soil erosion and there are some sediment problems in the lower reaches of the stream and some grazing adjacent the stream. The upper 2.6 miles of the stream have been designated as impaired water due to nonpoint source pollution. The stream has been ranked as a high priority for nonpoint source pollution and would benefit from a nonpoint source pollution reduction project. The stream experiences a dense growth of reed canary grass in some areas. Fish from Melancthon Creek are collected and used by the WDNR for the wild trout stocking program.

Norman Valley Creek

Norman Valley Creek is a spring fed tributary to the Pine River. It is thought that the stream is able to support a small forage fish population.

North Buck Creek

North Buck Creek is a spring and seepage fed tributary to South Buck Creek. The creek is small and although it has cold water, is only thought to contain forage fish.

Pine River

The Pine River originates from springs in southern Vernon County. The Pine River is currently classified as a Class II trout stream for 17 miles. The remaining portion of the river is considered a warm water sport fishery. A rare aquatic species has been found in the creek in past surveys. The Pine River has been hydrologically modified as a part of a flood control project. One of the largest threats to the water quality in the Pine River is from nonpoint source pollution and the river is affected by cropland erosion and streambank pasturing which contribute sediment to the river and affects in-stream habitat. The Pine River receives point source discharges from the Hub City/Rockbridge Sewerage District and Foremost Farms.

Richardson Hollow

Richardson Hollow is a spring fed tributary to the Pine River. The stream has low flow and a small population of forage fish.

Rusk Creek

Limited information is available for this stream.

Simpson Hollow Creek

Simpson Hollow Creek is a spring fed tributary to Hawkins Creek. Nearly all of the land in the watershed is used for agricultural purposes and bank erosion and siltation cause problems. In 1995 an effort was made to address these sources of nonpoint source pollution through the installation of a cattle crossing, construction of fencing to keep cattle out of the stream, and rip rap to stabilize streambanks.

Soules Creek

Soules Creek is a spring and seepage fed stream tributary to the Pine River near Hub city. The stream is currently a Class II trout stream for a half mile of its length. The stream has a sandy bottom and in-stream habitat is limited. The stream has been ranked as a high priority for nonpoint source pollution and would benefit from a nonpoint source pollution reduction project. The Hub City Bog adjoins Soules Creek.

South Buck Creek

South Buck Creek is a small seepage and spring fed tributary to the Pine River. The creek has been hydrologically modified. The creek only supports a small population of forage fish.

West Branch Pine River

The West Branch of the Pine River is a Class II trout stream for 11.3 miles of its length. The stream is judged to have good potential for trout reproduction, however, intensive agricultural activities in the sub-watershed may be limiting the stream's potential. The stream has been straightened in some areas and bank erosion is moderate to severe. Other potential threats include cropland erosion and barnyard runoff. As a result, the stream is ranked as a high priority for nonpoint source reduction. Fish surveys in the early 1990's found low trout populations. A rare aquatic species has been found in the creek in past surveys.

RECOMMENDATIONS (LW13)

- ◆ Condition monitoring on **Basswood, Gault Hollow, Hanzel, Marshall, S. Branch Marshall, W. Branch Marshall, and Melancton Creeks**, and the **Pine and West Branch Pine Rivers** should be conducted.
- ◆ **Champion Valley Creek** and **Greenwood Valley Creek** should be considered for TRM or EQIP funding for the installation of best management practices to improve the health of the trout water and the sport fishery in the Pine River.
- ◆ Water quality and habitat assessments should be completed for **Champion Valley** and **Greenwood Valley Creeks**.
- ◆ A fisheries management plan for **Hawkins Creek, Horse Creek and Hynek Hollow Creek** is needed to help improve the streams from a Class II to a Class I trout stream.

- ◆ Nonpoint source pollution reduction through a program such as the Targeted Runoff Management program, (TRM), is needed for **Hanzel** and **Grinsell Creeks** to improve Melanchthon Creek and for **Basswood, Champion Valley, Gault Hollow, Hawkins, Hynek Hollow, Melanchthon,** and **Soules Creeks,** and the **W. Branch** of the **Pine River.**
- ◆ **Simpson Hollow Creek** should be monitored to determine the success of streambank best management practices.
- ◆ **Champion Valley Creek, Fancy Creek, Gault Hollow Creek, Greenwood Valley Creek, Hawkins Creek, Melanchthon Creek, the Pine River, and the West Branch of the Pine River** should be surveyed to determine if rare aquatic elements previously found in the streams are still present.

WATERSHED MAP

Streams in the Upper Pine River Watershed (LW13)

Richland and Vernon Counties

Area: 188.5 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	Rare Aquatic Species	Use Impairment		Monitored/ Evaluated/ Unassessed	Data Level	Trend	Ref.*	
										Source	Impact					
Basswood Creek	1231000	0-1.5	COLD II	same	Part	COLD II	same	N	N	NPS, PSB, SB	HAB	E (1993)	P1	U	3, 6, 11, 15, 16	
		1.5-3	U	U	U	U	DEF	same	N							
Champion Valley Cr.	1233600	0-0.9	COLD II	same	Part	COLD II	same	N	Y	NPS, HM, PSB, CL	HAB	E	P1	U	3, 6, 11, 14, 16	
		0.9-5	COLD	same	Part	DEF	same	N								
		1	COLD II	same	Part	DEF	COLD II	same	N	N			E		U	3, 6, 11
Fancy Creek	1227400	0-4.6	COLD II	same	Part	COLD II	same	N	Y	NPS, HM	HAB	M (2000)	B4, H3	U	3, 6, 7, 11, 14, 15, 16	
		4.6-8.6	COLD I	same	Full	COLD II	COLD I/ERW	same	N							
		8.6-9.6	COLD I	same	Full	Full	COLD I/ERW	same	N							
		9.6-12	U	U	U	U	DEF	same	N							
Gault Hollow Cr.	1230200	0-2.4	COLD II	same	Full-thr	COLD II	same	N	Y	NPS	HAB	M (1993, 1995)	H2, B2	U	3, 6, 15, 16	
		2.4-3.9	COLD I	same	Full-thr	Full-thr	COLD I/ERW	same	N							
Greenwood Valley Cr.	1233700	0-0.2	COLD II	same	Full	COLD II	same	N	Y	PSB, CL	HAB	E		U	3, 6, 11, 16	
		0.2-5	U	U	U	U	DEF	same	N							
Grinsell Branch	1232600	2.5	COLD I	same	Full	COLD I/ERW	same	N	N	NPS	HAB	M (1995)	B2	U	3, 6, 15, 16	
		2.1	COLD I	same	Full	Full	COLD I/ERW	same	N	N	NPS, HM	HAB	E		U	3, 6, 11, 14, 15, 16
Hawkins Creek	1231300	0-5.4	COLD II	COLD I	Part	COLD II	same	N	Y	HM, PSB, SB	HAB	M (2001)	B1, H2	U	2, 3, 6, 11, 15, 16	
		5.4-6	U	U	U	U	DEF	same	N							
Horse Creek	1226800	0-4.4	COLD II	COLD I	Part	COLD II	same	N	N	NPS, HM	HAB	M (2001)	B1, H2	U	2, 3, 6, 11, 16	
		0-1.5	COLD II	COLD I	Part	Part	COLD II	same	N	N			M (2001)	B1, H2	U	2, 3, 6, 11, 16
Hynek Hollow Creek	1230400	1.5-2	U	U	U	DEF	same	N								
		1.7	COLD II	COLD I	Part	Part	DEF	COLD II	N	N	PSB, HM	HAB	E		U	3, 6, 11, 14, 16
Indian Creek	1231700	2.2	COLD II	COLD I	Part	COLD II	same	N	N	HM, CL	HAB	E		U	6, 11, 16	
		2	COLD	same	Part	Part	DEF	same	N	N	HM	FLOW, MIG	E (1975)		U	6, 11
Marshall Creek	1228100	0-1.9	COLD I	same	Full	COLD I/ERW	COLD I	N	N	HM	HAB	E (1976)		U	11, 14, 16	
		1.9-4	COLD	same	Part	Part	DEF/ERW	same	N							
Melancthon Creek	1232200	0-2.9	COLD I	same	Full-thr	COLD I/ERW	COLD I	N	Y	NPS	HAB	M (1996)	B2, H1	U	3, 7, 11, 14, 16	
		2.9-6.4	COLD I	same	Full	Full	COLD I/ERW	same	N							
		6.4-9.0	WWFF	COLD II	Not	Not	DEF/ERW	same	Y							
N. Buck Creek	1229000	2	COLD	same	Part	DEF	same	N	N	NPS	HAB	U		U	11	
		0.5	U	U	U	U	DEF	same	N	N					U	
Norman Valley Cr.	1232900															

Stream Name	WBIC	Length (miles)	Existing Use	Potential Use	Supporting Potential Use	Codified Use and Trout Stream Classification	Proposed Codified Use	303(d) Status	Rare Aquatic Species	Use Impairment		NPS Rank	Monitored/ Evaluated/ Unassessed	Data Level	Trend	Ref.*	
										Source	Impact						
Pine River	1220600	19-23.9	WWSF	same	Part	DEF (19-28.9)	same	N	Y	NPS	HAB	M	E (1995)	P1	U	3, 6, 7, 10, 11, 14, 15, 16	
		23.9-42.9	COLD II	same	Part	COLD II (28.9-42.9)	COLD II (23.9-28.9)	N		CL, PSB							
		42.9-53	WWFF	same	Part	DEF (42.9-53)	same	N									
Richardson Hollow Cr	1232800	1	COLD	same	U	DEF	same	N	N			NR	U		U	11	
Rusk Creek	1227200	0-1	COLD II	same	Part	COLD II	same	N	N			NR	E		U	6, 11, 14, 16	
		1-1.9	COLD II	same	Part	DEF	COLD II										
S. Buck Creek	1228900	3	COLD	same	U	DEF	same	N	N			NR	U		U		
Simpson Hollow Cr.	1231600	4	COLD	same	U	DEF	same	N	N			NR	E		U		
Soules Creek	1232100	0-0.5	COLD II	same	Part	COLD II	same	N	N	NPS, HM	HAB	H	E		U	3, 6, 11, 16	
		0.5-5	COLD	same	Part	DEF	same	N									
S. Br. Marshall Cr	1228200	1.3	COLD I	same	Full	COLD II	COLD I/ERW	N	N	NPS, HM	HAB	L	E (1975)		U	3, 6, 11, 14	
W. Br. Marshall Cr.	1228300	3.3	COLD I	same	Part	COLD II	COLD I/ERW	N	N	NPS, PSB	HAB	L	M (1996)	B2	U	3, 6, 11, 14, 15, 16	
W.Br. Pine River	1229300	0-11.3	COLD II	same	Not	COLD II	same	N	Y	NPS	HAB	H	E (1993)	H1	U	6, 7, 10, 11, 14, 15, 16	
		11.3-17	U	U	U	U	DEF	same	N								
Unnamed trib to Fancy Cr (10-8) (T11N R1W)	1228600	0.5	COLD I	same	Full	ERW	COLD I	N	N			NR	E		U	6, 11, 14, 16	
Unnamed Trib to Fancy Cr (13-11) (T11N, R1W)	1228000	1.9	COLD II	same	Full	COLD II	same	N	N			NR	E		U	6, 11, 14, 16	
Unnamed Trib to Fancy Cr. (24-3a)		1	COLD I	same	Full	ERW	COLD I	N	N			NR	E		U	6, 11, 14, 16	
Unnamed Trib to Fancy Cr (4-9) (T11N, R1W)	1228700	1	COLD I	same	Full	ERW	COLD I	N	N			NR	E		U	6, 11, 14, 16	
Unnamed Trib to Melancthon Cr. (T12NR1E,3-4d)	1232630	0.5	COLD I	same	Full	COLD I/ERW	same	N	N			NR	E		U	6, 11, 14, 16	
Unnamed streams		51.5				DEF											
Total Stream Miles		214.2															
		COLD															
		COLD I															
		COLD II															
		WWSF															
		WWFF															
		U															
		67.5															

***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.**

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