# READS AND TAINTER CREEKS WATERSHED (LW03)

The Reads and Tainter Creeks Watershed is located in northeast Crawford and southeast Vernon Counties. This watershed includes all streams that flow to the Kickapoo River between Readstown and Gays Mills. The entire length of the Kickapoo River in this watershed is flanked by floodplain wetlands. No named lakes exist in this watershed, however several shallow oxbow lakes can be found adjacent to the Kickapoo River. Due to the steep topography of the area, much of the acreage in the watershed is woodland. The remainder is either in agriculture or private property that is not farmed. Population of the Reads and Tainter Creeks Watershed for the year 2000 was estimated at approximately 3,162. The fastest growing community in this watershed is Soldiers Grove at 15.7%.

**Table 1: Growth in Municipalities in the Watershed**

| *Municipality* | *1990* | *2000* | *% Change* |
|---|---|---|---|
| Gays Mills (part) | 578 | 625 | 8.1% |
| Readstown | 420 | 395 | -5.9% |
| Soldiers Grove | 564 | 653 | 15.7% |

**Table 2: Land Cover in the Watershed**

| *Land Cover* | *Percent of Watershed* |
|---|---|
| Agriculture | 44.6% |
| Forest (Total) | 40.4% |
| *Broad-Leaf Deciduous* | *39.6%* |
| *Coniferous* | *0.75%* |
| Grassland | 11.2% |
| Wetland (Total) | 2.15% |
| *Emergent/Wet Meadow* | *1.70%* |
| *Forested* | *0.40%* |
| *Lowland Shrub* | *0.05%* |
| Development | 0.28% |
| Other | 1.32% |

## Watershed At A Glance

**Drainage Area ($m^2$)**: 136

**Total Stream Miles**: 83.4

**Trout Stream Miles**: 59.9

**Sport Fishery Miles**: 0

**Lakes**: None

**Exceptional/Outstanding Resource Waters**: Reads Creek, Tainter Creek, Creek 6-11

**Municipalities**: Gays Mills, Readstown, Sodiers Grove

**Major Public Lands**:
- None

**Concerns and Issues**:
- Nonpoint source pollution

**Initiatives and Projects**:
- Wild trout reintroduction
- In-stream habitat restoration
- Continuous water temperature monitoring

Three communities in the watershed, Gays Mills, Readstown and Soldiers Grove, have Wisconsin Pollutant Discharge Elimination System (WPDES) permits, all of which discharge to the Kickapoo River. Readstown discharges into a variance stream as indicated in NR 104 and requires a triennial water quality standards review. The Village of Readstown submitted a facility plan, plans and specifications to the Department and is planning on constructing a

new wastewater treatment plant. The plant should be on line within the next several years. The outfall will be relocated and variance stream classifications will be eliminated.

Overall, nonpoint source pollution is considered the primary cause of water quality problems in streams in the watershed and consequently the stream ranking of high has been assigned for nonpoint source pollution abatement efforts.

The Reads and Tainter Creek 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
- Pine relict
- Southern dry-mesic forest
- Southern mesic forest

In addition to these special communities, the watershed is also home for a variety of rare plant and animal species including; 1 bird species, 4 species of fish, 1 type of mammal, 8 plant species, 1 salamander species and 2 species of snail. These plants and animals are listed on the state's NHI.

This watershed contains small tracts of public land along the upper portions of Tainter Creek in Vernon County. No large tracts of publicly owned land can be found in this watershed.

## STREAMS AND RIVERS IN THE WATERSHED

### Baker Creek

Baker Creek, located in northeast Crawford County, flows in a northwesterly direction for 2.4 miles before reaching the Kickapoo River in Soldiers Grove. This stream has a gradient of 44 feet per mile and drains forested hillsides and agricultural valleys as well as a small portion of Soldiers Grove. Baker Creek is a Class II trout stream for its entire length.

The most recent survey, conducted in 1978, documented brown trout and numerous forage fish species as well as a few northern pike. At the time, the stream bottom consisted of gravel, cobble and boulders with lesser amounts of sand and silt. In-stream cover consisted of undercut banks, boulders and woody debris. A fish and habitat survey should be conducted to determine the existing condition of Baker Creek. WDNR records indicate Baker Creek has not been stocked. Access to Baker Creek is from a park in Soldiers Grove and four road crossings.

### Bear Creek

Bear Creek, located in northeast Crawford County, flows in a westerly direction for 3.6 miles before reaching the Kickapoo River between Gays Mills and Soldiers Grove. This stream has a gradient of 45 feet per mile and drains forested hillsides and agricultural valleys. Bear Creek is a Class II trout stream for its entire length.

The most recent survey, completed in 1978, documented brown trout and numerous forage fish species. The stream bottom primarily consisted of sand with lesser amounts of gravel,

cobble and silt. In-stream cover for adult fish was scarce. A fish and habitat survey of Bear Creek should be conducted to document current conditions. WDNR records indicate that Bear Creek has not been stocked. Access to Bear Creek is from two road crossings.

**Day Creek**
Day Creek, located in southeast Vernon County, flows in a westerly direction for three miles before reaching the Kickapoo River in Readstown. This stream has a gradient of 58 feet per mile and drains forested hillsides and an agricultural valley as well as a portion of Readstown. Day Creek is a Class I trout stream for its entire length.

The most recent survey, completed in 1997, documented a naturally reproducing brook trout population as well as numerous forage fish species. Approximately 50% of the stream sampled contained a sand bottom with lesser amounts of silt, cobble and gravel. In-stream cover consisted primarily of woody debris with some undercut banks. Day Creek would benefit from the purchase of easements from willing sellers and restoration of in-stream habitat. WDNR records indicate that Day Creek was last stocked with wild brook trout in 1989. Access to Day Creek is from three road crossings.

**Hincks Creek**
Hincks Creek, located in south central Vernon County, flows in a southerly direction for 1.1 miles before reaching Tainter Creek. This stream has a steep gradient of 100 feet per mile and drains forested hillsides and an extensive agricultural headwater plateau. Hincks Creek is a Class III trout stream for its entire length.

The most recent survey, conducted in 1975, documented a diverse forage fishery but no trout. The stream bottom consisted mostly of gravel and cobble with some sand. Brook trout were last stocked in Hincks Creek in 1975. A fish and habitat survey should be conducted to determine existing conditions in Hincks Creek. Access to Hincks Creek is from one road crossing.

**Kickapoo River**
A total of 21.1 miles of the Kickapoo River flow through the Reads and Tainter Creeks Watershed. For more information on the Kickapoo River see page 98.

**Nederlo Creek**
Nederlo Creek, also known as Johnstown Creek, is located in north central Crawford County. This stream flows in a north easterly direction for 4.1 miles before reaching Tainter Creek north of Gays Mills. Nederlo Creek has a gradient of 27 feet per mile and drains forested hillsides and agricultural valleys. Nederlo Creek is a Class II trout stream upstream of Freeman Road for 2.1 miles and Class III downstream of Freeman Road for 2.0 miles.

The most recent survey, conducted in 1998, documented a small brown trout population and a very diverse community of forage fish species. At the time, sand and silt made up nearly 50% of the stream bottom followed by cobble (41%) and small amounts of gravel and boulder. The majority of in-stream cover consisted of aquatic vegetation and some boulders. Habitat seems to be the limiting factor for trout in Nederlo Creek. Streambank pasturing of livestock

contributes greatly to the sediment problems of the stream. Nederlo Creek would benefit from the purchase of streambank easements from willing sellers and the restoration of in-stream habitat. WDNR records indicate that Nederlo Creek was stocked with brown trout yearly from 1959 to 1995. Brook trout have been stocked since 1999. Access to Nederlo Creek is from one road crossing and a WDNR easement.

**North Branch of Nederlo Creek**
North Branch of Nederlo Creek, also known as Creek 12-3, is located in north central Crawford County. This stream flows in a south easterly direction for 1.6 miles before reaching Nederlo Creek. North Branch Nederlo Creek has a steep gradient of 110 feet per mile, drains forested hillsides and a narrow agricultural valley and is a Class II trout stream for its entire length.

The most recent survey, conducted in 1998, documented brook stickleback and mottled sculpin. The majority of the stream bottom was comprised of cobble and gravel. Numerous springs were also noted during the survey. A concrete spillway prevents the upstream migration of fish. The stream conditions of North Branch of Nederlo Creek indicate that experimental wild brook trout stocking may be successful. WDNR records indicate that North Branch of Nederlo Creek has never been stocked. Access to this stream is from a WDNR easement.

**Reads Creek**
Reads Creek, also known as Black Bottom Creek, is located in southeast Vernon County. This stream flows parallel to HWY 14/61 in a southeasterly direction for 6.6 miles before reaching the Kickapoo River at Readstown. Reads Creek has a gradient of 56 feet per mile and drains forested hillsides with agricultural activities largely found on the upper headwater plateau. Reads Creek is a Class I trout stream for its entire length and an Exceptional Resource Water, (ERW).

The most recent survey was conducted in July 2000 to determine the effects of a flood that occurred the previous month when more than four inches of rain fell on already saturated ground. The erosive action of this large volume of water moved the stream channel in some locations, destroyed culverts and bridges and scoured clean the rocky substrate. Coincidentally during the July survey another catastrophic flood hit Reads Creek, this time approximately six inches of rain fell in a 24 hour period. Once again the stream channel moved in spots, culverts were blown out and the rocky substrate was scoured clean of algae and aquatic insects. The July survey surprisingly documented healthy brook trout and brown trout populations with several year classes represented. Additionally, a diverse forage fishery was also documented. The fishery successfully survived two major floods within 30 days. The stream bottom was dominated by cobble and gravel followed by sand. In-stream cover consisted of undercut banks, deep pools, woody debris and overhanging vegetation. Reads Creek would benefit from the purchase of streambank easements from willing sellers and the restoration of in-stream habitat. WDNR records indicate that Reads Creek was stocked with brown trout from 1975 to 1997 and wild brook trout from 1998 to present. Access to Reads Creek is from five road crossings and one WDNR easement.

**Sheridan Creek**
Sheridan Creek, located in northeast Crawford County, flows in a westerly direction for 0.7 miles before reaching Baker Creek near Soldiers Grove. This stream has a gradient of 62 feet per mile. Sheridan Creek is not a classified trout stream. A fish and habitat survey should be conducted of Sheridan Creek to determine its existing condition.

**Sherry Creek**
Sherry Creek, located in southeastern Vernon County, flows in an easterly direction for 1.7 miles before reaching Reads Creek near Readstown. This stream has a gradient of 33 feet per mile and drains forested hillsides and an agricultural valley. Sherry Creek is a Class II trout stream for its entire length.

The most recent survey, conducted in 1998, documented brook and brown trout as well as numerous forage fish species. The stream bottom consisted primarily of cobble, gravel and boulder with lesser amounts of silt and sand. In-stream habitat was largely woody debris and overhanging grasses. Abundant watercress, an indicator of groundwater influence, was also noted. Sherry Creek would benefit from the purchase of streambank easements from willing sellers and the restoration of in-stream habitat. WDNR records indicate that Sherry Creek has not been stocked. Access to Sherry Creek is from two road crossings.

**Tainter Creek**
Tainter Creek begins in south central Vernon and flows into north central Crawford County. This stream flows in a south easterly direction for 6.8 miles until it reaches the Kickapoo River north of Gays Mills. Tainter Creek has a rather steep gradient of 50 feet per mile through Vernon County, but a more gentle gradient of 15 feet per mile through Crawford County. This stream drains forested hillsides and agricultural valleys as well as the agricultural headwater plateau. Tainter Creek is a Class II trout stream upstream of CTH B and an exceptional water resources for 4.8 miles and Class III downstream for the remaining two miles.

The most recent survey, conducted in 1985, documented a fairly substantial brown trout population. A 1974 survey documented not only brown trout, but also a very diverse forage fishery. The stream bottom consisted primarily of cobble and gravel in the upper reaches and gradually more sand further downstream. In-stream cover included undercut banks, boulders, and woody debris. Much of Tainter Creek contains a stream channel incised into the valley floor resulting in vertical raw streambanks which consistently contribute sediment to the stream. Repairing these vertical banks would benefit the in-stream habitat of Tainter Creek. A fish and habitat survey should be conducted of Tainter Creek to determine its existing condition. Tainter Creek would benefit from the purchase of streambank easements from willing sellers and the restoration of in-stream habitat. WDNR records indicate that Tainter Creek was stocked with brown trout from 1973 to 1997. From 1998 to present both wild brook trout and wild brown trout have been stocked. Access to Tainter Creek is from six road crossings, WDNR owned land and WDNR easements.

**Trout Creek**
Trout Creek, located in northeast Crawford County, flows in a westerly direction for 3.8 miles before reaching the Kickapoo River near Soldiers Grove. This stream has a gradient of 44 feet per mile and drains forested hillsides and agricultural valleys. Trout Creek is a Class I trout stream for its entire length.

The most recent survey, conducted in 1998, documented a naturally reproducing brown trout population and numerous forage fish species. The stream bottom consisted primarily of cobble with lesser amounts of boulder, gravel and sand. Woody debris, boulders and deep pools made up the majority of in-stream cover. Trout Creek would benefit from the acquisition of streambank easements from willing sellers and the restoration of in-stream habitat. WDNR records indicate that Trout Creek has been stocked with brown trout consistently since 1967. Access to Trout Creek is from three road crossings.

## RECOMMENDATIONS (LW03)

- Fish and habitat surveys should be conducted **on Baker Creek, Bear Creek, Hincks Creek, Sheridan Creek** and **Tainter Creek** to determine the existing conditions.

- The stream conditions of **North Branch of Nederlo Creek** indicate that experimental wild brook trout stocking may be successful.

- Streambank easements should be purchased from willing sellers who own land bordering **Day Creek, Nederlo Creek, Reads Creek, Sherry Creek, Tainter Creek** and **Trout Creek.**

- Restoration of in-stream habitat would benefit the trout fishery of **Day Creek, Nederlo Creek, Reads Creek, Sherry Creek, Tainter Creek** and **Trout Creek.**

- If the bridge on **North Branch of Nederlo Creek** is replaced in the future, the concrete spillway below should be removed to improve fish migration in the stream.

- The **Kickapoo River** should be surveyed to determine if rare aquatic species previously found in the river are still present.

- Conduct a triennial water quality standards review on the **Kickapoo River** receiving stream for the Readstown discharge.

WATERSHED MAP

## Streams in the Reads and Tainter Creek Watershed (LW03) Crawford & Vernon Counties Area: 136 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 | | NPS Rank | Monitored/Evaluated/Unassesed | Data Level | Trend | Ref* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Source | Impact | | | | | |
| Baker Creek | 1186900 | 0-2.4 | COLD II | U | U | COLD II | same | N | N | PSB | HAB | H | E | B3,H2 | U | 1,3,12, 17 |
| Bear Creek | 1186600 | 0-3.6 | COLD II | U | U | COLD II | same | N | N | NPS | HAB | H | E | B3,H2 | U | 1,3,12, 18 |
| Day Creek | 1187800 | 0-3.0 | COLD I | same | Thr | COLD II | COLD I | N | N | PSB | HAB | H | M | B4,H3 | I | 2,3,4,1 2 |
| Hinck's Creek (Creek 5-11) | 1186800 | 0-1.1 | COLD III | U | U | COLD III | same | N | N | | | | E | B3,H2 | U | 2,3,12, 16 |
| Kickapoo River | 1182400 | 40-61.1 | COLD II | same | Thr | DEF | COLD II | N | Y | SB | HAB | M | M | B4 | I | 12 |
| McGraw Creek (Creek 18-13) | 1186400 | 0-1.8 | COLD II | COLD I | Part | COLD II | same | N | N | | | | M | B4 | S | 2,3,9,1 2 |
| Nederlo Creek (Johnstown Creek) | 1185700 | 0-2.0 | COLD III | COLD I | Part | COLD III | same | N | N | NPS | HAB | H | M | B4,H3 | S | 1,3,5,1 2 |
| | | 2.0-4.1 | COLD II | COLD I | Part | COLD II | same | N | | | | | | | | |
| North Branch Nederlo Creek (Creek 12-3) | 1185900 | 0-1.6 | COLD II | COLD I | Part | COLD II | same | N | N | | | | M | B4,H3 | S | 1,3,7,1 2 |
| Reads Creek (Black Bottom Creek) | 1187400 | 0-6.6 | COLD I | same | Thr | COLD I/ERW COLD II | COLD I | N | N | SB, PSB | HAB | H | M | B4,H4 | I | 2,3,10, 12 |
| Sheridan Creek | 1187000 | 0-1.0 | U | U | U | DEF | same | N | N | | | | U | | U | 1,12 |
| Sherry Creek | 1187500 | 0-3.3 | COLD II | COLD I | Part | COLD II | same | N | N | BY | HAB | H | M | B4,H3 | S | 2,3,8,1 2 |
| Tainter Creek | 1185500 | 0-2.0 | COLD III | COLD II | Part | COLD III/ERW | same | N | N | SB | HAB | H | E | B4, H2 | S | 1,2,3,1 1, 12,15 |
| | | 2.0-6.8 | COLD II | COLD I | Part | COLD II/ERW | same | N | | | | | | | | |
| Trout Creek | 1187200 | 0-3.8 | COLD I | same | Thr | COLD II | COLD I | N | N | SB | HAB | H | M | B4,H3 | I | 1,3,6,1 2 |
| Unnamed Trib to Reads Cr. (T11N R4W, 6-11) | 1187600 | 0-0.7 | COLD I | same | Thr | COLD I/ERW | same | N | N | SB | HAB | H | M | B4,H3 | S | 3,12 |
| 11 Unnamed streams | | 22.5 | | | | | | | | | | | | | | |

| | |
|---|---|
| Total Stream Miles | 83.4 |
| COLD I | 14.1 |
| COLD II | 40.7 |
| COLD III | 5.1 |
| WWSF | 0 |
| WWFF | 0 |
| U | 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.***

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