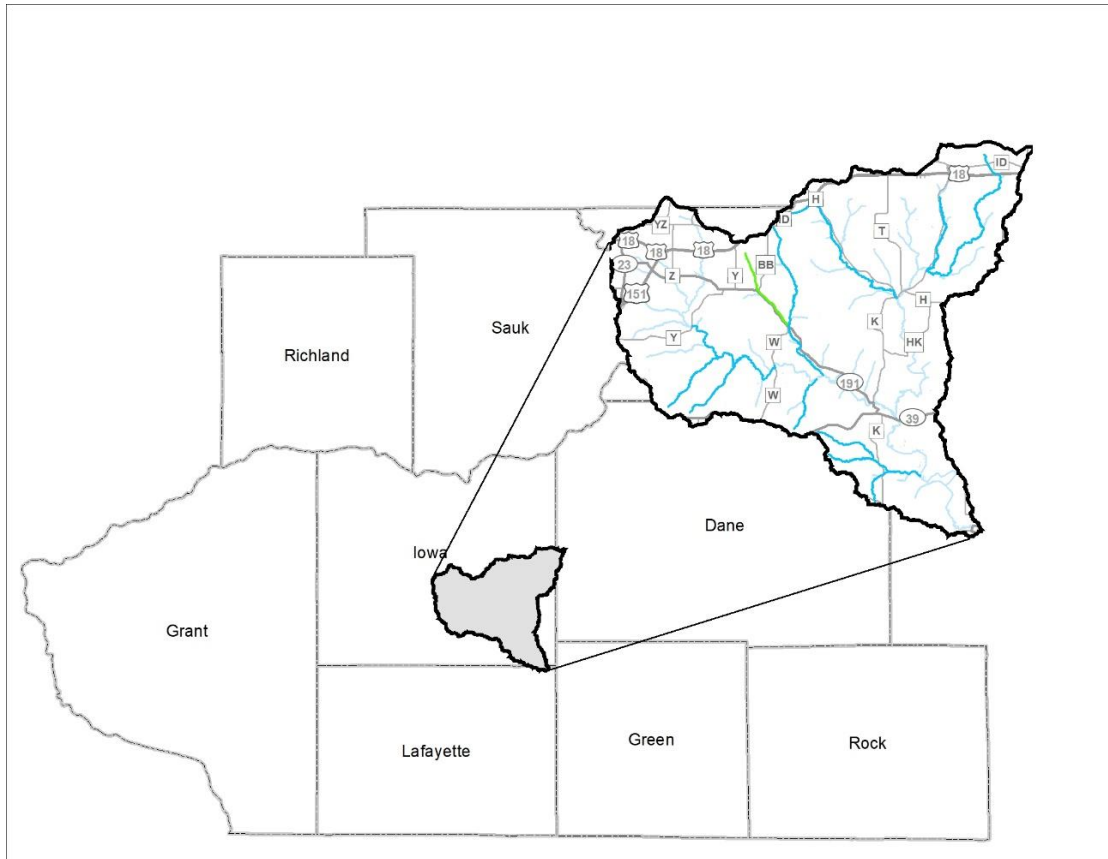


**WISCONSIN DEPARTMENT OF NATURAL RESOURCES**

# **Trout Management And Status Report Of The Upper East Branch Pecatonica River And Dodge Branch Watersheds**

**Iowa County, Wisconsin 2020**



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## **EXECUTIVE SUMMARY**

Wisconsin Department of Natural Resources (DNR) staff conducted stream electrofishing surveys on the East Branch Pecatonica River and Dodge Branch, along with coldwater tributaries that included Williams-Barneveld Creek, Smith Conley Creek, Olson Creek, Regan Creek, Schmidt Creek, Ley Creek, Conley Lewis Creek, Lynch Branch, Gribble Branch and Whitford Creek, as well as a few unclassified streams.

Due to COVID-19 protocols in 2020, only small streams that could be surveyed with a backpack electrofishing unit were sampled. Electrofishing surveys occurred at 30 sites from June 23 to Aug. 11, 2020. Most of these classified streams are Class 2 trout waters, except being Ley Creek, which is Class 1 trout water.

Stocking is a common management practice within these watersheds, with current quotas in East Branch Pecatonica River, Williams-Barneveld Creek, Smith Conley Creek, Olson Creek, Schmidt Creek, Conley Lewis Creek and Lynch Branch. No special regulations exist as all streams are managed with the county base regulation: 8-inch minimum length and three fish daily bag limit.

The purpose of these surveys is to understand recruitment and reproduction of our fisheries. This allows us to evaluate the trout populations and is critical for properly managing the fisheries. For the evaluation, all fish stocking was suspended a year prior to the surveys. This allowed us to determine how much natural reproduction and recruitment was occurring. Natural reproduction refers to the presence of age-0 fish, which may be more variable in their catchability to electrofishing and may occur upstream in nursery habitats. Natural recruitment is defined by juvenile fish surviving to age 1. Documenting the lack of natural reproduction (young of the year (YOY) trout) does not necessarily mean there is lack of natural recruitment. Based on the results, we can determine how productive these fisheries are as well as assess adult abundance in relation to the overall stocking efforts and regulations currently implemented.

Trout populations in the classified trout waters within these watersheds vary depending on their location and size. Brown Trout abundance was highest in the larger streams of the East Branch Pecatonica River watershed, while Brook Trout were highest in abundance within the smaller isolated tributaries of the lower Dodge Branch and East Branch Pecatonica River. Overall, Brown Trout were pretty widespread, although catch per unit of effort (CPUE) was highest in the East Branch Pecatonica River and Williams Barneveld Branch. Brook Trout were collected in seven streams within these watersheds: Olson Creek, Regan Creek, Lynch Branch, Gribble Branch, Hutchison Creek, Whitford Creek and Ley Creek. With the exemption of Ley Creek, Brook Trout populations in the Regan/Olson, Lynch/Gribble and Hutchison/Whitford complexes are doing quite well compared to other Brook Trout fisheries statewide.

Management goals will focus on expanding streambank easement mileage within the Dodge Branch watershed, specifically along Lynch Branch. Based on the results of this watershed assessment, fisheries management will also focus on the classification or reclassification of a number of these streams. This will include the reclassification of the East Branch Pecatonica River, Williams-Barneveld Branch, Lynch Branch and Whitford Creek to Class 1 trout water, and classification of the Unnamed Tributary to Williams-Barneveld, and of Hutchison Creek Class 1 trout waters. Stocking of the waters in these reclassified tributaries will also be discontinued, following the DNR's trout stocking guidance.

## **WATERSHED LOCATION**

East Branch Pecatonica River Watershed, Iowa County  
Dodge Branch Watershed, Iowa County

## **PURPOSE OF SURVEY**

- Assess natural reproduction and recruitment
- Assess trout stream classification
- Assess current status and abundance of trout populations
- Evaluate regulations

## **DATES OF FIELDWORK**

June 23 – Aug. 11, 2020

## **SPECIES SAMPLED**

- American Brook Lamprey
- Bluegill
- Brook Stickleback
- Brook Trout
- Brown Trout
- Central Mudminnow
- Creek Chub
- Green Sunfish
- Hybrid Bluegill
- Johnny Darter
- Mottled Sculpin
- White Sucker

## INTRODUCTION

The upper East Branch Pecatonica River (EBPR) and Dodge Branch are located within the greater Sugar-Pecatonica River Basin. This area lies within the Driftless Area of Wisconsin and is characterized by steep bluffs and karst topography. These streams are typically higher in gradient, have faster flows and are embedded in complex floodplains (DNR 2013). They also include streams where groundwater recharge is high and spring complexes are abundant, leading to excellent coldwater resources. These watersheds contain both Class 1 and Class 2 trout waters, are small- to medium-sized and have a range of fair to excellent habitat, with fishable populations of both Brook and Brown Trout.

The upper EBPR watershed contains several tributaries that contribute to its productivity (Figure 1). Some of these streams contain good natural reproduction and recruitment to the fisheries, while others contain moderate or low numbers of trout and need additional stocking efforts to maintain. These tributaries include Williams-Barneveld Branch, Smith Conley Creek, Schmidt Creek, Olson Creek and Regan Creek.

Williams-Barneveld is a small- to medium-sized spring-fed tributary to the upper EBPR. This stream is listed as Class 2 trout water and harbors a good population of Brown Trout. This stream has historically been stocked on an annual basis; however, based on the most recent surveys, it exhibits natural reproduction. This stream has a small wetland complex along the upper reaches that likely contributes to the cold temperatures and good water quality.

Smith Conley Creek is another small- to medium-sized stream that flows to the middle reaches of the upper EBPR. This stream has numerous streambank easements for public access and has the potential to be a popular fishery, with future plans including the development of parking areas for better access to streambank easements. The riparian area consists of mostly wooded corridors throughout, which are surrounded by agricultural fields and wetlands. The headwaters of Smith Conley are fed by Ridgeway's wastewater treatment plant and likely impact the water quality, especially in the upper reaches.

Regan is a very small tributary to Olson. Not much is known about this tributary, although it was stocked with Brook Trout once in 1991 and only surveyed once in 1992. This stream is mostly surrounded by grasslands and appears to contain substrate suitable for trout.

Schmidt Creek is a small tributary to Olson Creek that flows to the lower reaches of the upper EBPR. Little is also known about this tributary to Olson Creek, despite being stocked numerous years with both Brook and Brown Trout. This stream is also surrounded by forested corridors with limited agriculture in the upper reaches. Therefore, this stream may have potential to host a population of trout if stream size and substrate are sufficient.

Olson is the main tributary in the lower reaches of the upper EBPR. This stream is much wider than both Regan and Schmidt creeks, although clearly lacks quality substrate. This stream has been stocked extensively with Brook Trout in the past and is thought to contain an excellent Brook Trout fishery. The main limitation for Olson Creek is the lack of public access locations for anglers to fish.

The Dodge Branch watershed also contains several classified trout waters that contribute to the mainstem (Figure 1). These include Conley-Lewis Creek, Ley Creek, Lynch Branch, Gribble Branch and Whitford Creek.

Conley Lewis is a Class 2 trout water that flows south approximately 8.5 miles before reaching the Dodge Branch. This stream originates west of Ridgeway and is completely surrounded by agriculture in the upper reaches. Wooded corridors follow the stream intermittently throughout, although likely not enough to protect this stream from the row cropping and grazing that occurs in the valley bottoms. There are over 4 miles of public fishing easements along Conley-Lewis Creek with protective streambank easements in the upper reaches on non-fishable waters.

Ley Creek is the only Class 1 trout water in the Dodge Branch watershed. This stream flows southeast before meeting up with Conley-Lewis Creek. Ley Creek has historically contained a productive Brown Trout population with good fishing and accessibility, with over two miles of DNR streambank easements along STH 191. Buffers are few and far between along Ley Creek as it is almost completely surrounded by row crops throughout, likely limiting its potential.

Lynch Branch is a small Class 2 trout stream that flows to the upper Dodge Branch. This stream is known to harbor a good population of Brook Trout with some Brown Trout inhabiting it as well. This stream has been stocked with Brook Trout in the past to restore the population. Lynch Branch is surrounded by wooded corridors in the upper reaches, with some grazing throughout, but overall contains good natural buffers from agriculture and runoff. Only one streambank easement exists along the lower reach of Lynch Branch that provides just over a quarter mile of fishing access. However, this easement is only accessible at the confluence with the Dodge Branch.

Gribble Branch is another small Class 2 tributary to the upper Dodge Branch. This stream is known for its Brown Trout fishery and has been historically stocked until 2018. This stream is surrounded by grasslands in the headwaters and transitions to wooded corridors throughout the middle reaches before it meets Dodge Branch. Agriculture surrounding this stream is minimal and likely helps to maintain good habitat and water quality for the Brown Trout population.

Hutchison Creek is an unclassified tributary to Whitford Creek. Prior to the surveys in 2020, the stream had only been sampled once, in 1980. The riparian corridor of Hutchison consists of wetlands surrounded by forested land with a bit of agriculture

in the upper reaches. This stream has excellent habitat and may prove to be beneficial as a spawning site for Brook Trout and nursery habitat for yearlings that eventually move down to Whitford Creek.

Whitford Creek is a Class 2 trout fishery to the Dodge Branch. This stream is almost entirely surrounded by a forested corridor in the upper reaches with wetland complexes throughout the lower reaches. Historically, this stream has been stocked with Brook Trout and continues to produce a low-abundance adult fishery. The lower reaches of Whitford Creek do contain public access for anglers, although it's difficult to fish due to the small size and surrounding habitat.

## **CURRENT STATUS**

### **STOCKING**

Current stocking quotas in the upper EBPR watershed include the EBPR, Smith Conley Creek, Williams-Barneveld Creek, Olson Creek and Schmidt Creek. East Branch Pecatonica and Smith Conley both received 1,000 large fingerling Brown Trout, Williams-Barneveld received 625, Olson received 750 and Schmidt Creek received 125. Current stocking quotas in the Dodge Branch watershed include Conley Lewis Creek and Lynch Branch. Conley Lewis Creek receives 1,000 large fingerling Brown Trout annually while Lynch Branch receives 225 large fingerling Brook Trout annually. Streams that were stocked up until 2018 include Dodge Branch, Gribble Branch, Ley Creek and Whitford Creek. From 2013 to 2018, Whitford Creek was stocked with an average of 762 large fingerling Brook Trout per year while Dodge Branch was stocked with 2,493, Gribble Branch was stocked with 347 and Ley Creek was stocked with 566.

### **REGULATIONS**

The classified trout waters in the EBPR and Dodge Branch watersheds are managed under the single county base regulation (Figure 2). This regulation allows anglers to harvest three trout of any species over 8 inches.

### **HABITAT IMPROVEMENT**

Habitat restoration projects have been conducted along easements on three streams within these watersheds. Ley Creek was involved in a major habitat restoration project that included various in-stream structures such as LUNKERs, boulders and vortex weirs. Conley Lewis, downstream of Ley Creek, was the focus of a major brushing project in 2016 that focused on the removal of willow and boxelder trees to restore the riparian habitat. In the spring of 2021, the Southern Wisconsin Chapter of Trout Unlimited conducted a riparian habitat restoration project along the EBPR. Two workdays were conducted and included the removal of boxelder trees, willow trees, honeysuckle and buckthorn. A prescribed burn was also conducted in the spring of 2022 as a follow-up to these workdays.

### **PUBLIC ACCESS**

Public access throughout these watersheds is plentiful due to DNR-owned fee title properties and streambank easements. These lands contain nearly 30 miles of publicly accessible trout water and flow through a total of 175 acres of the above-mentioned properties. Fishing easements and habitat areas allow for public access along the stream corridor for a variety of uses including hunting (fee title only), fishing, hiking, wildlife observation and cross-country skiing (Figure 3).

## **LAND USE**

The EBPR and Dodge Branch watersheds are located almost entirely in Iowa County. The EBPR watershed covers approximately 72.5 square miles, while the Dodge Branch covers approximately 67.5 square miles (Stroud 2021). Land use practices within the EBPR consist of 41% pasture/hay, 28% cultivated crops, 20% forested lands and 11% other. Land use practices within the Dodge Branch watershed consist of 46% pasture/hay, 25% cultivated crops, 18% forested lands and 11% other (Table 1). In total, these watersheds contain 63.1 miles of classified trout waters.

## **WATERSHED SCALE ASSESSMENT**

Understanding reproduction and recruitment is critical to managing trout populations. In Class 1 streams, as defined in NR 1.02, there is no need for stocking because there is adequate natural reproduction to maintain the fishery. The DNR stocks fingerling trout in streams where there is insufficient natural reproduction and recruitment to maintain a fishable population but adequate survival of trout to adulthood. These are designated as Class 2 streams and the stocking is referred to as “put and grow.” Often, based on the life history strategy of trout, reproduction occurs in stream segments that differ from juvenile and adult habitat types. Natural reproduction is the presence of age-0 fish which may be more variable in their catchability to electrofishing and may occur upstream in nursery habitats. Natural recruitment is defined by juvenile fish surviving to age 1. Documenting the lack of natural reproduction (YOY trout) does not necessarily mean there is a lack of natural recruitment.

## **METHODS**

Summer stream sampling on both rotation (sampled on a rotation) and potential (thought to have trout but previously unverified) sites spanned from June 23 – Aug. 11, 2022 (Figure 1; Table 2). All 30 stream sites were surveyed with a backpack electrofishing unit. These are used on small streams that are typically shallow in nature. Tow behind stream shockers are larger units in which the generator is mounted in a barge that is towed by one individual. These units are used in larger waters that are also wadable. Due to COVID-19 and social distancing restrictions, tow barge electrofishing units were not used during surveys in 2020.

The number of sites varies depending on the stream segment length. One site is sampled on segments less than 1.5 miles, two sites on segments from 1.5-3 miles and

one site per 3 miles on segments greater than 3 miles. The length of stream site sampled is determined by stream width, with site length being 35 times the mean stream width on segments greater than 3 meters. On streams less than 3 meters wide, a minimum of 100 meters is sampled. All fish are collected on trend sites where gamefish, exotic species and threatened/endangered species are measured to total length. Only the first 200 fish are measured if large numbers of gamefish are encountered. Young-of-year are counted and a subsample of 50 fish are measured. All other fish are counted to conduct an index of biotic integrity (IBI). Other specifics can be found in the Fisheries Management Handbook Chapter 510 (Simonson 2015).

Water quality and habitat metrics were also collected at each survey site. Streamflow was calculated at one transect at each site using a HACH FH950 handheld flow meter. Temperature, dissolved oxygen and specific conductivity were also measured using a handheld YSI Pro 2030 meter.

## **POPULATION ASSESSMENT**

Once gamefish and other fish species have been collected, the number of fish per mile was computed (CPUE – catch per unit effort, in this case miles) based on the number of fish collected and the length of stream station sampled. This allowed for the comparison of catch rates both within and among stream sites. Total CPUE, as well size specific-catch rates were calculated for age-0 fish (young-of-year, <4.0 inches), yearlings (4.0-7.9 inches for Brown Trout and 4.0-6.9 inches for Brook Trout) and adults (≥8 inches for Brown Trout and ≥7 inches for Brook Trout). Median values for size-specific trout CPUE metrics presented in several of the tables and figures in this paper were generated from summaries of DNR fishery surveys of Class 1 trout streams in the Driftless Area as well as statewide from 2012-2021, where at least one trout was collected in the survey (surveys where the catch was zero were excluded; Table 3). These regional and statewide summaries were used to compare stream specific abundance data as low abundance (<35<sup>th</sup> percentile), medium (35<sup>th</sup>-65<sup>th</sup> percentile) and high (>65<sup>th</sup> percentile; Table 3).

## **RESULTS**

In total, 30 stream sites were sampled within both the upper EBPR and Dodge Branch watersheds (Figure 1; Table 2). Data were compiled both on individual stream site (Table 5; Table 6) and grouped based on stream segments. For segments that combined multiple stream sites, CPUE was averaged (Figure 4-11).

Reproduction of Brown Trout was observed in eight of the 20 streams surveyed within these watersheds during the summer of 2020. CPUE of age-0 fish was high in both EBPR and Williams-Barneveld Branch, exhibiting average CPUEs at 380 and 542 fish per mile. respectively (Figure 4). These populations are well above the Driftless Area and statewide medians. Ley Creek also showed moderate reproduction overall, with an average of 115 fish per mile based on the three sites surveyed (Figure 4). Unnamed



Tributary to Williams Barneveld, Simmons Branch, Lynch Branch, Gribble Branch and Conley Lewis Creek all showed signs of reproduction, yet catch rates were below the median values when comparing to the Driftless Area and statewide. All other streams lacked reproduction of Brown Trout (Figure 4; Table 5).

Fewer streams showed signs of Brook Trout reproduction; however, those that did were surprisingly high. Regan Creek and Hutchison Creek had the highest rates of reproduction, with 852 and 735 age-0 fish per mile (Figure 5; Table 6). Whitford Creek and Lynch Branch followed suit, exhibiting an average of 261 and 189 age-0 fish per mile respectively (Figure 5; Table 6). These populations were above and beyond both the Driftless Area and statewide medians. Olson Creek contained age-0 Brook Trout in moderate numbers at site 86, with 150 fish per mile captured. All other streams within these watersheds were devoid of age-0 Brook Trout.

Numbers of yearling Brown Trout were low overall within these watersheds. Only one site surveyed captured fish above both Driftless Area and statewide median values. Survey crews captured 275 age-1 Brown Trout per mile in the EBPR at site 75 (Figure 1; Figure 6; Table 5). Williams-Barneveld Creek, Unnamed Tributary to Williams-Barneveld Creek, Smith Conley Creek, Olson Creek, Blotz Branch, Gribble Branch, Unnamed Tributary 2 to Dodge Branch and Ley Creek all exhibited low numbers of age-1 fish, below the 35<sup>th</sup> percentiles (Table 2). Other than the upper site on EBPR, recruitment to age-1 was poor throughout.

Recruitment of yearling Brook Trout was observed within four of the five streams where reproduction occurred. However, these numbers were much lower than age-0 fish. The only stream with a site above the Driftless Area and statewide median values was Hutchison Creek. Survey crews captured 221 yearling Brook Trout per mile at site 78 (Figure 7; Table 6). All other sites on Olson Creek, Lynch Branch and Whitford Creek exhibited low numbers of yearling fish below the 35<sup>th</sup> percentiles (Figure 7; Table 2).

Overall, adult Brown Trout abundance within these watersheds is considered moderate. Few streams showed slightly higher CPUEs: EBPR and Williams-Barneveld Branch. EBPR had the highest abundance of adults overall with sites averaging 331 adults per mile. Site 75 had the highest numbers observed with 660 adults per mile captured (Figure 8; Table 5). Nearly 100 of these fish were adults over the size of 12 inches (Figure 10). Williams-Barneveld followed with a moderate abundance, averaging 291 adults per mile (Figure 8). EBPR and Williams-Barneveld Branch also showed good numbers of preferred size fish with an average of 67 and 103 fish per mile, respectively. Surprisingly, Ley Creek exhibited high catch rates of preferred size fish as well, specifically site 81 with 104 fish per mile, the highest abundance across all sites surveyed (Figure 10). All other sites exhibited numbers of adults and preferred size adults at or below the median value for statewide populations (Figure 8; Figure 10).

Adult Brook Trout were found in all five streams where reproduction was initially observed, with preferred-size Brook Trout found in four of these streams. Once again, where Brook Trout were found, they were high in abundance. Average adult CPUE was above both the Driftless Area and statewide medians in Olson Creek, Lynch Branch, Gribble Branch and Whitford Creek with 214, 118, 120 and 104 fish per mile, respectively. The site with the highest abundance of adults was Olson Creek at site 87, where 508 adult Brook Trout per mile were captured (Table 6). The next highest abundance was found in Lynch Branch at site 83 with 237 adults per mile captured (Table 6). Both sites are high and well above the 65<sup>th</sup> percentile for Brook Trout populations (Table 3). Preferred-size Brook Trout were also found in high abundance at sites in Lynch Branch, Gribble Branch and Whitford Creek. Preferred Brook Trout at site 83 on Lynch Branch produced 79 fish per mile, site 77 on Gribble Branch produced 78 fish per mile and site 98 on Whitford produced 62 fish per mile. All of which were above the 65<sup>th</sup> percentile for both statewide and Driftless Area medians (Table 3; Table 6). Overall, streams within these watersheds that contain Brook Trout appear to be healthy and productive.

## **DISCUSSION**

The upper EBPR and Dodge Branch watersheds contain populations of both Brook and Brown Trout. These populations seem to be well segregated and only coexist in a few streams. Where Brook Trout are found, the populations seem to be thriving with moderate to high populations throughout Olson, Lynch, Gribble, Hutchison and Whitford creeks. Where Brown Trout are found, these populations were generally in low to moderate abundance. Populations with the highest CPUEs were located in the EBPR and Williams-Barneveld Creek. Staff would have likely encountered fishable populations of trout in other reaches not sampled in 2020, such as lower EBPR, Smith Conley and Conley-Lewis Creek. Historically, these waters have produced moderate to high densities of trout and likely continue to do so. These lower-reach waters will be more thoroughly evaluated during the next watershed rotation cycle in 2026. Overall, these watersheds provide for excellent angling opportunities for both Brook and Brown Trout, where anglers choose to seek out quality fishing opportunities.

Staff encountered limitations while conducting the watershed evaluation in summer 2020, due to COVID-19. COVID-19 brought on several challenges to fisheries staff throughout the year and limited their ability to conduct thorough surveys, especially when it came to surveying mainstem streams. Fisheries staff were prohibited from using the large stream electrofishing barge to survey the larger waters due to social distancing measures. Therefore, sites were surveyed with the smaller backpack electrofishing unit. This is unfortunate, as these electrofishing barges are overall more effective and efficient at capturing fish than the backpack electrofishing units. As a result, it's possible that streams may have exhibited lower than average catch rates in 2020 and this should be taken into consideration when comparing to the statewide and Driftless Area standards.

The EBPR is doing exceptionally well. The Brown Trout population is clearly thriving with high rates of reproduction, moderate recruitment and a high abundance of adults and preferred-size fish. This population has been stocked extensively with Brown Trout over the years, but given the current rates of reproduction, stocking can be discontinued. Habitat was also good to excellent within the two sites surveyed on this stream, and water temperatures were cold, hovering in the low 60s with good flows throughout. Given these results, stocking should be discontinued in the upper reaches of the EBPR, and it should be re-classified as Class 1 trout water down to CTH K.

The section of EBPR downstream from CTH K to the confluence with Dodge Branch should be classified as Class 2 trout water. Although fisheries staff were unable to sample in 2020, water resources staff conducted follow-up surveys in 2021. Surveys conducted at CTH K and H, CTH HK and Star Valley Road exhibited fishable populations of trout with total CPUEs at 427, 814 and 455 Brown Trout per mile respectively. Reproduction spanned from 5-98 age-0 fish per mile, yearlings ranged from 168-319 fish per mile and adults ranged from 189-409 fish per mile. Although EBPR was stocked with age-0 fish in the fall of 2020 and 2021, age-0 fish captured in 2021 can be considered natural reproduction as the surveys were conducted before the stocking event. Age-1 fish likely included stocked fish from 2020. With the moderate to high densities of adults, fish are recruiting to adulthood and creating a fishable population of trout throughout this stream reach.

The Brown Trout fishery in Williams-Barneveld Creek is also doing quite well. This stream had the second highest population abundance within the watershed, behind EBPR. This stream had high rates of reproduction when compared to both Driftless Area and statewide standards. Recruitment to age-1 was low, below the 35<sup>th</sup> percentiles; however, adult numbers were higher with moderate to high CPUEs and a high abundance of preferred-size fish as well. Not surprisingly, habitat was good with cold temperatures in the 50s and low 60s at each of the sites surveyed. Given the population status, stocking in Williams-Barneveld should also be discontinued as this population is exhibiting excellent reproduction with multiple year classes throughout. This also suggests that Williams-Barneveld should be re-classified from its current Class 2 status to Class 1 trout water.

Olson Creek contains one of the Brook Trout populations found in the lower reaches of the EBPR watershed. Habitat in this stream was only fair in the upper reaches, which shows, given the lack of Brook Trout altogether. However, as the stream progresses, Regan Creek and spring complexes enter the stream and cool the water, allowing for Brook Trout in the middle reaches, with moderate reproduction. High numbers of adults were found in the lower reaches, even though habitat consists mostly of shifting sand substrate. Regan Creek, upstream of Olson Creek, seems to be the main spawning location for Brook Trout in this system, with 852 YOY per mile. Given that Regan Creek is acting as the spawning grounds and contributing to the

Brook Trout population in Olson Creek, the stocking quota of 750 large fingerling (LGF) Brook Trout in Olson Creek should be discontinued.

Schmidt Creek is a small Class 2 trout water that flows to lower Olson Creek. This stream has good habitat, with temperatures in the 50s. This coldwater tributary likely helps reduce temperatures to lower Olson Creek and may assist by providing habitat for reproduction in the lower reaches, closer to the confluence with Olson. Despite extensive stocking efforts on an annual basis over the last 25 years, Schmidt Creek continues to struggle and remains a low-abundance Brown Trout water. Interestingly, it has only been stocked with Brook Trout since 2016. Given that active management strategies have not produced a Brook Trout fishery, these stocking events should be discontinued, and Schmidt Creek should be re-evaluated during the next watershed rotation in 2026.

Lynch Branch is the uppermost classified tributary to the Dodge Branch. This stream has excellent habitat in the upper reaches with cold temperatures, however, temperatures increase significantly as the stream progresses. Lynch Branch at site 84 exhibited one of the warmest water temperatures during surveys in 2020. This stream displayed high Brook Trout reproduction in the upper reaches along with a high abundance of adults. As the stream transitions and warms, Brown Trout move in and occupy the lower reaches. Open canopies and grazing along these reaches likely contribute to the temperature increases. For this reason, Lynch Branch should be targeted for streambank protections in the future and added to the list of approved streams for acquisition. Stocking of Brook Trout can also be discontinued as high rates of reproduction and multiple year classes were seen occupying this stream. Lynch Branch should also remain Class 2 water and re-assessed in 2026 to determine if Class 1 status is appropriate, given that stocking has been discontinued.

Gribble Branch is another tributary to Dodge Branch in the upper reaches of the watershed. Habitat in Gribble Branch is fair to good with good flows and moderately cool temperatures. The Brown Trout population is considered low abundance in the upper reaches with a low-moderate abundance of adult Brook Trout. The lower reaches of Gribble also contain a mixed population of Brook and Brown Trout with moderate numbers of adult Brown Trout and a high abundance of adult Brook Trout based on statewide and Driftless Area standards. It seems as if this low-moderate trout population is doing fine in the absence of stocking, which was discontinued in 2018. If this population declines over the next six years, reinstatement of stocking quotas may be an option. However, without good public access to this stream, this may not be the most cost-effective management tool.

Ley Creek is the only Class 1 tributary in the Dodge Branch watershed. Stocking consisted of yearly small fingerling Brown Trout up until 2018. This stream has had extensive habitat modifications that included installation of LUNKER structures, vortex weirs, boulders and streambank sloping. Even with annual stocking and habitat restorations, the Brown Trout population exhibits a low to moderate

abundance through all age classes, with the exception of preferred-size fish at site 81. Overall, the habitat is good to excellent. However, temperatures are relatively high, likely resulting from extensive row cropping, grazing and open canopies throughout the stream corridor. Acquisition of additional easements along the upper reaches of Ley have been pursued with little success. Unless significant changes occur along the stream corridor for the majority of Ley Creek, temperatures will likely remain high and limit the trout population in the future.

Conley Lewis is a Class 2 tributary to the Dodge Branch and exhibited a low-abundance Brown Trout population in the upper reaches with very few age-0 fish and adults. Habitat was considered good with moderate temperatures in the mid-60s. Unfortunately, due to COVID-19 protocols, staff were unable to sample the lower reaches where most of the population likely exists. A more thorough evaluation will be conducted during the next watershed rotation in 2026.

The Hutchison-Whitford Creek complex is in the lower reaches of the Dodge Branch watershed and appears to be the most promising for Brook Trout. Whitford Creek is considered Class 2 trout water with excellent habitat throughout, while Hutchison Creek is currently unclassified. Temperatures are very cold in these streams, hovering in the mid-50s. Both streams exhibited excellent reproduction with good recruitment to age-1 and adult fish present. Given the small size, excellent habitat and cold temperatures, these streams should be reclassified to Class 1 trout water. They exhibit a Brook Trout population in sufficient numbers with multiple size/age classes that utilize all the available habitat. Easement outreach has also been conducted along these stream reaches with little success in the recent history; however, a few easements do exist along the lower reaches of Whitford where it meets the Dodge Branch. Management on these streams should focus on maintaining wooded corridors to protect stream temperatures in the upper reaches and managing the lower reaches where easements exist for fishability by planning and conducting riparian habitat projects to remove invasive trees and brush.

Ten trout potential sites were also surveyed within these watersheds summer 2020 to determine if the streams contained trout populations. Of the 10 stream sites surveyed, only two streams contained populations of trout that should be noted. Unnamed Tributary to Williams-Barneveld contained both YOY and age-1 Brown Trout at 69 and 55 trout per mile, respectively. This stream is likely acting as a small nursery stream and used by resident Brown Trout in Williams-Barneveld for reproduction purposes. Given the good habitat, low flows and cold temperatures, these fish are likely utilizing the available habitat and this unnamed tributary should be considered Class 1 trout water. Hutchison is another unclassified stream that contained a population of trout based on these potential surveys. Hutchison Creek proved important in terms of reproduction, recruitment to age-1 and also contained low numbers of adults. Hutchison Creek contains excellent habitat and cold temperatures and therefore should be classified as Class 1 trout water during the next classification cycle in 2022.

All classified trout waters within both the EBPR and Dodge Branch watersheds are managed under one single county base regulation, allowing for the harvest of three trout over 8 inches (Figure 2). Given the current status of these populations, this regulation is providing adequate protection for the fisheries. This allows these populations to reproduce, recruit to age-1 and adulthood before potential exploitation. Therefore, this regulation will remain in place for all classified waters within these watersheds.

## MANAGEMENT RECOMMENDATIONS

- 1) **GOAL:** Acquire more streambank easements (SBE) to provide access for fishing.  
**OBJECTIVE:** Acquire 2 miles of additional streambank easements within the Dodge Branch watershed and along lower East Branch Pecatonica River (newly classified reaches) over the next six years.  
**STRATEGY:** Expand SBE authority during the next watershed acquisition review cycle and continue landowner outreach through postcard mailings and landowner contacts.
- 2) **GOAL:** Increase abundance of adult Brown Trout throughout lower East Branch Pecatonica River.  
**OBJECTIVE:** Increase mean CPUE of adult Brown Trout (>8 inches) to 350 fish per mile (65<sup>th</sup> percentile based on statewide standard).  
**STRATEGY:** Stock 1,500 large fingerling Brown Trout at CTH HK on an annual basis as a maintenance stocking quota.

## ADDITIONAL MANAGEMENT RECOMMENDATIONS

- Reclassify EBPR to from headwaters downstream to CTH K as Class 1 trout water during next classification cycle in 2022 and discontinue stocking.
- Classify EBPR from CTH K downstream to confluence with Dodge Branch as Class 2 trout water during next classification cycle in 2022.
- Reclassify Williams-Barneveld to Class 1 trout water during next classification cycle in 2022 and discontinue stocking.
- Classify Unnamed Tributary to Williams Barneveld as Class 1 trout water.
- Reclassify Lynch Branch to Class 1 trout water during next classification cycle in 2022 and discontinue stocking.
- Reclassify Whitford Creek to Class 1 trout water during next classification cycle in 2022.
- Classify Hutchison Creek as Class 1 trout water during next classification cycle in 2022.
- Discontinue stocking of Brook Trout in Schmidt Creek.

## References

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Table 1. Watershed and Land Cover Statistics in the Dodge Branch and East Branch Pecatonica River Watersheds.

**EAST BRANCH PECATONICA RIVER**

| <b>LAND COVER</b> | <b>PERCENT OF WATERSHED</b> |
|-------------------|-----------------------------|
| Forest            | 20                          |
| Cultivated Crops  | 28                          |
| Pasture/Hay       | 41                          |
| Other             | 11                          |

**DODGE BRANCH**

| <b>LAND COVER</b> | <b>PERCENT OF WATERSHED</b> |
|-------------------|-----------------------------|
| Forest            | 18                          |
| Cultivated Crops  | 25                          |
| Pasture/Hay       | 46                          |
| Other             | 11                          |

Table 2. Sampling locations by stream and station.

| STREAM                                    | STATION NAME                                                                       | STATION<br>NUMBER | SAMPLING<br>DATE | LAT.    | LONG.    |
|-------------------------------------------|------------------------------------------------------------------------------------|-------------------|------------------|---------|----------|
| EAST BRANCH PECATONICA RIVER              | EAST BRANCH PECATONICA RIVER AT TRIAL CROSSING ON NATURE CONSERVANCY               | 75                | 23-Jun-20        | 42.9926 | -89.8867 |
| EAST BRANCH PECATONICA RIVER              | EAST BRANCH PECATONICA RIVER - ABOVE WLMS. BRNVLD. CR                              | 74                | 23-Jun-20        | 42.9563 | -89.8949 |
| UNNAMED SINGLE-LINE STREAM<br>T6N-R5E-S34 | Unnamed Cr (915200) at 0.5 E of Moundsvue Rd and Williams-Barneveld Creek crossing | 95                | 5-Aug-20         | 42.9546 | -89.8721 |
| WILLIAMS-BARNEVELD CREEK                  | WILLIAMS-BARNEVELD CREEK- PRAIRIE GROVE RD                                         | 100               | 23-Jun-20        | 42.9714 | -89.8643 |
| WILLIAMS-BARNEVELD CREEK                  | WILLIAMS-BARNEVELD CREEK AT MOUNDS VIEW ROAD                                       | 99                | 23-Jun-20        | 42.9550 | -89.8789 |
| Smith Conley Creek                        | SMITH CONLEY CR. US HEATHER LN                                                     | 91                | 23-Jun-20        | 42.9735 | -89.9702 |
| Regan Creek                               | Regan Cr ~200 M US of confluence of Olson Cr                                       | 88                | 1-Jul-20         | 42.8490 | -89.9408 |
| Schmidt Creek                             | Schmidt Cr US CTH K                                                                | 89                | 1-Jul-20         | 42.8401 | -89.9311 |
| UNNAMED SINGLE-LINE STREAM<br>T4N-R5E-S9  | Unnamed Trib (910200) ~125 M US Olson Cr                                           | 92                | 29-Jul-20        | 42.8397 | -89.9120 |
| OLSON CREEK                               | OLSON CREEK .2 MI W OF COUNTY K .8 MI S OF NORTON RD.                              | 85                | 1-Jul-20         | 42.8504 | -89.9389 |
| OLSON CREEK                               | OLSON CREEK UPSTREAM OF K                                                          | 86                | 1-Jul-20         | 42.8473 | -89.9356 |
| OLSON CREEK                               | Olson Cr. ~2,616 ft US confluence with E. Branch Pecatonica                        | 87                | 1-Jul-20         | 42.8419 | -89.9079 |
| BLOTZ BR                                  | Blotz Branch-Baseline Survey                                                       | 72                | 20-Jul-20        | 42.9248 | -90.1017 |
| BLOTZ BR                                  | Blotz Br Lower ~135 M US Dodge Br                                                  | 71                | 20-Jul-20        | 42.9240 | -90.0820 |
| Simmons Branch                            | Simmons Br ~2831 M US Dodge Br confluence                                          | 90                | 5-Aug-20         | 42.9106 | -90.0885 |
| LYNCH BR                                  | LYNCH BRANCH UPPER END BY POND                                                     | 83                | 6-Jul-20         | 42.8892 | -90.0816 |
| LYNCH BR                                  | Lynch Branch. private drive Fitzsimons Road                                        | 84                | 6-Jul-20         | 42.9004 | -90.0688 |
| GRIBBLE BR                                | GRIBBLE BRANCH .5 MI W OF TWIN BRIDGE RD. AND FITZIMONS RD.                        | 76                | 6-Jul-20         | 42.8931 | -90.0537 |
| GRIBBLE BR                                | GRIBBLE BRANCH UPSTREAM OF DODGE BRANCH CONFLUENCE                                 | 77                | 6-Jul-20         | 42.9021 | -90.0468 |
| UNNAMED SINGLE-LINE STREAM<br>T5N-R4E-S21 | Unnamed Trib (912100) ~1545M US Dodge Br                                           | 93                | 11-Aug-20        | 42.9089 | -90.0305 |
| Hutchison Creek                           | Hutchinson Cr ~285 M US Whitford Confluence                                        | 78                | 3-Aug-20         | 42.8808 | -89.9948 |
| WHITFORD CREEK                            | Whitford Cr DS Hutchinson Cr confluence                                            | 98                | 3-Aug-20         | 42.8811 | -89.9926 |

|                                           |                                                                          |    |           |         |          |
|-------------------------------------------|--------------------------------------------------------------------------|----|-----------|---------|----------|
| WHITFORD CREEK                            | WHITFORD CREEK AT SYLVAN RD                                              | 97 | 25-Jun-20 | 42.8898 | -89.9882 |
| Conley Lewis Creek                        | CONLEY LEWIS CREEK-BASELINE                                              | 73 | 25-Jun-20 | 42.9532 | -90.0021 |
| LEY CREEK                                 | LEY CREEK - DOWNSTREAM BB                                                | 80 | 25-Jun-20 | 42.9428 | -90.0257 |
| LEY CREEK                                 | CONLEY LEWIS TRIB - BL LUKANS FARM                                       | 79 | 25-Jun-20 | 42.9352 | -90.0148 |
| LEY CREEK                                 | LEY CREEK 1, 18 METERS UPSTREAM OF CONFLUENCE WITH<br>CONLEY LEWIS CREEK | 81 | 25-Jun-20 | 42.9248 | -90.0042 |
| UNNAMED SINGLE-LINE STREAM<br>T5N-R4E-S24 | Unnamed Trib (911200) ~860 M US Dodge Branch                             | 94 | 5-Aug-20  | 42.8877 | -89.9728 |
| Urnus Creek                               | Urnus Cr ~1020m US STH 191                                               | 96 | 11-Aug-20 | 42.8975 | -89.9547 |
| Long Valley Creek                         | Long Valley Cr US Long Valley Rd                                         | 82 | 11-Aug-20 | 42.8929 | -89.9428 |

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Table 3. Statewide and Driftless Area percentiles for Brook and Brown Trout populations. These values were summarized for Class 1 trout populations sampled from 2012-2021, where at least one trout was collected.

|               | STATEWIDE<br>PERCENTILES |        |                  | DRIFTLESS<br>PERCENTILES |        |                  |
|---------------|--------------------------|--------|------------------|--------------------------|--------|------------------|
|               | 35 <sup>TH</sup>         | MEDIAN | 65 <sup>TH</sup> | 35 <sup>TH</sup>         | MEDIAN | 65 <sup>TH</sup> |
| <b>Brown</b>  |                          |        |                  |                          |        |                  |
| <4 inches     | 58.1                     | 119.3  | 247.5            | 71.1                     | 136.1  | 256.1            |
| 4 to 8 inches | 115                      | 199.2  | 337.2            | 135.6                    | 229.9  | 383.2            |
| >8 inches     | 112.7                    | 205.8  | 341.9            | 191.6                    | 330.8  | 509.7            |
| >12 inches    | 30.3                     | 47.6   | 72               | 42.9                     | 63.2   | 85.8             |
| <b>Brook</b>  |                          |        |                  |                          |        |                  |
| <4 inches     | 72.4                     | 145.3  | 241.4            | 68.6                     | 128.7  | 209.2            |
| 4 to 8 inches | 80.5                     | 149.2  | 257.2            | 44.9                     | 80.5   | 150.9            |
| >7 inches     | 48.3                     | 80.5   | 129.4            | 47.9                     | 80.5   | 124              |
| >10 inches    | 12.8                     | 16.4   | 27.5             | 14.3                     | 16.1   | 29.1             |

Table 4. Station metrics for Dodge Branch, East Branch Pecatonica River and their tributaries.

| STATION NAME                                                                                                                                    | HABITAT<br>RATING | TROUT<br>CLASS | GEAR     | STATION<br>LENGTH<br>(MILES) | MEAN<br>STREAM<br>WIDTH (M) | FLOW<br>(CFS) | STREAM<br>TEMP (°F) |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------|----------|------------------------------|-----------------------------|---------------|---------------------|
| EAST BRANCH PECATONICA RIVER AT TRIAL CROSSING ON<br>NATURE CONSERVANCY                                                                         | Excellent         | Class 2        | Backpack | 0.07                         | 1.3                         | 3.53          | 60.8                |
| EAST BRANCH PECATONICA RIVER - ABOVE WLMS. BRNVLD. CR<br>UNNAMED CR (915200) AT 0.5 E OF MOUNDSVIEW RD AND<br>WILLIAMS-BARNEVELD CREEK CROSSING | Good              | Class 2        | Backpack | 0.08                         | 1.8                         | 9.53          | 63.3                |
| WILLIAMS-BARNEVELD CREEK- PRAIRIE GROVE RD                                                                                                      | Good              | Unclassified   | Backpack | 0.07                         | 1.7                         | 0.71          | 56.8                |
| WILLIAMS-BARNEVELD CREEK AT MOUNDS VIEW ROAD                                                                                                    | Good              | Class 2        | Backpack | 0.07                         | 2.4                         | 7.77          | 58.7                |
| SMITH CONLEY CR. US HEATHER LN                                                                                                                  | Good              | Class 2        | Backpack | 0.08                         | 2.5                         | 8.83          | 60.7                |
| REGAN CR ~200M US OF CONFLUENCE OF OLSON CR                                                                                                     | Good              | Class 2        | Backpack | 0.06                         | 1.7                         | 3.88          | 60.8                |
| SCHMIDT CR US CTH K                                                                                                                             | Good              | Class 2        | Backpack | 0.06                         | 1.1                         | 2.11          | 58.6                |
| UNNAMED TRIB(910200) ~125M US OLSON CR                                                                                                          | Good              | Class 2        | Backpack | 0.07                         | 1.8                         | 1.77          | 59.5                |
| OLSON CREEK .2 MI W OF COUNTY K .8 MI S OF NORTON RD.                                                                                           | Fair              | Unclassified   | Backpack | 0.05                         | 1.1                         | 1.41          | 60.7                |
| OLSON CREEK UPSTREAM OF K                                                                                                                       | Fair              | Class 2        | Backpack | 0.06                         | 0.9                         | 1.06          | 65.4                |
| OLSON CR. ~2616FT US CONFLUENCE WITH E. BRANCH<br>PECATONICA                                                                                    | Good              | Class 2        | Backpack | 0.07                         | 2                           | 2.83          | 60.6                |
| BLOTZ BRANCH-BASELINE SURVEY                                                                                                                    | Good              | Class 2        | Backpack | 0.08                         | 2.7                         | 8.12          | 62.6                |
| BLOTZ BR LOWER ~135M US DODGE BR                                                                                                                | Good              | Unclassified   | Backpack | 0.07                         | 1.7                         | 2.12          | 58.6                |
| SIMMONS BR ~2831M US DODGE BR CONFLUENCE                                                                                                        | Good              | Unclassified   | Backpack | 0.06                         | 1.3                         | 2.83          | 62.7                |
| LYNCH BRANCH UPPER END BY POND                                                                                                                  | Good              | Unclassified   | Backpack | 0.07                         | 1.5                         | 2.12          | 53.1                |
| LYNCH BRANCH. PRIVATE DRIVE FITZSIMONS ROAD                                                                                                     | Excellent         | Class 2        | Backpack | 0.06                         | 2.4                         | 2.83          | 56.8                |
| GRIBBLE BRANCH .5 MI W OF TWIN BRIDGE RD. AND FITZIMONS<br>RD.                                                                                  | Good              | Class 2        | Backpack | 0.09                         | 2.4                         | 3.88          | 67.5                |
| GRIBBLE BRANCH UPSTREAM OF DODGE BRANCH CONFLUENCE                                                                                              | Good              | Class 2        | Backpack | 0.06                         | 1.6                         | 3.88          | 64                  |
| UNNAMED TRIB(912100) ~1545M US DODGE BR                                                                                                         | Fair              | Class 2        | Backpack | 0.06                         | 2                           | 4.59          | 65                  |
| HUTCHINSON CR ~285M US WHITFORD CONFLUENCE                                                                                                      | Good              | Unclassified   | Backpack | 0.08                         | 1.4                         | 0.71          | 58.4                |
| WHITFORD CR DS HUTCHINSON CR CONFLUENCE                                                                                                         | Excellent         | Unclassified   | Backpack | 0.07                         | 1.3                         | 1.41          | 55.5                |
| WHITFORD CREEK AT SYLVAN RD                                                                                                                     | Excellent         | Class 2        | Backpack | 0.07                         | 1.5                         | 2.47          | 54.8                |
|                                                                                                                                                 | Good              | Class2         | Backpack | 0.07                         | 2                           | 3.18          | 56.2                |

|                                                                          |           |              |          |      |     |      |      |
|--------------------------------------------------------------------------|-----------|--------------|----------|------|-----|------|------|
| CONLEY LEWIS CREEK-BASELINE                                              | Good      | Class 2      | Backpack | 0.06 | 1.8 | 3.18 | 64.9 |
| LEY CREEK - DOWNSTREAM BB                                                | Good      | Class 1      | Backpack | 0.08 | 1.4 | 1.77 | 68.1 |
| CONLEY LEWIS TRIB - BL LUKANS FARM                                       | Good      | Class 1      | Backpack | 0.07 | 1.7 | 4.24 | 68   |
| LEY CREEK 1, 18 METERS UPSTREAM OF CONFLUENCE WITH<br>CONLEY LEWIS CREEK | Excellent | Class 1      | Backpack | 0.07 | 2.4 | 5.65 | 65.8 |
| UNNAMED TRIB(911200) ~860M US DODGE BRANCH                               | Excellent | Unclassified | Backpack | 0.07 | 1.1 | 1.41 | 57.8 |
| URNUS CR ~1020M US STH 191                                               | Good      | Unclassified | Backpack | 0.05 | 1   | 0.35 | 59.5 |
| LONG VALLEY CR US LONG VALLEY RD                                         | Good      | Unclassified | Backpack | 0.06 | 0.7 | 0.11 | 68.1 |

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Table 5. Brown Trout CPUE by stream and station.

| STREAM                                    | STATION NAME                                                                          | STATION<br>NUMBER | CPUE<br>(FISH/MILE) | BROWN<br><4 | BROWN<br>4-7.9 | BROWN<br>≥8 | BROWN<br>≥12 |
|-------------------------------------------|---------------------------------------------------------------------------------------|-------------------|---------------------|-------------|----------------|-------------|--------------|
| EAST BRANCH PECATONICA RIVER              | EAST BRANCH PECATONICA RIVER AT TRIAL CROSSING<br>ON NATURE CONSERVANCY               | 75                |                     | 632.7       | 275.1          | 660.2       | 96.3         |
| EAST BRANCH PECATONICA RIVER              | EAST BRANCH PECATONICA RIVER - ABOVE WLMS.<br>BRNVLD. CR                              | 74                |                     | 127.7       | 51.1           | 114.9       | 38.3         |
| UNNAMED SINGLE-LINE STREAM<br>T6N-R5E-S34 | Unnamed Cr (915200) at 0.5 E of Moundsvie Rd and<br>Williams-Barneveld Creek crossing | 95                |                     | 68.8        | 55             | 0           | 0            |
| WILLIAMS-BARNEVELD CREEK                  | WILLIAMS-BARNEVELD CREEK- PRAIRIE GROVE RD                                            | 100               |                     | 590.1       | 80.5           | 335.3       | 107.3        |
| WILLIAMS-BARNEVELD CREEK                  | WILLIAMS-BARNEVELD CREEK AT MOUNDS VIEW ROAD                                          | 99                |                     | 495.2       | 24.8           | 247.6       | 99           |
| SMITH CONLEY CREEK                        | SMITH CONLEY CR. US HEATHER LN                                                        | 91                |                     | 0           | 16.1           | 112.7       | 0            |
| REGAN CREEK                               | Regan Cr ~200M US of confluence of Olson Cr                                           | 88                |                     | 0           | 0              | 0           | 0            |
| SCHMIDT CREEK                             | Schmidt Cr US CTH K                                                                   | 89                |                     | 0           | 0              | 0           | 0            |
| UNNAMED SINGLE-LINE STREAM<br>T4N-R5E-S9  | Unnamed Trib(910200) ~125M US Olson Cr                                                | 92                |                     | 0           | 0              | 0           | 0            |
| OLSON CREEK                               | OLSON CREEK .2 MI W OF COUNTY K .8 MI S OF<br>NORTON RD.                              | 85                |                     | 0           | 0              | 0           | 0            |
| OLSON CREEK                               | OLSON CREEK UPSTREAM OF K                                                             | 86                |                     | 0           | 0              | 0           | 0            |
| OLSON CREEK                               | Olson Cr. ~2616ft US confluence with E. Branch<br>Pecatonica                          | 87                |                     | 0           | 12.1           | 60.5        | 0            |
| BLOTZ BR                                  | Blotz Branch-Baseline Survey                                                          | 72                |                     | 0           | 0              | 0           | 0            |
| BLOTZ BR                                  | Blotz Br Lower ~135M US Dodge Br                                                      | 71                |                     | 0           | 78.1           | 78.1        | 31.2         |
| SIMMONS BRANCH                            | Simmons Br ~2831M US Dodge Br confluence                                              | 90                |                     | 40.9        | 0              | 0           | 0            |
| LYNCH BR                                  | LYNCH BRANCH UPPER END BY POND                                                        | 83                |                     | 0           | 0              | 0           | 0            |
| LYNCH BR                                  | Lynch Branch. private drive Fitzsimons Road                                           | 84                |                     | 102.7       | 0              | 34.2        | 34.2         |
| GRIBBLE BR                                | GRIBBLE BRANCH .5 MI W OF TWIN BRIDGE RD. AND<br>FITZIMONS RD.                        | 76                |                     | 32.2        | 48.3           | 80.5        | 16.1         |
| GRIBBLE BR                                | GRIBBLE BRANCH UPSTREAM OF DODGE BRANCH<br>CONFLUENCE                                 | 77                |                     | 0           | 31.9           | 223.1       | 47.8         |
| UNNAMED SINGLE-LINE STREAM<br>T5N-R4E-S21 | Unnamed trib(912100) ~1545M US Dodge Br                                               | 93                |                     | 0           | 0              | 0           | 0            |

|                                           |                                                                          |    |       |      |       |       |
|-------------------------------------------|--------------------------------------------------------------------------|----|-------|------|-------|-------|
| HUTCHISON CREEK                           | Hutchinson Cr ~285M US Whitford Confluence                               | 78 | 0     | 0    | 0     | 0     |
| WHITFORD CREEK                            | Whitford Cr DS Hutchinson Cr confluence                                  | 98 | 0     | 0    | 0     | 0     |
| WHITFORD CREEK                            | WHITFORD CREEK AT SYLVAN RD                                              | 97 | 0     | 0    | 0     | 0     |
| CONLEY LEWIS CREEK                        | CONLEY LEWIS CREEK-BASELINE                                              | 73 | 47.8  | 0    | 15.9  | 0     |
| LEY CREEK                                 | LEY CREEK - DOWNSTREAM BB                                                | 80 | 65.9  | 13.2 | 26.4  | 0     |
| LEY CREEK                                 | CONLEY LEWIS TRIB - BL LUKANS FARM                                       | 79 | 281.6 | 53.6 | 107.3 | 0     |
| LEY CREEK                                 | LEY CREEK 1, 18 METERS UPSTREAM OF CONFLUENCE<br>WITH CONLEY LEWIS CREEK | 81 | 0     | 0    | 149.2 | 104.4 |
| UNNAMED SINGLE-LINE STREAM<br>T5N-R4E-S24 | Unnamed Trib(911200) ~860M US Dodge Branch                               | 94 | 0     | 15   | 0     | 0     |
| URNUS CREEK                               | Urnus Cr ~1020m US STH 191                                               | 96 | 0     | 0    | 0     | 0     |
| LONG VALLEY CREEK                         | Long Valley Cr US Long Valley Rd                                         | 82 | 0     | 0    | 0     | 0     |



Table 6. Brook Trout CPUE by stream and station.

| STREAM                                    | STATION NAME                                                                              | STATION<br>NUMBER | CPUE<br>(FISH/MILE) | BROOK<br><4 | BROOK<br>4-6.9 | BROOK<br>≥7 | BROOK<br>≥10 |
|-------------------------------------------|-------------------------------------------------------------------------------------------|-------------------|---------------------|-------------|----------------|-------------|--------------|
| EAST BRANCH PECATONICA RIVER              | EAST BRANCH PECATONICA RIVER AT TRIAL CROSSING<br>ON NATURE CONSERVANCY                   | 75                |                     | 0           | 0              | 0           | 0            |
| EAST BRANCH PECATONICA RIVER              | EAST BRANCH PECATONICA RIVER - ABOVE WLMS.<br>BRNVLD. CR                                  | 74                |                     | 0           | 0              | 0           | 0            |
| UNNAMED SINGLE-LINE STREAM<br>T6N-R5E-S34 | Unnamed Cr (915200) at 0.5 E of Moundsvie Rd and<br>Williams-Barneveld Creek crossing     | 95                |                     | 0           | 0              | 0           | 0            |
| WILLIAMS-BARNEVELD CREEK                  | WILLIAMS-BARNEVELD CREEK- PRAIRIE GROVE RD                                                | 100               |                     | 0           | 0              | 0           | 0            |
| WILLIAMS-BARNEVELD CREEK                  | WILLIAMS-BARNEVELD CREEK AT MOUNDS VIEW ROAD                                              | 99                |                     | 0           | 0              | 0           | 0            |
| SMITH CONLEY CREEK                        | SMITH CONLEY CR. US HEATHER LN                                                            | 91                |                     | 0           | 0              | 0           | 0            |
| REGAN CREEK                               | Regan Cr ~200M US of confluence of Olson Cr                                               | 88                |                     | 852         | 0              | 0           | 0            |
| SCHMIDT CREEK                             | Schmidt Cr US CTH K                                                                       | 89                |                     | 0           | 0              | 0           | 0            |
| UNNAMED SINGLE-LINE STREAM<br>T4N-R5E-S9  | Unnamed Trib(910200) ~125M US Olson Cr                                                    | 92                |                     | 0           | 0              | 0           | 0            |
| OLSON CREEK                               | OLSON CREEK .2 MI W OF COUNTY K .8 MI S OF<br>NORTON RD.                                  | 85                |                     | 0           | 0              | 0           | 0            |
| OLSON CREEK                               | OLSON CREEK UPSTREAM OF K<br>Olson Cr. ~2616ft US confluence with E. Branch<br>Pecatonica | 86                |                     | 150.4       | 15             | 135.4       | 15           |
| OLSON CREEK                               |                                                                                           | 87                |                     | 0           | 0              | 508.2       | 24.2         |
| BLOTZ BR                                  | Blotz Branch-Baseline Survey                                                              | 72                |                     | 0           | 0              | 0           | 0            |
| BLOTZ BR                                  | Blotz Br Lower ~135M US Dodge Br                                                          | 71                |                     | 0           | 0              | 0           | 0            |
| SIMMONS BRANCH                            | Simmons Br ~2831M US Dodge Br confluence                                                  | 90                |                     | 0           | 0              | 0           | 0            |
| LYNCH BR                                  | LYNCH BRANCH UPPER END BY POND                                                            | 83                |                     | 378.7       | 15.8           | 236.7       | 78.9         |
| LYNCH BR                                  | Lynch Branch. private drive Fitzsimons Road                                               | 84                |                     | 0           | 0              | 0           | 0            |
| GRIBBLE BR                                | GRIBBLE BRANCH .5 MI W OF TWIN BRIDGE RD. AND<br>FITZIMONS RD.                            | 76                |                     | 0           | 0              | 48.3        | 0            |
| GRIBBLE BR                                | GRIBBLE BRANCH UPSTREAM OF DODGE BRANCH<br>CONFLUENCE                                     | 77                |                     | 0           | 0              | 191.2       | 47.8         |
| UNNAMED SINGLE-LINE STREAM<br>T5N-R4E-S21 | Unnamed trib(912100) ~1545M US Dodge Br                                                   | 93                |                     | 0           | 0              | 0           | 0            |

|                                           |                                                                          |    |       |      |       |      |
|-------------------------------------------|--------------------------------------------------------------------------|----|-------|------|-------|------|
| HUTCHISON CREEK                           | Hutchinson Cr ~285M US Whitford Confluence                               | 78 | 735.3 | 221  | 41.6  | 0    |
| WHITFORD CREEK                            | Whitford Cr DS Hutchinson Cr confluence                                  | 98 | 495.2 | 61.9 | 139.3 | 61.9 |
| WHITFORD CREEK                            | WHITFORD CREEK AT SYLVAN RD                                              | 97 | 27.3  | 0    | 68.2  | 0    |
| CONLEY LEWIS CREEK                        | CONLEY LEWIS CREEK-BASELINE                                              | 73 | 0     | 0    | 0     | 0    |
| LEY CREEK                                 | LEY CREEK - DOWNSTREAM BB                                                | 80 | 0     | 0    | 0     | 0    |
| LEY CREEK                                 | CONLEY LEWIS TRIB - BL LUKANS FARM                                       | 79 | 0     | 0    | 0     | 0    |
| LEY CREEK                                 | LEY CREEK 1, 18 METERS UPSTREAM OF CONFLUENCE<br>WITH CONLEY LEWIS CREEK | 81 | 0     | 0    | 14.9  | 0    |
| UNNAMED SINGLE-LINE STREAM<br>T5N-R4E-S24 | Unnamed Trib(911200) ~860M US Dodge Branch                               | 94 | 0     | 0    | 0     | 0    |
| URNUS CREEK                               | Urnus Cr ~1020m US STH 191                                               | 96 | 0     | 0    | 0     | 0    |
| LONG VALLEY CREEK                         | Long Valley Cr US Long Valley Rd                                         | 82 | 0     | 0    | 0     | 0    |

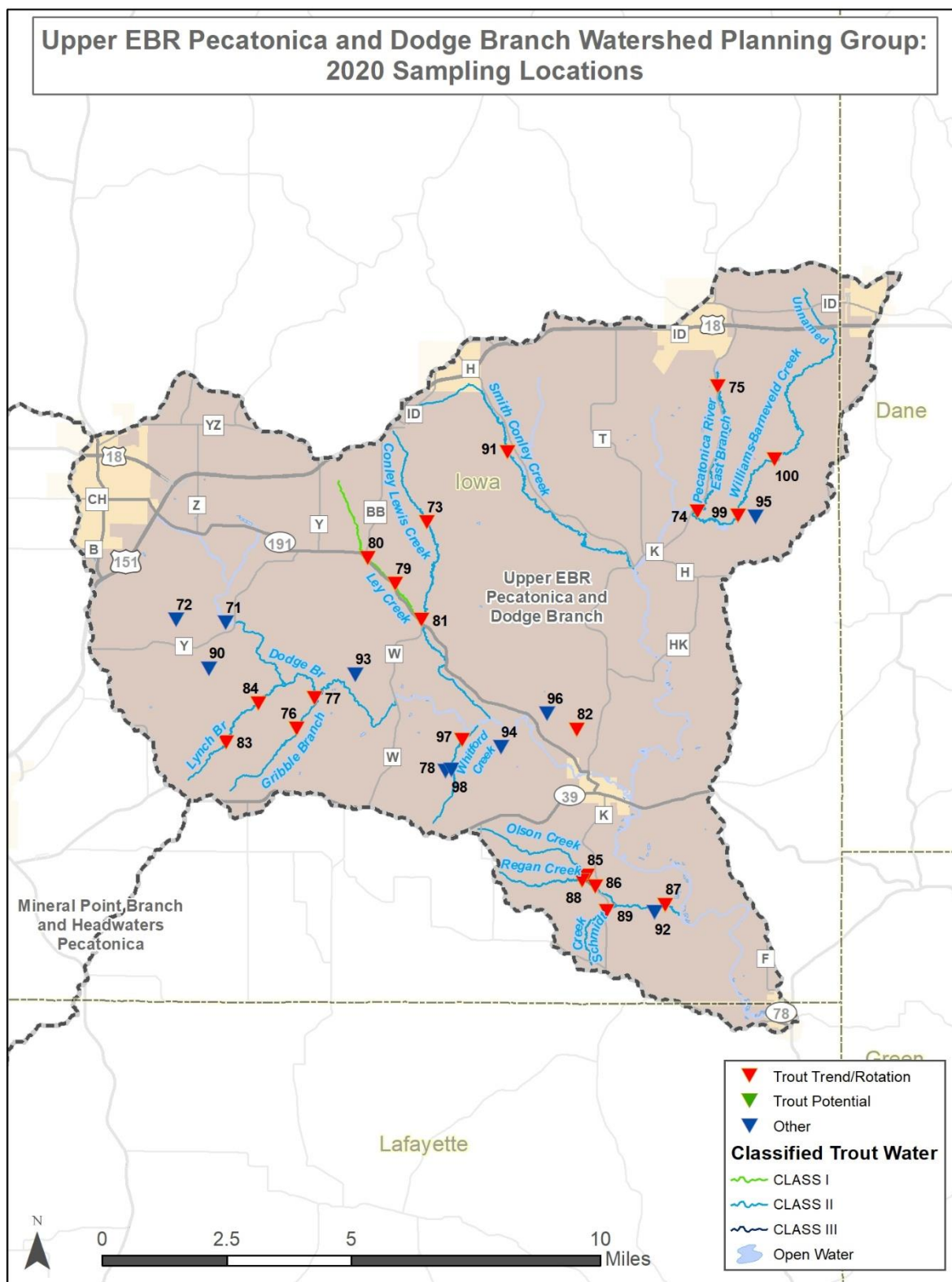


Figure 1. All sampled locations within the upper East Branch Pecatonica and Dodge Branch watersheds in 2020.

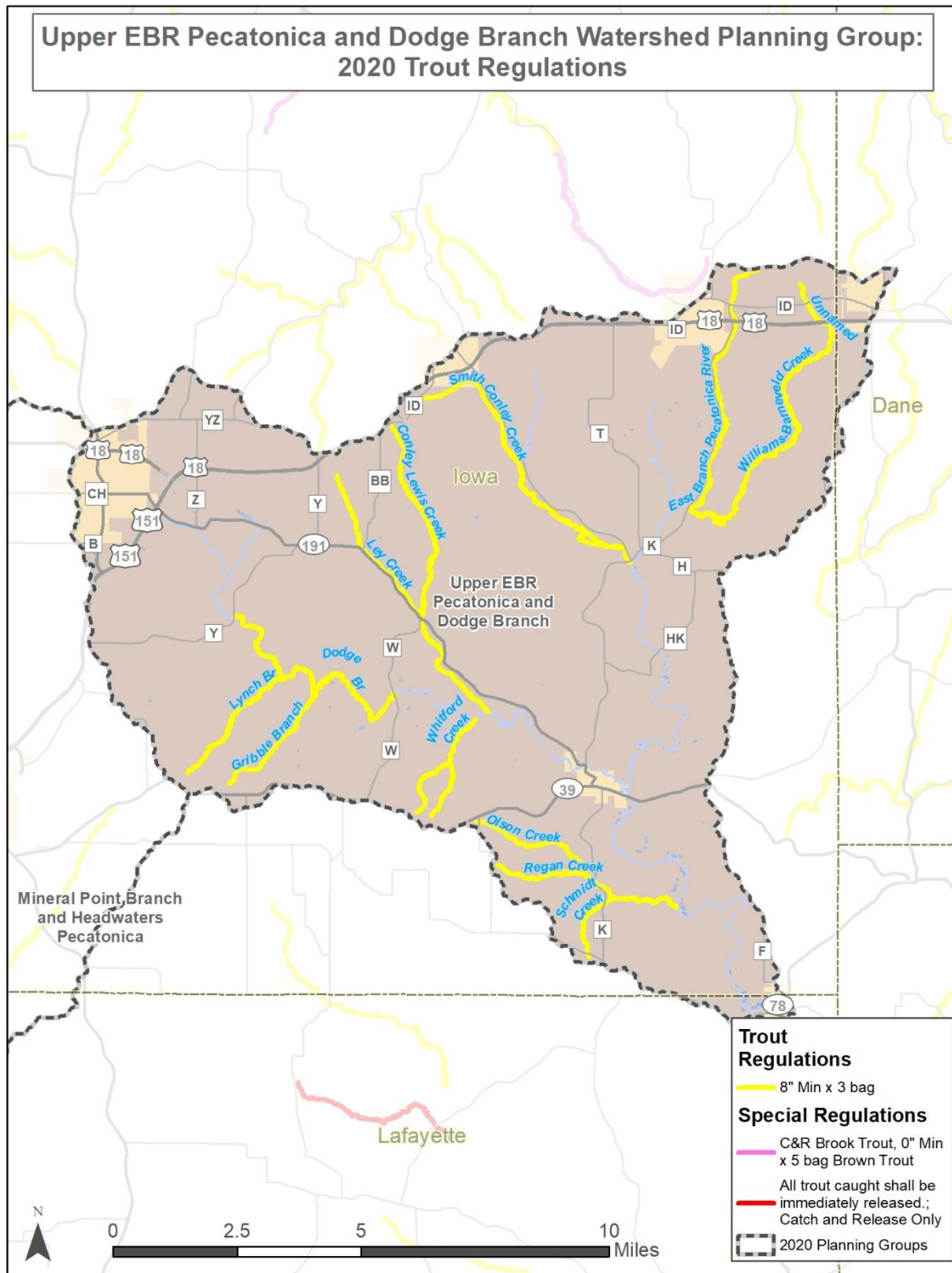


Figure 2. Trout regulation map within the upper East Branch Pecatonica and Dodge Branch watersheds.



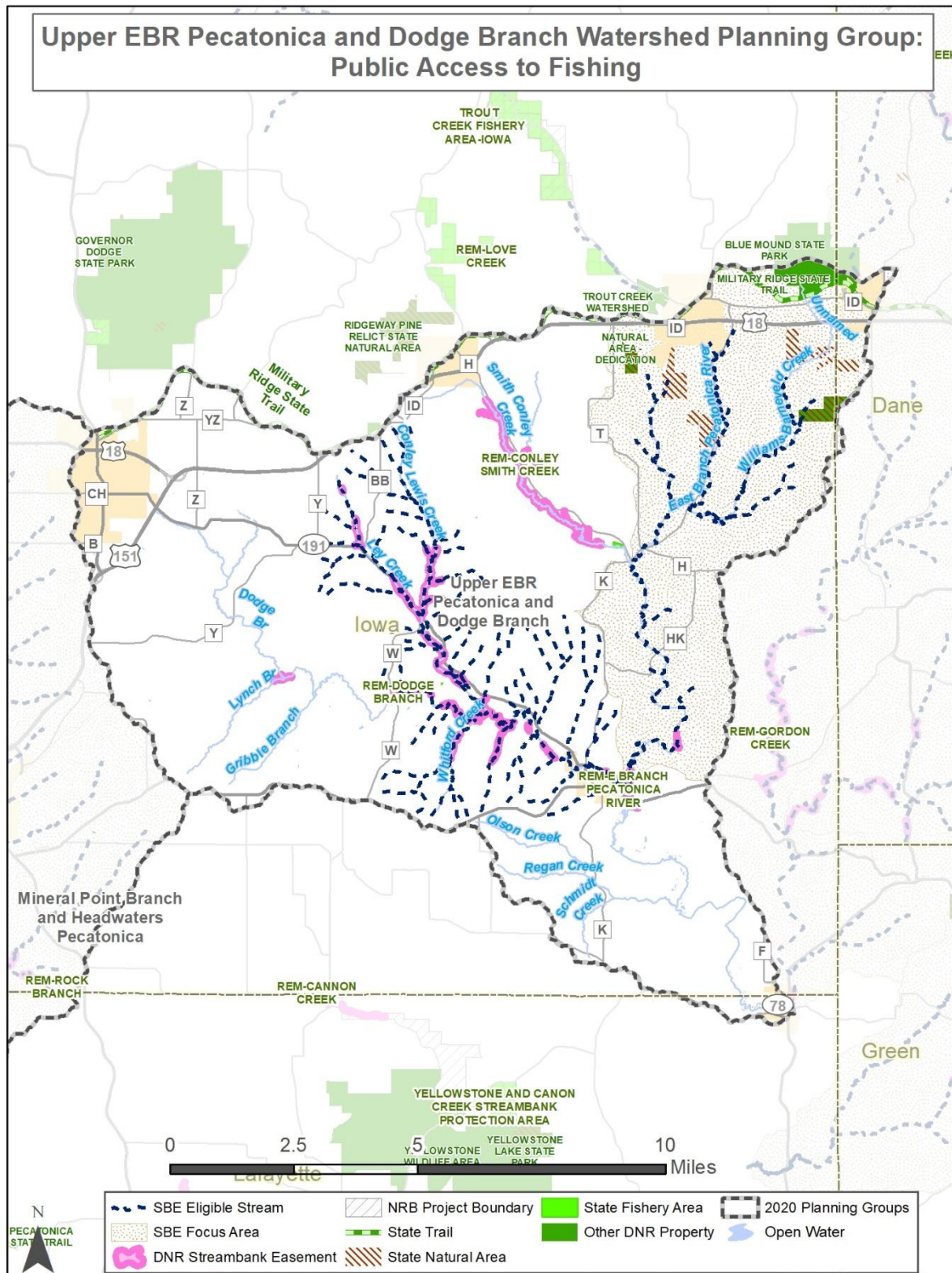


Figure 3. Current public access locations within the upper East Branch Pecatonica River and Dodge Branch watersheds.

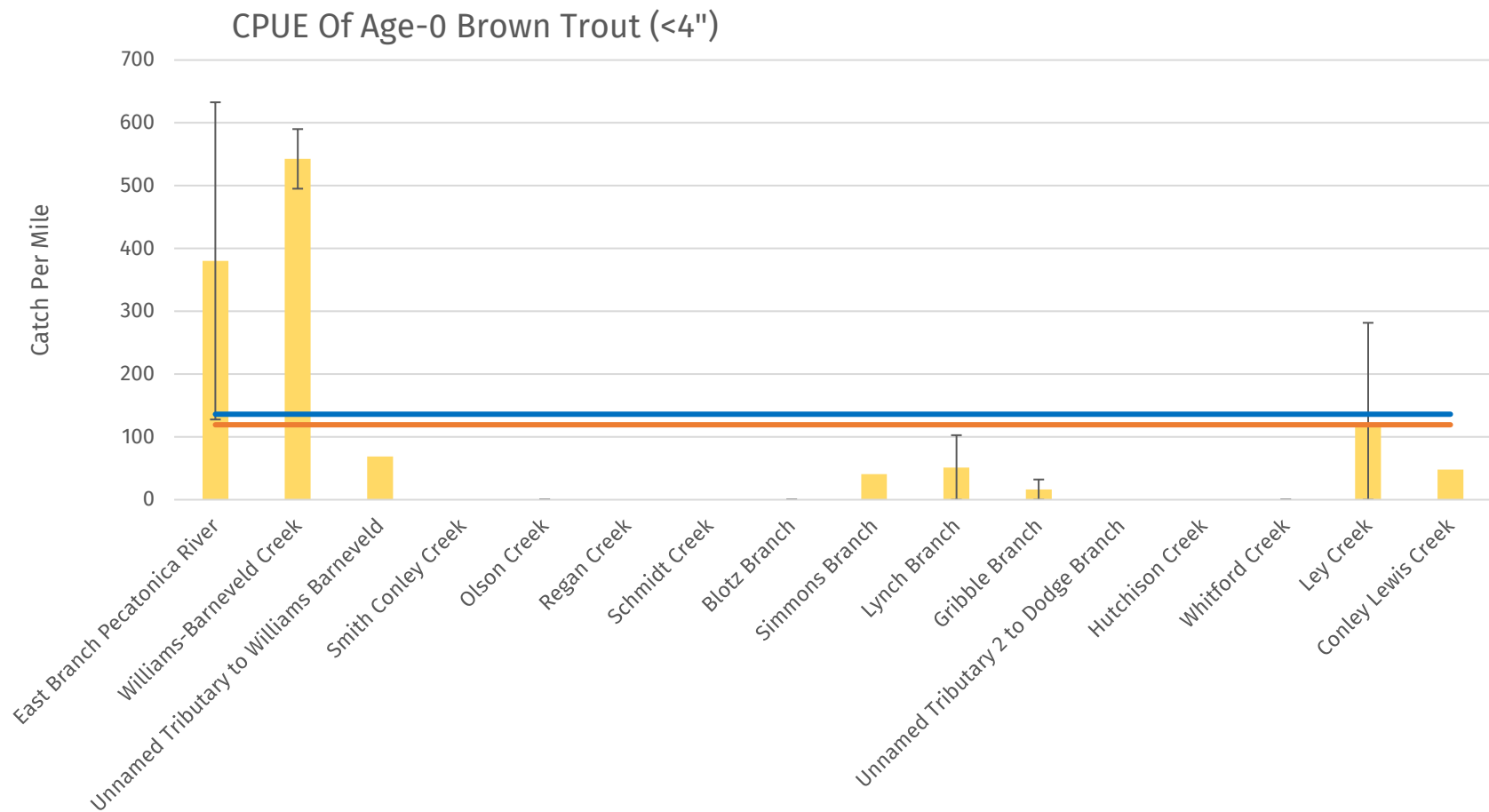


Figure 4. CPUE of age-0 Brown Trout in the East Branch Pecatonica and Dodge Branch watersheds. The blue line refers to the Driftless Area median while the orange line refers to the statewide median.

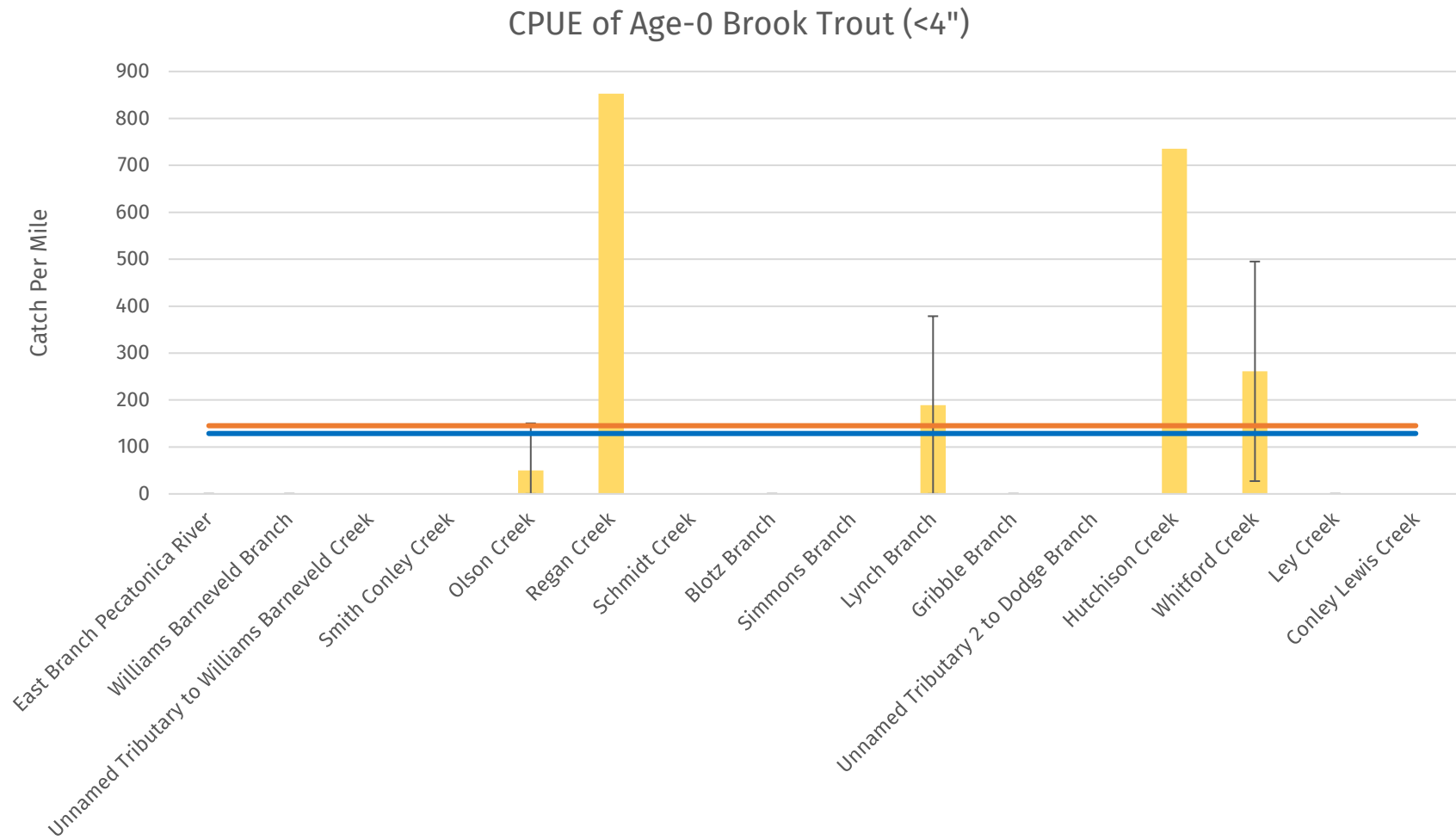


Figure 5. CPUE of age-0 Brook Trout in the East Branch Pecatonica and Dodge Branch watersheds. The blue line refers to the Driftless Area median while the orange line refers to the statewide median.

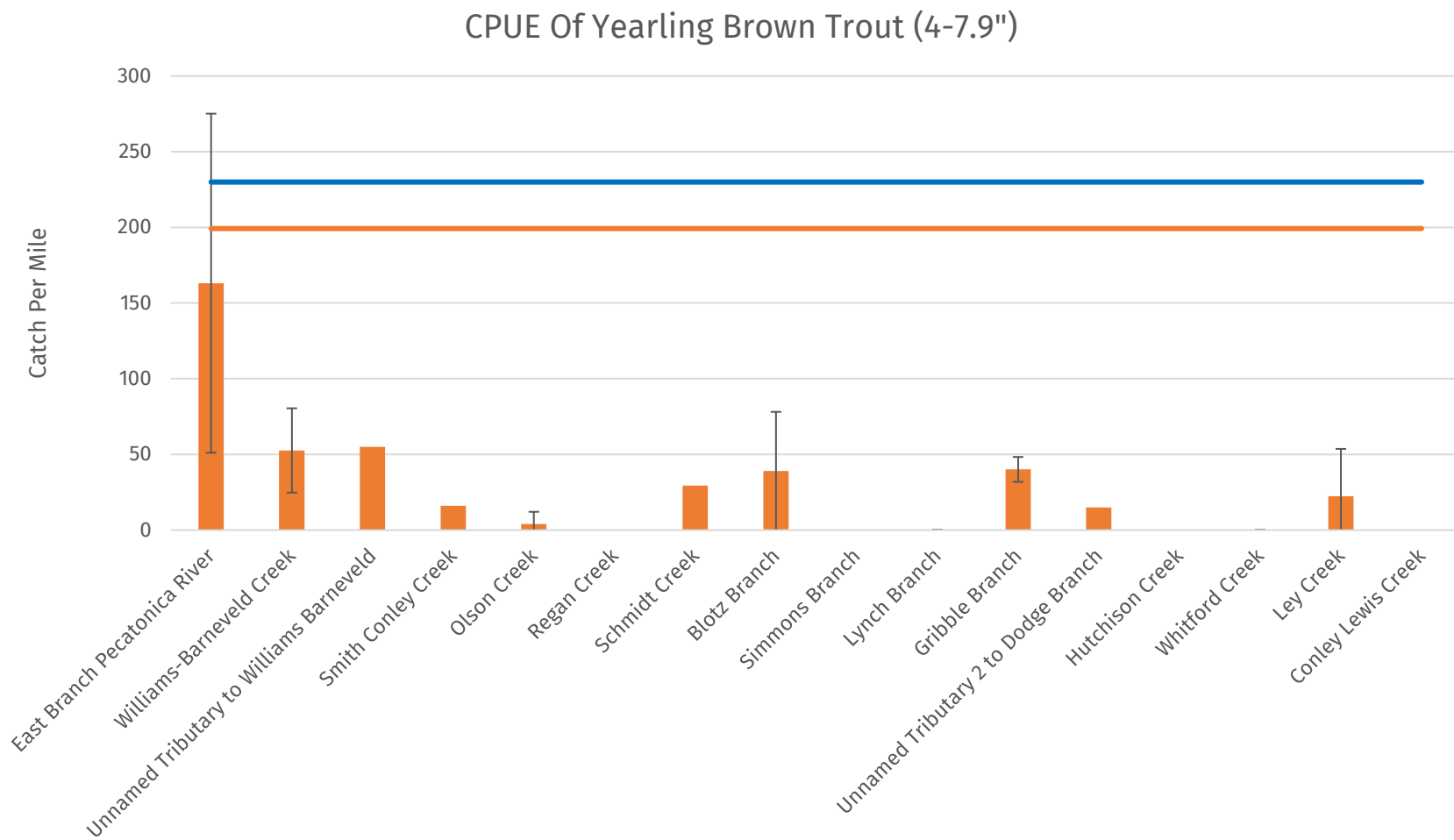


Figure 6. CPUE of yearling Brown Trout in the East Branch Pecatonica and Dodge Branch watersheds. The blue line refers to the Driftless Area median while the orange line refers to the statewide median.



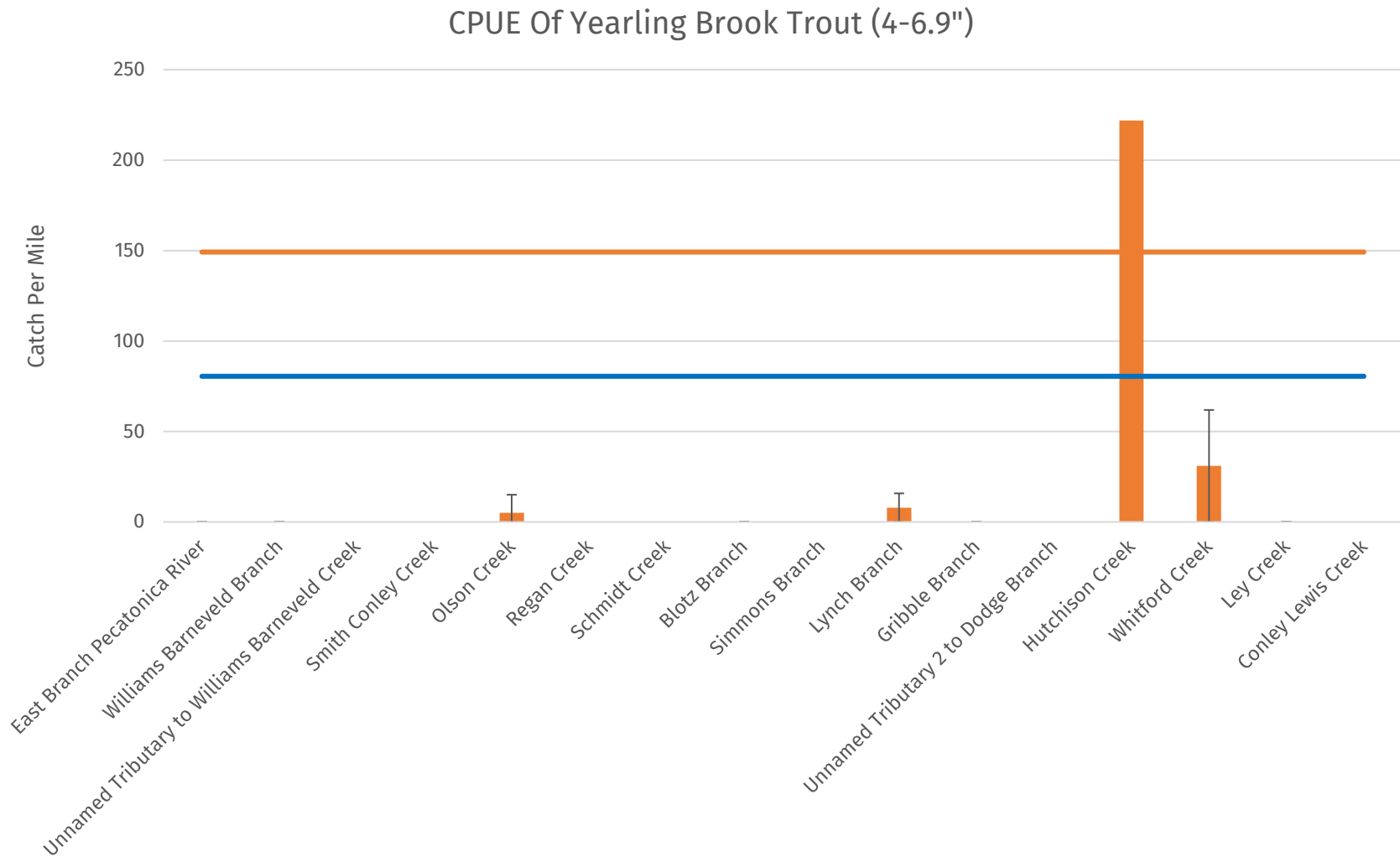


Figure 7. CPUE of yearling Brook Trout in the East Branch Pecatonica and Dodge Branch watersheds. The blue line refers to the Driftless Area median while the orange line refers to the statewide median.

## CPUE Of Adult Brown Trout ( $\geq 8"$ )

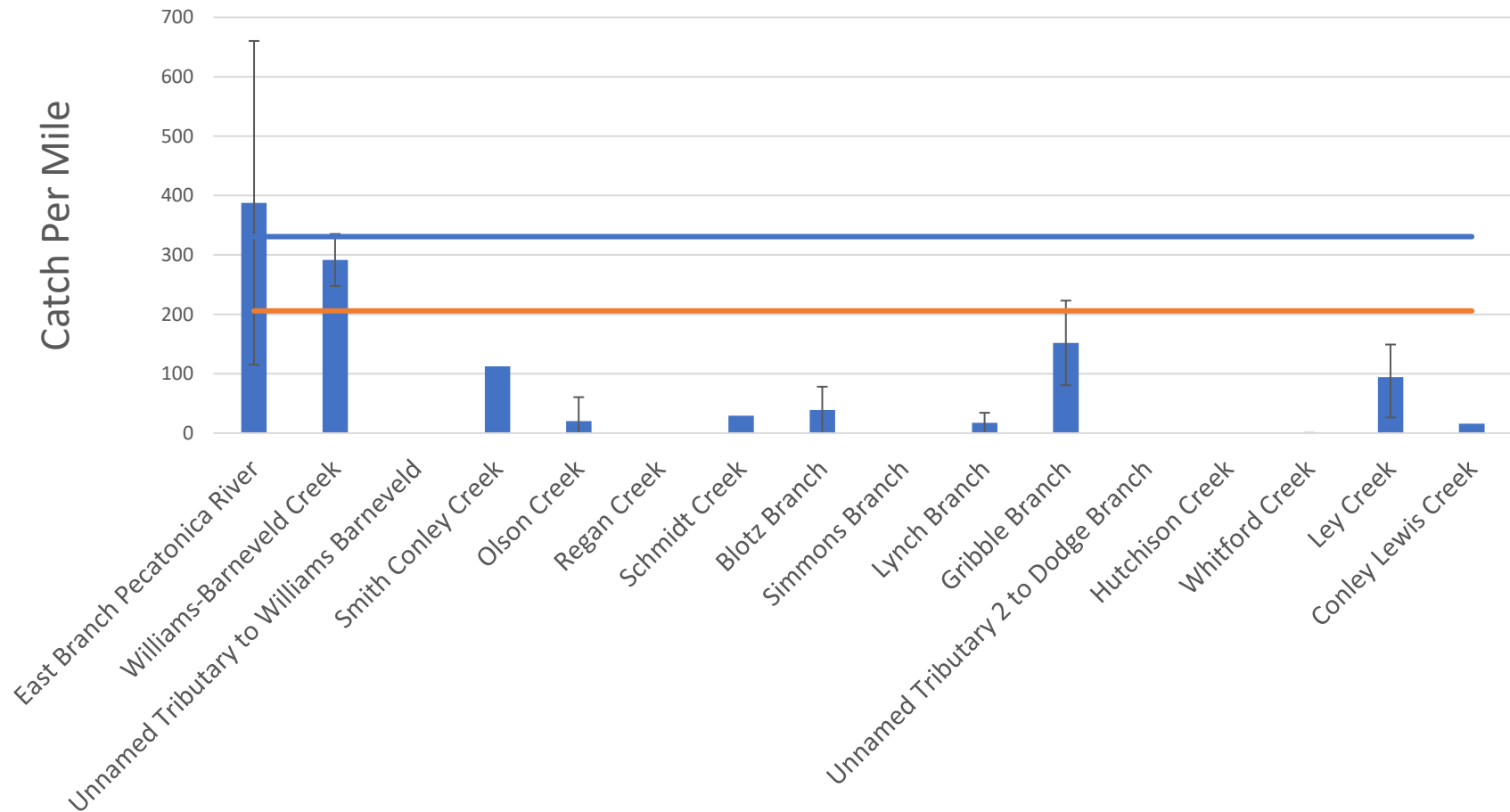


Figure 8. CPUE of adult Brown Trout in the East Branch Pecatonica and Dodge Branch watersheds. The blue line refers to the Driftless Area median while the orange line refers to the statewide median.

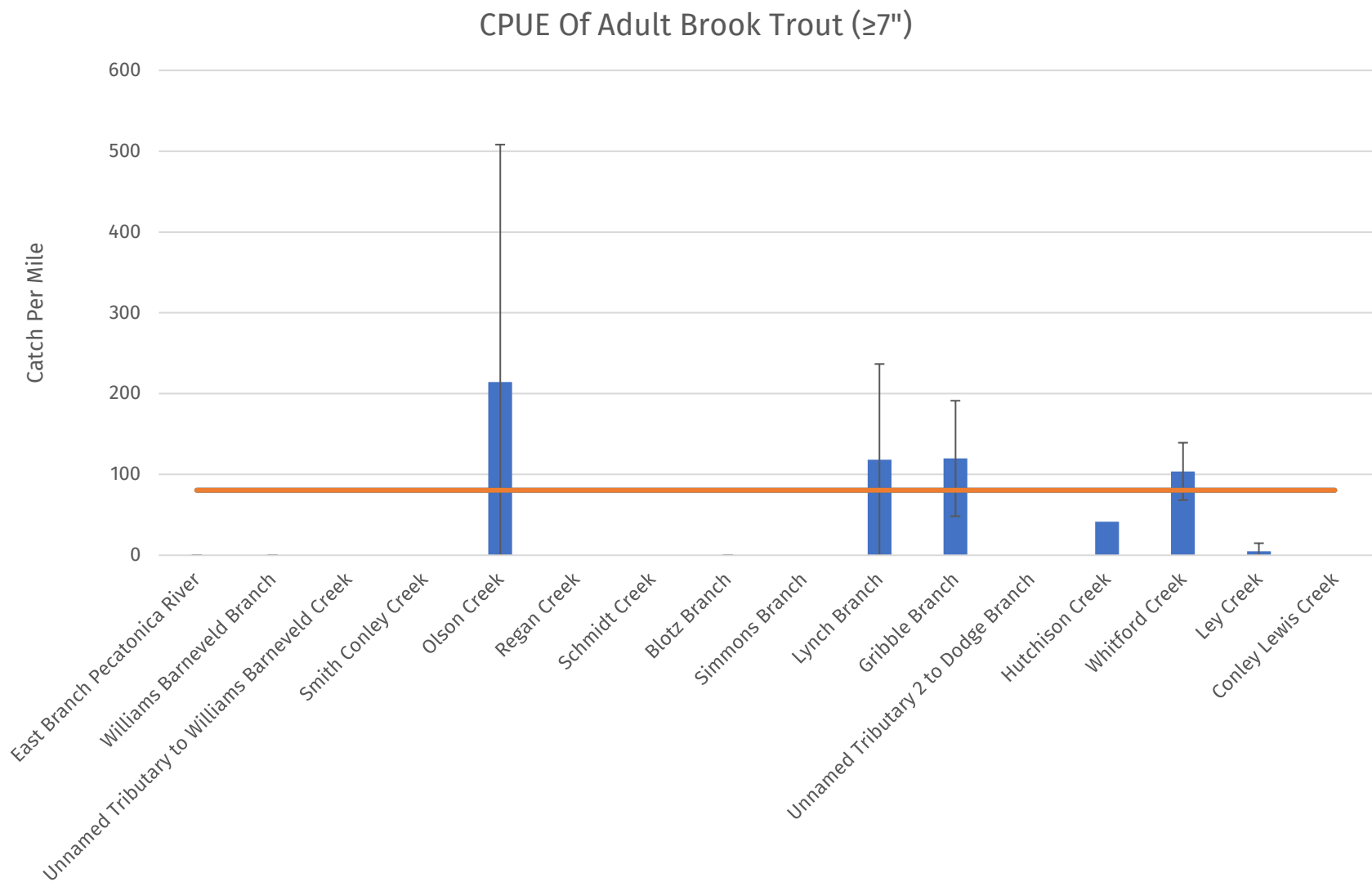


Figure 9. CPUE of adult Brook Trout in the East Branch Pecatonica and Dodge Branch watersheds. The blue line refers to the Driftless Area median while the orange line refers to the statewide median.

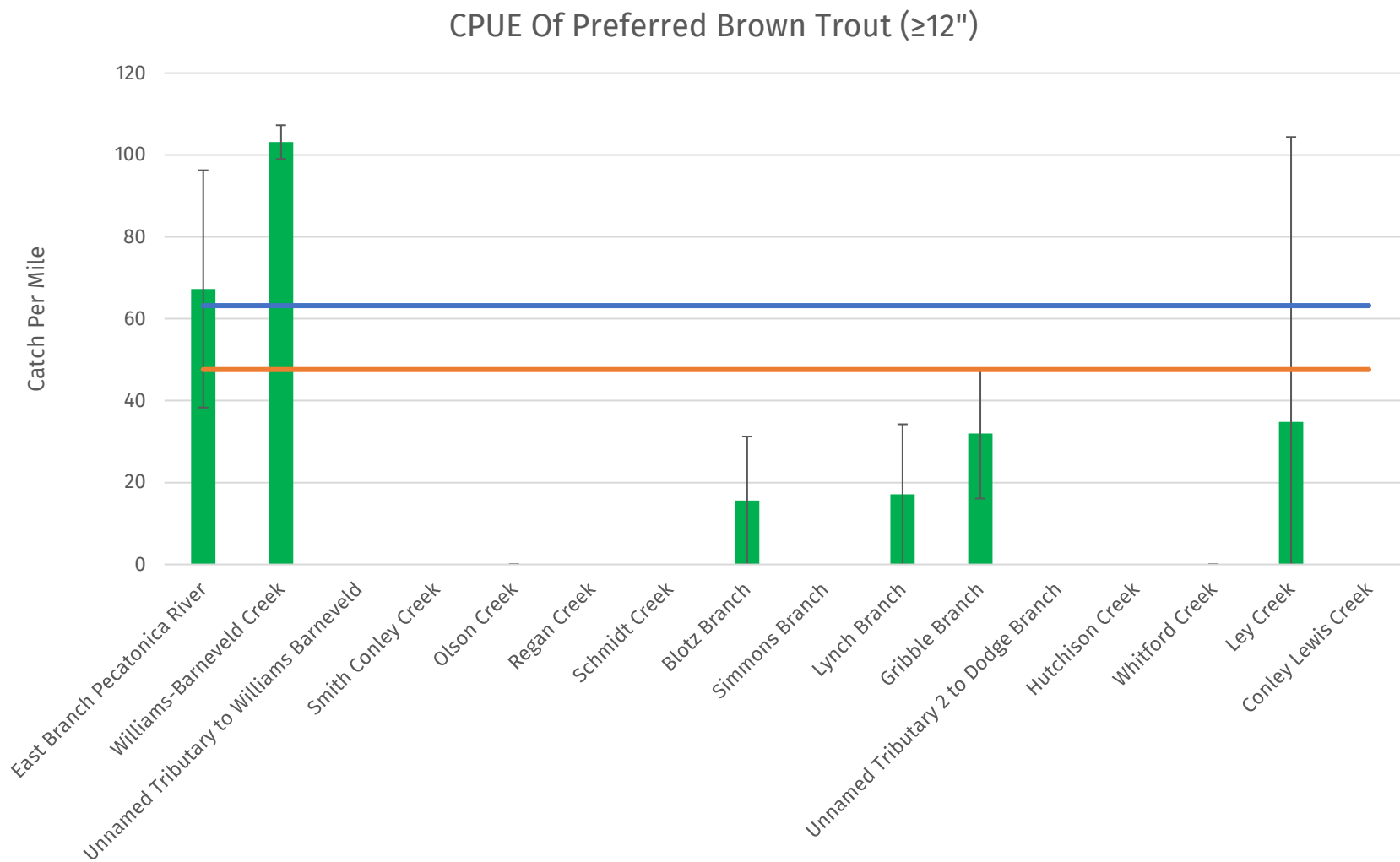


Figure 10. CPUE of preferred size Brown Trout in the East Branch Pecatonica and Dodge Branch watersheds. The blue line refers to the Driftless Area median while the orange line refers to the statewide median.

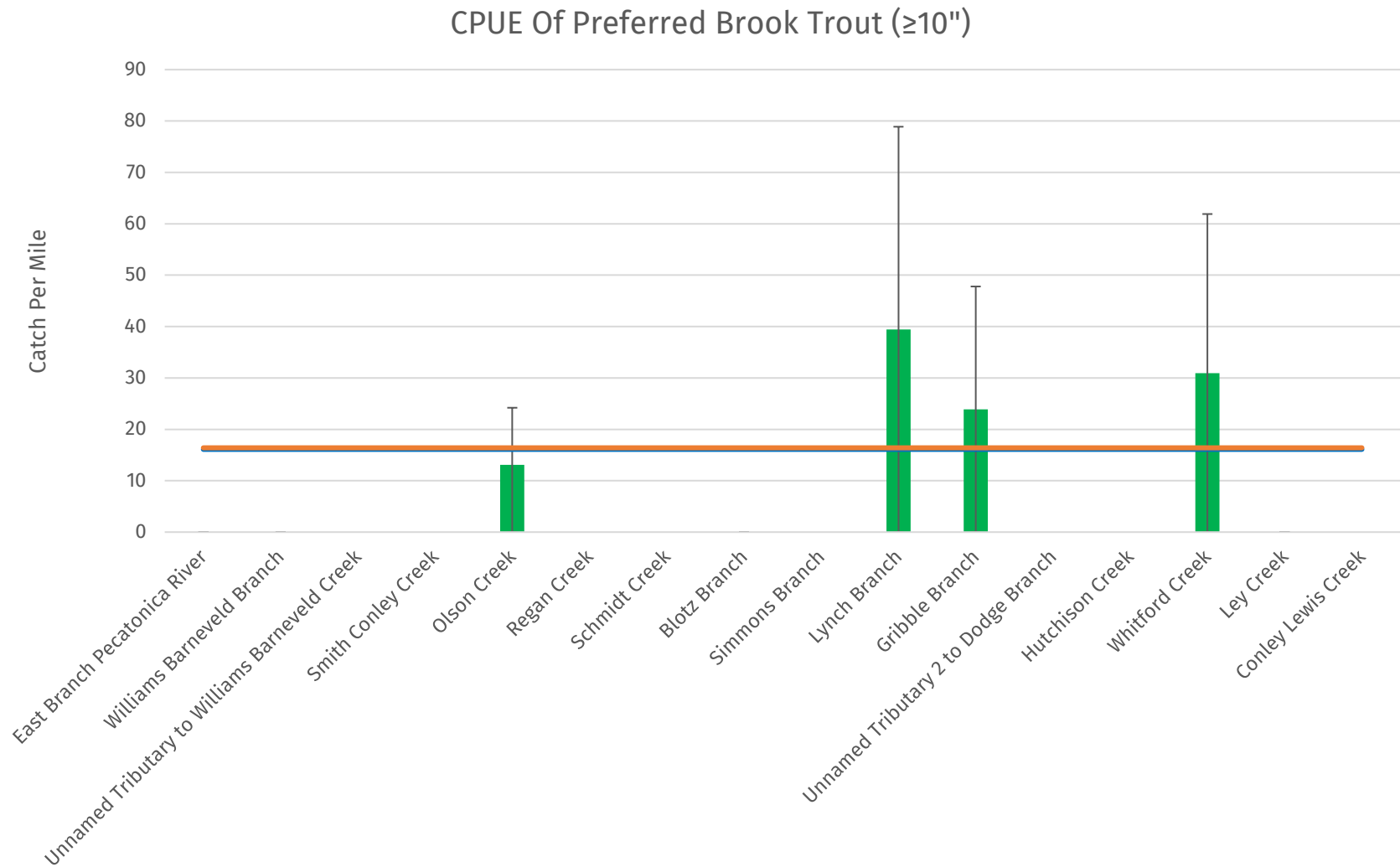


Figure 11. CPUE of preferred size Brook Trout in the East Branch Pecatonica and Dodge Branch watersheds. The blue line refers to the Driftless Area median while the orange line refers to the statewide median.