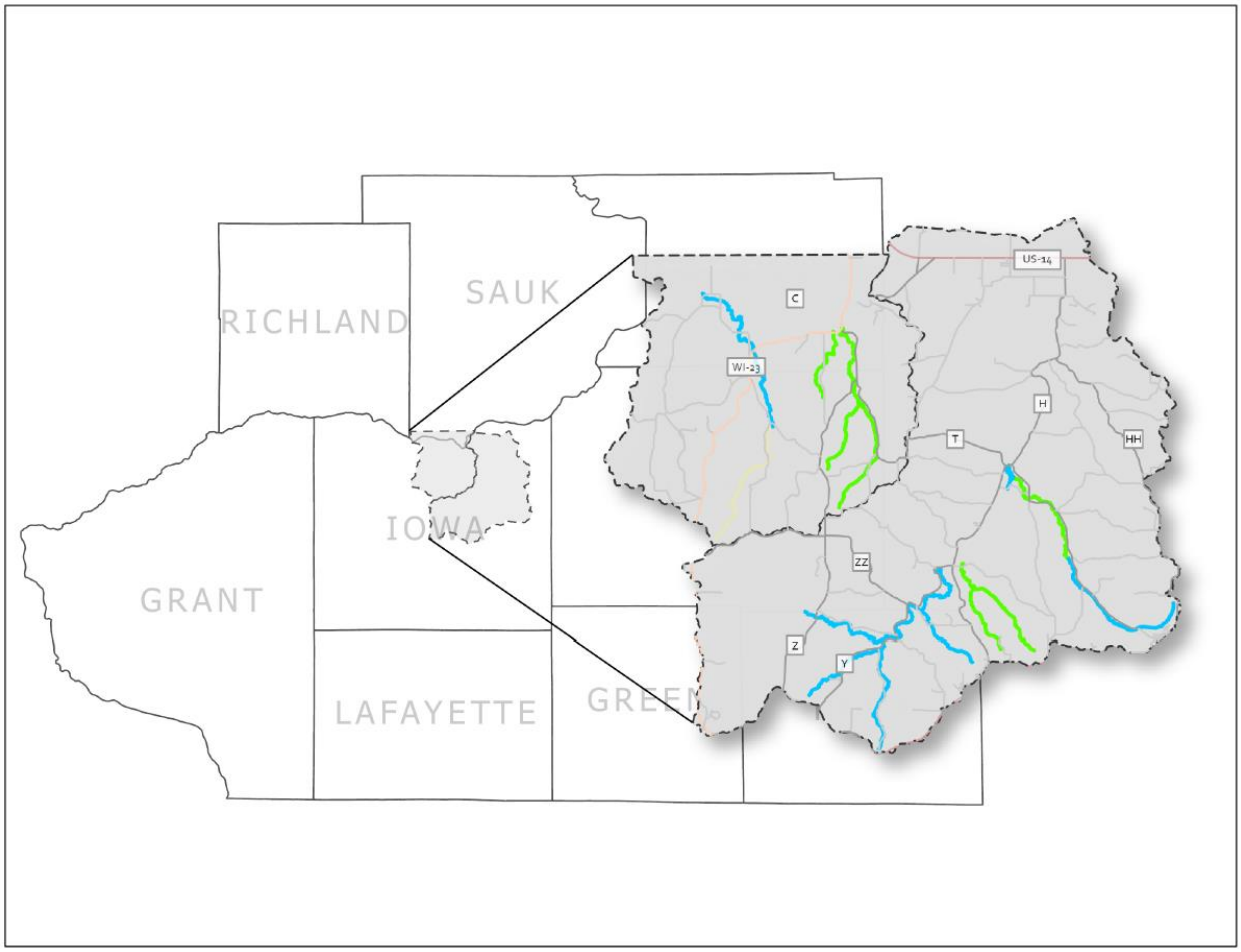
WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Trout Management and Status Report Of The Mill and Rush Creek Watersheds

Iowa County, Wisconsin 2023



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EXECUTIVE SUMMARY

Wisconsin Department of Natural Resources (DNR) staff conducted stream electrofishing surveys in the summer of 2023 along mainstem streams that included Trout Creek, Mill Creek, Lowery Creek and Rush Creek. Other coldwater tributaries included Canyon Park Creek, Cutler Creek, Strutt Creek and Love Creek as well as other smaller streams and unnamed tributaries.

Stocking and regulations are two management tools used by DNR staff. Over the last five years Canyon Park, Cutler, Strutt and Trout Creeks have been stocked. Within these watersheds, two regulations are used to manage the trout populations. The first is the Iowa County base regulation of three trout over 8 inches. The other special regulation is five trout in total, but brook trout must be immediately released and brown and rainbow trout have no minimum length.

The purpose of these surveys is to understand the recruitment and reproduction of our fisheries. For the evaluation, all fish stocking within the watershed was suspended the year prior to the surveys. This allowed us to determine how much natural reproduction and recruitment were occurring. Natural reproduction refers to the presence of age-0 fish. Natural recruitment is defined by juvenile fish surviving to age 1. Based on the results, we can determine how productive these fisheries are as well as assess adult abundance in relation to the current management.

These watersheds contain both brook and brown trout fisheries. Streams vary from small to large, with mixed trout species throughout. Habitat is also very diverse, with small headwater streams that provide excellent reproductive potential to large portions of deep river with shifting sand and silt substrates that have the potential to hold trophy fish but lack natural reproduction. Brook trout were present in the highest abundance in Lowery, Cutler and Strutt creeks, while brown trout were highest in abundance in Rush, Trout and Love creeks. Overall, the brown trout populations are more widespread than brook trout, although brook trout fare well in a few of the streams surveyed.

Management goals will focus on additional streambank easement acquisitions along Lowery and Trout creeks, including additional authority and mileage along Cutler Creek to increase angler accessibility. For the most part, regulations are sufficient; however, to maintain continuity along Lowery Creek, a proposal to restrict the harvest of brook trout on unnamed tributaries to Lowery Creek will be initiated. Habitat restoration should also be planned for Trout Creek to reduce erosion and sedimentation, as well as improve instream habitat to increase the abundance of adults. Brown trout relocation projects will also be proposed upstream of dry dam barriers on Trout, Cutler and Love creeks to better manage brook trout populations.

WATERSHED LOCATION

Trout and Mill Creek Watershed, Iowa County
Lowery and Rush Creek 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 6 – July 27, 2023

SPECIES SAMPLED

- American brook lamprey
- Black bullhead
- Blackside darter
- Bluegill
- Brook stickleback
- Brook trout
- Brown bullhead
- Brown trout
- Burbot
- Central mudminnow
- Common shiner
- Creek chub
- Fantail darter
- Green sunfish
- Green sunfish x bluegill
- Hornyhead chub
- Johnny darter
- Largemouth bass
- Mottled sculpin
- Smallmouth bass
- Southern redbelly dace
- Western blacknose dace
- White sucker

INTRODUCTION

Both Mill and Rush Creek watersheds are located within the lower Wisconsin River subbasin. 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 Class 1 and Class 2 trout waters (Figure 1, Table 5), are small-to-large sized and have a range of fair to excellent habitat, with fishable populations containing mostly brown trout.

Canyon Park Creek is a Class 2 stream and tributary to Cutler Creek. This stream flows through wooded corridors for the majority of its length and is considered one of the highest gradient streams in Iowa County (Ripp et al. 2002). Because of this, erosion is a major concern and contributes to habitat degradation. Overall, sand and silt dominate the stream substrate with coarse woody debris abundant. This stream has historically contained a population of brown trout in the lower reaches but has lacked high abundance, likely due to small stream size and reduced habitat availability.

Cutler Creek is a major tributary to Mill Creek in the upper reaches of the watershed. This stream originates and flows through woodlands before transitioning to prairie and lowland meadows through its lower reaches. One dry dam does exist on the lower end of Cutler Creek and is considered a fish impasse due to the elevated dam outlet. This stream is currently Class 2 water and contains both brown and brook trout. Cutler Creek was used in an experimental brook trout stocking study from 2020-2022, where 500 F1 (first generation removed from the wild), F2 (second generation removed from the wild) and domestic large fingerlings were stocked for a total of 1,500 brook trout per year. The goal was to assess survival rates between the different strains. This stream has shown natural reproduction and the post-stocking productivity of Cutler Creek will be assessed during this evaluation.

Strutt Creek is a small Class 1 tributary to Love Creek. Strutt Creek flows through mostly wooded corridors, which likely helps keep stream temperatures cool due to an abundance of shade throughout the year. This stream has historically contained a low abundance population of both brook and brown trout. This stream was also used in an experimental brook trout stocking study from 2018-2020, where 500 F1, F2 and domestic large fingerlings were stocked for a total of 1,500 brook trout per year. Once again, the goal was to assess survival rates between the different strains. This stream did show initial natural reproduction after these stocking events and the post-stocking productivity of Strutt Creek will be assessed during this evaluation.

Love Creek is a medium-sized Class 1 tributary to Mill Creek and is considered an outstanding resource water (Ripp et al 2002). This stream flows through the Love Creek Fishery Area property and contains ample public access. The majority of this

stream flows through woodlands but meanders through pastured lands as well. This stream has historically contained both brook and brown trout but has been dominated by brown trout in the recent past. One large dry dam exists on the state land and is a barrier to fish movement upstream. Beaver issues are also a concern along Love Creek and have contributed to in-stream habitat issues during recent years.

Upper Trout Creek is classified as Class 1 trout water. This stream is considered an outstanding resource water that supports natural reproduction of both brook and brown trout (Ripp et al. 2002). This section of Trout Creek contains a series of spring complexes that contribute coldwater to the stream. Upper Trout Creek also contains an impoundment (Birch Lake) located at the headwaters. This lake has an approximately 3 cubic feet per second spring that provides coldwater to the lake. However, during summer months, this lake contributes warmwater downstream. Management of brook trout is a priority along upper Trout Creek, given that this population has native genetics with no introgression of domestic hatchery genetics. Overall, riparian corridors along this reach consist of mostly wooded reaches with some grasslands intermittent.

Lower Trout Creek is classified as Class 2 trout water and is separated from Upper Trout Creek by a county dry dam structure, which was built in the 1970s for flood control. This structure is significantly large and, due to the drop in elevation and plunge pool that exists, is considered a barrier that prevents movement of fish upstream. Therefore, management goals differ along lower Trout Creek where brown trout is the main focus. The riparian corridor consists mostly of grassland and sedge meadows and public access is abundant as Trout Creek flows through approximately 900 acres of Trout Creek Fishery Area.

Mill Creek is the mainstem stream in this watershed and a major tributary to the lower Wisconsin River. This stream contains approximately 10.4 miles of classified trout water along portions in the upper reaches. However, along most of the lower reaches, it's considered a warmwater sport fishery. Two impoundments are located at the headwaters that form Cox Hollow and Twin Valley Lakes. Both of these impoundments are located in Governor Dodge State Park. This stream has had intensive modifications for agricultural and logging practices in the past (Ripp et al. 2002). Overall, this stream is considered larger water with primarily sand and silt substrate that flows through wetland landscapes. Only two small portions of Mill Creek contain public access and are located within the Love Creek and Trout Creek Fishery Areas.

Lowery Creek is a Class 1 trout water located within the Rush Creek watershed. This stream was historically unclassified but was recently reclassified as Class 1 trout water due to the abundant brook trout population. This stream is small with spring complexes throughout and contains excellent rock substrate. However, sedimentation has become an issue recently. This is due to a couple of factors that

include inputs from the watershed as well as beaver dams that trap sediment in stream. Lowery Creek contains brook trout with genetics native to the lower Wisconsin River drainage and is used as a broodstock source for the wild brook trout stocking program. Every few years these fish are spawned in the fall, eggs are collected and fertilized and transported to the Nevin Fish Hatchery. These fish are then used for stocking practices throughout southern Wisconsin.

Rush Creek is a Class 2 trout stream located in northern Iowa County. This stream flows directly to the Wisconsin River through numerous private lands, and only one main unclassified stream flows to Rush Creek within the lower reach. Rush Creek has historically had sedimentation issues related to barnyard runoff, row cropping and grazing (Ripp et al. 2002). No public access other than road crossings are available along this stream. The fishery consists of brown trout in the upper reaches and transitions to a coolwater fishery in the lower reaches with species that can also be found in the lower Wisconsin River.

Several unnamed tributaries and named streams were also surveyed for this watershed assessment. These streams were surveyed as trout potential sites. Potential sites were selected based on the possibility that they may have trout, given their proximity to classified trout waters or the fact that they had not been surveyed in the past. This helps DNR staff to determine the extent of trout waters within the watershed and the possibility of discovering additional trout streams.

CURRENT STATUS

STOCKING

Stocking in the Mill and Rush Creek watersheds has been minimal over the recent past. Canyon Park, Cutler, Strutt and Trout creeks have all been stocked by the DNR. Stocking in Cutler and Strutt creeks was the result of a research project initiated by the DNR's coldwater research scientist. These stocking events were initiated to evaluate the effectiveness of stocking different strains: F1 feral (first generation removed from the wild), F2 feral (second generation removed from the wild), and domestic brook trout. There is also annual stocking of surplus adult broodstock brook trout below the dry dam in Trout Creek and one surplus large fingerling brook trout stocking event on Canyon Park Creek. Stream, species, size and number stocked are located in Table 1.

REGULATIONS

The classified trout waters in the Mill and Rush Creek watersheds are managed under two different regulations (Figure 2). The majority of streams are managed under the Iowa County base regulation of three trout over 8 inches. The special regulation allowing the harvest of five trout in total, where brook trout must be immediately released and brown and rainbow trout have no minimum length, is used to protect brook trout but allows harvest of brown and rainbow trout to reduce competition

between species. This regulation is implemented on Upper Trout Creek and Lowery Creek.

HABITAT IMPROVEMENT

Habitat restoration projects have been conducted along easements and state lands within these watersheds and include Strutt and Trout creeks. Strutt Creek had a series of brushing projects completed on state lands in 2015 and 2020. Trout Creek has had several past projects that included bank stabilization and brushing in 1973, 1988 and 1999 and brushing again in 2008, 2009, 2015 and 2022 (Hanson 2015). A tree planting project was also completed with assistance from the Harry and Laura Nohr Chapter and Southern Chapter of Trout Unlimited in the spring of 2023.

PUBLIC ACCESS

Public access throughout these watersheds is possible due to DNR-owned fee title properties. Trout Creek and Love Creek Fishery Areas are the two state owned lands that provide the majority of access for the public. These lands contain over eight miles of publicly accessible trout water and also allow for a variety of uses including hunting, fishing, hiking, wildlife observation and cross-country skiing (Figure 3).

LAND USE

The Mill and Rush Creek watersheds are located entirely in Iowa County. The Mill Creek watershed covers approximately 105 square miles (Stroud 2021). Land use practices within the watershed consist of 20% pasture/hay, 15% cultivated crops, 55% forested lands and 10% other (Table 2). The Rush and Lowery Creek watershed covers approximately 42 square miles (Stroud 2021). Land use practices within the watershed consist of 17% pasture/hay, 12% cultivated crops, 65% forested lands and 6% other (Table 2).

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 does not necessarily mean there is a lack of natural recruitment.

METHODS

Summer stream sampling on trend (sampled annually), rotation (sampled on a rotation) and potential (thought to have trout but previously unverified) sites spanned from June 6 – July 27, 2023 (Figure 1; Table 2). All 45 stream sites (11 rotation streams and 13 potential streams) were surveyed with either a backpack electrofishing unit or tow behind stream barge. Backpack electrofishing units 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.

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 the 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 is 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 game fish 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 the stream station sampled. This allowed for the comparison of catch rates both within and among stream sites. Total CPUE, as well as 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 (<35th percentile), medium (35th-65th percentile) and high (>65th percentile; Table 3).

RESULTS

In total, 45 stream sites were sampled within the Mill and Rush Creek watersheds, where both fisheries and habitat data were collected (Figure 1; Table 4; Table 5). Data were compiled both at individual stream sites (Table 6; Table 7) and grouped based on stream segments. For segments that combined multiple stream sites, CPUE was averaged (Figure 4-11). Brook and brown trout were found during the assessment in 2023.

Reproduction of brown trout was observed in 10 streams surveyed during the summer of 2023. CPUE of age-0 fish was only considered high in one site on Unnamed Tributary 1 to Mill Creek, exhibiting 616 age-0 brown trout per mile (Site 12; Figure 4; Table 6). Three sites on Trout Creek also had a high abundance of age-0 brown trout: Site 27, 24 and 28 with 286, 284 and 261 fish per mile, respectively. Rush Creek at Upper Wyoming Road and Weaver Road had moderate abundances of age-0 fish at 132 and 108 fish per mile, respectively (Figure 4; Table 6). All other sites surveyed that contained age-0 fish were considered low, with 14 streams having no reproduction at all. Overall, reproduction was low-moderate throughout the watersheds.

Brook trout reproduction was much lower throughout these watersheds. Of the 24 streams surveyed, only four streams contained age-0 fish. The site with the highest natural reproduction of brook trout was on Unnamed Tributary 1 to Lowery Creek. This stream contained 388 age-0 brook trout per mile (Figure 5; Table 7). One site on Lowery Creek contained an abundance at or above both statewide and Driftless Area standards, with 145 age-0 fish per mile (Figure 5; Table 7). Lowery Creek at CTH TZ had a moderate abundance, while Cutler and Trout Creek exhibited low natural reproduction of brook trout. All other sites surveyed were devoid of brook trout reproduction.

Eleven streams within these watersheds exhibited brown trout recruitment to age-1. Rush Creek at site 36 and Love Creek at site 18 contained high recruitment with 880 and 875 age-1 brown trout per mile, respectively (Figure 6; Table 6). Strutt, Love and Rush creeks all contained moderate recruitment above both statewide and Driftless Area standards. Trout Creek contained one site upstream of the Arneson Creek confluence that was above the statewide median value. The other seven streams that exhibited recruitment all contained low abundances overall, with the 13 other streams lacking of age-1 fish (Figure 6).

Recruitment of yearling brook trout was much lower and was only observed in five streams throughout this assessment. Lowery Creek contained the highest abundance on average, with 169 age-1 brook trout per mile observed. Lowery Creek at site 41 had the highest recruitment, with 460 fish per mile captured. Strutt and Cutler creeks at sites 14 and 11 contained an abundance above the Driftless Area median value, with 103 and 95 age-1 brook trout per mile captured (Figure 7; Table 7). Trout Creek and Unnamed Tributary to Lowery 1 contained a low abundance of age-1 brook trout. The other 19 streams surveyed did not contain any age-1 brook trout.

Overall, nine of the 24 streams surveyed contained adult brown trout; however, the abundance is generally low to moderate. Rush Creek contained the highest abundance on average, with 216 adult brown trout per mile, yet this was moderate when compared to other streams in the Driftless Area and statewide. Rush Creek at site 35 on STH 23 contained the highest abundance based on all sites surveyed, with 315 adult brown trout per mile observed. Followed by Rush Creek at site 37, 36, and 34 with 242, 229 and 207 adult fish per mile respectively. Cutler, Meudt, Strutt, Love, Trout, Ryan, Mill and Lowery creeks all contained an abundance below both Driftless Area and statewide median values. The 15 other streams surveyed did not contain any adult brown trout. Of the nine streams that contained adult brown trout, four contained preferred-size fish. Once again, Rush Creek contained the highest abundance on average, yet low, with 35 preferred-size fish per mile. Site 34 on Rush Creek exhibited the highest abundance overall, with 65 fish per mile captured. Trout, Mill and Lowery Creeks all contained a low abundance of preferred size fish on average (Figure 10; Table 6).

Only five streams surveyed during this watershed assessment contained adult brook trout. Lowery Creek contained the highest abundance on average, with 231 adult brook trout per mile (Figure 9; Table 7). Site 41 at CTH Z contained 403 adults per mile, followed by site 39 at CTH TZ with 291 per mile. Cutler, Strutt, Love and Trout creeks also exhibited adult brook trout, although they were low to moderate in abundance. All other streams sampled lacked adult brook trout. Of the four streams that contained adult brook trout, three also had fish of preferred size. Lowery Creek had an average of 21 preferred size fish per mile, with site 39 exhibiting 47 fish per mile (Figure 11; Table 7). Cutler Creek and Trout Creek at site 11 and 29 contained 14 and 13 preferred-size brook trout per mile, respectively, although overall abundance in both streams was low.

DISCUSSION

Overall, these watersheds contain fishable populations of both brook and brown trout, although populations were typically in low to moderate abundance. The lower abundances observed may be due to the recent streamflow conditions, as Iowa County experienced moderate drought conditions in 2021 and 2022 that reduced overall stream flows in the region. However, a few streams did have high abundance populations, and these included Cutler, Lowery, Love and Rush creeks. Brook trout seemed to fare better in the smaller systems such as Cutler and Lowery creeks, whereas brown trout dominated Love, Mill, Trout and Rush creeks. No trout of any species were found in Canyon Park Creek.

Surprisingly, Canyon Park Creek did not contain any trout species during surveys in 2023. This stream was historically stocked with brown trout up until 1988 and was stocked once with brook trout in 2020. Habitat seems to be favorable for brook trout in this system, and the connected stream, Cutler Creek, also manages to sustain a moderate density brook trout fishery with natural reproduction since the stocking

events in 2020-2022. Given the historical trout population, good habitat and cold temperatures, restoration stocking of brook trout should be conducted over the next three years to re-establish the population and determine if Canyon Park can maintain a fishery in the future.

Cutler Creek habitat is considered good to excellent with stream temperatures in the low to mid-50s. The substrate was excellent, with plenty of rock and gravel throughout the upper reaches. It is not surprising that the recent F1, F2 and domestic stocking events led to the natural reproduction of brook trout in this stream. Cutler Creek at site 11 contained low reproduction with moderate recruitment, adults and preferred-size fish. Brown trout were found at both sites on Cutler Creek, although in very low numbers. Both Cutler and Canyon Park creeks should be managed as brook trout waters, given the good habitat, temperatures and barrier downstream to Mill Creek. Also, considering that a barrier exists, brown trout relocations should be conducted upstream of the barrier on Cutler Creek to further enhance the brook trout population and assist in management of this species. It is also recommended that stocking of brook trout should be implemented immediately as a Priority 1 restoration stocking to actively manage this fishery and re-establish the population given its potential to harbor a higher abundance population of brook trout. Cutler Creek should also be added to the list of eligible waters in the future during the next streambank easement acquisition review cycle.

Strutt Creek contains good substrate and cold temperatures throughout. Despite being stocked as part of an experimental F1, F2, domestic stocking study in 2018-2020 by DNR fish research, no natural reproduction was observed for brook trout, likely given the competition between species and the established brown trout population. Brown trout continue to do quite well with natural reproduction, recruitment and adults captured. However, this system should be managed for brook trout, given the stream size, habitat and water quality. Therefore, brown trout relocations should be conducted above the dry dam barrier on both Strutt and Love creeks. Based on the results, Strutt Creek functions as a nursery stream with high recruitment to age-1. Only low numbers of adults were found for both brook and brown trout, suggesting the adults move downstream once they reach adulthood in search of bigger water, more habitat and forage. The Class 1 designation is appropriate for Strutt Creek, given the small size and nature of the stream, where fish utilize all available habitat during the first few years of life.

Love Creek historically contained a mixed population of brook and brown trout, though it is currently dominated by brown trout. This stream has ample habitat with plenty of streamflow and cold temperatures ranging from 49 degrees Fahrenheit in the headwaters to 62 degrees Fahrenheit at Dugway Road. As mentioned, brown trout are the dominant species with low natural reproduction observed downstream of the confluence with Strutt Creek. High recruitment was observed at site 18, exhibiting 875 age-1 brown trout per mile. Even with moderate numbers of adults in the middle reaches of Love Creek, no preferred-size brown trout were surveyed, suggesting that

these fish may also be moving downstream to Mill Creek in search of bigger water and more forage opportunities. Although numbers of brown trout are high in Love Creek, this stream is an excellent candidate for brown trout relocations and should be pursued to actively manage brook trout above the dry dam barrier. Given the current status, Love and Strutt creeks should be managed for brook trout going forward as these streams are Class 1 tributaries functioning as nursery streams contributing to the classified reaches of Mill Creek.

Upper Trout Creek contains segments of streams classified as both Class 1 and Class 2 trout water. The Class 2 reaches are located from Birch Lake downstream to the Trout Creek Fishery Area upstream of the Arneson Creek confluence (Figure 1). The Class 1 water extends from this location downstream to the dry dam. Brook trout were found in low numbers throughout, with the highest abundance found at site 29 with 53 adults per mile captured. Brown trout were found in greater numbers, with high reproduction at sites 24 and 28. Recruitment to age-1 and adults were low to moderate at these sites as well. Historically, brook trout were abundant in Upper Trout Creek but, with brown trout encroachment, have almost been entirely removed from the landscape. Upper Trout Creek is still an excellent candidate for brook trout restoration due to the number of springs located throughout this reach and the dry dam that functions as a barrier to fish movement upstream. Therefore, a brown trout relocation project should be initiated to remove brown trout and begin restoring the brook trout population upstream of the dry dam.

Lower Trout Creek is entirely classified as Class 1 trout water. Given that brown trout are established below the dry dam, these lower reaches will continue to be managed for brown trout into the future. Additionally, one major limitation for fish in Trout Creek is in-stream habitat. Trout Creek has high, eroded banks that contribute to deposition along the streambed and transportation of sediment downstream. To support the habitat and alleviate some of these issues, a large-scale habitat restoration and bank sloping project should be implemented along stream reaches throughout the Trout Creek Fishery Area.

Mill Creek contains 10.4 miles of Class 2 trout water in the upper reaches, with four contributing classified waters that help maintain this status. Overall, Mill Creek is larger water with ample flow, fair to good habitat and temperatures in the mid-60s throughout surveyed reaches. Reproduction of brown trout was not observed in any of the sites and only low numbers of age-1 and adult fish were encountered. No brook trout were observed in Mill Creek during this assessment. Mill Creek can be considered marginal trout water throughout its classified reaches. Without contributing waters helping to maintain cool temperatures, Mill Creek would not likely harbor the current low-abundance population. It is possible that Mill Creek contains trout in reaches that are currently unclassified. However, due to the lower portions of Mill Creek being non-wadable, surveys are unable to be conducted throughout those stream reaches. No changes to the management of the classified waters of Mill Creek are suggested at this time.

Lowery Creek was recently classified as Class 1 trout water on Jan. 1, 2021 due to the abundant and productive brook trout fishery. In fact, Lowery Creek is used as a broodstock source for the DNR's wild trout stocking program. Hatchery staff collect brook trout eggs on a rotation to supply the hatcheries with brook trout genetically native to the lower Wisconsin River basin. This is one of the major reasons why the current special regulation restricting the harvest of brook trout exists. During the watershed assessment in 2023, habitat in Lowery Creek was considered good, with temperatures consistent in the upper 50s and low 60s. Brook trout reproduction was found in moderate abundance, with high recruitment and adults present at site 41 upstream of CTH Z. Only a few brown trout were found in the lowermost reaches of Lowery Creek at CTH TZ. Sedimentation continues to be one of the major limitations for trout in Lowery Creek. Over the recent years, beavers have become more abundant within this watershed. This has led to habitat degradation and increased sediment transport as well as buildup along the substrate in many reaches that used to be free of sediment with exposed gravel, an important habitat feature necessary for successful reproduction. Beaver management, streambank stabilization and sediment reduction should be a focus for landowners throughout this watershed. Streambank easement outreach is currently a high priority along these waters, and as the DNR acquires more streambank easements along Lowery Creek, habitat management will be a top priority for the continued success of the brook trout population. Regulation changes on the unnamed tributaries to Lowery Creek will also be pursued to better manage and conserve brook trout within these waters.

Rush Creek is surrounded entirely by private lands with public access only located at road-stream crossings. This stream has excellent habitat in the upper reaches with cold temperatures and transitions to fair habitat in the lower reaches dominated by silt and sand. Natural reproduction was found in the upper two sites, with age-1 and adult fish in high abundance. Along the lower sites, natural reproduction was absent, yet low numbers of yearling fish and low to moderate abundances of adults. Due to the lack of public access and natural reproduction in the upper reaches, stocking is not a common practice in Rush Creek and will not be pursued unless changes in the population occur or public access is acquired.

Thirteen trout potential sites were surveyed during this watershed assessment in 2023 (Figure 1). Of these potential sites surveyed, the only streams where brown trout were captured included Unnamed Tributary 4 to Mill Creek, Ryan Creek, Meudt Creek, Arneson Creek and Sneed Creek. Unnamed Tributary to Mill Creek contained 27 age-0 trout per mile. Ryan and Meudt creeks both contained multiple year classes. Ryan Creek contained 22 age-0, 11 age-1 and 32 adults per mile, while Meudt Creek contained 11 age-0, 32 age-1 and 11 adults per mile. Arneson Creek produced 11 age-0 and 22 age-1 brown trout per mile, while Sneed Creek produced 11 age-1 trout per mile. Even though a few of these streams contained multiple age classes, numbers were very low and below what would be considered a nursery stream or deemed to contain a fishable population of trout. These streams likely hold trout occasionally,

but don’t produce consistent year classes or harbor fish year to year and should not be considered for reclassification.

MANAGEMENT RECOMMENDATIONS

1) **GOAL:** Acquire more streambank easements (SBE) to provide access for fishing.
   OBJECTIVE: Acquire 2 miles of additional streambank easements along Lowery and Trout creeks over the next six years. Add Cutler Creek to list of eligible streams for acquisition.
   STRATEGY: Continue landowner outreach through postcard mailings and landowner contacts.
2) **GOAL:** Improve in-stream habitat and streambanks along Trout Creek.
   OBJECTIVE: Improve 3.5 miles of streambank and in stream habitat by 2034.
   STRATEGY: Initiate habitat improvement project along Upper and Lower Trout Creek above and below the dry dam on fishery area lands. Evaluate and schedule future follow-up tree plantings.
3) **GOAL:** Increase abundance of brook trout in Upper Trout Creek.
   OBJECTIVE: Increase adult abundance to >80 fish per mile of adult brook trout.
   STRATEGY: Conduct brown trout relocation project and habitat improvement project on Trout Creek upstream of the dry dam barrier.
4) **GOAL:** Increase abundance of brown trout in Lower Trout Creek.
   OBJECTIVE: Increase adult abundance to >330 fish per mile of adult brown trout.
   STRATEGY: Initiate habitat improvement project along 2 miles of Lower Trout Creek within the fishery area property.
5) **GOAL:** Manage for brook trout in Unnamed Tributary 1 and Unnamed Tributary 2 to Lowery Creek.
   OBJECTIVE: Maintain and protect current population of brook trout.
   STRATEGY: Implement special regulation allowing harvest of five trout in total, but brook trout must be immediately released, and brown and rainbow trout have no minimum length. This special regulation will conform to the special regulation already in place on Lowery Creek.

ADDITIONAL MANAGEMENT RECOMMENDATIONS

- Initiate three-year restoration stocking of brook trout in Canyon Park Creek and Cutler Creek.
- Initiate brown trout relocations on Cutler, Canyon Park, Love/Strutt and Trout creeks above the dry dam barriers.

References

Hanson, Todd. 2015. Map Guide to Improved Trout Waters of Wisconsin. 136p. Where am I Publications, Inc. Madison, Wisconsin.

Ripp, C.W., Koperski, C., and J. Folstad. 2002. The State of the Lower Wisconsin River Basin. 459pp. Wisconsin Department of Natural Resources, Madison, Wisconsin. PUBL WT-559-2002.

Simonson, T. 2015. Surveys and Investigations – Inland Fisheries Surveys. Fish Management Handbook Chapter 510, Wisconsin Department of Natural Resources internal publication. Madison, Wisconsin.

Stroud Water Research Center. 2021. Model My Watershed. https://modelmywatershed.org/. (December 2021).

Wisconsin Department of Natural Resources. 2013. Regional and property analysis for the development of a master plan for Department of Natural Resources' properties along trout and Smallmouth Bass streams in the Driftless Area. Wisconsin Department of Natural Resources internal publication LF-071. Madison, Wisconsin.

Table 1. Summary of DNR stocking within the Trout and Mill Creek watersheds from 2018-2022.

STREAM	SPECIES	AGE CLASS	2018	2019	2020	2021	2022
CANYON PARK CREEK	Brook Trout	Large Fingerling			250		
CUTLER CREEK	Brook Trout	Large Fingerling			1500	1520	1520
STRUTT CREEK	Brook Trout	Large Fingerling	1502	1513	1500		
TROUT CREEK	Brook Trout	Adult (Broodstock)	30	30	30	30	30
		Large Fingerling					1035
	Brown Trout	Adult (Broodstock)				200	

Table 2. Watershed and land cover statistics in the Mill and Rush Creek watersheds.

Mill/Trout

LAND COVER	PERCENT OF WATERSHED
Forest	55
Cultivated Crops	15
Pasture/hay	20
Other	10

Rush/Lowery

LAND COVER	PERCENT OF WATERSHED
Forest	65
Cultivated Crops	12
Pasture/hay	17
Other	6

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 PERCENTILES			DRIFTLESS PERCENTILES		
	35TH	**MEDIAN**	**65TH**	**35TH**	**MEDIAN**	**65TH**
Brown						
<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
Brook						
<4 inches	72.4	145.3	241.4	68.6	128.7	209.2
4 to 7 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. Sampling locations by stream and station.

STREAM	STATION NAME	STATION NUMBER	SAMPLING DATE	LAT.	LONG.
Canyon Park Creek	Canyon Park Creek DS of Unnamed (1245400) Stream	43	6/28/2023	43.9997603	-90.0406945
Canyon Park Creek	Canyon Park St.1,15ft Up From Bridge On Friendship Camp	44	6/21/2023	43.0062358	-90.0445565
Cutler Creek	Cutler Cr at CTH Y	11	7/7/2023	43.0062167	-90.0626212
Cutler Creek	Cutler Cr US Dry Dam	10	7/7/2023	43.01272	-90.04173
Unnamed Tributary 1 To Mill Creek	Unnamed Trib (WBIC 1244700) to Mill Cr at Rosy Ln	12	6/22/2023	43.02105	-90.01908
Meudt Creek	Meudt Creek US Sawle Rd	13	6/13/2023	43.0439242	-90.025065
Strutt Creek	Strutt Cr Us Fishery Area Parking Lot	14	6/8/2023	43.0304915	-89.9966917
Strutt Creek	Strutt Creek at confluence of Love Creek	15	6/8/2023	43.0350368	-89.9963563
Love Creek	Love Creek - 800m US confluence with Strutt creek	17	6/8/2023	43.03374	-89.98901
Love Creek	Love Creek 150m DS of confluence with Strutt Creek	18	6/8/2023	43.0361148	-89.997038
Love Creek	Love Creek at Dugway Rd	16	6/8/2023	43.0426227	-90.0010112
Unnamed Tributary 2 To Mill Creek	Unnamed Trib (WBIC 1244300) to Mill Cr at Knobbs Rd	19	7/25/2023	43.052421	-90.0083983
Hubbard Creek	Hubbard Creek US CTH H	20	7/10/2023	43.0672333	-89.9854302
Unnamed Tributary To Trout Creek	Unnamed Trib (WBIC 1243800) to Trout Cr US confluence	25	7/10/2023	43.0332088	-89.9387068
Arneson Creek	Arneson Cr US CTH T	22	7/5/2023	43.0469847	-89.9435092
Duesler Creek	Duesler Creek US CTH T	45	7/6/2023	43.0619668	-89.9490088
Irish Creek	Irish Hollow US Trout Cr Confluence	23	7/6/2023	43.0668388	-89.9666033
Trout Creek	Trout Creek S of CTH T past field edge	30	7/10/2023	43.0217718	-89.9225767
Trout Creek	Trout Creek Wildlife Parking Lot	29	6/29/2023	43.0273797	-89.9285047
Trout Creek	Trout Cr at Oak Rd	21	7/10/2023	43.035928	-89.9405772
Trout Creek	Trout Cr US Arneson Cr confluence	24	6/29/2023	43.0479303	-89.9467543
Trout Creek	Trout Cr opposite A-Frame house .4 Mi South of DNR parking Lot Entrance Along CTH T	28	6/29/2023	43.054021	-89.9471008
Trout Creek	Trout Cr 350m DS of CTH T (below Dry Dam)	27	6/29/2023	43.067305	-89.95561

Table 4 continued.

STREAM	STATION NAME	STATION NUMBER	SAMPLING DATE	LAT.	LONG.
Trout Creek	Trout Cr at Mill Dam Rd	26	6/29/2023	43.07097	-89.96807
Trout Creek	Trout Cr US Mill Cr confluence	31	7/13/2023	43.0769702	-89.973581
Unnamed Tributary 3 To Mill Creek	Unnamed Trib (WBIC 1243000) US of Private Driveway off CTH T	32	7/10/2023	43.08826	-89.98457
Unnamed Tributary 4 To Mill Creek	Unnamed Trib (WBIC 1242900) of Mill Cr US CTH H	1	6/13/2023	43.0946645	-89.9641213
Unnamed Tributary 5 To Mill Creek	Unnamed Trib (WBIC 1242800) of Mill Cr DS Amacher Hollow Rd	2	7/10/2023	43.110532	-89.9852797
White Hollow Creek	White Hollow Cr. US of CTH HH	3	6/21/2023	43.1130847	-89.9342875
Ryan Creek	Ryan Creek US CTH H	4	6/21/2023	43.1231	-89.9509
Mill Creek	Mill Creek - Cth Z	5	7/6/2023	43.0232518	-90.0782903
Mill Creek	Mill Creek - Ridge View Rd Bridge	6	7/6/2023	43.0155772	-90.0349537
Mill Creek	Mill Creek CTY Y bridge	7	6/22/2023	43.0406353	-90.0147348
Mill Creek	Mill Cr ~1000M DS Love Cr confluence	8	7/27/2023	43.0485325	-89.99565
Unnamed Tributary	Unnamed Trib to Lowery Cr (WBIC 1241800)(Cates Farm)	9	6/6/2023	43.104315	-90.0561703
Unnamed Tributary	Unnamed Trib (WBIC 1241700) at Hillside School Rd	42	6/6/2023	43.1211672	-90.0724865
Lowery Creek	Lowery Creek at Far Look Road	40	6/6/2023	43.0859318	-90.0462622
Lowery Creek	Lowery Creek at CTH Z	41	7/17/2023	43.1137385	-90.0581012
Lowery Creek	Lowery Creek at CTH TZ	39	7/17/2023	43.133282	-90.064529
Sneed Creek	Sneed Cr at Lake View Rd.	38	7/13/2023	43.09504	90.16299
Rush Creek	Rush Creek US Weaver Rd	36	6/19/2023	43.0838175	-90.1032372
Rush Creek	Rush Creek US of Upper Wyoming Rd	37	6/19/2023	43.0976812	-90.1007432
Rush Creek	Rush Creek at Hwy. 23 bridge	35	6/19/2023	43.12572	-90.1112565
Rush Creek	Rush Cr at Lower Wyoming Rd	34	6/19/2023	43.1328587	-90.1187387
Rush Creek	Rush Cr US Rush Cr Rd	33	6/19/2023	43.1468672	-90.137133

Table 5. Station metrics for all sites surveyed.

STATION NAME	HABITAT RATING	TROUT CLASS	GEAR	STATION LENGTH (MI)	MEAN STREAM WIDTH (M)	FLOW (CFS)	STREAM TEMP (°F)
Canyon Park Creek DS of Unnamed (1245400) Stream	Fair	2	Backpack	0.06	2.1	1.77	61.4
Canyon Park St.1,15ft Up From Bridge On Friendship Camp	Excellent	2	Backpack	0.06	1.9	3.53	58.4
Cutler Cr at CTH Y	Excellent	2	Backpack	0.07	2.3	2.12	51
Cutler Cr US Dry Dam	Good	2	Backpack	0.07	3.2	3.53	56.1
Unnamed Trib (WBIC 1244700) to Mill Cr at Rosy Ln	Excellent	2	Backpack	0.07	2.1	1.41	65.2
Meudt Creek US Sawle Rd.	Excellent	Unclassified	Backpack	0.10	1.1	1.41	53.9
Strutt Cr Us Fishery Area Parking Lot	Good	1	Backpack	0.07	1.9	1.06	51.4
Strutt Creek at confluence of Love Creek	Good	1	Backpack	0.07	1.5	2.47	55
Love Creek - 800m US confluence with Strutt creek	Good	1	Backpack	0.08	2.1	3.18	49.7
Love Creek 150m DS of confluence with Strutt Creek	Good	1	Backpack	0.09	3.3	7.06	57
Love Creek at Dugway Rd	Good	1	Backpack	0.09	3.8	8.83	61.8
Unnamed Trib (WBIC 1244300) to Mill Cr at Knobbs Rd	Good	Unclassified	Backpack	0.07	1.3	0.71	55.4
Hubbard Creek US CTH H	Good	Unclassified	Backpack	0.06	2.5	1.06	63.3
Unnamed Trib (WBIC 1243800) to Trout Cr US confluence	Good	Unclassified	Backpack	0.07	1	NA	59.8
Arneson Cr US CTH T	Good	Unclassified	Backpack	0.09	1.7	0.71	67.6
Duesler Creek US CTH T	Good	Unclassified	Backpack	0.11	1.1	0.71	79.8
Irish Hollow US Trout Cr Confluence	Good	Unclassified	Backpack	0.07	1.2	0.35	64.1
Trout Creek S Of Cth T Past Field Edge	Good	2	Backpack	0.09	1.5	1.06	74.7
Trout Creek Wildlife Parking Lot	Good	2	Backpack	0.08	2.4	2.47	62.4
Trout Cr at Oak Rd	Good	2	Backpack	0.08	2.2	2.12	65.5
Trout Cr US Arneson Cr confluence	Good	1	Stream Shocker	0.11	3	7.06	56.1
Trout Cr opposite A-Frame house .4 Mi South of DNR parking Lot Entrance Along CTH T	Excellent	1	Stream Shocker	0.11	2.8	8.48	57.2
Trout Cr 350m DS of CTH T (below Dry Dam)	Good	1	Stream Shocker	0.22	4.3	10.24	60.4

Table 5 continued.

STATION NAME	HABITAT RATING	TROUT CLASS	GEAR	STATION LENGTH (MI)	MEAN STREAM WIDTH (M)	FLOW (CFS)	STREAM TEMP (°F)
Trout Cr at Mill Dam Rd	Fair	2	Stream Shocker	0.12	3.2	12.01	66
Trout Cr US Mill Cr confluence	Good	1	Stream Shocker	0.17	3.4	13.42	60.8
Unnamed Trib (WBIC 1243000) US of Private Driveway off CTH T	Fair	Unclassified	Backpack	0.06	1.2	0.35	68.3
Unnamed Trib (WBIC 1242900) of Mill Cr US CTH H	Fair	Unclassified	Backpack	0.07	0.8	0.35	58.6
Unnamed Trib (WBIC 1242800) of Mill Cr DS Amacher Hollow Rd	Poor	Unclassified	Backpack	0.08	0.8	NA	78.8
White Hollow Cr. US of CTH HH	Good	Unclassified	Backpack	0.07	1.5	2.12	61.3
Ryan Creek US CTH H	Good	Unclassified	Backpack	0.06	2.8	1.77	62.4
Mill Creek - CTH Z	Good	2	Stream Shocker	0.13	4.5	6.00	65.6
Mill Creek - Ridge View Rd Bridge	Good	2	Stream Shocker	0.15	5.5	12.71	62.9
Mill Creek CTY Y Bridge	Fair	2	Stream Shocker	0.16	4.7	18.01	69.6
Mill Cr ~1000M DS Love Cr confluence	Fair	Unclassified	Stream Shocker	0.19	8.1	28.96	63.1
Unnamed Trib to Lowery Cr (WBIC 1241800)(Cates Farm)	Excellent	1	Backpack	0.08	1.2	0.71	60.7
Unnamed Trib (WBIC 1241700) at Hillside School Rd	Fair	1	Backpack	0.07	1.2	0.35	64.8
Lowery Creek at Far Look Road	Good	1	Backpack	0.06	1.4	0.35	64.2
Lowery Creek at CTH Z	Good	1	Backpack	0.12	2.4	3.18	62.1
Lowery Creek at CTH TZ	Good	1	Stream Shocker	0.09	2.4	4.59	59
Sneed Creek at Lake View Rd	Good	Unclassified	Backpack	0.10	1.7	0.71	63
Rush Creek US Weaver Rd	Excellent	2	Backpack	0.08	2.5	2.47	53.4
Rush Creek Us Of Upper Wyoming Rd	Good	2	Backpack	0.09	3.6	5.65	59.4
Rush Creek At HWY. 23 Bridge	Good	2	Stream Shocker	0.09	4.75	26.84	61
Rush Cr at Lower Wyoming Rd	Fair	2	Stream Shocker	0.09	3.8	8.83	64.4
Rush Cr US Rush Cr Rd	Fair	2	Stream Shocker	0.09	3.6	8.83	69.4

Table 6. Brown trout CPUE by stream and station.

STATION NAME	STATION NUMBER	CPUE (FISH/MILE)	BROWN <4"	BROWN 4-7.9"	BROWN ≥8"	BROWN ≥12"
Canyon Park Creek DS of Unnamed (1245400) Stream	43		0.0	0.0	0.0	0.0
Canyon Park St.1,15ft Up From Bridge On Friendship Camp	44		0.0	0.0	0.0	0.0
Cutler Cr at CTH Y	11		27.0	0.0	0.0	0.0
Cutler Cr US Dry Dam	10		0.0	13.5	27.0	0.0
Unnamed Trib (WBIC 1244700) to Mill Cr at Rosy Ln	12		616.4	68.5	0.0	0.0
Meudt Creek US Sawle Rd.	13		10.6	31.9	10.6	0.0
Strutt Cr Us Fishery Area Parking Lot	14		0.0	220.6	14.7	0.0
Strutt Creek at confluence of Love Creek	15		58.0	492.8	58.0	0.0
Love Creek - 800m US confluence with Strutt creek	17		0.0	148.1	74.1	0.0
Love Creek 150m DS of confluence with Strutt Creek	18		68.2	875.0	159.1	0.0
Love Creek at Dugway Rd	16		0.0	139.5	69.8	0.0
Unnamed Trib (WBIC 1244300) to Mill Cr at Knobbs Rd	19		0.0	0.0	0.0	0.0
Hubbard Creek US CTH H	20		0.0	0.0	0.0	0.0
Unnamed trib (WBIC 1243800) to Trout Cr US confluence	25		0.0	0.0	0.0	0.0
Arneson Cr US CTH T	22		11.0	22.0	0.0	0.0
Duesler Creek US CTH T	45		0.0	0.0	0.0	0.0
Irish Hollow US Trout Cr Confluence	23		0.0	0.0	0.0	0.0
Trout Creek S Of CTH T Past Field Edge	30		0.0	0.0	0.0	0.0
Trout Creek Wildlife Parking Lot	29		0.0	40.0	13.3	0.0
Trout Cr at Oak Rd	21		53.3	13.3	0.0	0.0
Trout Cr US Arneson Cr confluence	24		284.4	211.0	100.9	18.3
Trout Cr opposite A-Frame house .4 Mi South of DNR parking Lot Entrance Along CTH T	28		261.3	108.1	171.2	18.0
Trout Cr 350m DS of CTH T (below Dry Dam)	27		285.7	125.0	75.9	4.5
Trout Cr at Mill Dam Rd	26		17.2	86.2	181.0	17.2
Trout Cr US Mill Cr confluence	31		0.0	35.7	53.6	11.9

Table 6 continued.

STATION NAME	STATION NUMBER	CPUE (FISH/MILE)	BROWN <4”	BROWN 4-7.9”	BROWN ≥8”	BROWN ≥12”
Unnamed Trib (WBIC 1243000) US of Private Driveway off CTH T	32		0.0	0.0	0.0	0.0
Unnamed Trib (WBIC 1242900) of Mill Cr US CTH H	1		27.0	0.0	0.0	0.0
Unnamed Trib (WBIC 1242800) of Mill Cr DS Amacher Hollow Rd	2		0.0	0.0	0.0	0.0
White Hollow Cr. US of CTH HH	3		0.0	0.0	0.0	0.0
Ryan Creek US CTH H	4		21.5	10.8	32.3	0.0
Mill Creek - CTH Z	5		0.0	0.0	0.0	0.0
Mill Creek - Ridge View Rd Bridge	6		0.0	32.5	58.4	32.5
Mill Creek CTY Y Bridge	7		0.0	25.3	63.3	31.6
Mill Cr ~1000M DS Love Cr confluence	8		0.0	31.1	25.9	20.7
Unnamed Trib to Lowery Cr (WBIC 1241800)(Cates Farm)	9		0.0	0.0	0.0	0.0
Unnamed Trib (WBIC 1241700) at Hillside School Rd	42		0.0	0.0	0.0	0.0
Lowery Creek at Far Look Road	40		0.0	0.0	0.0	0.0
Lowery Creek at CTH Z	41		0.0	0.0	0.0	0.0
Lowery Creek at CTH TZ	39		0.0	0.0	11.6	11.6
Sneed Creek at Lake View Rd	38		0.0	10.5	0.0	0.0
Rush Creek US Weaver Rd	36		108.4	879.5	228.9	0.0
Rush Creek US Of Upper Wyoming Rd	37		131.9	417.6	241.8	33.0
Rush Creek At HWY 23 Bridge	35		0.0	44.9	314.6	56.2
Rush Cr at Lower Wyoming Rd	34		0.0	10.9	206.5	65.2
Rush Cr US Rush Cr Rd	33		0.0	21.5	86.0	21.5

Table 7. Brook trout CPUE by stream and station.

STATION NAME	STATION NUMBER	CPUE (FISH/MILE)	BROOK <4”	BROOK 4-6.9”	BROOK ≥7”	BROOK ≥10”
Canyon Park Creek DS of Unnamed (1245400) Stream	43		0.0	0.0	0.0	0.0
Canyon Park St.1,15ft Up From Bridge On Friendship Camp	44		0.0	0.0	0.0	0.0
Cutler Cr at CTH Y	11		54.1	94.6	67.6	13.5
Cutler Cr US Dry Dam	10		0.0	0.0	0.0	0.0
Unnamed Trib (WBIC 1244700) to Mill Cr at Rosy Ln	12		0.0	0.0	0.0	0.0
Meudt Creek US Sawle Rd.	13		0.0	0.0	0.0	0.0
Strutt Cr US Fishery Area Parking Lot	14		0.0	102.9	14.7	0.0
Strutt Creek at confluence of Love Creek	15		0.0	0.0	0.0	0.0
Love Creek - 800m US confluence with Strutt creek	17		0.0	0.0	0.0	0.0
Love Creek 150m DS of confluence with Strutt Creek	18		0.0	0.0	11.4	0.0
Love Creek at Dugway Rd	16		0.0	0.0	0.0	0.0
Unnamed Trib (WBIC 1244300) to Mill Cr at Knobbs Rd	19		0.0	0.0	0.0	0.0
Hubbard Creek US CTH H	20		0.0	0.0	0.0	0.0
Unnamed trib (WBIC 1243800) to Trout Cr US confluence	25		0.0	0.0	0.0	0.0
Arneson Cr US CTH T	22		0.0	0.0	0.0	0.0
Duesler Creek US CTH T	45		0.0	0.0	0.0	0.0
Irish Hollow US Trout Cr Confluence	23		0.0	0.0	0.0	0.0
Trout Creek S Of Cth T Past Field Edge	30		0.0	0.0	0.0	0.0
Trout Creek Wildlife Parking Lot	29		13.3	0.0	53.3	13.3
Trout Cr at Oak Rd	21		0.0	0.0	0.0	0.0
Trout Cr US Arneson Cr confluence	24		0.0	0.0	0.0	0.0
Trout Cr opposite A-Frame house .4 Mi South of DNR parking Lot Entrance Along CTH T	28		0.0	0.0	0.0	0.0
Trout Cr 350m DS of CTH T (below Dry Dam)	27		0.0	4.5	8.9	0.0
Trout Cr at Mill Dam Rd	26		0.0	0.0	25.9	8.6
Trout Cr US Mill Cr confluence	31		0.0	0.0	0.0	0.0

Table 7 continued.

STATION NAME	STATION NUMBER	CPUE (FISH/MILE)	BROOK <4”	BROOK 4-6.9”	BROOK ≥7”	BROOK ≥10”
Unnamed Trib (WBIC 1243000) US of Private Driveway off CTH T	32		0.0	0.0	0.0	0.0
Unnamed Trib (WBIC 1242900) of Mill Cr US CTH H	1		0.0	0.0	0.0	0.0
Unnamed Trib (WBIC 1242800) of Mill Cr DS Amacher Hollow Rd	2		0.0	0.0	0.0	0.0
White Hollow Cr. US of CTH HH	3		0.0	0.0	0.0	0.0
Ryan Creek US CTH H	4		0.0	0.0	0.0	0.0
Mill Creek - CTH Z	5		0.0	0.0	0.0	0.0
Mill Creek - Ridge View Rd Bridge	6		0.0	0.0	0.0	0.0
Mill Creek CTY Y Bridge	7		0.0	0.0	0.0	0.0
Mill Cr ~1000M DS Love Cr confluence	8		0.0	0.0	0.0	0.0
Unnamed Trib to Lowery Cr (WBIC 1241800)(Cates Farm)	9		387.5	37.5	0.0	0.0
Unnamed trib (WBIC 1241700) at Hillside School Rd	42		0.0	0.0	0.0	0.0
Lowery Creek at Far Look Road	40		0.0	0.0	0.0	0.0
Lowery Creek at CTH Z	41		145.2	459.7	403.2	16.1
Lowery Creek at CTH TZ	39		93.0	46.5	290.7	46.5
Sneed Creek at Lake View Rd	38		0.0	0.0	0.0	0.0
Rush Creek US Weaver Rd	36		0.0	0.0	0.0	0.0
Rush Creek Us Of Upper Wyoming Rd	37		0.0	0.0	0.0	0.0
Rush Creek At HWY 23 Bridge	35		0.0	0.0	0.0	0.0
Rush Cr at Lower Wyoming Rd	34		0.0	0.0	0.0	0.0
Rush Cr US Rush Cr Rd	33		0.0	0.0	0.0	0.0

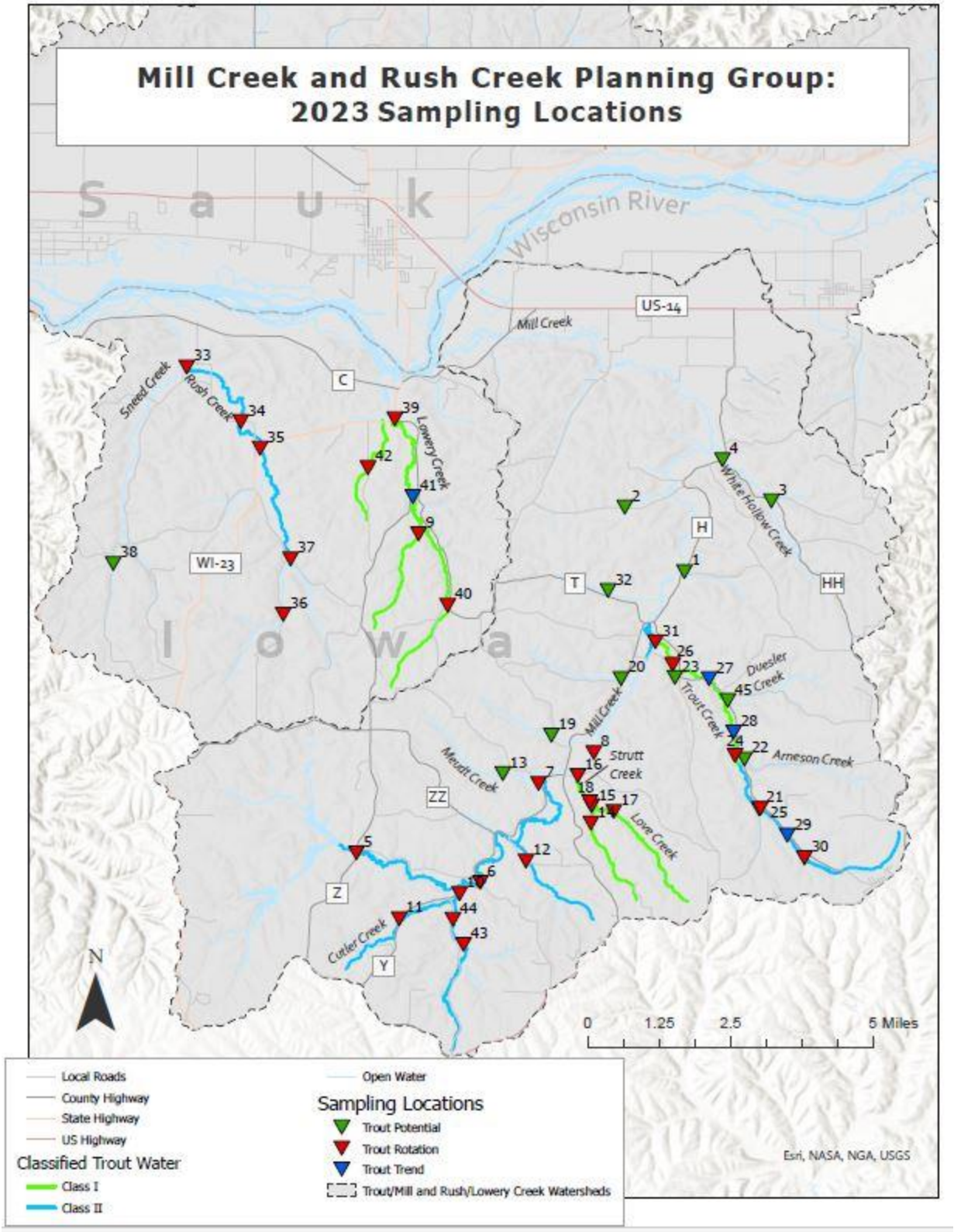

Figure 1. All sampled locations within the Mill and Rush Creek watersheds in 2023.

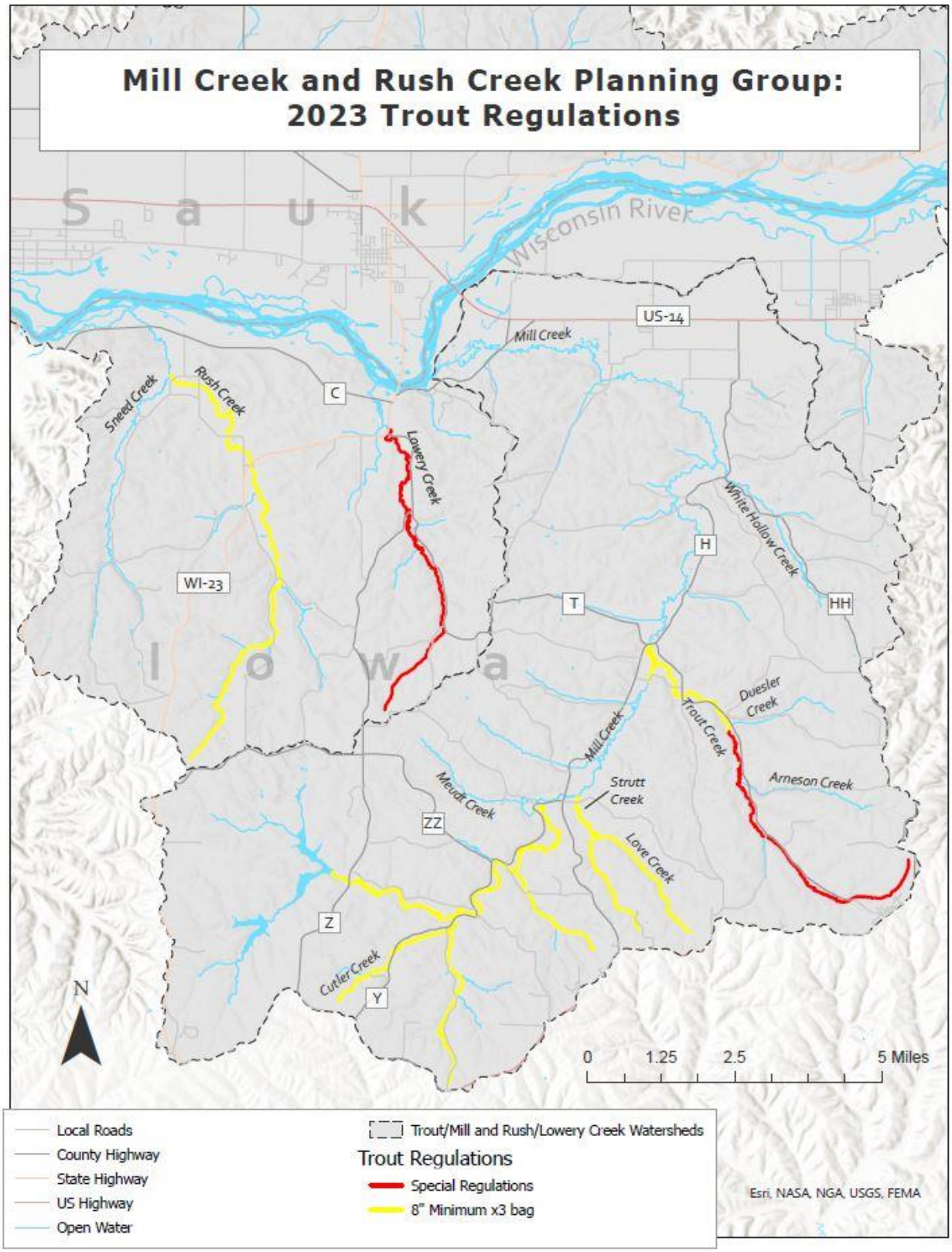

Figure 2. Trout regulation map within Mill and Rush Creek watersheds in 2023.

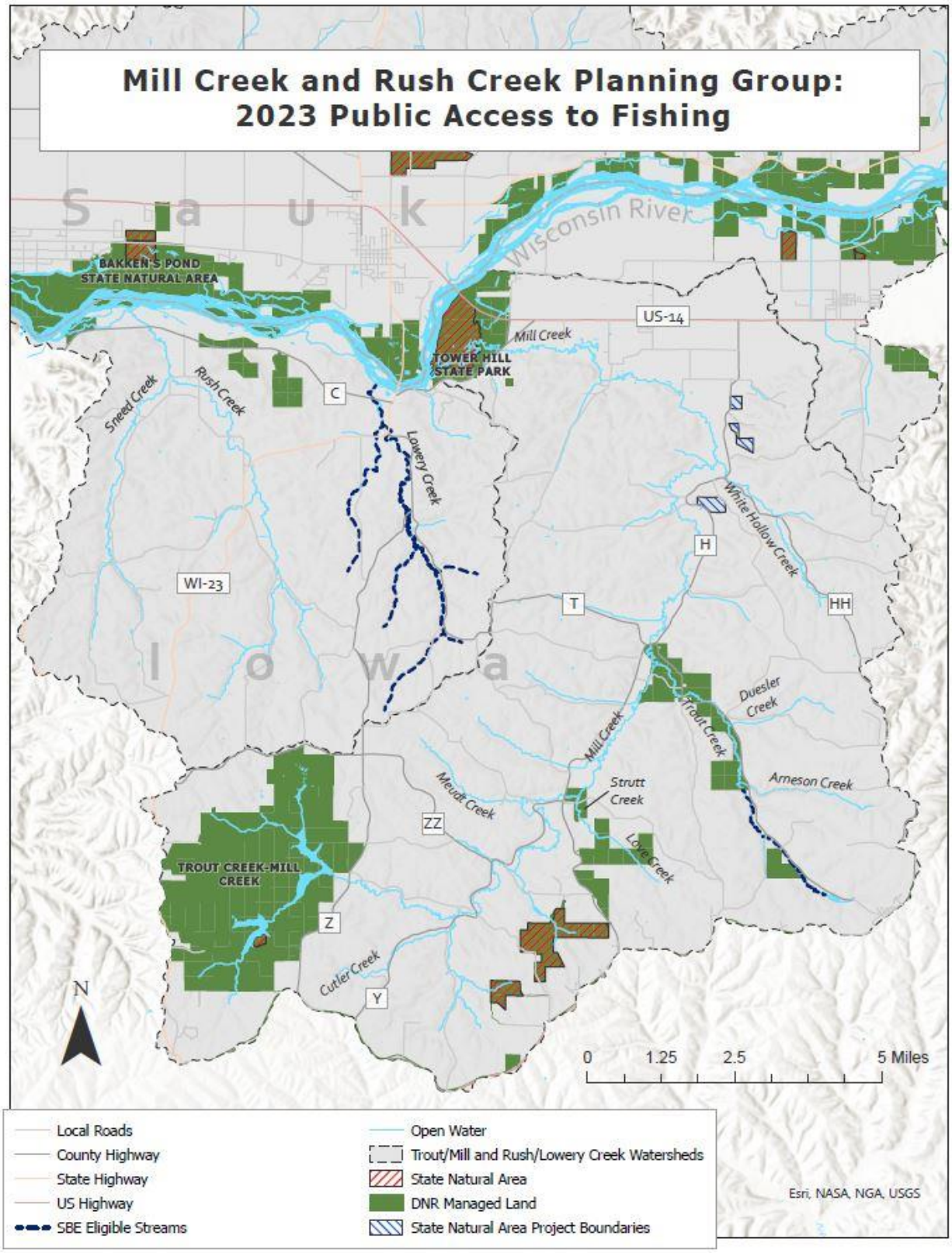

Figure 3. Current public access locations within the Mill and Rush Creek watersheds in 2023.

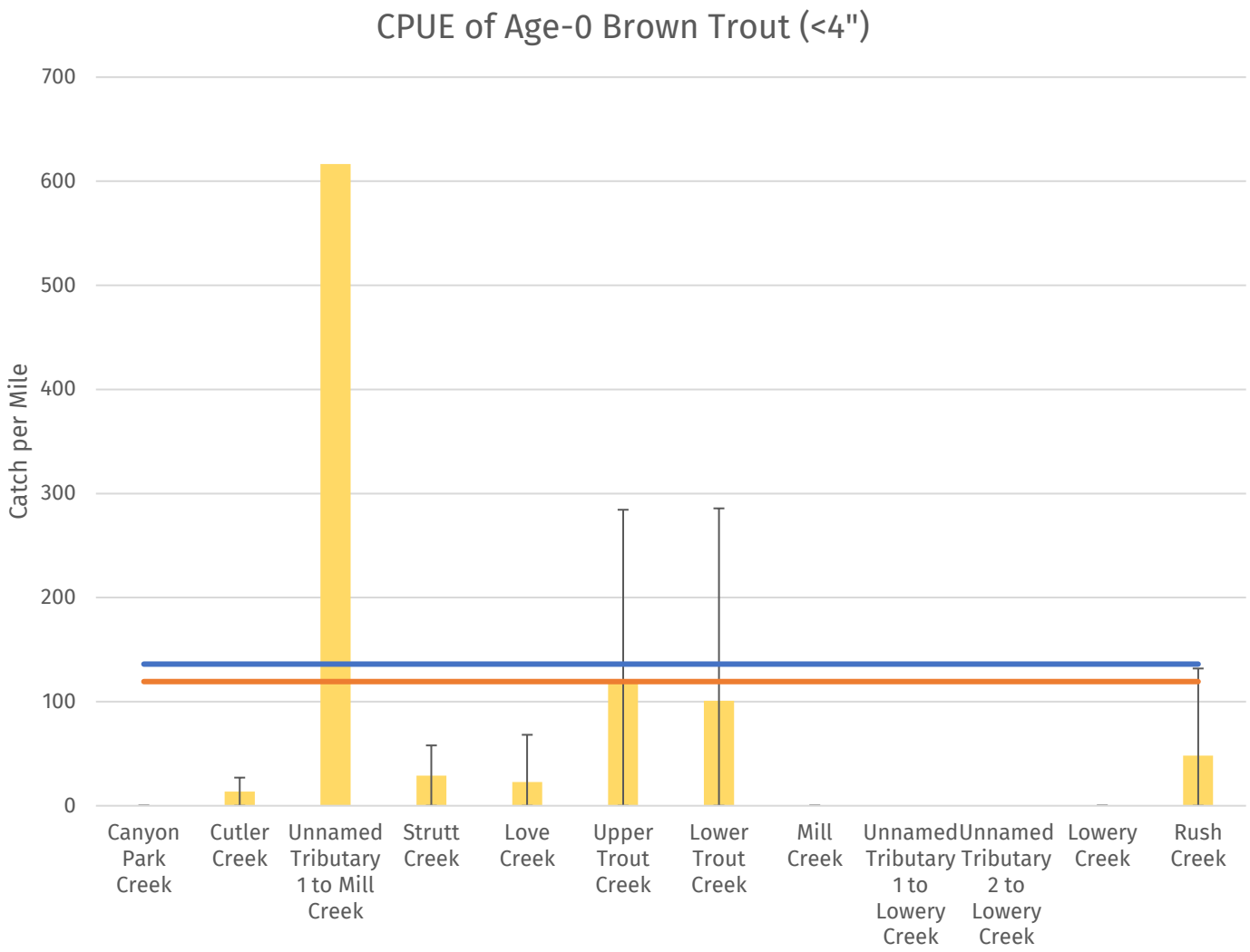

Figure 4. CPUE of age-0 brown trout on all classified trout waters surveyed in 2023. The blue line refers to the Driftless Area median of 136/mile, while the orange line refers to the statewide median of 119/mile.

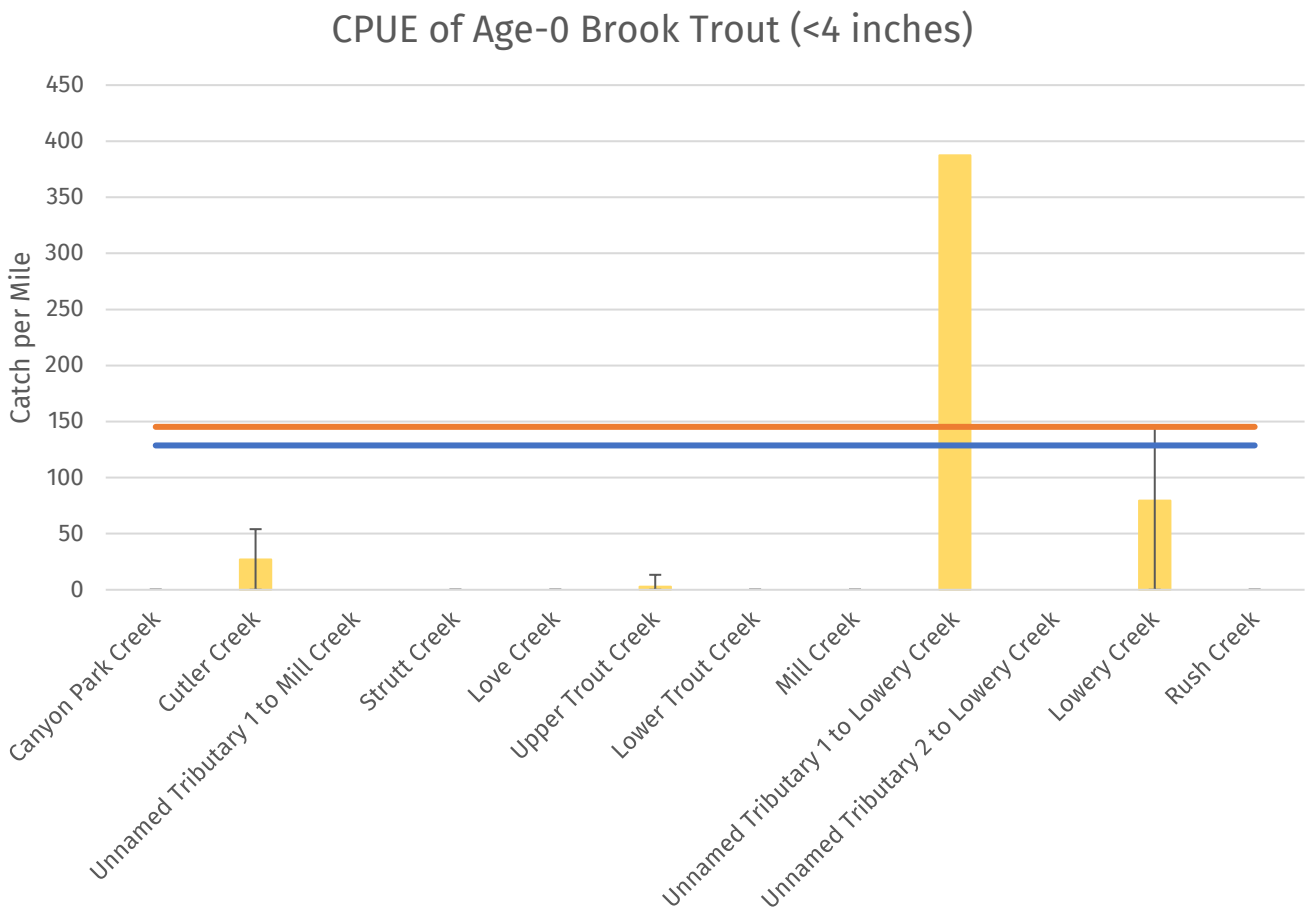

Figure 5. CPUE of age-0 brook trout on all classified trout waters surveyed in 2023. The blue line refers to the Driftless Area median of 129/mile, while the orange line refers to the statewide median of 145/mile.

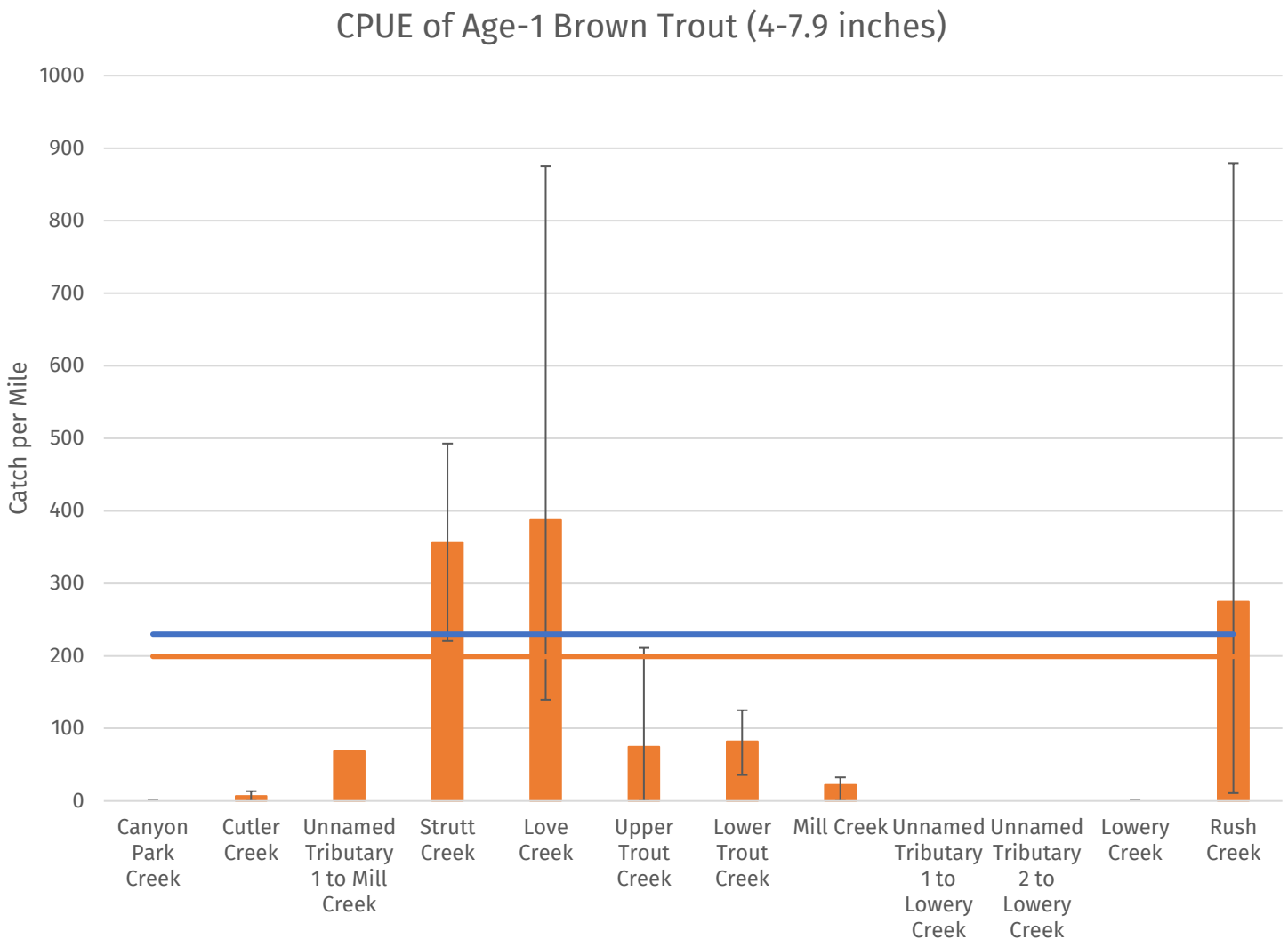

Figure 6. CPUE of yearling brown trout on all classified trout waters surveyed in 2023. The blue line refers to the Driftless Area median of 230/mile, while the orange line refers to the statewide median of 199/mile.

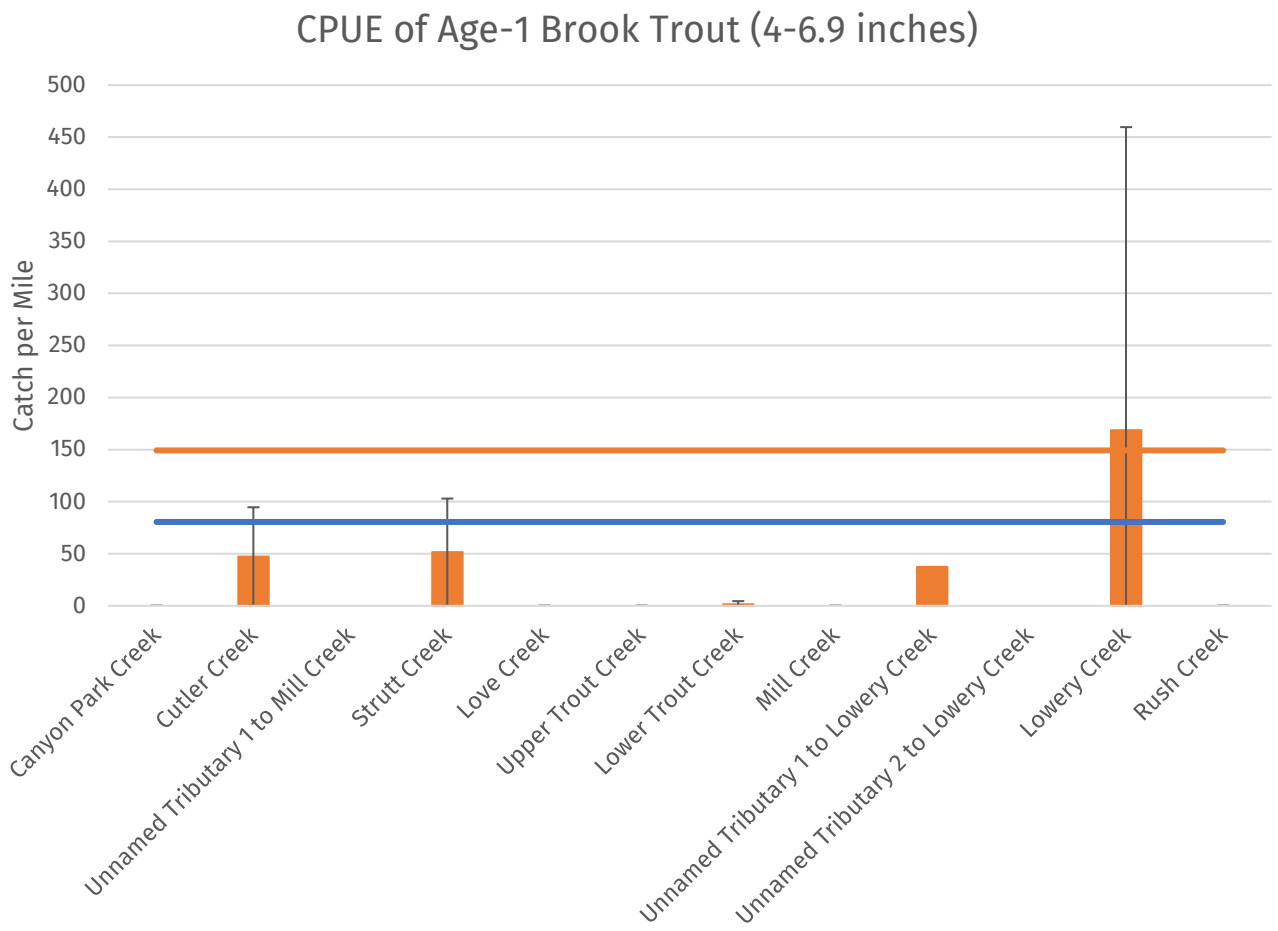

Figure 7. CPUE of yearling brook trout on all classified trout waters surveyed in 2023. The blue line refers to the Driftless Area median of 81/mile, while the orange line refers to the statewide median of 149/mile.

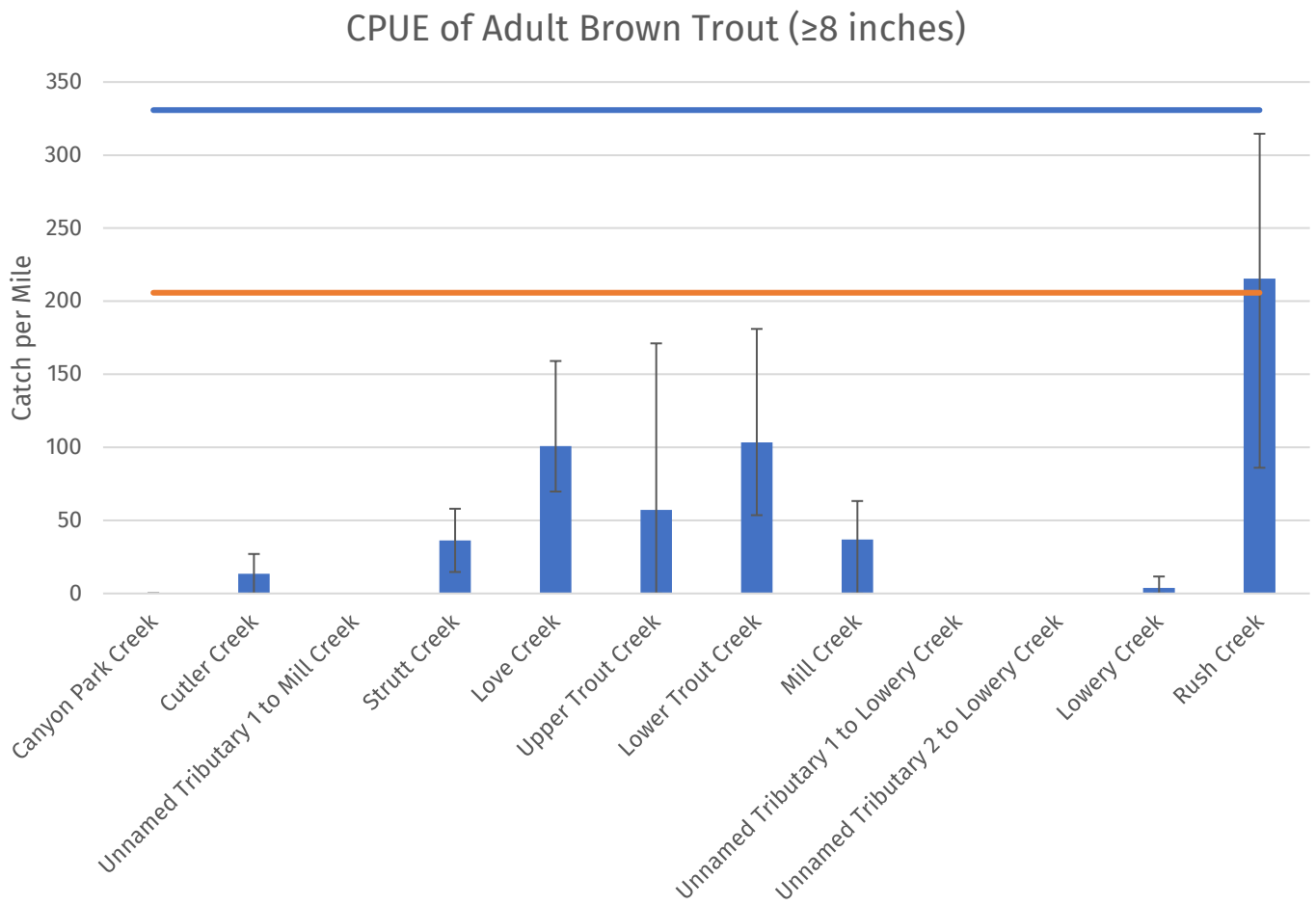

Figure 8. CPUE of adult brown trout on all classified trout waters surveyed in 2023. The blue line refers to the Driftless Area median of 331/mile, while the orange line refers to the statewide median of 206/mile.

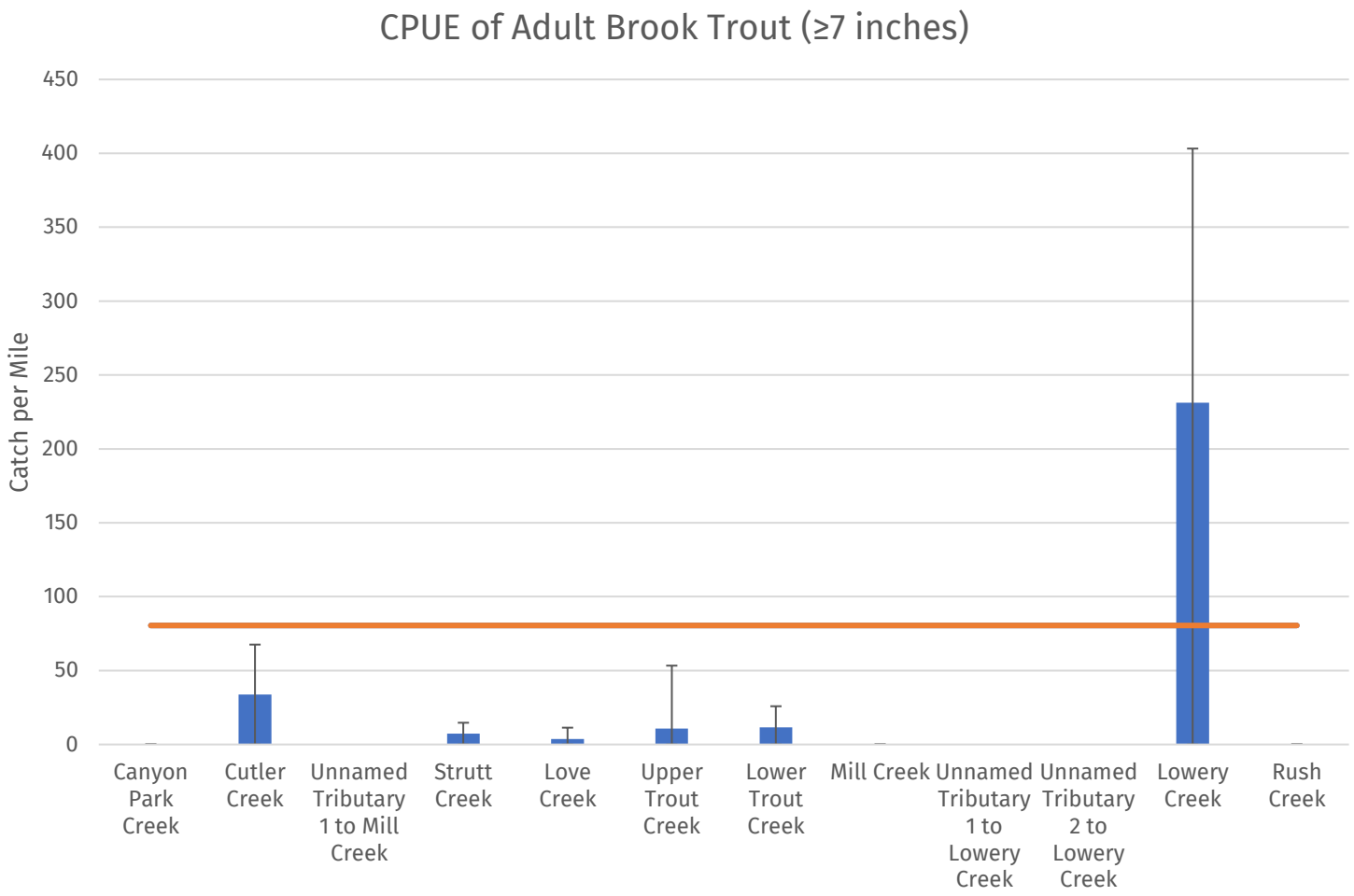

Figure 9. CPUE of adult brook trout on all classified trout waters surveyed in 2023. The orange line represents both the Driftless Area and statewide median values of 81/mile.

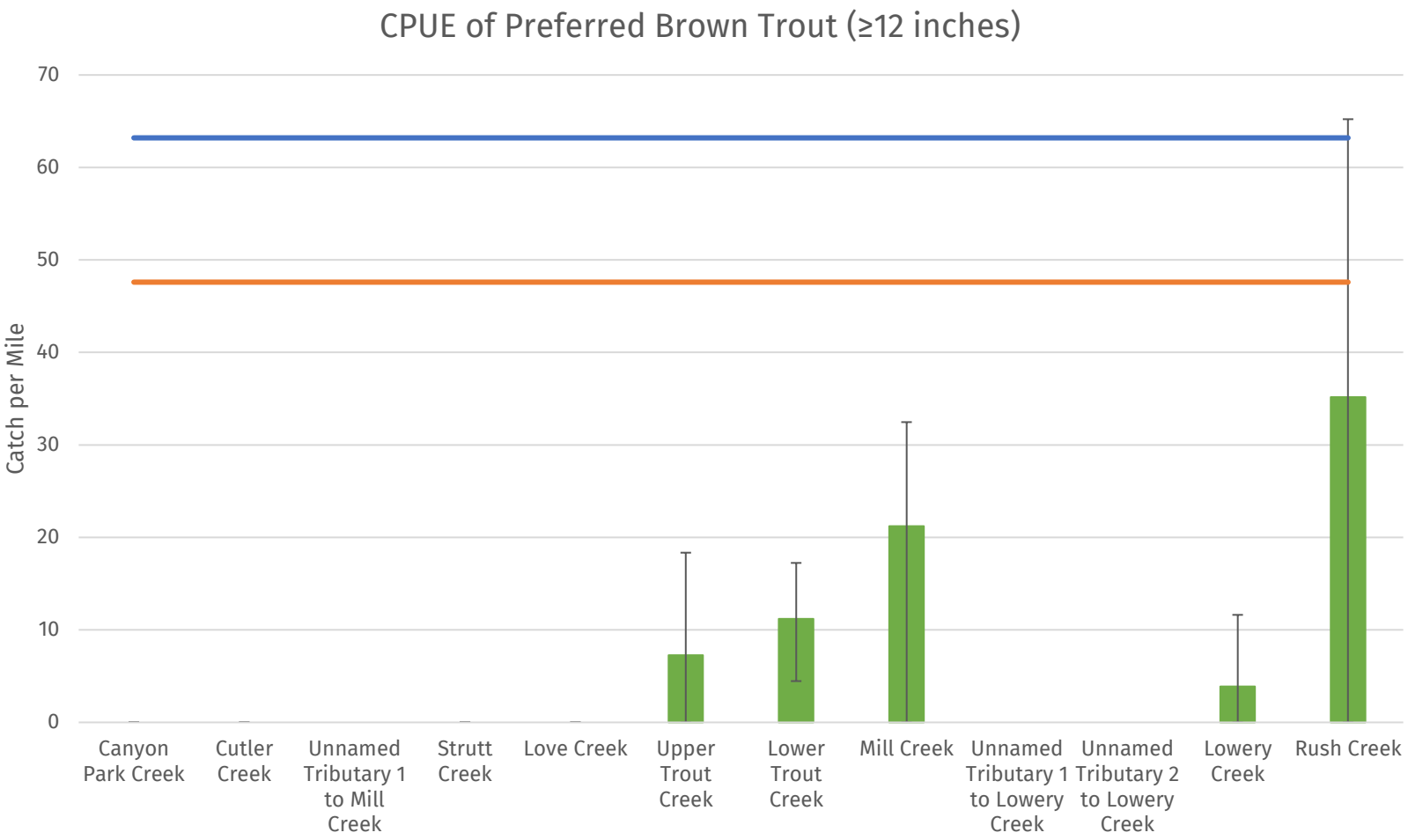

Figure 10. CPUE of preferred-size brown trout on all classified trout waters surveyed in 2023. The blue line refers to the Driftless Area median of 63/mile, while the orange line refers to the statewide median of 48/mile.

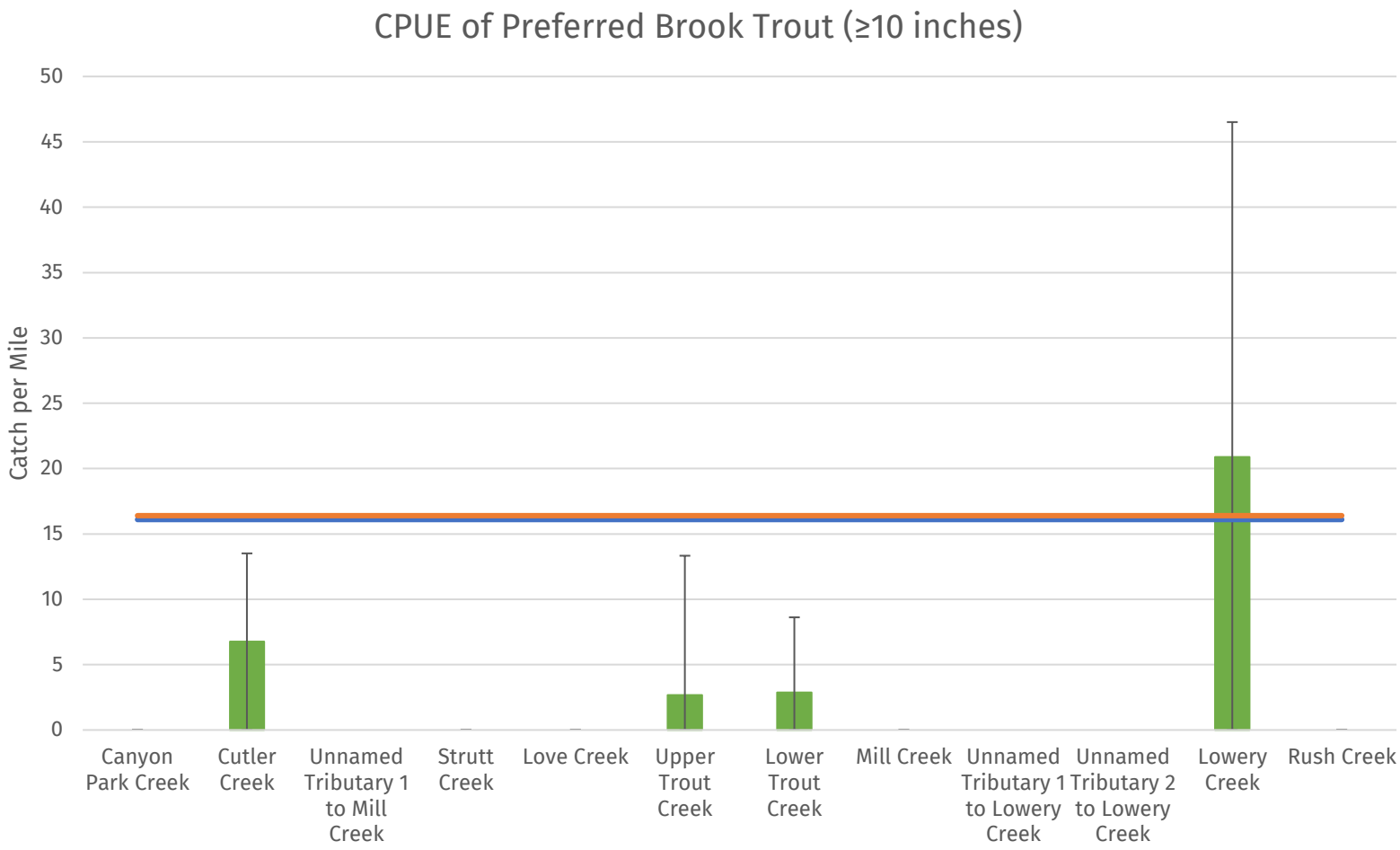

Figure 11. CPUE of preferred-size brook trout on all classified trout waters surveyed in 2023. The blue line refers to the Driftless Area median of 16/mile, while the orange line refers to the statewide median of 16/mile.

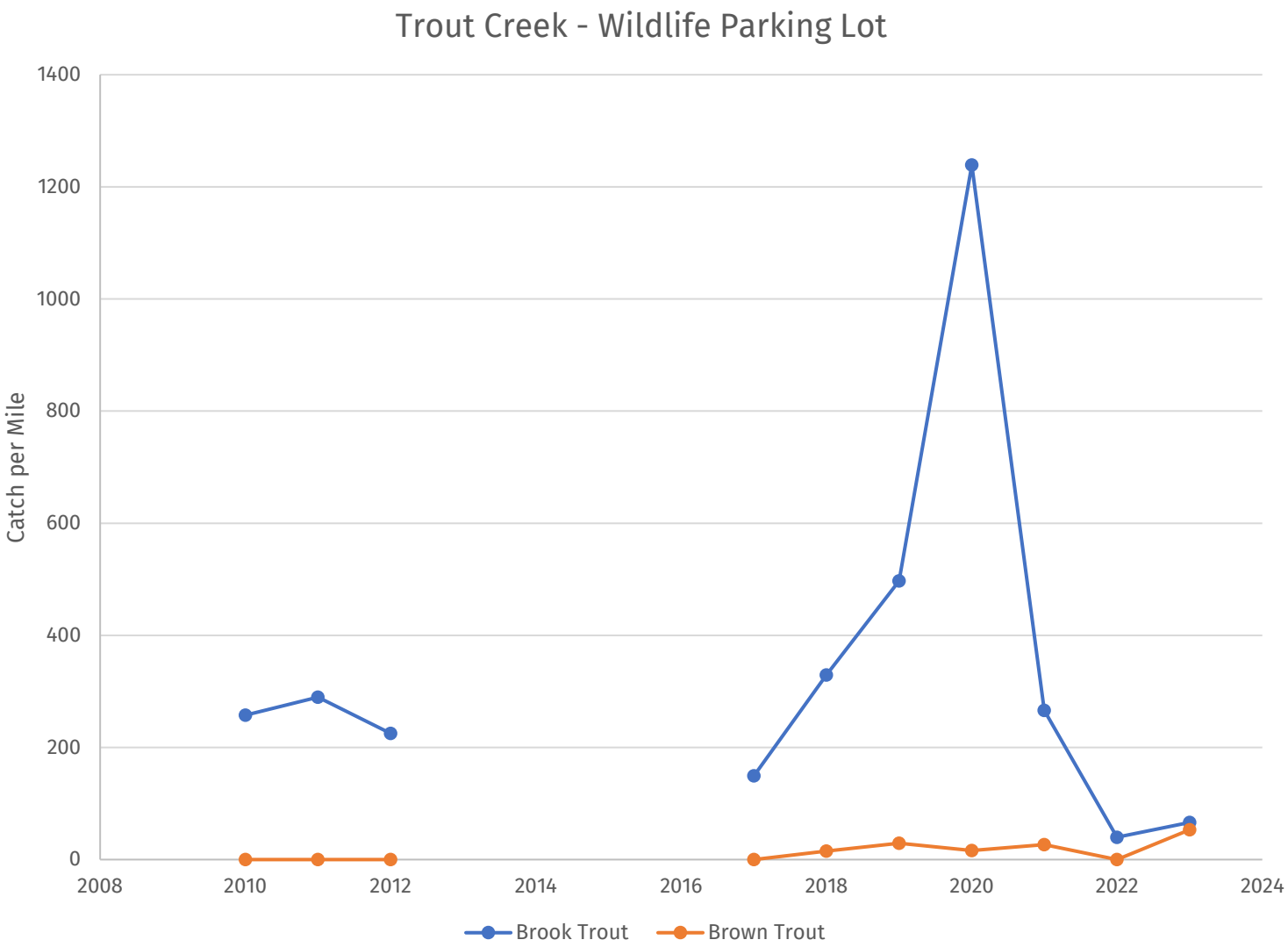

Figure 12. CPUE of total brown and brook trout sampled from 2010-2023 at the Trout Creek wildlife parking lot trend site. Surveys were not conducted in 2013-2016.

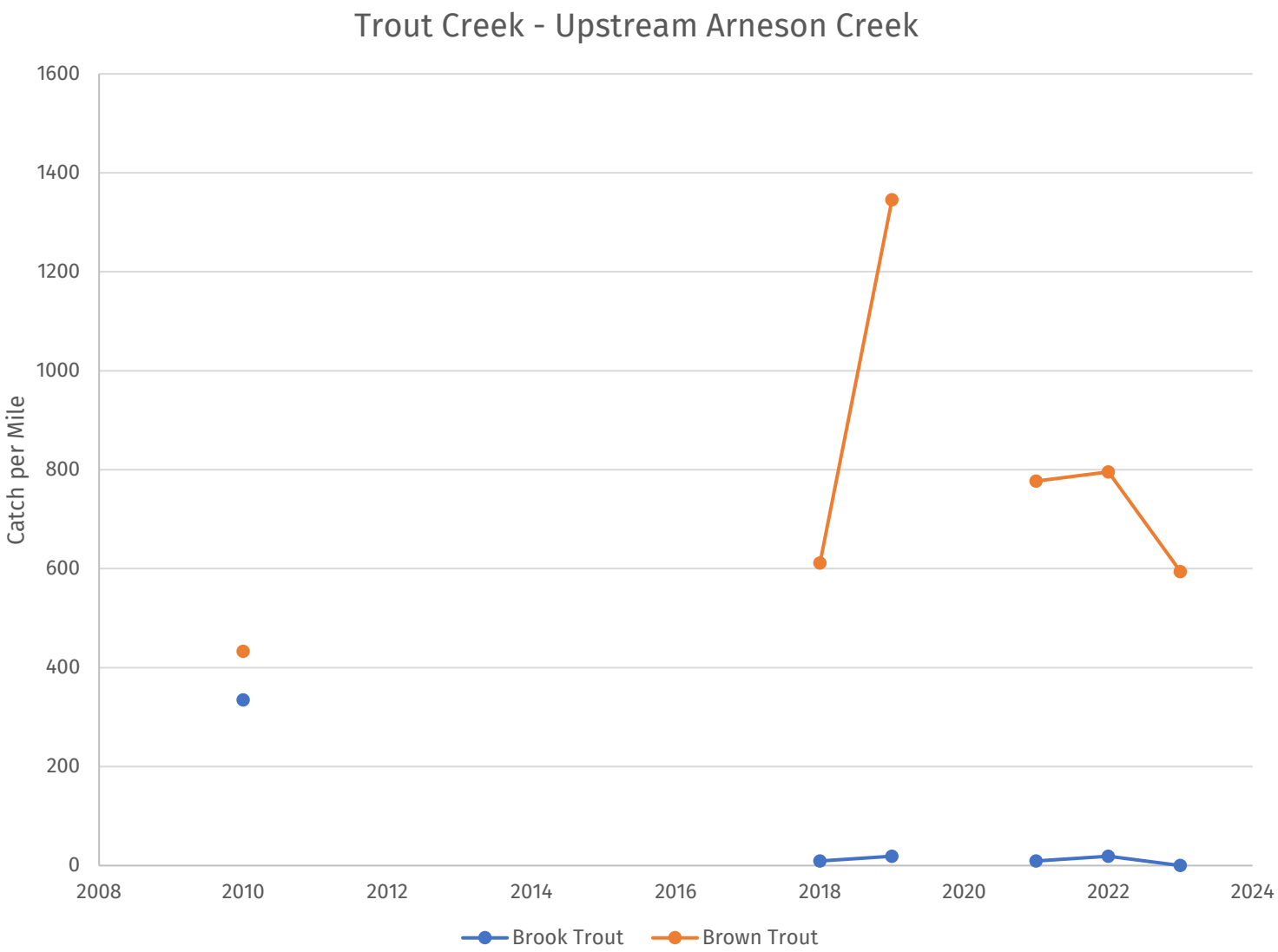

Figure 13. CPUE of total brown and brook trout sampled from 2010-2023 at the Trout Creek - Arneson Creek confluence trend site. Surveys were not conducted in 2011-2017 and 2020.

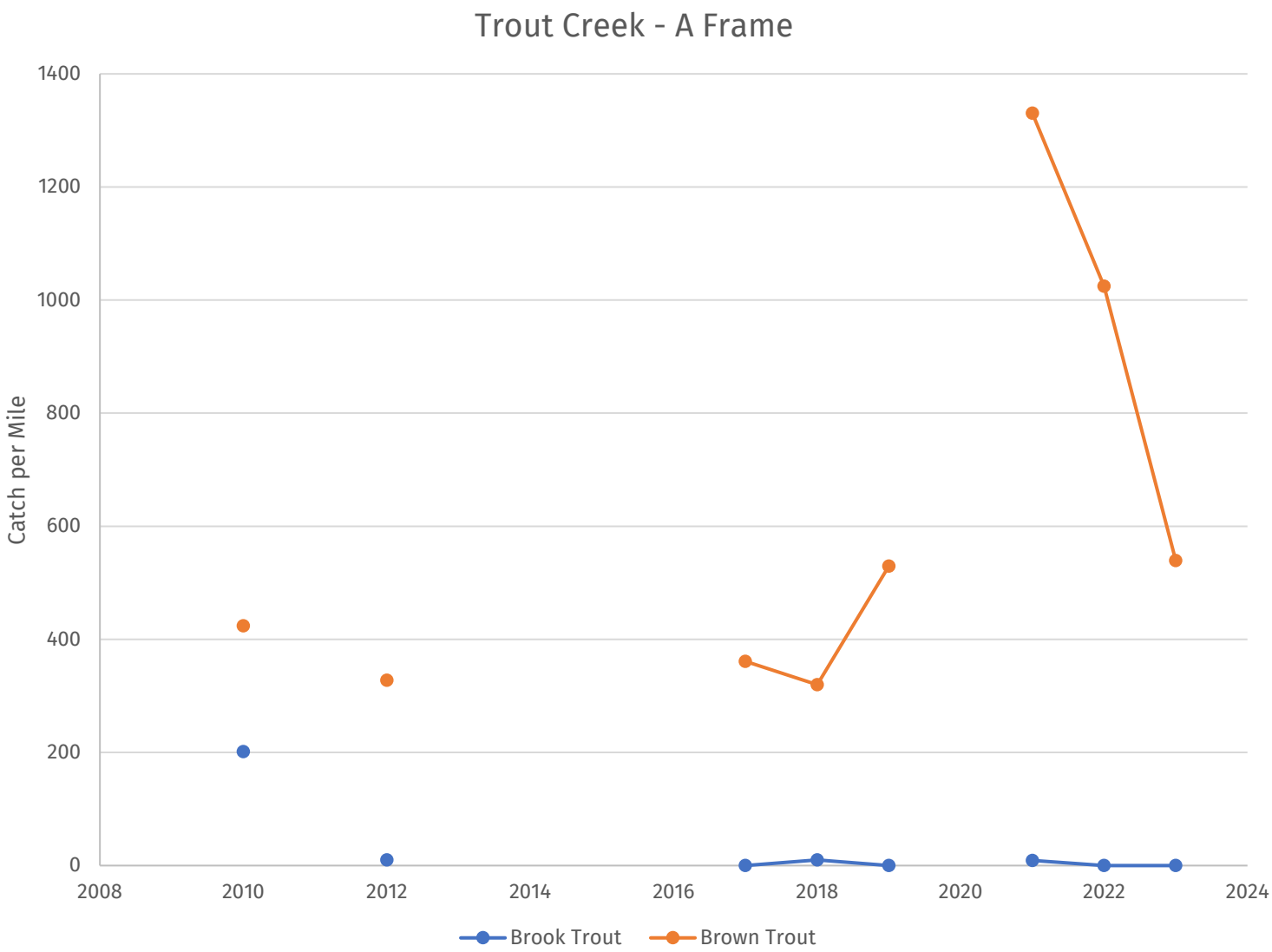

Figure 14. CPUE of total brown and brook trout sampled from 2010-2023 at the Trout Creek – A frame trend site. Surveys were not conducted in 2011, 2013-2016 and 2020.

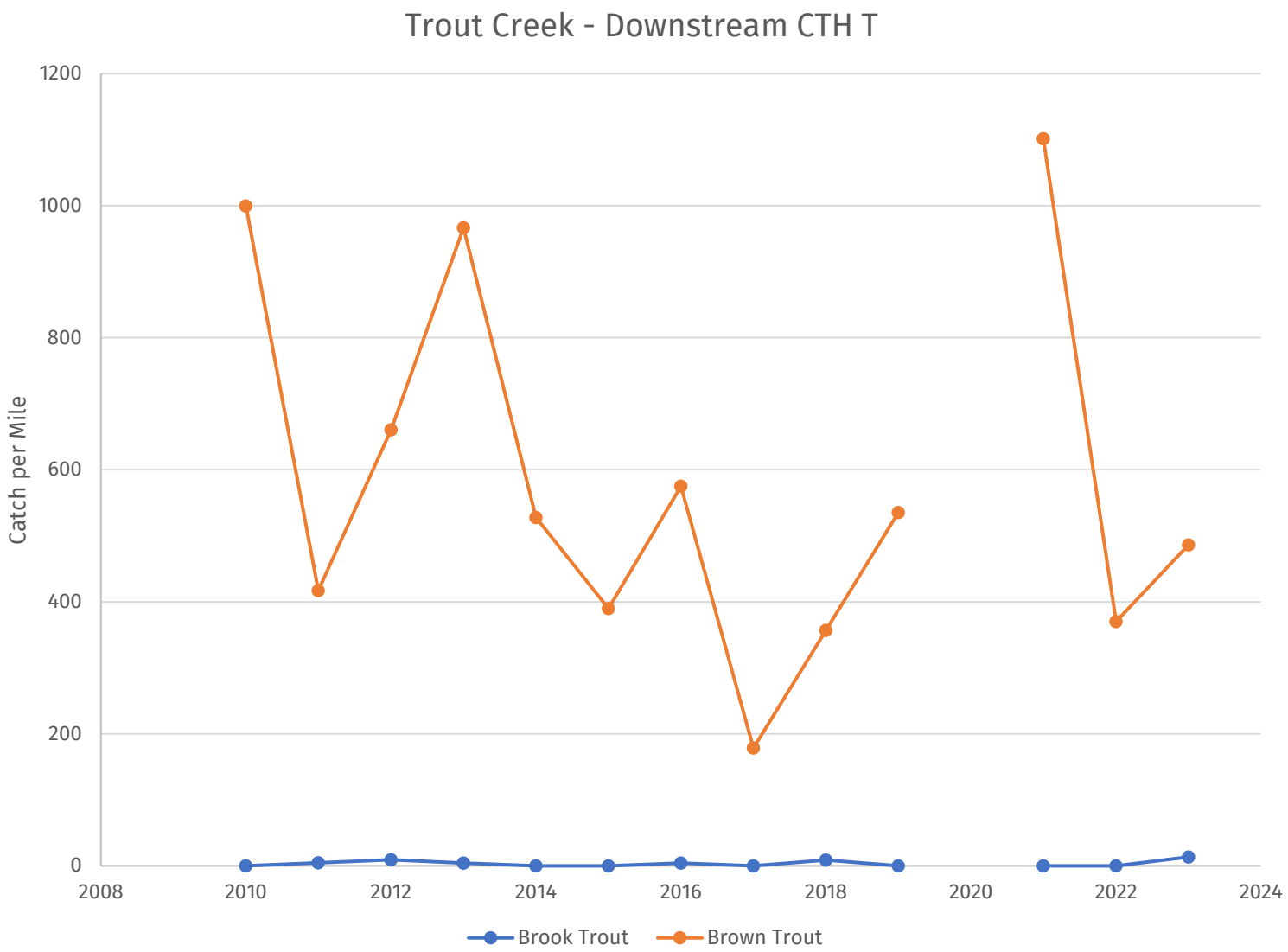

Figure 15. CPUE of total brown and brook trout sampled from 2010-2023 at the Trout Creek – downstream CTH T trend site. Surveys were not conducted in 2020.