STREAMSMART DATA REPORT:

WATER QUALITY ACROSS THE BEAVER LAKE WATERSHED

A product of the StreamSmart Volunteer Water-Quality Monitoring Program

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EXECUTIVE SUMMARY

Beaver Lake is a vital water resource for Northwest Arkansas, supplying drinking water to more than half a million people and supporting regional recreation, agriculture, and economic growth. The health of the lake depends on the condition of its tributaries, which flow through a diverse landscape of forested uplands, agricultural valleys, and rapidly developing urban areas. Changes in land use, population growth, and increasing nonpoint source pressures continue to shape water quality across the watershed.

The StreamSmart Citizen Science Program, coordinated by H2Ozarks in partnership with Beaver Water District and the Arkansas Water Resources Center, provides over a decade of consistent, quality-assured data documenting these changes. Trained volunteers collect quarterly samples following state-approved protocols, creating an important long-term dataset that supports watershed assessment and management across the Beaver Lake system.

Results show clear nutrient patterns across the watershed. Total nitrogen tends to increase with greater pasture and urban land cover, while total phosphorus patterns are more variable but often show similar land-use influences. These nutrient relationships suggest that nonpoint source runoff from both agricultural and developed areas contributes to enrichment in tributary streams. Elevated nutrient levels correspond with Beaver Lake's 303(d) listing for chlorophyll a, reflecting the connection between tributary conditions and lake response.

Overall, the findings highlight that watershed health reflects the balance between land use, management, and community stewardship. Continued monitoring through the StreamSmart Citizen Science Program, supported by strong partnerships and volunteer engagement, is essential to protecting Beaver Lake, guiding management decisions, and sustaining clean water for future generations.

GEOGRAPHIC OVERVIEW OF THE WATERSHED

With its verdant rolling hills and deep valleys, the Beaver Lake Watershed covers approximately 1,186 square miles in Northwest Arkansas, including parts of Benton, Washington, Madison, and Carroll Counties. Water from the landscape drains into its beautiful creeks and rivers, ultimately joining together to form Beaver Lake. This lake (technically a reservoir) provides drinking water for more than 500,000 people in the region, a number that continues to rise with rapid population growth. Beaver Lake also serves as an important recreational and economic driver in the state, supporting tourism, agriculture, and industry throughout the region.

The tributaries of Beaver Lake reflect the diverse landscapes they drain, encompassing forested uplands, agricultural valleys, and expanding urban areas. With roughly 60% forest cover, 29% pastureland, and 6% urban development, the watershed's mixed land use contributes to varying water-quality pressures. Extensive pastureland and increasing urbanization contribute to elevated pollutant loading, particularly nitrogen, phosphorus, and sediment, leading to the designation of both a nutrient surplus area and a state priority watershed (ANRC, 2018).

While we enjoy many high-quality waters in this watershed, several tributary and lake segments are listed as impaired under Section 303(d) of the Clean Water Act (ADEQ, 2022), indicating that these waterbodies do not fully support their designated uses, such as recreation, aquatic life, or drinking water supply. This designation helps target monitoring, restoration, and management efforts where they are needed most.

Flowing through the karst geology characteristic of the Ozarks, these tributaries exhibit strong connections between surface and groundwater. Water can move rapidly through fractures, sinkholes, and underground channels, allowing surface runoff and the associated nutrients or contaminants to infiltrate the subsurface and reemerge in springs that also feed Beaver Lake.

The interactions between surface water, underlying geology, and land use influence how water, nutrients, sediments, and other pollutants move across the landscape and ultimately shape the physical, chemical, and biological conditions of the streams that drain into Beaver Lake. Because the lake's water quality reflects that of its tributaries, regular and widespread monitoring remains essential to protecting this vital resource.

STREAMSMART MONITORING AND THE ROLE OF VOLUNTEERS

The StreamSmart Citizen Science Program exemplifies how community engagement strengthens watershed protection. By combining volunteer effort with scientific oversight, StreamSmart provides a cost-effective, long-term approach to monitoring the health of Beaver Lake's tributaries. This program fills monitoring gaps by targeting smaller tributaries and providing greater resolution to understanding land use impacts on water quality.

In 2013, the StreamSmart program was created to engage citizens and better understand stream health throughout the Beaver Lake Watershed. A total of 25 sites have monitoring data, while there are currently 15 active sites. Volunteers sample quarterly during the months of March, June, September, and December; prior to mid-2025, volunteers sampled during February, May, August, and November. These months shifted this year to better reflect seasonal patterns and volunteer availability.

Since the program's inception, 58 volunteers have contributed their time and effort to StreamSmart. In early 2025, the program had 26 active volunteers. That number grew to 37 in the spring with the addition of 11 new participants, marking the largest growth in the program's history. This record level of participation reflects both the dedication of the community and the strength of the program. Over the course of this program, volunteers collected more than 750 water quality samples, representing 5,580 laboratory analytes and in situ field measurements of temperature and dissolved oxygen (DO).

SAMPLING PROTOCOL AND LABORATORY ANALYSIS

StreamSmart volunteers follow standard operating procedures that promote precision and comparability across sites and sampling periods. All new volunteers receive on-site training from the StreamSmart coordinator, and returning participants are offered continuing education opportunities. Each team follows the program's Quality Assurance Project Plan (QAPP) (H2Ozarks, 2025), ensuring consistency, accuracy, and reliability in data collection across all sites.

Water samples are collected during baseflow to capture typical stream conditions rather than storm-driven runoff. Samples are placed on ice and delivered to the Arkansas Water Resources Center (AWRC) Water Quality Laboratory. The AWRC Lab, certified under the Arkansas Department of Energy and Environment's Environmental Laboratory Certification Program, operates under a Quality Assurance Plan (QAP) and Statement of Qualifications (SOQ) that detail certified analytical methods and quality control procedures (Arkansas Water Resources Center, 2024).

Water samples are analyzed in the Lab for total nitrogen (TN), total phosphorus (TP), total suspended solids (TSS), total dissolved solids (TDS), alkalinity, conductivity, pH, and turbidity (Table 1). Volunteers collect additional data in-situ, including temperature and dissolved oxygen (DO) (Table 1). The addition of DO field probes in 2022 was made possible by funding from the Arkansas Game and Fish Commission (AGFC) and the Northwest Arkansas Master Naturalists (NWAMN).

Data collected under the approved StreamSmart QAPP, created in 2020 and updated as needed, are eligible for acceptance by state agencies and have been submitted to the Arkansas Department of Energy and Environment. These data have also supported watershed-scale efforts, including the Upper White River Watershed Management Plan, modeling analyses, and hotspot identification used to guide conservation and restoration priorities.

Table 1. Water Quality parameters measured by StreamSmart volunteers with purpose of measure. DO collection began in 2022.

Parameter	Location	Purpose
Temperature	Field	Influences DO and biological activity
Dissolved Oxygen	Field	Assess biological health
Alkalinity	Lab	Ability to neutralize pH
pH	Lab	Indicates acidity or basicity of water
Conductivity	Lab	Indicates levels of dissolved ions/ pollutants
Total Dissolved Solids (TDS)	Lab	Indicates levels of dissolved minerals, salts, and ions
Total Suspended Solids (TSS)	Lab	Indicates sediment load and erosion
Turbidity	Lab	Indicates sediment load and erosion
Total Nitrogen (TN)	Lab	Identifies potential nutrient enrichment from runoff
Total Phosphorus (TP)	Lab	Identifies potential nutrient enrichment from runoff
Macroinvertebrates	Field	Biological indicator of long-term stream health

DATA ANALYSIS AND METHODS

Data were initially reviewed visually for quality control. When apparent outliers were identified, they were further assessed by corroborating with field sheets, laboratory reports, and discharge data from U.S. Geological Survey (USGS). Samples identified as being collected during stormwater runoff were removed from analysis, with the explanation documented and the original value retained for reference.

Land use land cover (LULC) data were obtained from Model My Watershed (Stroud Water Research Center, 2025). The original dataset included a variety of land use categories, which were consolidated into three primary land cover types – forest, pasture, and urban – to simplify reporting. For each monitoring site, drainage area and the percentage of each land cover category were calculated. These data form the foundation for statistical analyses linking land use with measured water-quality parameters.

Linear regression analyses were used to evaluate relationships between nutrient concentrations and LULC. T-tests were conducted to compare nutrient concentrations between paired sites, such as total nitrogen (TN) and total phosphorus (TP) levels upstream and downstream of the City of Huntsville and its Wastewater Treatment Plant discharge on Holman Creek. ANOVAs were performed to assess differences in turbidity and conductivity at sites on the West Fork White River and a tributary, Town Branch. When significant differences were detected, Tukey's post hoc tests were used to make pairwise comparisons between individual sites. For all statistical analyses, a p-value of ≤ 0.05 was considered statistically significant.

RESULTS AND DISCUSSION

Subwatershed Characteristics

The results presented here reflect more than a decade of StreamSmart monitoring, made possible through the commitment of volunteers and partners working to better understand the health of the Beaver Lake Watershed. Data collected under the program's QAPP provide a reliable record of physical, chemical, and biological conditions across 15 active monitoring sites **(Figure 1)**. Together, these data show how land use, specifically forests, pastures, and growing urban areas, shapes the quality of the streams that flow into Beaver Lake.
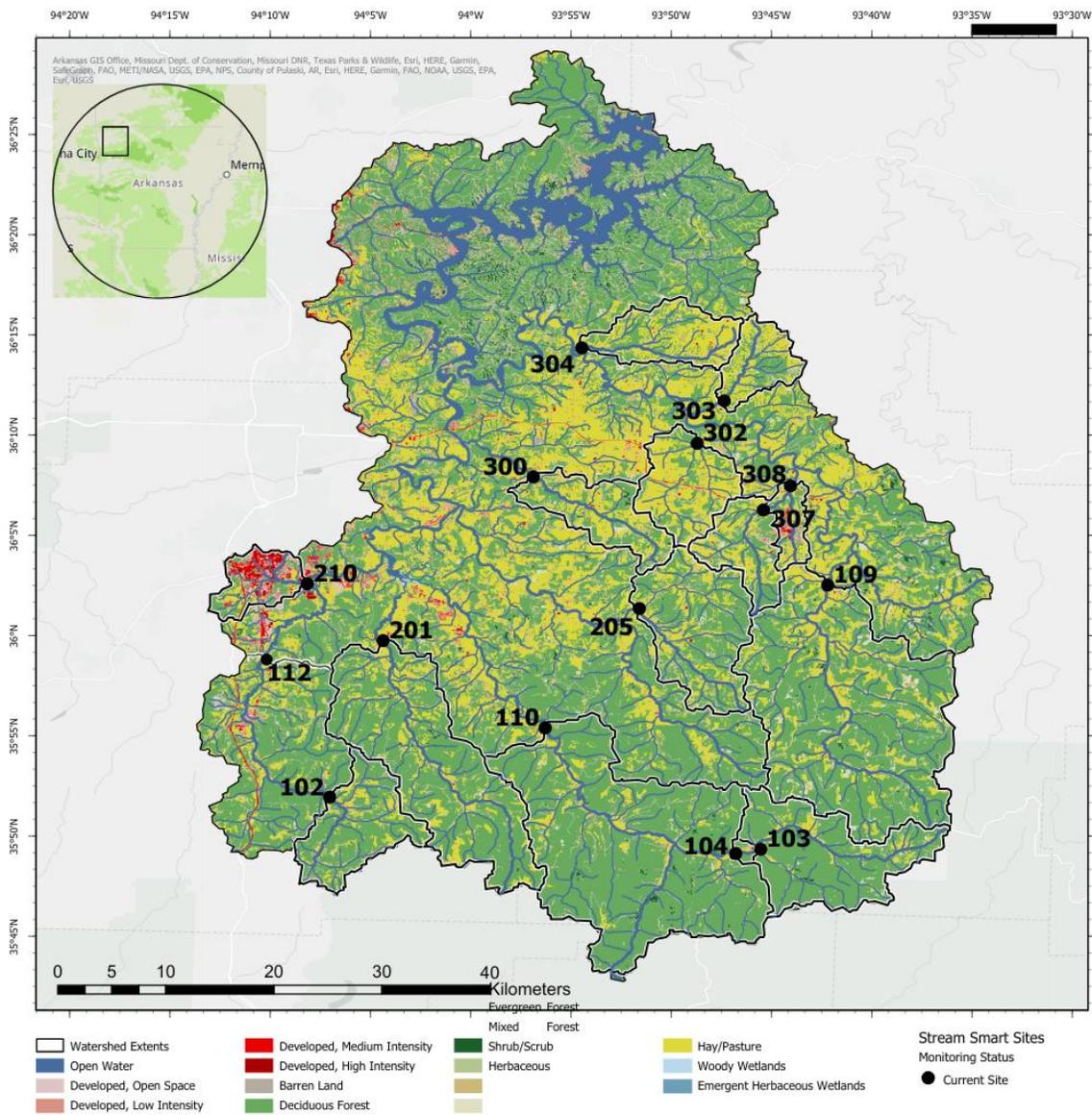
Figure 1. Land use land cover in the Beaver Lake Watershed showing active Stream Smart monitoring sites. For analysis purposes, land cover classes were consolidated down to forest, pasture, and urban.

Each tributary tells a different story. Forested areas tend to support cooler, clearer water, while pasture and developed lands often contribute additional nutrients and sediments. By comparing total nitrogen (TN), total phosphorus (TP), total suspended solids (TSS), and dissolved oxygen (DO) among sites, we can begin to see how differences in land cover influence stream health across the watershed.

Table 2 summarizes the period of record, drainage area, and LULC for each StreamSmart monitoring site. This context provides the foundation for interpreting water quality results and understanding how the surrounding landscape influences stream conditions.

Water-Quality and Land Use

To provide a snapshot of water quality across all sites, we summarized average values and ranges for total nitrogen (TN), total phosphorus (TP), total suspended solids (TSS), and dissolved oxygen (DO) at each monitoring site **(Table 3)** from February 2022 to

Table 2. Table summarizing monitoring sites, available data periods, drainage areas, and land use/land cover (LULC) breakdowns for each site.

Site Name	Site ID	Period of Available Data	Drainage Area (mi^2)	Urban (%)	Pasture (%)	Forest (%)
West Fork at Brentwood Park	102	2014-Current	25.0	5.2	26.4	68.3
Baldwin Creek Near St. Paul	103	2015-Current	11.0	1.7	4.6	93.6
White River Near St. Paul	104	2015-Current	40.4	3.7	11.2	84.9
War Eagle Creek near CR6128	109	2018-Current	104.8	3.9	22.4	73.6
White River at CR6578	110	2021-Current	150.2	3.7	9.5	86.7
West Fork at Baptist Ford	112	2023-Current	82.7	7	25.4	67.2
Middle Fork of W.R. at Harris Rd	201	2014-Current	66.7	2.8	27.6	69.2
Hock Creek	205	2016-Current	16.4	3.1	33.5	63.3
Town Branch	210	2014-Current	11.8	50	15.8	33.8
Brush Creek	300	2013-Current	19.9	5.5	51.8	42.5
Glade Creek	302	2013-Current	21.6	5.3	66.9	27.8
Clear Creek	303	2013-Current	12.3	5.3	60.0	34.2
Clifty Creek	304	2013-Current	19.2	5.8	61.8	31.9
Holman Creek Upstream	307	2014-Current	16.1	7.3	43.9	48.9
Holman Creek Downstream	308	2014-Current	23.4	11.4	44	44.6

present**.** This table serves as a baseline for comparing site conditions and a reference for exploring trends that emerge when paired with land use data. Across StreamSmart sites, nitrogen was strongly correlated with LULC ($p \leq 0.05$; **Figure 2**), while phosphorus appears to be correlated, although this was not significant ($p > 0.05$).

The relationship between land use and nutrient concentrations aligns with the general understanding that nonpoint source runoff such as livestock operations, land application of fertilizer and industrial solids, septic seepage, and increased impervious surfaces contributes to nutrient loading in streams. Within our dataset nutrient levels were consistently highest at sites with higher pasture and urban land cover. Glade Creek, with 67% pasture and 5% urban lands use, had some of the highest recorded total nitrogen (4.82 mg/L) and total phosphorus (0.051 mg/L) concentrations across the watershed. In contrast, Baldwin Creek (Site 103), surrounded by over 93% forest cover and minimal agricultural activity, showed much lower TN (0.22 mg/L) and TP (0.026 mg/L) concentrations, underscoring lower nutrient transport typical of forested landscapes. These findings are consistent with published studies documenting increased nutrient export and reduced in-stream processing capacity in watersheds where forested lands are becoming increasingly used for agriculture and urban development (Giovannetti et al., 2013; McCarty et al., 2018).

The implications of these results extend beyond individual tributaries. Elevated nitrogen and phosphorus drive eutrophication, fueling algal blooms, reducing dissolved oxygen, and degrading aquatic habitat. In Beaver Lake, this nutrient enrichment contributes to its 303(d) listing for elevated chlorophyll a, with resulting impacts such as higher treatment costs, taste and odor issues, and reduced recreational value.

Yet the story these data tell is ultimately one of connection and shared responsibility. Land management choices, such as how pastures are handled, how stormwater is directed, and how growth is balanced with conservation are reflected in
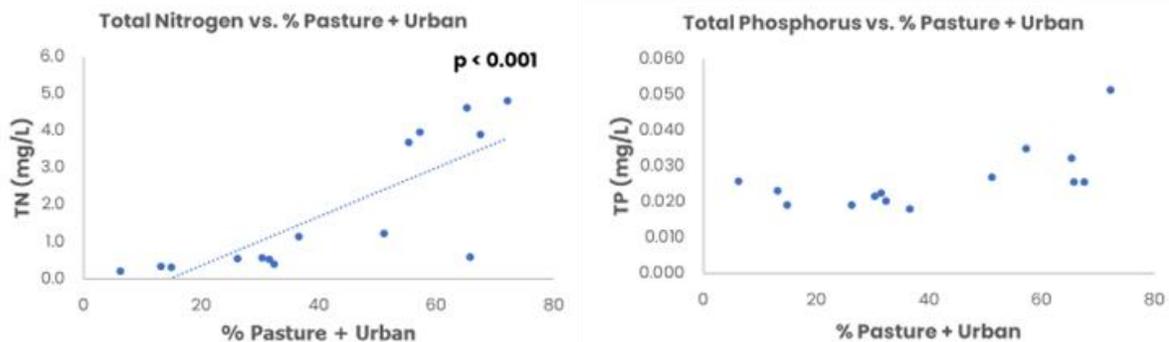
Figure 2. Relationships between average nutrient concentrations (February 2022-present) and land use for all active sites for total nitrogen (TN) (left) and total phosphorus (TP) (right) vs. pasture + urban land use.

water quality. What happens on the land happens in the water, and every resident plays a role in shaping the watershed's future.

This shared role underscores the value of the StreamSmart program. Volunteers documenting these streams provide a long-term record that reveals where progress has been made and where attention is needed. Their work, combined with that of local partners and agencies, helps ensure the knowledge necessary to protect water quality, sustain Beaver Lake as a drinking water source, and preserve the health and beauty of the Ozarks for future generations.

These watershed-wide findings provide important context for interpreting trends at individual StreamSmart study sites and subwatersheds. While the relationships between nutrient concentrations and land use are clear at the broader scale, site-specific data help shed light on how these dynamics appear within tributaries. The following sections aim to give a closer look at the water quality at several key locations within the Beaver Lake Watershed, including War Eagle Creek, the West Fork of the White River, and Holman Creek Upstream and Downstream of the City of Huntsville. Data ranges presented in these sections refer to the entire period of record **(Table 2)** for each of our StreamSmart sites.

War Eagle Creek and its Tributaries

War Eagle Creek is the largest and most influential tributary in the Beaver Lake Watershed. Its waters flow through a landscape of forests, pasture, and rapidly expanding development, carrying the cumulative effects of land use across its drainage to the reservoir. War Eagle Creek is listed as an impaired water body on the most recent 303(d) list for low dissolved oxygen (DO) concentrations (ADEQ 2022), indicating it is not meeting its designated use. The cause for low DO is not clear, but StreamSmart data tell a story that can elucidate potential mechanisms. Volunteers collected data from six sites in this subwatershed – one on War Eagle Creek and five across its tributaries – to better understand potential drivers of water quality concern in War Eagle Creek.

Given the absence of state numeric nutrient criteria, we used literature-based thresholds of 0.037 mg/L for TP (Haggard et al., 2022) and 1.5 mg/L for TN (Evans-White et al., 2013) as reference points for assessing nutrient conditions. Time-series graphs for the six sites show that nearly all sites consistently meet or exceed the TN threshold, except War Eagle Creek and Holman Creek Upstream (**Figure 3**). Several tributaries show statistically significant increases in nitrogen concentrations over time (**Figure 3**). Glade Creek rose from roughly 2.0 mg/L TN in 2013 to about 5.0 mg/L in recent years. Holman Creek Upstream has increased nearly three-fold over the same period, with recent concentrations exceeding the 1.5 mg/L threshold. Clear Creek, a spring-fed stream in a predominantly pasture landscape, also shows significant, steadily rising nitrogen concentrations.

As a point of comparison, Grantz et al. (2023) collected water quality data at a site further downstream on War Eagle Creek, close to the confluence with Beaver Lake. They
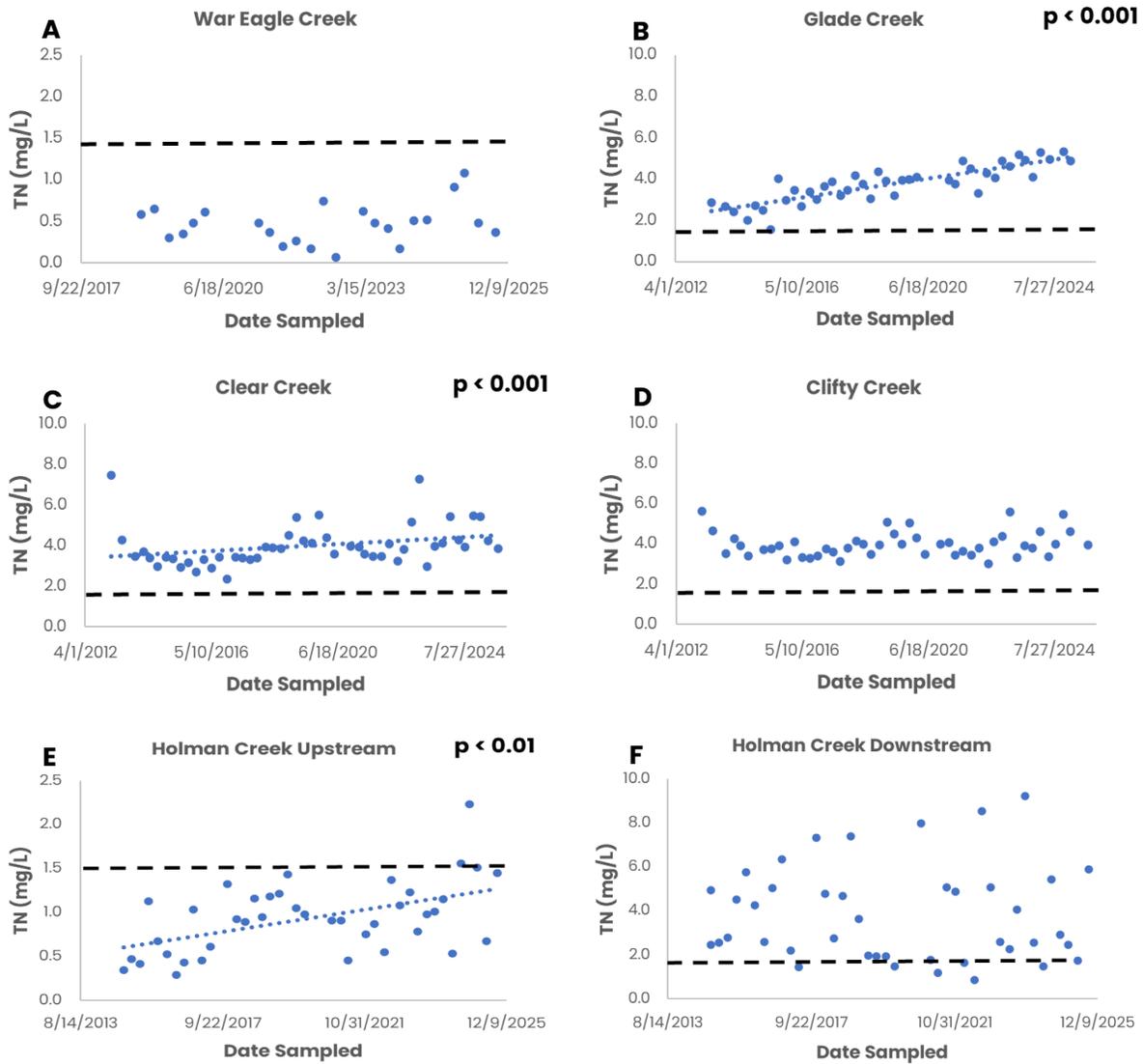
Figure 3. Total nitrogen concentrations over time at each site in the WEC subwatershed. Black dashed lines indicate threshold values. P-values are shown where a relationship is significant. Different Sites are denoted by letters A-F. Graphs of War Eagle (A) and Holman Upstream (E) are set to a y-scale of 0-2.5 mg/L TN. All other graphs have a y-scale of 0-10 mg/L TN.

report the highest loads and yields for total nitrogen at War Eagle Creek relative to three other main tributaries to the Lake. Additionally, while not statistically significant, visual interpretation appears to indicate increasing loads and yields over time at that downstream site on War Eagle Creek, suggesting these tributaries are impacting nutrients in the main stem. Further study should include assessing any changes taking place in landscape management activities over time, such as land application of nutrients, which may contribute to algal growth and increased oxygen demand in the War Eagle Creek system.

Phosphorus concentrations also exceed the threshold value at four of the six sites, particularly in recent years (**Figure 4**). Several tributaries also show statistically significant increases in phosphorus concentration over time (**Figure 4**). Glade Creek more than tripled from 2013 to 2025, with concentrations historically general less than 0.020 mg/L and increasing to around 0.060 mg/L in recent years. Holman Creek Downstream shows the highest TP, averaging 0.242 mg/L and occasionally exceeding 1.000 mg/L, although this is likely predominantly a result of the city's wastewater treatment plant discharge. Clear Creek also shows increasing TP over time.
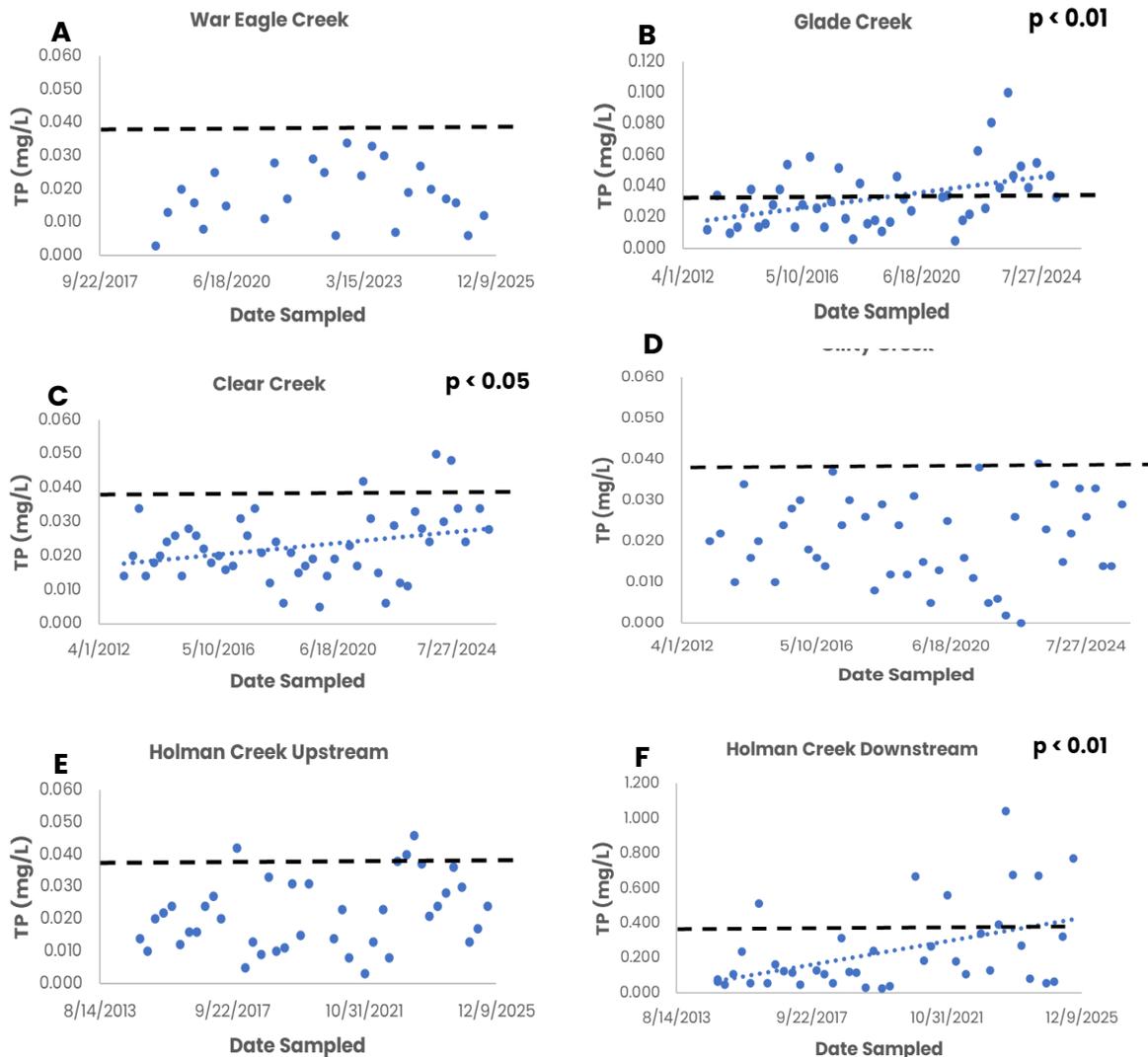
Figure 4. Total phosphorus concentrations over time at each site. Black dashed lines indicate threshold values. P-values are shown where a relationship is significant. Different Sites are denoted by letters A-F. Graphs of Glade Creek (B) set to a y-scale of 0-0.120 mg/L and Holman Creek Downstream (F) set to a y-scale of 0-1.2 mg/L. All other graphs have a y-scale of 0-0.06 mg/L TP.

Visual trends in DO (**Figure 5**) suggest gradual declines at all tributary sites, aligning with War Eagle Creek's 303(d) listing. While the dataset is too limited for formal statistical analysis, the observed decreases likely reflect interacting stressors: nutrient-driven algal growth and decomposition, warmer temperatures from reduced riparian shading and channel widening, and elevated sediment inputs. Together, these pressures reduce oxygen availability and compromise ecological integrity.

These patterns underscore the importance of long-term monitoring. Continued sampling and expanded use of DO meters will strengthen trend detection and help guide targeted management actions. Overall, nutrient enrichment across War Eagle tributaries, particularly increasing nitrogen and phosphorus levels, appears to be contributing to declining DO and may be driving the broader eutrophication issues underlying the river's impairment.
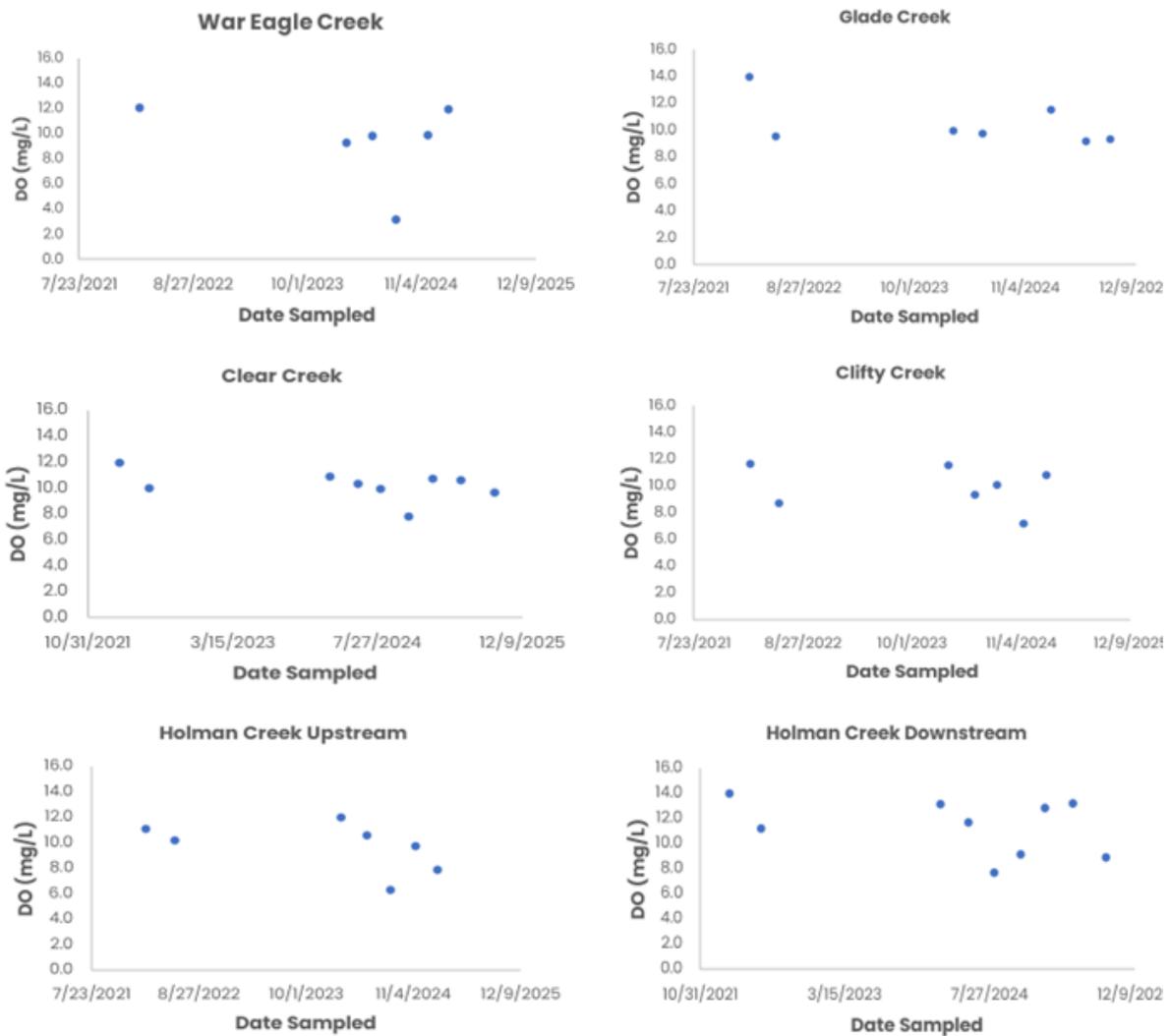
Figure 5: Dissolved oxygen concentrations over time for War Eagle Creek and its tributaries. No statistics run on these data.

West Fork of the White River and the Town Branch Tributary

Building on patterns observed in the War Eagle Creek subwatershed, the West Fork of the White River (WFWR) offers a complementary view of watershed health through sediment and conductivity dynamics. Sediment tracking provides a unique physical story of how land use, vegetation, and streamflow can shape water clarity, while conductivity reflects the concentration of dissolved minerals and ions influenced by both natural geology and human activity. The WFWR has long been recognized for its sediment and dissolved mineral challenges (FTN Associates, Ltd., 2006; Scott & Haggard, 2021) and serves as a valuable system for understanding how these physical and chemical indicators reflect the status of this subwatershed.

Turbidity and conductivity data from the West Fork White River and its tributaries are presented in **Table 4**. Turbidity reflects the amount of suspended particles, such as clay and silt, in the water column, while conductivity measures the concentration of dissolved minerals and ions influenced by runoff and erosion. Elevated conductivity can indicate cumulative land disturbance, particularly in developed areas. Together, these parameters provide complementary insight into watershed processes, with turbidity representing visible sediment movement and conductivity capturing the dissolved chemical signature of disturbance across the West Fork system.

Turbidity measured at all sites was relatively low, consistently below the state's baseflow standard of 10 NTU as defined in Rule 2 of the Arkansas Water Quality Standards (APCEC, 2023). ANOVA results showed no significant differences in turbidity among sites ($p > 0.05$).

Conductivity, on the other hand, differed strongly among sites (ANOVA, $p < 0.001$), with Tukey's pairwise comparisons indicating significant differences ($p < 0.001$) between all site pairs. Conductivity increased consistently from Brentwood to Baptist Ford to Town Branch. The Brentwood site, situated most upstream with the lowest urban land use (5.2%), had the lowest average conductivity (95.8 µS/cm). Moving downstream, Baptist Ford exhibited significantly higher average conductivity (204.2 µS/cm), likely reflecting increased urban inputs from the City of West Fork and the City of Fayetteville's wastewater treatment plant, which discharges approximately 3 miles upstream from this site. Town Branch, located in a highly urbanized subwatershed (50% urban land use), showed the

Table 4. Average (in bold) and range (in parentheses) of turbidity and conductivity measurements for the full period of record for three sites in the WFWR subwatershed. Brentwood and Baptist Ford are both sites on the WFWR located upstream of the tributary Town Branch, which drains predominantly urban land use from the City of Fayetteville. Superscript letters indicate statistically significant differences.

Site Name	Site ID	Turbidity (NTU)	Conductivity (µS/cm)
Brentwood (WF, upstream)	102	**4.08** (0.6-8.6)	[a]**95.8** (51.3-181.3)
Baptist Ford (WF, upstream)	112	**2.07** (1.2-4.2)	[b]**204.2** (134.5-270.3)
Town Branch (tributary, downstream)	210	**2.9** (0.7-6.1)	[c]**492.3** (373.0-646.0)

highest average conductivity (492 µS/cm). These results show the potential interacting influence of land use, nonpoint sources, and point sources in this subwatershed.

Holman Creek: Upstream and Downstream Snapshot

Holman Creek provides a unique smaller-scale view of how nutrient conditions can shift within a single stream. Two StreamSmart sites, Holman Upstream (Site 307) and Homan Downstream (Site 308), were established to compare water quality above and below the City of Huntsville and their wastewater treatment plant discharge into Holman Creek. This paired design captures how both direct inputs (point source) and surrounding land use (nonpoint source) interact to shape nutrient patterns in the stream.

Figure 6 shows TN and TP concentrations over time through the full period of record. Statistical analyses show significant differences among sites in both nitrogen and phosphorus concentrations, with much higher concentrations observed at the downstream site compared to the upstream site (p<0.001; **Table 5**). At Holman Creek Upstream, TN concentrations largely remained below the reference threshold of 1.5 mg/L. In contrast, concentrations at Holman Creek Downstream nearly always exceeded this
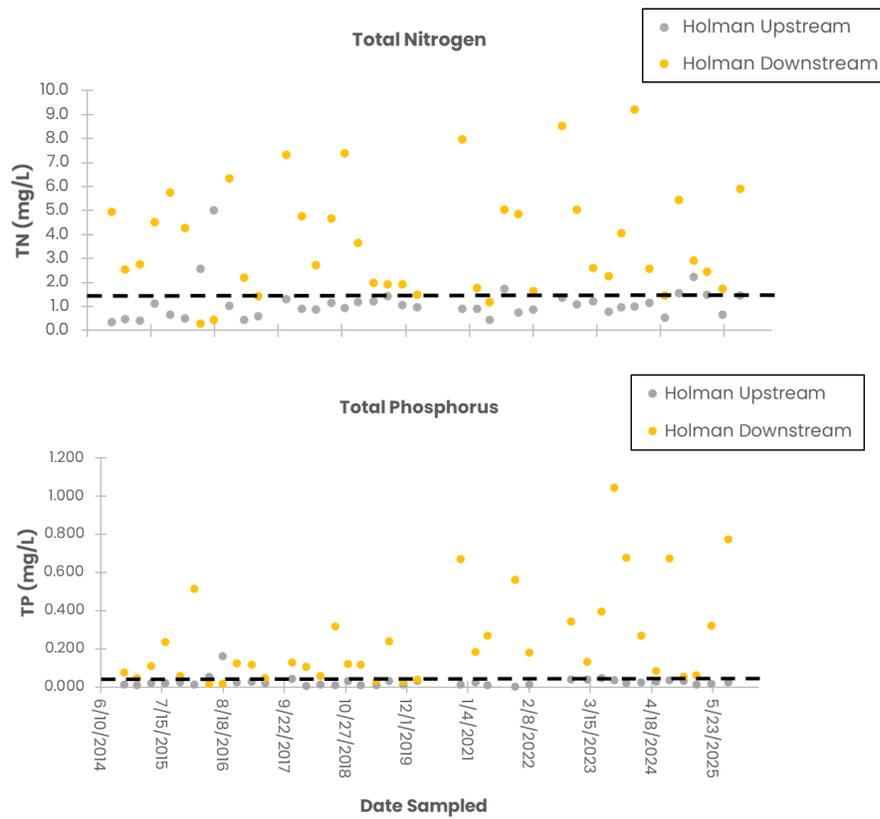
Figure 6. Total Nitrogen (TN) and total phosphorus (TP) concentrations over time at Holman Creek Upstream and Downstream sites, showing temporal trends and differences between the two sites. Dashed horizontal lines represent the threshold values provided as context for potential eutrophic conditions.

Table 5. Average nutrient concentrations (for the period of record) for Holman Creek sites, including p-values of t-test comparisons.

Nutrient	Holman Upstream	Holman Downstream	p-value
Total nitrogen (TN)	1.14 mg/L	3.75 mg/L	<0.001
Total phosphorus (TP)	0.026 mg/L	0.243 mg/L	<0.001

threshold, ranging from 0.29 to 9.20 mg/L. For TP**,** concentrations at the upstream site ranged from 0.012 to 0.163 mg/L, generally remaining near the threshold value of 0.037 mg/L. In contrast, downstream concentrations were consistently higher, ranging from 0.016 to 1.042 mg/L, frequently exceeding the threshold. The Holman Upstream site is approximately 49% forest, 44% pasture, and 7% urban, while the Holman Downstream site is 45% forest, 44% pasture, and 11% urban. The higher percentage of urban land use downstream, combined with treated effluent inputs and nonpoint source runoff, likely contributes to the elevated nutrient concentrations observed at the downstream site.

It is also important to look back at **Figures 3, 4, and 5** to see changes in concentrations over time for both of these sites. While TN and TP concentrations are much higher at the downstream site, the upstream site has statistically significant increasing TN concentrations over time, indicating that there are pollutant sources other than the City's wastewater treatment plant impacting Holman Creek.

CARRYING THE CURRENT FORWARD

Protecting the health of Beaver Lake begins with understanding its tributaries. StreamSmart provides essential data by monitoring tributary sites that no other organizations monitor, helping water resource managers understand with greater resolution where pollutant hotspots are located. Continued volunteer monitoring, consistent data collection, and community support are essential to sustaining that understanding and ensuring that our waters remain healthy and resilient.

This data report reveals clear trends and patterns in nutrient enrichment and their potential impacts, offering valuable information supporting effective management towards protecting the region's drinking water supply. Just as importantly, these data demonstrate how local decisions on land use, development, and conservation directly shape the condition of our streams and Beaver Lake.

This program is successful because of the people behind it. Dedicated volunteers collect high-quality data season after season, transforming individual measurements into a long-term record that would not exist without their commitment. Their work, supported by strong partnerships between H2Ozarks, Beaver Water District, the Arkansas Water Resources Center, the Northwest Arkansas Master Naturalists, and other community collaborators, provides science-based insight that agencies and local leaders rely on to guide action.

As Northwest Arkansas continues to grow, the value of this dataset and the collaboration that sustains it will only increase. Continued investment in monitoring, volunteer engagement, and watershed stewardship will help ensure that Beaver Lake remains a clean, reliable water source and a defining natural asset for generations to come.

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