



**SMALL WATERSHED ROTATING BASIN MONITORING PROGRAM**

**BASIN GROUP 1:  
NEOSHO-GRAND AND UPPER CANADIAN BASINS  
SECOND CYCLE**

**FINAL REPORT**

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## 1.0 INTRODUCTION

### 1.1 PROJECT BACKGROUND AND DESCRIPTION

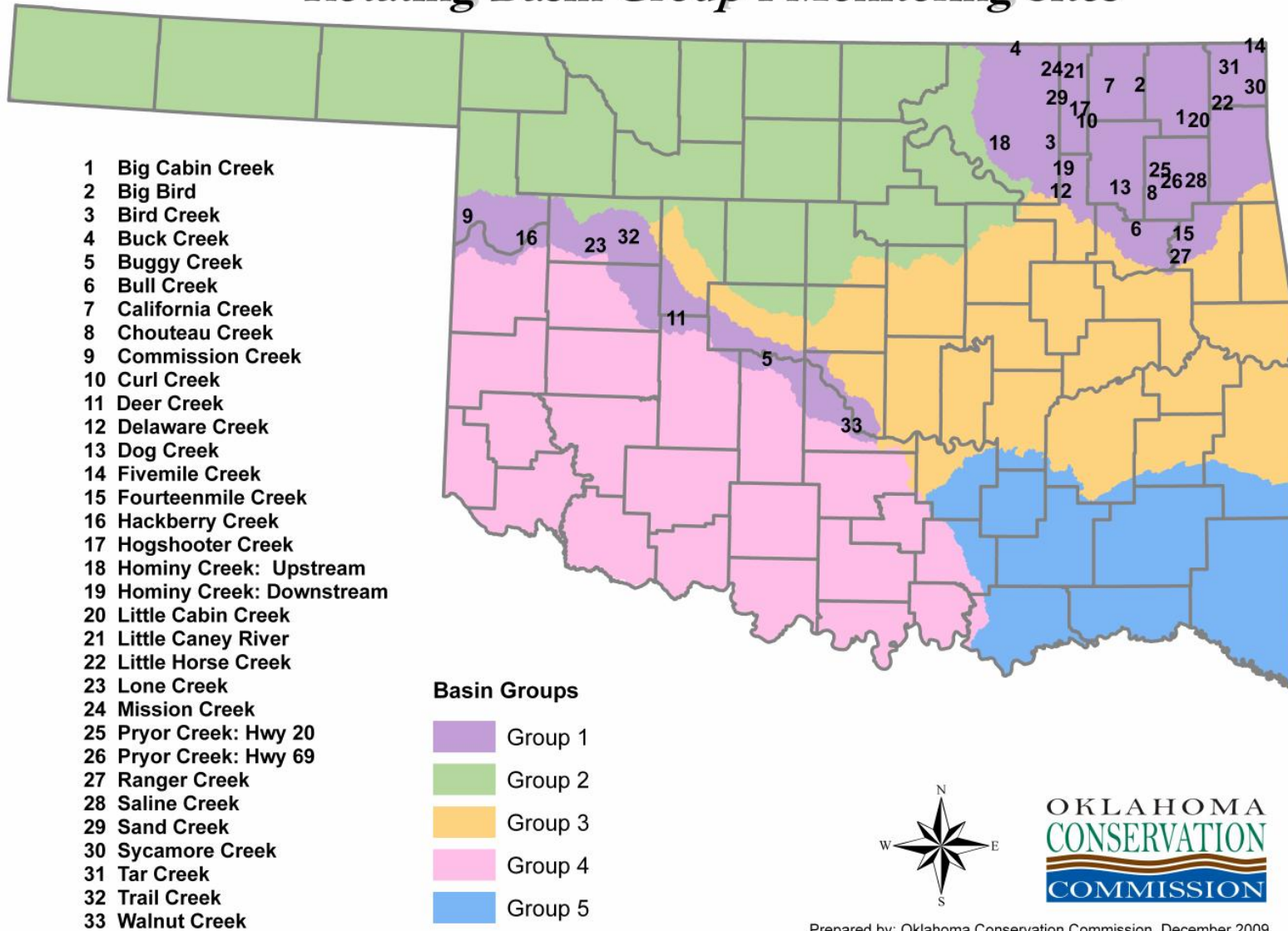
The Clean Water Act has charged each state's nonpoint source (NPS) pollution agency with two primary tasks: 1) identify all waters being impacted by NPS pollution, and 2) develop a management program describing programs to be implemented to correct any identified problems. In addition, each state's NPS agency is charged with identification of all programs which are actively planning or enforcing NPS controls in order to reduce NPS pollution in cooperation with local, regional, and interstate entities. The state NPS agency can then report on total program status with regard to efforts to address NPS impacts and improve water quality. The Oklahoma Conservation Commission (OCC) is charged by Oklahoma state statute as the NPS Program technical lead and therefore must monitor to determine the occurrence, nature, and extent of NPS impacts to state waters. Robust and meaningful assessment of the state's water quality is the foundation for meeting the long-term goals of the Oklahoma NPS program and water quality management in general.

In 2000, the Oklahoma Conservation Commission (OCC) initiated a progressive ambient monitoring program to assess NPS issues on a larger spatial and temporal scale than previously done. Known as the *Small Watershed Rotating Basin Monitoring Program* ("Rotating Basin Program"), this effort entails fixed station sampling at or near the outlets of complete eleven digit Hydrologic Unit Code watersheds (HUC-11). Oklahoma contains all or part of 414 U.S. Geological Survey (USGS) 11-digit HUC basins which have been collated into eleven larger planning basins for state water quality management purposes. The sampling units for the Rotating Basin Monitoring Program are based at the outlets of HUC 11 watersheds located entirely in the state, with secondary sites located upstream in selected watersheds where isolation of a particular tributary influence is necessary. Stations are segregated into strategic basin groups and are sampled every five weeks for a period of two years. Each year, sampling is initiated in a new basin group, resulting in a statewide coverage of all sites in five years (Figure 1).

Effectively coordinated with other state monitoring programs, the OCC's Rotating Basin program is designed to accomplish the state's NPS monitoring needs in four stages. The first stage includes a comprehensive, coordinated investigation and analysis of the causes and sources of NPS pollution throughout the state—*Ambient Monitoring*. The second stage involves more intensive, specialized monitoring designed to identify specific causes and sources of NPS pollution—*Diagnostic Monitoring*. The data from diagnostic monitoring can be used to formulate an implementation plan to specifically address the sources and types of identified NPS pollution. The third stage of monitoring is designed to initiate remedial and/or mitigation efforts to address the NPS problems—*Implementation Monitoring*. Finally, the fourth stage evaluates the effectiveness of the implementation through assessment and post-implementation monitoring—*Success Monitoring*. This assessment program provides a thorough and statistically sound evaluation of Oklahoma's waters every five years, which helps focus NPS program planning, education, and implementation efforts in areas where they can be most effective.

Figure 1. Monitoring schedule and monitoring sites in “Basin Group 1” for the second cycle of the Small Watershed Rotating Basin Monitoring Project.

## Rotating Basin Group 1 Monitoring Sites



The Small Watershed Rotating Basin Monitoring Program considers the following specific questions in the context of Oklahoma Water Quality Standards and Use Support Assessment Protocols (USAPs) in addressing NPS pollution:

1. Which HUC 11 waterbodies are not-supporting assigned beneficial uses due to NPS or NPS plus point source (PS) pollution?
2. Which waterbodies show elevated or increasing levels of NPS or NPS plus PS pollutants, which may threaten water quality?
3. What are the sources and magnitude of pollution loading within threatened or impaired waterbodies?
4. Which land uses or changes in land use are sources or potential sources for pollutants causing beneficial use impairment?

In its entirety, OCC's Rotating Basin Monitoring Program provides an assessment of water quality, watershed condition, and support status for selected streams statewide necessary for planning, implementation, and eventual evaluation of mitigation efforts. Results from this effort are used to assist the state in producing the 305(b) and 303(d) lists which are required by the EPA to assess beneficial use support for waterbodies biannually.

This report discusses the results of the *ambient* (routine physical, chemical, and biological sampling) and *diagnostic* (special parameter sampling) stages of the second cycle of the Rotating Basin program in the Neosho-Grand and Upper Canadian basins (see Figure 1). *Implementation* and *success* monitoring are typically accomplished through priority watershed projects and reported on in project-specific final reports.

The statewide ambient monitoring program has allowed a comprehensive approach for the identification of nonpoint source (NPS) affected waters, as well as the identification of high quality streams. This program will continue to provide a robust baseline dataset to assess the impact of NPS pollution throughout the state, identify the causes and sources of the pollution, and determine the success of measures to improve water conditions.

## **2.0 MATERIALS AND METHODS**

### **2.1 GENERAL**

Sampling stations were selected to effectively represent streams of the Neosho-Grand and Upper Canadian Basins. Candidate streams were selected from subwatersheds within these basins located entirely within the state of Oklahoma having perennial water. Watersheds that did not have perennial water or were actually a segment of a larger river being sampled by another agency were not chosen. Where a particular watershed was monitored by another entity, the stream was dropped from consideration for a Rotating Basin site if the monitoring being conducted met the project data quality objectives. For most subwatersheds, the monitoring site was located near the outflow of the primary stream far enough upstream to limit backwater (surface and alluvial) effects of the waterbody to which it drained. For larger subwatersheds, an additional site was sometimes located upstream to isolate a particularly strong tributary influence. In some cases, sites were specifically chosen to monitor a stream draining an area of

landuse different from the majority of the other streams being monitored in that region or subwatershed.

Reconnaissance of all of the potential sites within the Neosho-Grand and Upper Canadian basins was accomplished prior to the first round of monitoring in 2001, and sites which did not meet the sampling criteria were removed from the project. Thirty-four sites were monitored during the first rotating basin cycle, from 2001-2003. Thirty-one of the original 34 streams were monitored in this second cycle. Two sites were moved slightly and one site was dropped due to lack of landowner cooperation. The second cycle of monitoring in these basins occurred from June 2006-May 2008.

The sites monitored in the Neosho-Grand Basin occur over four, level three ecoregions: Central Irregular Plains (CIP), Cross Timbers (CT), Boston Mountains (BM), and Ozark Highlands (OH) (Woods et al., 2005). In the Upper Canadian Basin, one site is located in the Southwestern Tablelands (SWT), while the other sites are in the Central Great Plains (CGP) ecoregion.

All sampling and analyses performed during this project were conducted under a Quality Assurance Project Plan (QAPP) approved by EPA Region VI and on file at the OCC Water Quality Division, the Oklahoma Secretary of the Environment (OSE), and EPA Region VI in Dallas. The reader is encouraged to obtain and consult the QAPP for specific questions concerning laboratory analytical methods, detection limits, and accuracy and precision limits. All sampling and measurement activities of OCC Water Quality staff followed procedures outlined in the appropriate OCC Standard Operating Procedure (OCC 2008). Water quality chemical analyses were conducted by the Oklahoma Department of Agriculture, Food and Forestry (ODAFF) laboratory.

## 2.2 WATER QUALITY MONITORING

Starting in June 2006, 33 sites were monitored for physical and chemical parameters on a fixed interval schedule of ten sampling events per year (five-week intervals) through May 2008 (usually 20 total events per site). This sampling frequency exceeds state data requirements for beneficial use assessment and meets a sample number necessary to provide a 90% level of confidence for principal water quality data (specifically phosphorus, a critical NPS concern) as determined from EPA's DEFT software. Samples were collected during both base flow and high flow conditions as they occurred on predetermined sampling dates. All sampling and measurement activities followed procedures outlined in the appropriate OCC SOP (OCC 2008). *In-situ* water quality parameters were measured at standardized sampling locations and include the following parameters: water temperature, dissolved oxygen, pH, specific conductance, alkalinity, turbidity, and instantaneous discharge.

One water sample was collected per site per 35-day interval in two, new, sample-rinsed HDPE bottles; one was preserved to a pH <2 with H<sub>2</sub>SO<sub>4</sub>, and both were stored and delivered on ice or at 4° C. Quality assurance/control samples were collected in accordance with Data Quality Objectives (DQOs) outlined in the project QAPP. Samples were submitted to the ODAFF Laboratory for analysis of the following parameters: nitrate (NO<sub>3</sub>), nitrite (NO<sub>2</sub>), orthophosphate (PO<sub>4</sub>), total phosphorus (TP), total Kjeldahl nitrogen (TKN), ammonia (NH<sub>4</sub>), chloride (Cl), sulfate (SO<sub>4</sub>), total suspended solids (TSS), total dissolved solids (TDS), 5-day biochemical oxygen demand (BOD<sub>5</sub>), and total hardness. An estimate of total nitrogen was calculated by

summing the values of nitrite, nitrate, and TKN for each sample. Available nitrogen was calculated by summing the values of ammonia, nitrite, and nitrate.

Separate samples were collected and submitted concurrently for analysis of *E. coli* and *Enterococcus* bacteria during the recreational season (May 1 – September 30), ensuring that a minimum of 10 samples were assessed per site over the two-year monitoring period. In addition, site observations of odor, excessive bottom deposits, surface scum, oil/grease, foam and other observations were recorded each time. All data were compiled and entered into an Access database for later analysis. Upon retrieval, data were proofed and quality assured, and the descriptive statistics were generated for each parameter using the statistical software package *Minitab V. 14*.

**Table 1. Site List for Rotating Basin Monitoring Program: Basin Group 1, Cycle 2.**

Site	WBID	Lat.	Long.	Legal Description	County	Ecoregion
Big Cabin Creek	OK121600-06-0220I	36.6142	-95.1617	NW¼ 34 25N 20E	Craig	CIP
Big Creek	OK121510-03-0010D	36.7853	-95.4634	NW¼ 35 27N 17E	Nowata	CIP
Bird Creek	OK121300-02-0010C	36.4852	-96.0610	NW¼ 7 23N 12E	Osage	CT
Buck Creek	OK121400-03-0170C	36.9755	-96.2947	SE¼ 23 29N 9E	Osage	CT
Buggy Creek	OK520610-02-0120C	35.3343	-97.9184	NE¼ NE¼ NE¼ NE¼ 22 10N 7W	Grady	CGP
Bull Creek	OK121500-02-0090D	36.0298	-95.4940	NW¼ 22 18N 17E	Wagoner	CIP
California Creek	OK121510-02-0050C	36.7802	-95.6657	36/35 27N 15E	Nowata	CIP
Chouteau Creek	OK121600-01-0430M	36.2192	-95.3865	15/16 20N 18E	Mayes	CIP
Commission Creek	OK520620-05-0160C	36.0336	-99.9170	N.B. NW¼ NE¼ NW¼ 18 18N 25W	Ellis	SWT
Curl Creek	OK121400-01-0270C	36.6177	-95.8455	NW¼ SW¼ 29 25N 14E	Washington	CIP
Deer Creek	OK520620-06-0010F	35.5365	-98.5174	NW¼ NW¼ NW¼ NW¼ 7 12N 12W	Caddo	CGP
Delaware Creek	OK121300-01-0150H	36.2771	-95.9924	E.B. 25 21N 12E	Tulsa	CIP
Dog Creek	OK121500-02-0360D	36.2486	-95.5980	NE¼ NW¼ NW¼ 3 20N 16E	Rogers	CIP
Fivemile Creek	OK121600-07-0110G	36.9835	-94.6919	NW¼ NE¼ 22 29N 24E	Ottawa	OH
Fourteenmile Creek	OK121600-01-0100G	35.9591	-95.1825	S.B. 9 17N 20E	Cherokee	OH
Hackberry Creek	OK520620-04-0050D	35.9320	-99.5237	E.B. SE¼ NE¼ SE¼ 22 17N 22W	Ellis	CGP
Hogshooter Creek	OK121400-01-0300D	36.6306	-95.8620	SW¼ 19 25N 14E	Washington	CIP
Hominy Creek: Upstm	OK121300-04-0280G	36.4810	-96.3980	SE¼ 12 23N 8E	Osage	CT
Hominy Creek: Downstm	OK121300-04-0010C	36.3078	-95.9740	SE¼ 12 21N 12E	Tulsa	CIP
Little Cabin Creek	OK121600-06-0080C	36.5975	-95.1385	N.B. 2 24N 20E	Craig	CIP
Little Caney River	OK121400-02-0140H	36.8587	-95.9579	N.B. 6 27N 13E	Osage	CIP
Little Horse Creek	OK121600-03-0190A	36.6862	-94.9115	S.B. 35 26N 22E	Ottawa	CIP
Lone Creek	OK520620-03-0020C	35.9062	-99.0650	S.B. SW¼ SE¼ NE¼ 36 17N 18W	Dewey	CGP
Mission Creek	OK121400-02-0190B	36.8693	-96.0130	SW¼ 28 28N 12E	Osage	CT
Pryor Creek: HWY 20	OK121610-00-0050D	36.3074	-95.3472	NE¼ NE¼ 14 21N 18E	Mayes	CIP
Pryor Creek: HWY 69	OK121610-00-0050M	36.2798	-95.3290	SE¼ SE¼ 24 21N 18E	Mayes	CIP
Ranger Creek	OK121600-01-0060D	35.8844	-95.2001	NW¼ NW¼ 9 16N 20E	Cherokee	BM
Saline Creek	OK121600-02-0030D	36.2820	-95.0929	SW¼ 20 21N 21E	Mayes	OH
Sand Creek	OK121400-04-0010F	36.7192	-96.0074	E.B. 21 26N 12E	Osage	CT
Sycamore Creek	OK121600-03-0510D	36.7685	-94.6920	NE¼ NW¼ 2 26N 24E	Ottawa	OH
Tar Creek	OK121600-04-0060D	36.8748	-94.8620	SE¼ SE¼ SE¼ 30 28N 23E	Ottawa	CIP
Trail Creek	OK520620-02-0090G	35.9565	-98.8480	N.B. NW¼ NW¼ NW¼ 18 17N 15W	Dewey	CGP
Walnut Creek	OK520610-03-0010F	34.9934	-97.3580	SE¼ SW¼ NE¼ 13 6N 2W	McClain	CGP



## 2.3 BIOLOGICAL MONITORING

### 2.3.1 Habitat Assessment

In the summer of 2006, OCC staff conducted instream and riparian habitat assessments at sites concurrent with fish collections. All assessments were conducted in accordance with procedures outlined in the OCC Habitat Assessment SOP (OCC 2008). The OCC's habitat assessment adheres to a modified version of the EPA Rapid Bioassessment Protocols (RBP) (Plafkin et al., 1989) and is designed to assess habitat quality in relation to its ability to support biological communities in the stream. The assessment is based on particular parameters grouped into three categories for a total of eleven components (Plafkin et al. 1989). The eleven components are discussed in more detail below. The three primary categories assessed include micro scale habitat, macro scale habitat, and riparian/bank structure. Micro scale habitat includes substrate makeup, stable cover, canopy, depth, and velocity. Macro scale assesses the channel morphology, sediment deposits, and other parameters. The third category looks at the riparian zone quality, width, and general makeup (trees, shrubs, vines, and grasses) as well as bank features. Bank erosion and streamside vegetative cover are incorporated into this section.

Each stream segment was surveyed for 400 meters upstream or downstream of the starting point (usually a road crossing). Investigators recorded data for the described parameters for 20 stations at 20 meter intervals. Habitat data were entered, metrics were computed, and a "total habitat score" was rendered via *Access* programming. The total habitat score, which can reach a maximum of 180 points, was calculated based on quantitative weighting given to each of the habitat parameters in relation to their biological significance. Scores were computed for each of the eleven categories, summed, and assigned as an evaluation of that stream section and riparian zone.

OCC's habitat assessment components include:

(1) **Instream cover** is the component of habitat that organisms hide behind, within, or under. High quality cover consists of things like submerged logs, cobble and boulders, root wads, and beds of aquatic plants. Cover required by smaller members of the stream community will consist of gravel, cobbles, small woody debris, and dense beds of fine aquatic plants. At least 50% of the stream's area should be occupied by a mixture of stable cover types for this category to be considered optimal.

(2) **Pool bottom substrate** describes the type of stream bed found in pools. Pools are depositional areas of the stream, and as such, are easily damaged by materials that settle. A loose shifting pool bottom will not provide substrate for burrowing organisms and will not allow bottom-spawning fish to successfully spawn. It will not provide habitat to the smaller vertebrates and invertebrates that are necessary to support many of the pool dwelling fish. At least 80% of all pool bottoms must have stable substrate for a reach to be considered optimal for this habitat component.

(3) **Pool variability** describes the depth of pools. A healthy, diverse community of aquatic organisms requires both deep and shallow pools. A fairly even mix of pool depths from a few centimeters to 0.5 meters or greater is optimal.

(4) **Canopy cover** assesses the shading of the stream section. Plants lie at the base of almost all food chains. Since plants require light for growth and survival, a stream that is functioning well needs some amount of light. Moderation is optimal, however, because light is associated with heat, and most aquatic organisms are more stressed by the warmer waters and the lower oxygen solubility and higher metabolic rates that accompany the warming of water.

(5) The **percent of rocky runs and riffles** is calculated for the fifth component. Rocky runs and riffles offer a unique combination of highly oxygenated, turbulent water, flowing over high quality cover and substrate. Turbulence prevents the formation of nutrient concentration gradients from cell membranes outward so that algae and other plants grow at a much higher rate than they would at the same concentration in pools. More food means more growth. Larger crops of algae are translated into larger invertebrate crops. It is these invertebrates, reared in riffle areas, that feed many of the fish in the stream. Because turbulent water is well oxygenated, there has been no selection pressure for riffle dwelling organisms to develop tolerance to poorly oxygenated waters. These are often the first animals to disappear from the stream if oxygen becomes scarce. The presence of rocky runs and riffles offers habitat for many highly adapted animals that will increase diversity of samples collected from the streams they occupy.

(6) **Discharge** at representative low flow reflects stream size. Water is the most basic requirement of aquatic organisms. Larger streams tend to have more water, and thus, more varied high quality habitat. Overall habitat quality should rise as streams increase in size and discharge, other factors being equal.

(7) **Channel alteration** is the seventh category. The presence of newly formed point bars and islands is very significant. Unstable streambeds support fewer types of animals than those that are stable. This is because unstable streambeds tend to have unstable pool bottom substrate, riffle areas whose cobbles are embedded in finer material, and little cover because it is continually being buried. Few or no signs of channel alteration are considered optimal.

(8) **Channel sinuosity** measures how far a channel deviates from a straight line. More sinuous channels tend to have more undercut banks, root wads, submerged logs, etc. IBI scores should be higher as channels become more sinuous. Sinuosity is calculated from digital ortho quad maps using Geographic Information System technology (GIS).

(9) The **bank erosion** index assesses the stability of the stream bank. Stable stream banks tend to increase IBI scores for many reasons. Most importantly, they do not contribute sediment to the stream channel. As a rule, channels with stable banks tend to be deeper and narrower than channels with unstable banks. Because of the increased depth and decreased width, they tend to be cooler and they also tend to grow less algae for a given amount of nutrients than do shallow, wide channels. Overall habitat quality should increase as bank stability increases.

(10) The **vegetative stability of the stream bank** is an important component. Stream banks can be stabilized with a number of materials including rock, concrete, and fabric. Banks that are stabilized with vegetation benefit the aquatic community more than those stabilized with other materials. This is because the vegetation offers several extra advantages beyond that of bank

stability. The riparian plants of the stream bank offer a high quality source of food and shade to the aquatic community. Riparian vegetation stabilizes point bars and contributes greatly to structure in the form of root wads and woody debris. Overall habitat quality should improve as bank vegetative stability increases.

(11) The last category is **streamside cover**. A large part of the energy and food input to the stream comes from the terrestrial vegetation along the banks. A mixture of grasses, forbs, shrubs, vines, saplings, and large trees transfer these necessities to the stream more effectively than does any single type of vegetation. Habitat quality should increase as the form of bank vegetation increases in diversity.

### 2.3.2 Fish

In the summer of 2006, fish were collected from a 400-meter reach at all sites using a combination of seining and electroshocking according to procedures outlined in OCC SOP (2008). The collection of fish follows a modified version of the EPA Rapid Bioassessment Protocol V (Plafkin et al., 1989) supplemented by other documents. Specific techniques and relative advantages of seining and electrofishing vary considerably according to stream type and conductivity. Depending upon workable habitat, seining was performed first at all sites and was accomplished by use of either 6' X 10' or 6' X 20' seines of ¼ inch mesh equipped with 8' brailes. Electroshocking was undertaken at all sites with suitable conductivities (usually < 1000 µS/cm) and involved the use of a Smith Root LR24 backpack shocker. For sites possessing long pools too deep to seine or backpack shock, OCC field personnel employed a boat electrofishing unit consisting of a Smith-Root GPP 5 shocking unit powered by a Honda 5kw generator.

Except for those individuals readily identifiable, fish were placed in 10% formalin upon capture and identified to species by a professional taxonomist. Fish species identified and released in the field were photographed on print film for reference. All fixed fish samples were transferred to ethanol and retained for future reference.

Fish data were compiled and analyzed by site using state biocriteria and methods outlined in the state's *Use Support Assessment Protocols* (OWRB 2007). In addition, each site was assessed using a modified version of Karr's Index of Biotic Integrity (IBI) (adapted from Plafkin et al., 1989). Descriptive statistics were determined for each metric using the *Minitab V. 14* software. The condition of the fish community was based on indices of species richness, community quality, trophic structure, and by comparison to the average scores of high-quality streams in that ecoregion. The modified IBI score was calculated using the following metrics:

- (1) The **total number of fish species** decreases with decreasing water or habitat quality.
- (2) The **number of sensitive benthic species (darters, madtoms, sculpins)** decreases with increasing siltation and increasing benthic oxygen demand. Many of these fish actually live within the cobble and gravel interstices and are very good indicators of conditions that make this environment inhospitable. These species are weak swimmers that do not readily travel up and down a stream, so their presence or absence at a site relates well to both past and present habitat and water quality conditions at that site.

(3) The **number of sunfish species** decreases with decreasing pool quality and with decreasing cover. Sunfish also require a fairly stable substrate on which to spawn, so their long-term success is also tied to conditions that affect the amount of sediment that enters and leaves the stream.

(4) The **number of intolerant species** is a characteristic of the fish community that separates high quality from moderate quality sites. A high quality stream will have several members of the fish community that are intolerant to environmental stress. A stream of only moderate quality will have fish that are moderately and highly tolerant of environmental stress. The intolerant species will not be present in the moderate quality stream.

(5) The **proportion of tolerant individuals** is a characteristic that allows moderate quality streams to be separated from low quality streams. These are opportunistic, tolerant fish that dominate communities that have lost their competitors through loss of habitat or water quality.

(6) The **proportion of individuals as insectivorous cyprinids** increases as the quality and quantity of the invertebrate food base increases. These are the dominant minnows in North American streams but are replaced by either omnivorous or herbivorous minnows as the quality of the food base deteriorates. Often, as the density of aquatic invertebrates decreases, the standing crop of algae increases. This is because the aquatic invertebrates are the largest group of primary consumers. Fish that can switch their diet to algae or fish that eat only algae will replace fish that cannot adapt to the new conditions.

(7) The **proportion of individuals as lithophilic spawners** decreases as the quality of the stream decreases. Lithophilic spawners require cobble or gravel in order to spawn; hence, these fish are sensitive to siltation. This metric allows separation of excellent streams from moderate quality streams.

For each of these seven metrics, a score of 5, 3, or 1 was assigned (Table 2), and these scores were summed to get a total IBI score (35 point maximum) for each site. For all “proportion” metrics, the score was based on the actual metric. For all non-proportion metrics, the score was determined by dividing the monitoring site’s metric by the average high quality site metric of the same ecoregion. Each monitoring site’s total score was then compared to the high quality site total score in that ecoregion and given an integrity rating (as established and suggested by the EPA RBP; see Table 3, below). IBI scores that fell between the assessment ranges were classified in the closest scoring group. This score indicates the quality of the fish community (higher scores indicate higher quality) but says nothing about whether any deficiencies are due to degraded water quality or to degraded habitat.

**Table 2. Index of Biotic Integrity (IBI) scoring criteria for fish.**

<i>Metrics</i>	<i>5</i>	<i>3</i>	<i>1</i>
Number of species	>67%	33-67%	<33%
Number of sensitive benthic species	>67%	33-67%	<33%
Number of sunfish species	>67%	33-67%	<33%
Number of intolerant species	>67%	33-67%	<33%
Proportion tolerant individuals	<10%	10-25%	>25%
Proportion insectivorous cyprinid individuals	>45%	20-45%	<20%
Proportion individuals as lithophilic spawners	>36%	18-36%	<18%

**Table 3. Index of Biotic Integrity (IBI) score interpretation for fish.**

% Comparison to the Reference Score	Integrity Class	Characteristics
>97%	Excellent	Comparable to pristine conditions, exceptional species assemblage
80 - 87%	Good	Decreased species richness, especially intolerant species
67 - 73%	Fair	Intolerant and sensitive species rare or absent
47 - 57%	Poor	Top carnivores and many expected species absent or rare; omnivores and tolerant species dominant
26 - 37%	Very Poor	Few species and individuals present; tolerant species dominant; diseased fish frequent

### 2.3.3 Macroinvertebrates

Collection of macroinvertebrates was attempted at all sites for both the winter and summer index periods of July 2006 through March 2008 according to procedures outlined in the OCC SOP (2008). Index periods represent seasons of relative community stability that afford opportunity for meaningful site comparisons. For Oklahoma, the summer index occurs from July 1 to September 15; the winter index occurs from January 1 to March 15. Sampling efforts included attempts to procure animals from all available habitats at a site; thus, total effort at a site may entail up to three total samples with one from each of the following habitats: rocky riffles, streamside vegetation, and woody debris.

Collection methods involved sampling each of the habitats similar to methods outlined in the EPA Rapid Bioassessment Protocols (Plafkin et al., 1989). Riffle sampling effort consisted of three, one meter squared kicknet samples in areas of rocky substrate reflecting the breadth of the velocity regime at a site. Riffles with substrates of bedrock or tight clay were not sampled. Any streamside vegetation in the current that appeared to offer fine structure was sampled by agitation within a #30 mesh dip net for three minutes total agitation time. Any dead wood with or without bark which was in current fast enough to offer suitable habitat for organisms was sampled by agitation or by scraping/brushing upstream of a #30 mesh dip net for 5 minutes. Woody debris sampled generally ranged in size from 1/4" to about 8" in diameter. Each sample

type was preserved independently in quart mason jars with ethanol, labeled, and sent to a professional taxonomist for picking and identification.

Data was compiled, collated by year, season, and sample type and entered into a spreadsheet for metric calculations. The six metrics used to assess the macroinvertebrate community include the following:

(1) The **number of taxa** refers to the total number of taxonomically different types of animals in the sample. As is the case with the fish, this number rises with increasing water and/or habitat quality (Plafkin et al., 1989).

(2) The **Modified Hilsenhoff Biotic Index (HBI)** is a measure of the invertebrate community's tolerance to organic pollution. It ranges between 0 and 10 with 0 being the most pollution sensitive. The index used in the RBP Manual is based on the pollution tolerance of invertebrates from the upper midwest. The Index used here is calculated the same way, but uses tolerance values of North Carolina invertebrates (Plafkin et al., 1989).

(3) The **percent EPT** is a measure of how many individuals in the sample are members of the EPT group. This metric helps to separate high quality streams from those of moderately high quality. The highest quality streams will have many individuals of many different taxa of EPT. As conditions deteriorate, animals will begin to die or to drift downstream. At this point, the community will still have many taxa of EPT, but there will be fewer individuals (Plafkin et al., 1989).

(4) The **EPT Index** is the number of different taxa from the orders Ephemeroptera, Plecoptera, and Trichoptera, the mayflies, stoneflies, and caddis flies respectively. With few exceptions, these insects are more sensitive to pollution than any other groups. As a stream deteriorates in quality, members of this group will be the first to disappear. This robust metric allows discrimination between all but the worst of streams (Plafkin et al., 1989).

(5) **Percent dominant two taxa** is the percentage of the collection composed of the most common two taxa. As more and more species are excluded by increasing pollution, the remaining species can increase in numbers due to the unused resources left by the excluded animals. This metric helps to separate the high quality streams from those of moderate quality (Plafkin et al., 1989).

(6) The **Shannon-Weaver Species Diversity Index** measures the evenness of the species distribution. It increases as more and more taxa are found in the collection and as individual taxa become less dominant. This metric increases with increasing biotic quality (Plafkin et al., 1989).

Descriptive statistics of each season-specific sample type (e.g., summer riffle, winter vegetation, summer woody) for each site were determined via *Minitab V. 14* and were compared to the average respective metric of high-quality streams in the ecoregion. A bioassessment score was calculated similarly to the IBI score for fish. For each site, scores of 6, 4, 2, or 0 were assigned for each metric (according to the criteria in Table 4, below) and then summed to get a total bioassessment score for each site, with a maximum of 36 points. For taxa richness and EPT taxa

richness, the percentages used to assign scores were obtained by dividing each monitoring site metric by the average high quality site metric in a particular ecoregion. For the HBI metric, the high quality site value was divided by the monitoring site value (high quality site metric / monitoring site metric). For the remaining metrics, the score was based on the actual values obtained instead of being relative to the high quality site metric. Each monitoring site's total score was then compared to the average high quality sites' total score (in that ecoregion) and classified according to the condition gradient outlined in Table 5 (adapted from Plafkin et al., 1989).

**Table 4. Bioassessment scoring criteria for macroinvertebrates. \*Modified HBI Using North Carolina Tolerance Values, \*\*RBP for Use in Streams and Rivers 1989, \*\*\*Modified by OCC**

<i>Metrics</i>	<i>6</i>	<i>4</i>	<i>2</i>	<i>0</i>
Taxa Richness**	>80%	60-80%	40-60%	<40%
Modified HBI* (**)	>85%	70-85%	50-70%	<50%
EPT/Total***	>30%	20-30%	10-20%	<10%
EPT Taxa**	>90%	80-90%	70-80%	<70%
% Dominant 2 Taxa**	<20%	20-30%	30-40%	>40%
Shannon-Weaver***	>3.5	2.5-3.5	1.5-2.5	<1.5

**Table 5. Bioassessment score interpretation for macroinvertebrates.**

% Comparison to the Reference Score	Biological Condition	Characteristics
>83%	Non-impaired	Comparable to the best situation expected in that ecoregion; balanced trophic and community structure for stream size
54 - 79%	Slightly Impaired	Community structure and species richness less than expected; percent contribution of tolerant forms increased and loss of some intolerant species
21 - 50%	Moderately Impaired	Fewer species due to loss of most intolerant forms; reduction in EPT index
<17%	Severely Impaired	Few species present; may have high densities of 1 or 2 taxa

## 2.4 WATERSHED ASSESSMENT

To investigate potential sources of NPS pollution for streams showing beneficial use impairment, relevant data layers were explored using ArcView 3.2 Geographic Information System (GIS) software. Data explored included the 2001 USGS National Land Cover Dataset (NLCD), oil and gas wells, confined animal feeding operations, national pollution discharge elimination system permit holders, total retention sites, biosolid land application sites and other data layers. The NLCD was explored to determine percent occurrence of particular landuse types such as bare rock/sand/clay, vegetation (broken into several categories, both natural and agricultural), open water, and residential/commercial/industrial uses (divided into several categories).

## 2.5 BENEFICIAL USE SUPPORT ASSESSMENT

Each stream's assigned beneficial uses were evaluated following the protocols outlined in the state's *Continuing Planning Process, Integrated Water Quality Report Listing Methodology* (Oklahoma Department of Environmental Quality, 2007) and per *Implementation of Oklahoma's Water Quality Standards, Subchapter 15: Use Support Assessment Protocols* (OAC 785:46-15; Oklahoma Water Resource Board, 2007). Streams were considered non-supporting when Oklahoma Water Quality Standards were violated as determined by criteria and rules listed in these documents. Parameters not addressed in OAC 785:46-15 were assessed using applicable state and federal rules and regulations to determine support status. Assessment results were submitted to the ODEQ for final assimilation in the state's 2008 and 2010 Integrated Reports submitted to EPA Region VI.

## 3.0 RESULTS AND DISCUSSION

### 3.1 WATER QUALITY MONITORING

All chemical and physical water quality data collected for the project are included in Appendix A.1; Appendix A.2 contains the bacteria data. Table 6 gives the mean values of all water quality parameters collected *in-situ* for each site, regardless of flow. Instantaneous discharge is presented as "base flow" (elevated flows omitted). Table 7 provides the means for all chemical analytes assessed, regardless of flow. Descriptive statistics for water quality parameters are presented by site in Appendix A.3.

**Table 6. Mean *In-Situ* Water Quality Values for Basin Group 1 Monitoring Sites, 2006-2008.**

Site Name	WBID	DO (mg/L)	Turb (NTU)	Alkalinity (CaCO <sub>3</sub> )	Temp (°C)	Conductivity (uS/cm)	pH (SU)	Base Flow (cfs)
Big Cabin Creek	OK121600-06-0220I	7.92	78.90	87	15.5	652.9	7.60	8.27
Big Creek	OK121510-03-0010D	8.02	22.35	145	16.4	332.9	7.73	23.39
Bird Creek	OK121300-02-0010C	8.91	88.50	82	16.9	295.7	7.69	26.20
Buck Creek	OK121400-03-0170C	8.16	112.10	145	15.3	338.1	7.85	9.92
Buggy Creek	OK520610-02-0120C	9.25	160.00	279	16.0	1103.2	8.03	8.82
Bull Creek	OK121500-02-0090D	7.29	47.56	63	16.5	274.9	7.30	3.03
California Creek	OK121510-02-0050C	7.47	28.11	107	15.1	388.4	7.52	2.35
Chouteau Creek	OK121600-01-0430M	5.65	48.30	69	15.6	219.6	7.14	3.12
Commission Creek	OK520620-05-0160C	10.04	18.10	236	14.4	859.8	8.16	6.83
Curl Creek	OK121400-01-0270C	6.94	51.10	88	15.2	323.6	7.19	4.33
Deer Creek	OK520620-06-0010F	10.26	99.70	194	18.5	1255.8	8.10	37.02
Delaware Creek	OK121300-01-0150H	6.75	50.20	81	15.3	472.0	7.05	5.08
Dog Creek	OK121500-02-0360D	7.09	19.48	86	16.6	361.0	7.31	10.18
Fivemile Creek	OK121600-05-0110G	9.83	1.99	109	16.8	254.8	7.70	6.55
Fourteenmile Creek	OK121600-01-0100G	9.26	10.61	72	16.4	174.6	7.62	11.25
Hackberry Creek	OK520620-04-0050D	9.84	8.59	243	13.9	2414.0	8.03	2.41
Hogshooter Creek	OK121400-01-0300D	7.30	15.78	139	15.0	449.3	7.47	5.66
Hominy Creek: Downstrm	OK121300-04-0010C	8.59	39.82	71	16.1	304.5	7.39	83.00
Hominy Creek: Upstrm	OK121300-04-0280G	8.97	77.00	114	15.2	1163.0	7.65	4.77
Little Cabin Creek	OK121600-06-0080C	6.46	64.70	100	14.8	361.7	7.43	2.53



Site Name	WBID	DO (mg/L)	Turb (NTU)	Alkalinity (CaCO3)	Temp (°C)	Conductivity (uS/cm)	pH (SU)	Base Flow (cfs)
Little Caney River	OK121400-02-0140H	9.43	96.30	92	16.3	256.1	7.73	10.70
Little Horse Creek	OK121600-03-0190A	7.04	43.90	104	15.5	310.9	7.46	6.14
Lone Creek	OK520620-03-0020C	10.40	14.84	185	17.0	2526.0	8.03	1.25
Mission Creek	OK121400-02-0190B	7.28	44.00	86	15.8	253.4	7.21	6.69
Pryor Creek: HWY 20	OK121610-00-0050D	7.36	55.90	63	16.4	259.8	7.28	16.56
Pryor Creek: HWY 69	OK121610-00-0050M	7.43	47.50	60	15.7	254.4	7.19	11.08
Ranger Creek	OK121600-01-0060D	7.88	9.48	107	15.6	279.0	7.86	10.08
Saline Creek	OK121600-02-0030D	9.99	3.79	88	17.2	210.9	7.57	10.72
Sand Creek	OK121400-04-0010F	8.50	90.00	99	16.3	488.6	7.43	19.22
Sycamore Creek	OK121600-03-0510D	9.19	10.39	108	15.7	257.1	7.57	11.77
Tar Creek	OK121600-04-0060D	9.39	27.60	92	15.5	1194.0	7.63	7.54
Trail Creek	OK520620-02-0090G	9.23	38.80	182	17.5	2381.9	7.87	2.39
Walnut Creek	OK520610-03-0010F	8.78	100.80	345	17.2	757.0	8.00	13.78

**Table 7. Mean Water Quality Values for Basin Group 1 Monitoring Sites, 2006-2008.**

Site Name	WBID	Chloride (mg/L)	Sulfate (mg/L)	TotDisSolids (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	TotOrthoPhos (mg/L)	TotPhosphorus (mg/L)	TotSusSolids (mg/L)	TotHardness (mg/L)
Big Cabin Creek	OK121600-06-0220I	20.61	193.30	449.9	0.0282	3.7000	0.0274	0.5780	0.5470	0.6760	63.6	298.2
Big Creek	OK121510-03-0010D	10.02	25.07	219.2	0.0226	0.3069	0.0273	0.3540	0.0235	0.0592	15.5	175.1
Bird Creek	OK121300-02-0010C	30.79	15.76	189.5	0.0180	0.1232	0.0169	0.4190	0.0281	0.0986	76.7	107.8
Buck Creek	OK121400-03-0170C	18.90	17.85	199.5	0.0127	0.1191	0.0164	0.3530	0.0304	0.1033	129.4	164.0
Buggy Creek	OK520610-02-0120C	37.82	301.20	834.7	0.0930	0.9030	0.0370	1.0640	0.2089	0.3800	443.0	515.7
Bull Creek	OK121500-02-0090D	17.03	54.10	185.8	0.0337	0.3502	0.0408	0.6329	0.0359	0.0999	18.3	97.2
California Creek	OK121510-02-0050C	37.41	35.81	245.9	0.0166	0.2575	0.0195	0.4181	0.0326	0.0821	17.4	157.3
Chouteau Creek	OK121600-01-0430M	8.95	25.29	166.1	0.0675	0.2225	0.0238	0.5948	0.0383	0.1066	27.2	79.9
Commission Creek	OK520620-05-0160C	103.13	54.20	495.5	0.0106	0.3468	0.0363	0.2910	0.0188	0.0368	27.9	258.4
Curl Creek	OK121400-01-0270C	26.20	25.34	207.9	0.0196	0.1549	0.0298	0.5132	0.0885	0.1599	26.8	114.2
Deer Creek	OK520620-06-0010F	23.67	480.40	988.9	0.0518	1.9060	0.0334	0.5190	0.2236	0.3320	313.0	680.9
Delaware Creek	OK121300-01-0150H	89.10	57.50	307.5	0.0130	0.1051	0.0369	0.4548	0.0241	0.0726	23.0	132.8
Dog Creek	OK121500-02-0360D	25.97	42.14	227.1	0.1980	1.5660	0.0638	0.7670	0.6840	0.7490	14.5	115.7
Fivemile Creek	OK121600-05-0110G	13.98	42.30	150.9	0.0106	0.3485	0.0197	0.2150	0.0200	0.0580	40.4	135.9
Fourteenmile Creek	OK121600-01-0100G	6.01	9.82	102.8	0.0106	0.5410	0.0174	0.1151	0.0322	0.0538	9.3	79.3
Hackberry Creek	OK520620-04-0050D	74.92	983.20	1973.0	0.0106	0.1508	0.0423	0.3550	0.0249	0.0426	9.8	1313.9
Hogshooter Creek	OK121400-01-0300D	36.25	24.21	270.9	0.0129	0.2716	0.0280	0.3559	0.0470	0.0982	14.4	181.6
Hominy Creek: Downstrm	OK121300-04-0010C	42.14	16.19	197.9	0.1063	0.2035	0.0296	0.4364	0.0710	0.1180	31.6	104.9
Hominy Creek: Upstrm	OK121300-04-0280G	262.70	28.53	702.7	0.0133	0.1735	0.0282	0.3239	0.0238	0.0728	83.7	292.0
Little Cabin Creek	OK121600-06-0080C	10.98	75.20	258.2	0.0422	0.4232	0.0347	0.6660	0.0639	0.1450	42.5	134.5
Little Caney River	OK121400-02-0140H	18.36	10.24	176.9	0.0209	0.1761	0.0272	0.3699	0.0569	0.1274	66.4	98.9
Little Horse Creek	OK121600-03-0190A	15.44	23.73	202.2	0.0562	0.5710	0.0277	0.8540	0.2762	0.3553	48.3	128.7
Lone Creek	OK520620-03-0020C	42.27	1454.70	2638.0	0.0550	0.3094	0.0231	0.3670	0.0209	0.0529	29.7	1942.0
Mission Creek	OK121400-02-0190B	15.91	14.46	165.8	0.0130	0.1213	0.0159	0.4552	0.0244	0.0826	24.9	104.0
Pryor Creek: HWY 20	OK121610-00-0050D	22.13	31.25	175.0	0.0524	0.2586	0.0259	0.5437	0.0612	0.1294	41.2	82.7
Pryor Creek: HWY 69	OK121610-00-0050M	18.94	32.74	173.5	0.0402	0.2626	0.0339	0.4516	0.0511	0.1095	27.4	80.1
Ranger Creek	OK121600-01-0060D	5.42	17.55	165.2	0.0129	0.2606	0.0182	0.1866	0.0344	0.0625	8.8	140.9
Saline Creek	OK121600-02-0030D	8.48	6.48	118.8	0.0106	0.6055	0.0202	0.0956	0.0099	0.0230	7.9	97.1
Sand Creek	OK121400-04-0010F	69.30	27.91	303.4	0.0213	0.1047	0.0202	0.4424	0.0261	0.0841	70.4	161.9

Site Name	WBID	Chloride (mg/L)	Sulfate (mg/L)	TotDisSolids (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	TotOrthoPhos (mg/L)	TotPhosphorus (mg/L)	TotSusSolids (mg/L)	TotHardness (mg/L)
Sycamore Creek	OK121600-03-0510D	9.89	6.20	145.9	0.0175	1.6770	0.0159	0.1344	0.0260	0.0445	11.5	117.4
Tar Creek	OK121600-04-0060D	34.33	567.10	1096.0	0.0799	0.3589	0.0209	0.4220	0.0556	0.0949	20.3	756.0
Trail Creek	OK520620-02-0090G	27.21	1411.40	2380.7	0.0645	0.1604	0.0181	0.4490	0.0682	0.1048	135.1	1917.8
Walnut Creek	OK520610-03-0010F	39.74	50.83	451.8	0.5230	0.5430	0.0631	0.8700	0.2291	0.3120	124.7	356.2

Twenty-seven of the sites are designated as Warm Water Aquatic Communities (WWAC) and have a critical dissolved oxygen (DO) level of 5.0 mg/L most of the year (4.0 mg/L from June 16-October 15). Four of the sites are designated as Cool Water Aquatic Communities (CWAC), with a critical DO level of 6.0 mg/L most of the year (5.0 mg/L from June 1-October 15), and two of the sites have Habitat Limited Aquatic Community (HLAC) designations, with a critical DO level of 3.0 mg/L most of the year (4.0 mg/L from April 1-June 15). Most of the streams were attaining the DO standard. Big, Bull, California, Chouteau, Curl, Delaware, Dog, Hogshooter, Little Cabin, Little Horse, Mission, Pryor, and Ranger Creeks had more than 10% of samples below the criteria and were included on the state's 2008 303(d) list.

**Table 8. Low dissolved oxygen values (DO<5.0 mg/l for WWAC; DO<6.0 mg/l for CWAC).**

% samples with low DO	SiteName	WBID	FWP	Date	DO (mg/L)	% samples with low DO	SiteName	WBID	FWP	Date	DO (mg/L)
11%	Big Creek	OK121510-03-0010D	WWAC	14-Aug-06	3.61	16%	Dog Creek	OK121500-02-0360D	WWAC	19-Jun-06	2.47
				18-Sep-06	3.8					19-Jun-07	3.05
16-Oct-06	2.61	02-Oct-07	3.6								
10%	Buck Creek	OK121400-03-0170C	WWAC	13-Nov-06	3.69	20%	Hogshooter Creek	OK121400-01-0300D	WWAC	12-Sep-06	3.1
				15-Aug-06	2.94					17-Oct-06	1.74
14-May-07	3.77	14-Nov-06	0.34								
23-Jul-07	2.44	12-Jun-07	4.8								
16%	California Creek	OK121510-02-0050C	WWAC	14-Aug-06	3.69	10%	Hominy Creek: Downstrm	OK121300-04-0010C	WWAC	17-Jul-07	3.44
				18-Sep-06	3.89					21-Aug-07	3.88

% samples with low DO	SiteName	WBID	FWP	Date	DO (mg/L)	% samples with low DO	SiteName	WBID	FWP	Date	DO (mg/L)
				27-Nov-06	0.12					07-Aug-06	3.81
53%	Chouteau Creek	OK121600-01-0430M	WWAC	20-Jun-06	1.36	20%	Little Cabin Creek	OK121600-06-0080C	WWAC	13-Nov-06	1.69
				15-Aug-06	1.85					19-Dec-06	4.9
				19-Sep-06	3.75					03-Dec-07	3.61
				24-Oct-06	3.97					5%	Little Caney River
				28-Nov-06	0.53	17%	Little Horse Creek	OK121600-03-0190A	WWAC	07-Aug-06	3.03
				23-Jul-07	3.99					16-Jul-07	3.81
				28-Aug-07	3.66					03-Dec-07	4.09
				02-Oct-07	3.47	15%	Mission Creek	OK121400-02-0190B	WWAC	12-Jun-06	3.32
				07-Nov-07	4.17					07-Aug-06	3.45
				04-Dec-07	2.08					16-Oct-06	4.85
30%	Curl Creek	OK121400-01-0270C	WWAC	13-Jun-06	2.27	11%	Pryor Creek: HWY 20	OK121610-00-0050D	WWAC	28-Nov-06	2.53
				08-Aug-06	3.35					28-Aug-07	3.57
				12-Sep-06	2.96	11%	Pryor Creek: HWY 69	OK121610-00-0050M	WWAC	20-Jun-06	3.65
				17-Oct-06	1.98					28-Aug-07	3.95
				14-Nov-06	0.45	15%	Ranger Creek	OK121600-01-0060D	WWAC	08-Aug-06	3.78
				30-Oct-07	4.53					12-Sep-06	2.87
21%	Delaware Creek	OK121300-01-0150H	WWAC	14-Aug-06	2.84					21-Aug-07	3.42
				27-Nov-06	1.61	5%	Sand Creek	OK121400-04-0010F	WWAC	12-Jun-06	4.24
				02-Oct-07	3.34	5%	Sycamore Creek	OK121600-03-0510D	CWAC	19-Jun-06	3.6
				06-Nov-07	4.27						

Table 9 shows the geometric mean of *Enterococcus* and *E.coli* bacteria samples for each site over the two-year monitoring period. Only Big Cabin and Tar Creeks were designated Secondary Body Contact Recreation (SBCR); all other sites were designated Primary Body Contact Recreation (PBCR). Most creeks exceeded the geometric mean criterion set for *Enterococcus*, and many exceeded the criterion for *E. coli* as well. Only three PBCR streams, Fivemile, Fourteenmile, and Saline, are not impaired for bacteria. Both of the SBCR streams are attaining the designated Recreation use. To be listed on the state's 303(d) list, the geometric mean must exceed criteria and at least one sample must be above a set criterion value. Sites listed on the 2008 303(d) list and Category 4 sites (those impaired but having a completed TMDL) for bacteria are denoted in Table 9.

**Table 9. Geometric mean of bacteria values for Basin Group 1 monitoring sites, 2006-2007 OCC data. An asterisk (\*) indicates SBCR designation; all others are PBCR. Most streams are impaired by bacteria, as indicated by ^^, and these streams are either listed on the 2008 303(d) list or have been moved to Category 4 for bacteria after a TMDL has been produced.**

Site Name	WBID	<i>Enterococcus</i>	<i>E. coli</i>	Site Name	WBID	<i>Enterococcus</i>	<i>E. coli</i>
Big Cabin Creek*	OK121600-06-0220I	375.94	180.83	Hominy Creek: Downstream^^	OK121300-04-0010C	97.43	113.92
Big Creek^^	OK121510-03-0010D	104.50	76.96	Hominy Creek: Upstream^^	OK121300-04-0280G	173.44	140.48
Bird Creek^^	OK121300-02-0010C	55.21	65.44	Little Cabin Creek^^	OK121600-06-0080C	463.87	280.88
Buck Creek^^	OK121400-03-0170C	232.57	169.61	Little Caney River^^	OK121400-02-0140H	101.81	126.42
Buggy Creek^^	OK520610-02-0120C	357.62	573.25	Little Horse Creek^^	OK121600-03-0190A	415.17	135.90
Bull Creek^^	OK121500-02-0090D	112.76	187.81	Lone Creek^^	OK520620-03-0020C	604.63	312.42
California Creek^^	OK121510-02-0050C	167.13	152.68	Mission Creek^^	OK121400-02-0190B	278.68	145.38
Chouteau Creek^^	OK121600-01-0430M	182.90	316.04	Pryor Creek: HWY 20^^	OK121610-00-0050D	216.92	229.92
Commission Creek^^	OK520620-05-0160C	74.19	115.77	Pryor Creek: HWY 69^^	OK121610-00-0050M	265.47	256.67
Curl Creek^^	OK121400-01-0270C	143.20	282.94	Ranger Creek^^	OK121600-01-0060D	103.93	114.67
Deer Creek^^	OK520620-06-0010F	132.82	148.99	Saline Creek	OK121600-02-0030D	36.37	91.65
Delaware Creek^^	OK121300-01-0150H	140.92	313.82	Sand Creek^^	OK121400-04-0010F	316.47	145.45
Dog Creek^^	OK121500-02-0360D	147.14	129.93	Sycamore Creek^^	OK121600-03-0510D	140.27	128.01
Fivemile Creek	OK121600-05-0110G	63.76	54.76	Tar Creek*	OK121600-04-0060D	251.99	146.89
Fourteenmile Creek	OK121600-01-0100G	104.08	74.50	Trail Creek^^	OK520620-02-0090G	276.80	379.28
Hackberry Creek^^	OK520620-04-0050D	378.80	320.98	Walnut Creek^^	OK520610-03-0010F	409.05	397.28
Hogshooter Creek^^	OK121400-01-0300D	327.11	455.44				

Select water quality parameters are summarized by box plots in Figure 2, below. To account for natural differences, sites were collated and analyzed by Level III ecoregions (Woods et al. 2005). Additionally, sites were compared to streams determined to be “high quality” sites in each ecoregion (see App. E for high quality streams details) to determine general stream condition. Figure 2 shows interquartile range plots by site for four important indicators of pollution: estimated available nitrogen (ammonia plus nitrate/nitrite), estimated total nitrogen (TKN plus nitrate/nitrite), total orthophosphorus, and total phosphorus. All elevated flow data were omitted in these analyses.

Regarding boxplot composition, the median of each site is shown by a line within the box with outliers denoted by asterisks. The mean of the high quality stream sites in a particular ecoregion is represented by a solid horizontal line, while dashed lines indicate +/- two standard deviations (representing 95% of the high quality data) for high quality site parameters. In instances where only one dashed line is present, the lower value was below zero.

Ranger Creek had total phosphorus and orthophosphorus values that were marginally significantly higher than high quality sites in the Boston Mountains ecoregion. Big Cabin Creek and Dog Creek had high nutrient values relative to high quality streams in the Central Irregular Plains ecoregion. All other streams had nutrient values that were not significantly different from the high quality sites values in each respective ecoregion.

Figure 3 shows interquartile range plots for four physical parameters (all high flow data excluded): dissolved oxygen (percent saturation), pH, turbidity, and total suspended solids. Chouteau Creek had significantly low dissolved oxygen values relative to high quality sites in the Central Irregular Plains ecoregion. Other streams fell within the high quality range for the other parameters. These findings will be discussed further at the end of this report.

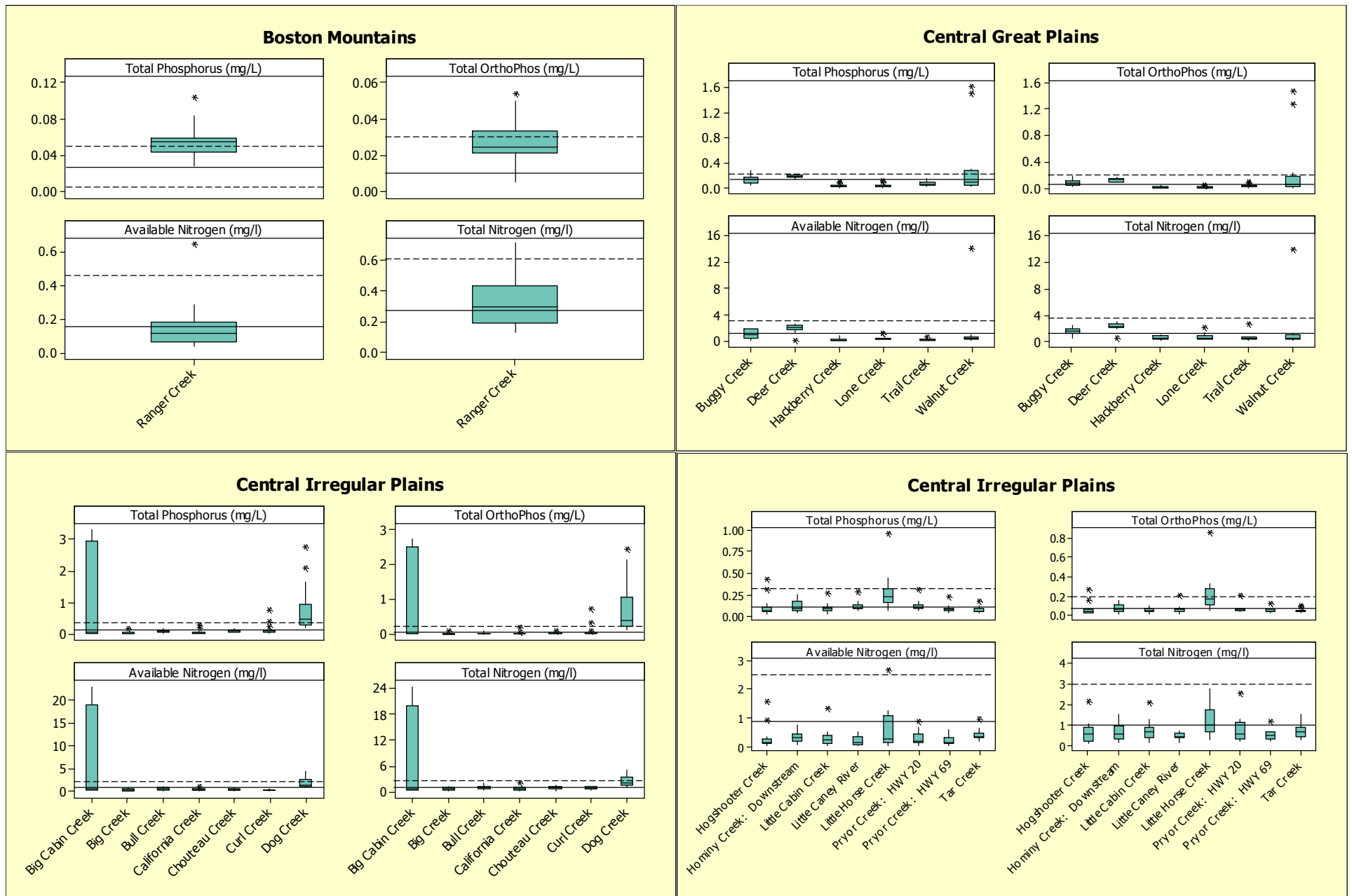


Figure 2. Nutrient parameters for each site by ecoregion. Solid lines indicate the mean value of high quality sites in each ecoregion; dashed lines represent +/- two standard deviations (if only one dashed line, the lower standard deviation was below zero).

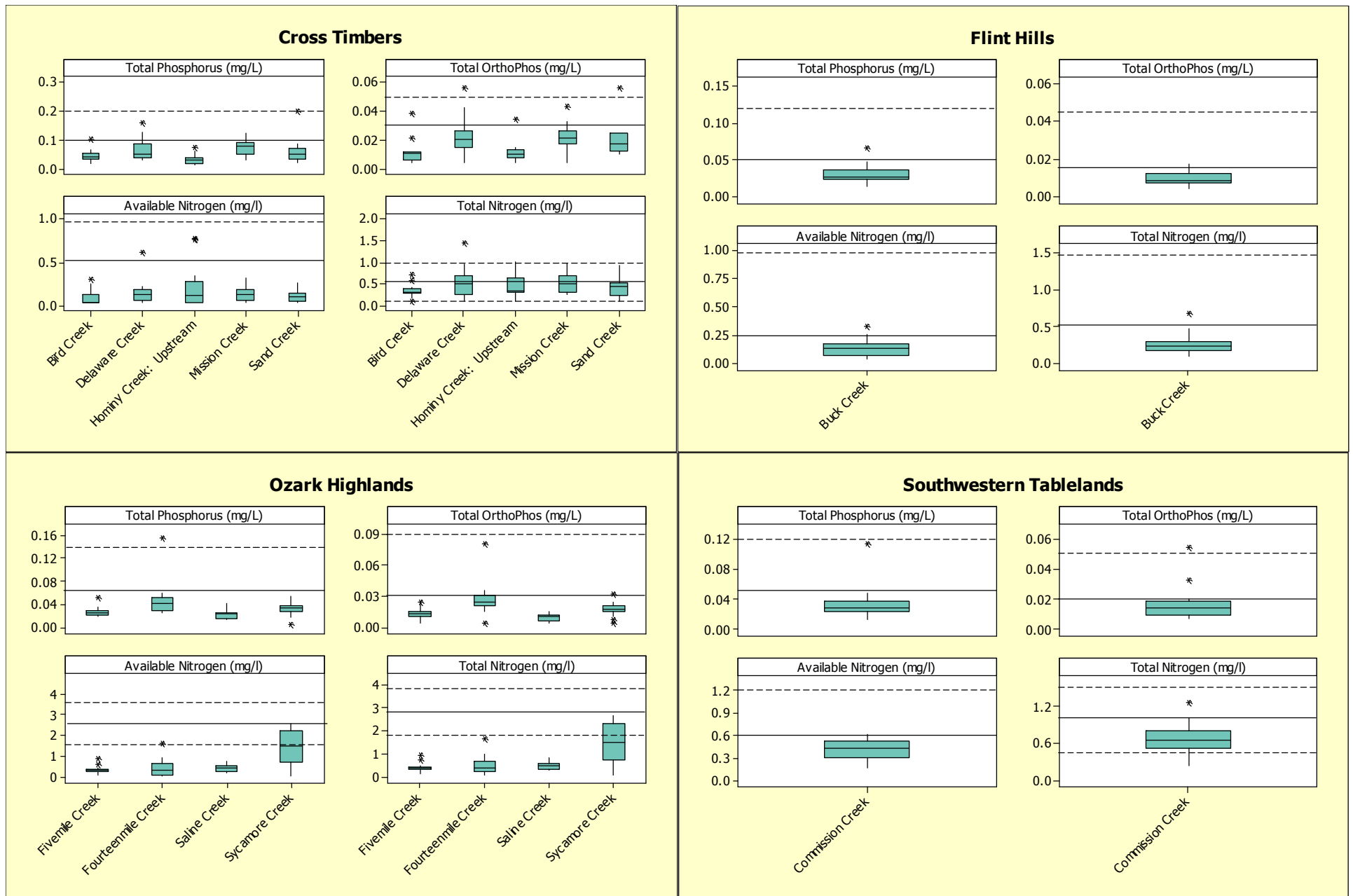


Figure 2, cont. Nutrient parameters for each site by ecoregion. Solid lines indicate the mean value of high quality sites in each ecoregion; dashed lines represent +/- two standard deviations (if only one dashed line, the lower standard deviation was below zero).



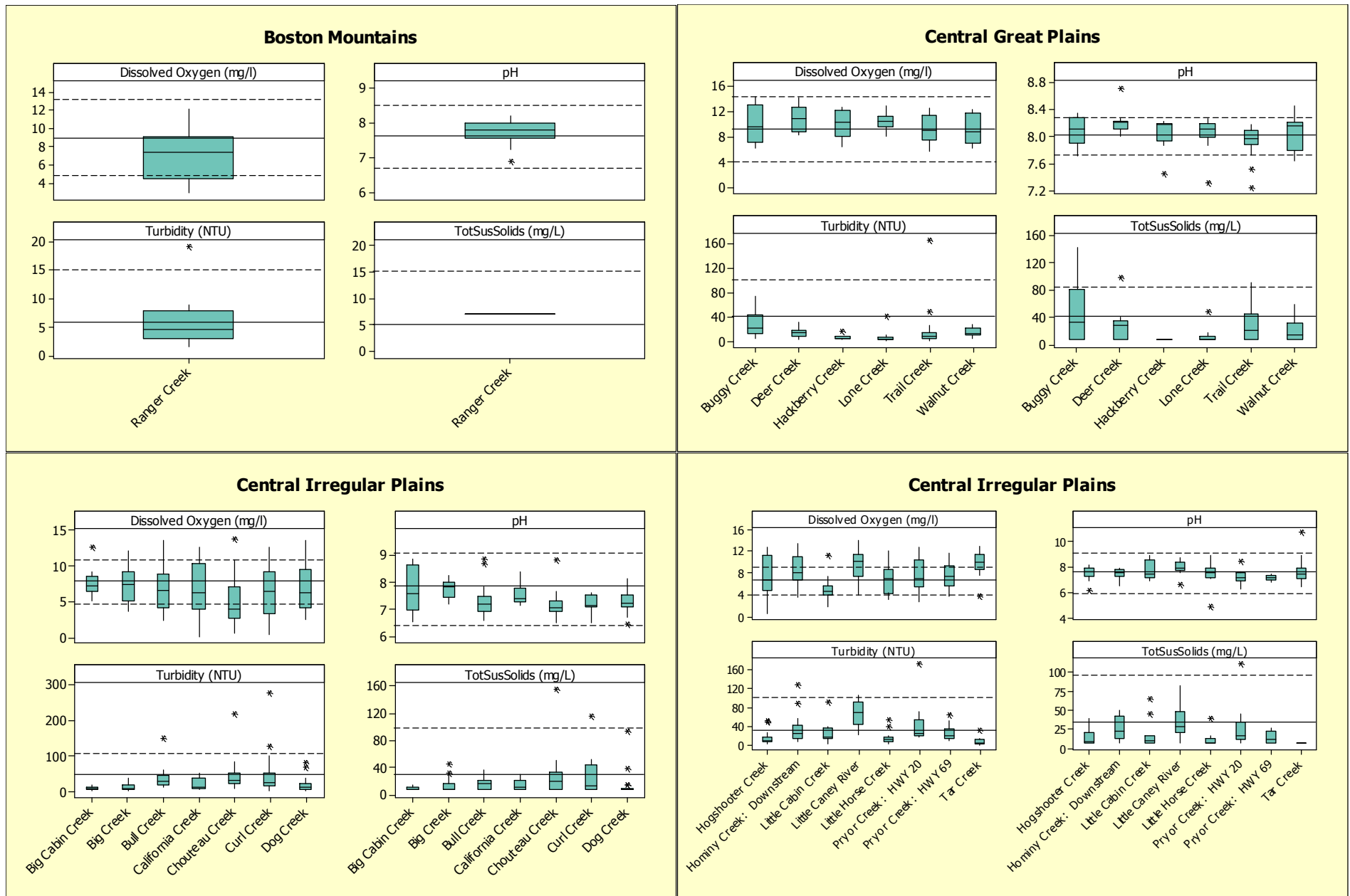


Figure 3. Selected physical water quality parameters for each site by ecoregion. Solid lines indicate the mean value of high quality sites in each ecoregion; dashed lines represent +/- two standard deviations (if only one dashed line, the lower standard deviation was below zero).

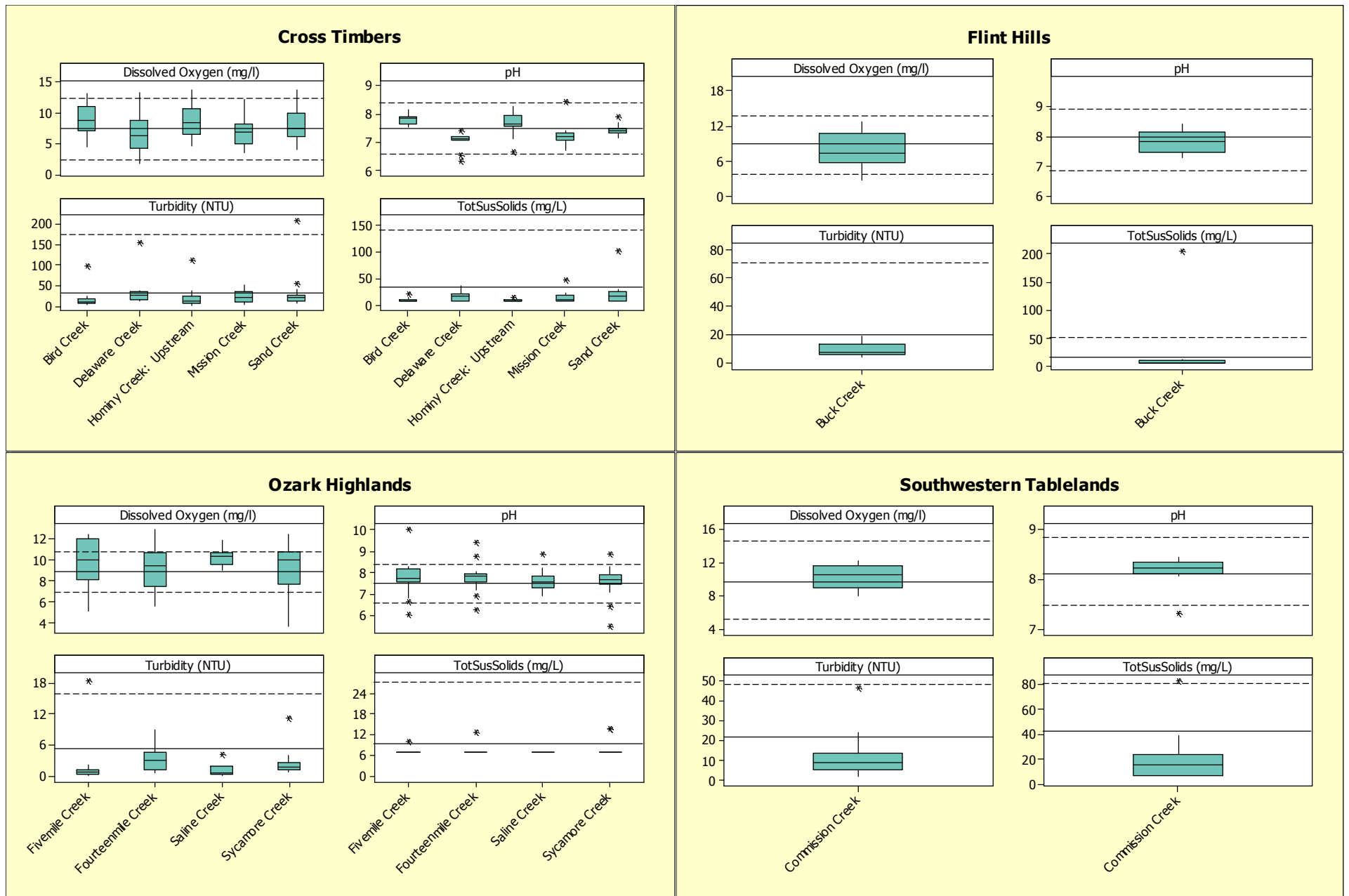


Figure 3, cont. Selected physical water quality parameters for each site by ecoregion. Solid lines indicate the mean value of high quality sites in each ecoregion; dashed lines represent +/- two standard deviations (if only one dashed line, the lower standard deviation was below zero).

Table 10 shows a comparison between water quality data collected for the same site in the previous rotating basin cycle and the second cycle in order to examine whether water conditions have improved, worsened, or remained the same at a particular site. One-way ANOVAs were performed for each set of data. Only statistically significant differences between the means of each parameter are shown in the table. Level of significance is indicated by p-values, with any  $p < 0.050$  considered significant and  $0.050 < p < 0.100$  considered marginally significant.

In general, many streams had significantly reduced levels of nitrogen in the second cycle of monitoring as compared to the first cycle. Specifically, 23 streams had significantly lower ammonia (none were significantly higher), 20 streams had significantly lower nitrate (none were significantly higher), 9 streams had significantly lower TKN (none were significantly higher), 3 streams had significantly lower nitrite (7 were significantly higher), 2 streams had significantly lower total N (4 were significantly higher), and 27 streams had significantly lower available N (none were significantly higher). The higher levels of nitrite could be at least partially explained by a change in detection limits from 0.01 in the first cycle to 0.02 in the second cycle. The test for nitrate also had a shift in detection limit from 0.01 in the first cycle to 0.02 in the second. The significant decreases observed despite this higher detection limit suggest that the reduction in nitrogen between the cycles is even more significant. Two streams had significantly higher dissolved oxygen levels (mg/L) while four streams had significantly improved dissolved oxygen levels in terms of percent saturation.

Only one stream showed a significant change in turbidity (an increase). Ten streams had significant increases in orthophosphorus (one stream had a significant decrease), and five streams had significantly increased total phosphorus (two streams had significant decreases).

**Table 10. Statistical comparisons of cycle one and cycle two Rotating Basin Project water quality data.**

Site	WBID	Variable	RB Cycle	N	Mean	p value	
Big Cabin Creek	OK121600-06-0220I	Turbidity	2001-2002	20	25.2	0.107	increasing
			2006-2007	20	78.9		
		Ammonia	2001-2002	20	0.1746	0.000	decreasing
			2006-2007	20	0.0282		
Big Creek	OK121510-03-0010D	Alkalinity	2001-2002	20	110.8	0.013	increasing
			2006-2007	19	144.6		
		Ammonia	2001-2002	20	0.1413	0.014	decreasing
			2006-2007	19	0.0226		
		Nitrite	2001-2002	20	0.0661	0.077	decreasing
			2006-2007	19	0.0273		
		Available N	2001-2002	20	0.9790	0.001	decreasing
			2006-2007	19	0.3570		
		Chloride	2001-2002	20	7.19	0.065	increasing
			2006-2007	19	10.02		
Bird Creek	OK121300-02-0010C	Alkalinity	2001-2002	19	65.47	0.039	increasing
			2006-2007	20	82.45		
		Ammonia	2001-2002	19	0.1184	0.009	decreasing
			2006-2007	20	0.0179		
		Nitrate	2001-2002	19	0.3937	0.000	decreasing
			2006-2007	20	0.1232		

Site	WBID	Variable	RB Cycle	N	Mean	p value	
		Available N	2001-2002	19	0.9980	0.000	decreasing
			2006-2007	20	0.1581		
Buck Creek	OK121400-03-0170C	Ammonia	2001-2002	20	0.0686	0.001	decreasing
			2006-2007	20	0.0127		
		Nitrate	2001-2002	20	0.3228	0.004	decreasing
			2006-2007	20	0.1191		
		Available N	2001-2002	20	0.7283	0.000	decreasing
			2006-2007	20	0.1483		
		Chloride	2001-2002	20	7.963	0.002	increasing
			2006-2007	20	18.9		
Buggy Creek	OK520610-02-0120C	Nitrite	2001-2002	20	0.0074	0.001	increasing
			2006-2007	19	0.0370		
		TotNitrogen	2001-2002	20	1.1210	0.014	increasing
			2006-2007	19	2.0040		
		TSS	2001-2002	20	39.9	0.089	increasing
			2006-2007	19	443.0		
		Flow	2001-2002	<b>20</b>	<b>9.31</b>	<b>0.100</b>	<b>increasing</b>
			2006-2007	<b>17</b>	<b>33.00</b>		
Bull Creek	OK121500-02-0090D	DO	2001-2002	20	5.483	0.060	increasing
			2006-2007	19	7.287		
		DOPercSat	2001-2002	20	52.75	0.014	increasing
			2006-2007	19	69.28		
		Ammonia	2001-2002	20	0.2719	0.000	decreasing
			2006-2007	19	0.0337		
		Nitrate	2001-2002	20	0.5620	0.008	decreasing
			2006-2007	19	0.3502		
		TKN	2001-2002	20	0.9790	0.027	decreasing
			2006-2007	19	0.6329		
		Available N	2001-2002	20	1.5980	0.000	decreasing
			2006-2007	19	0.4247		
		TotHardness	2001-2002	20	121.74	0.016	decreasing
			2006-2007	19	97.21		
California Creek	OK121510-02-0050C	Ammonia	2001-2002	19	0.1539	0.000	decreasing
			2006-2007	19	0.0166		
		Available N	2001-2002	20	0.9000	0.000	decreasing
			2006-2007	19	0.2935		
Chouteau Creek	OK121600-01-0430M	Ammonia	2001-2002	19	0.2147	0.016	decreasing
			2006-2007	19	0.0675		
		Nitrate	2001-2002	19	0.6435	0.000	decreasing
			2006-2007	19	0.2225		
		TKN	2001-2002	19	0.8520	0.081	decreasing
			2006-2007	19	0.5948		
		Available N	2001-2002	19	1.5600	0.000	decreasing
			2006-2007	19	0.3139		
Commission Creek	OK520620-05-0160C	Ammonia	2001-2002	19	0.0323	0.021	decreasing
			2006-2007	18	0.0106		
		Nitrate	2001-2002	19	0.6356	0.000	decreasing

Site	WBID	Variable	RB Cycle	N	Mean	p value	
			2006-2007	18	0.3556		
		Nitrite	2001-2002	19	0.0074	0.066	increasing
			2006-2007	18	0.0376		
		Available N	2001-2002	19	0.9568	0.000	decreasing
			2006-2007	18	0.4037		
		OrthoPhos	2001-2002	18	0.0119	0.102	increasing
Curl Creek	OK121400-01-0270C		2006-2007	18	0.0188		
		Ammonia	2001-2002	19	0.1488	0.000	decreasing
			2006-2007	20	0.0196		
		Nitrate	2001-2002	20	0.3313	0.003	decreasing
			2006-2007	20	0.1549		
		TotNitrogen	2001-2002	20	0.5060	0.031	increasing
			2006-2007	20	0.6979		
		Available N	2001-2002	20	0.9970	0.000	decreasing
			2006-2007	20	0.2043		
		OrthoPhos	2001-2002	20	0.0269	0.088	increasing
Deer Creek	OK520620-06-0010F		2006-2007	20	0.0885		
		Chloride	2001-2002	20	40.54	0.009	decreasing
			2006-2007	20	26.20		
		TotNitrogen	2001-2002	20	1.8130	0.024	increasing
Delaware Creek	OK121300-01-0150H		2006-2007	19	2.4580		
		OrthoPhos	2001-2002	19	0.0930	0.080	increasing
			2006-2007	19	0.2236		
		Nitrate	2001-2002	19	0.4086	0.000	decreasing
			2006-2007	19	0.1051		
		Available N	2001-2002	19	0.9316	0.000	decreasing
			2006-2007	19	0.1549		
		OrthoPhos	2001-2002	19	0.0156	0.070	increasing
Dog Creek	OK121500-02-0360D		2006-2007	19	0.0241		
		Chloride	2001-2002	19	201.1	0.019	decreasing
			2006-2007	19	89.1		
		DOPercSat	2001-2002	17	50.65	0.022	increasing
			2006-2007	19	68.75		
		Ammonia	2001-2002	17	2.4420	0.001	decreasing
			2006-2007	19	0.1980		
		Nitrate	2001-2002	17	3.5750	0.009	decreasing
			2006-2007	19	1.5660		
		TKN	2001-2002	17	3.5980	0.000	decreasing
			2006-2007	19	0.7670		
		TotNitrogen	2001-2002	17	6.3670	0.000	decreasing
			2006-2007	19	2.3970		
		Available N	2001-2002	17	7.5220	0.000	decreasing
	2006-2007	19	1.8280				
TotPhosphorus	2001-2002	16	1.230	0.038	decreasing		
	2006-2007	19	0.749				
Chloride	2001-2002	17	40.89	0.007	decreasing		
	2006-2007	19	25.97				

Site	WBID	Variable	RB Cycle	N	Mean	p value	
Fivemile Creek	OK121600-05-0110G	Nitrate	2001-2002	20	0.5890	0.001	decreasing
			2006-2007	20	0.3485		
		Nitrite	2001-2002	20	0.0097	0.059	increasing
			2006-2007	20	0.0197		
		Available N	2001-2002	20	0.6839	0.000	decreasing
			2006-2007	20	0.3788		
Fourteenmile Creek	OK121600-01-0100G	OrthoPhos	2001-2002	19	0.0212	0.065	increasing
			2006-2007	20	0.0322		
Hackberry Creek	OK520620-04-0050D	Ammonia	2001-2002	18	0.0677	0.007	decreasing
			2006-2007	13	0.0106		
		Nitrate	2001-2002	18	0.3177	0.051	decreasing
			2006-2007	13	0.1508		
		Available N	2001-2002	18	0.8007	0.000	decreasing
			2006-2007	13	0.2037		
Hogshooter Creek	OK121400-01-0300D	Ammonia	2001-2002	18	0.1298	0.021	decreasing
			2006-2007	20	0.0129		
		Available N	2001-2002	18	0.9520	0.002	decreasing
			2006-2007	20	0.3125		
Hominy Creek: downstream	OK121300-04-0010C	Nitrate	2001-2002	20	0.5580	0.000	decreasing
			2006-2007	20	0.2035		
		Nitrite	2001-2002	20	0.0074	0.002	increasing
			2006-2007	20	0.0296		
		Available N	2001-2002	20	0.9480	0.000	decreasing
			2006-2007	20	0.3394		
		OrthoPhos	2001-2002	18	0.0390	0.106	increasing
			2006-2007	20	0.0710		
Hominy Creek: upstream	OK121300-04-0280G	Ammonia	2001-2002	18	0.0758	0.002	decreasing
			2006-2007	20	0.0133		
		Nitrite	2001-2002	20	0.0081	0.052	increasing
			2006-2007	20	0.0282		
		TotNitrogen	2001-2002	20	0.3613	0.094	increasing
			2006-2007	20	0.5256		
		Available N	2001-2002	20	0.7059	0.000	decreasing
			2006-2007	20	0.2150		
Little Cabin Creek	OK121600-06-0080C	Ammonia	2001-2002	19	0.1645	0.000	decreasing
			2006-2007	20	0.0422		
		Available N	2001-2002	19	1.3890	0.000	decreasing
			2006-2007	20	0.5001		
Little Caney River	OK121400-02-0140H	Ammonia	2001-2002	20	0.0924	0.001	decreasing
			2006-2007	20	0.0209		
		Nitrate	2001-2002	20	0.5080	0.000	decreasing
			2006-2007	20	0.1761		
		TKN	2001-2002	20	0.5284	0.093	decreasing
			2006-2007	20	0.3699		
		Available N	2001-2002	20	1.0610	0.000	decreasing
			2006-2007	20	0.2241		
	TotPhosphorus	2001-2002	19	0.0782	0.036	increasing	

Site	WBID	Variable	RB Cycle	N	Mean	p value	
			2006-2007	20	0.1274		
Little Horse Creek	OK121600-03-0190A	Ammonia	2001-2002	20	0.1803	0.002	decreasing
			2006-2007	18	0.0562		
		Available N	2001-2002	20	2.5750	0.071	decreasing
			2006-2007	18	0.6550		
		OrthoPhos	2001-2002	20	0.1121	0.011	increasing
			2006-2007	18	0.2762		
		TotPhosphorus	2001-2002	20	0.1609	0.011	increasing
	2006-2007	18	0.3553				
Lone Creek	OK520620-03-0020C	Nitrate	2001-2002	20	0.7095	0.000	decreasing
			2006-2007	17	0.3094		
		Nitrite	2001-2002	20	0.0096	0.046	increasing
			2006-2007	17	0.0231		
		Available N	2001-2002	20	1.3520	0.001	decreasing
			2006-2007	17	0.3875		
		Chloride	2001-2002	20	38.15	0.097	increasing
	2006-2007	17	42.27				
Mission Creek	OK121400-02-0190B	Ammonia	2001-2002	20	0.1497	0.000	decreasing
			2006-2007	20	0.0130		
		Nitrate	2001-2002	20	0.4036	0.000	decreasing
			2006-2007	20	0.1213		
		Nitrite	2001-2002	20	0.0567	0.087	decreasing
			2006-2007	20	0.0159		
		TKN	2001-2002	20	0.7114	0.016	decreasing
			2006-2007	20	0.4552		
Pryor Creek: Hwy 20	OK121610-00-0050D	DO	2001-2002	18	5.44	0.031	increasing
			2006-2007	19	7.36		
		DOPercSat	2001-2002	18	53.50	0.007	increasing
			2006-2007	19	71.11		
		Ammonia	2001-2002	18	0.1970	0.001	decreasing
			2006-2007	19	0.0524		
		Nitrate	2001-2002	18	0.5461	0.000	decreasing
			2006-2007	19	0.2586		
		TKN	2001-2002	18	0.8163	0.027	decreasing
			2006-2007	19	0.5437		
		Available N	2001-2002	18	1.3980	0.000	decreasing
			2006-2007	19	0.3370		
Pryor Creek: Hwy 69	OK121610-00-0050M	Chloride	2001-2002	18	86.00	0.006	decreasing
			2006-2007	19	22.13		
		DOPercSat	2001-2002	18	61.50	0.068	increasing
			2006-2007	19	71.19		
		Ammonia	2001-2002	18	0.1823	0.000	decreasing
	2006-2007	19	0.0402				
Nitrate	2001-2002	18	0.5148	0.002	decreasing		
	2006-2007	19	0.2626				

Site	WBID	Variable	RB Cycle	N	Mean	p value	
		Nitrite	2001-2002	18	0.0104	0.005	increasing
			2006-2007	19	0.0339		
		TKN	2001-2002	18	0.7426	0.001	decreasing
			2006-2007	19	0.4516		
		Available N	2001-2002	18	1.2678	0.000	decreasing
			2006-2007	19	0.3368		
		OrthoPhos	2001-2002	17	0.0337	0.047	increasing
			2006-2007	19	0.0511		
		Chloride	2001-2002	18	70.80	0.016	decreasing
			2006-2007	19	18.94		
		<b>MeteredFlow</b>	2001-2002	<b>18</b>	<b>7.35</b>	<b>0.083</b>	
			2006-2007	<b>14</b>	<b>23.7</b>		
Ranger Creek	OK121600-01-0060D	Ammonia	2001-2002	20	0.0646	0.004	decreasing
			2006-2007	20	0.0129		
		Nitrate	2001-2002	20	0.4211	0.079	decreasing
			2006-2007	20	0.2606		
		TKN	2001-2002	20	0.3013	0.057	decreasing
			2006-2007	20	0.1866		
		Available N	2001-2002	20	0.7655	0.000	decreasing
			2006-2007	20	0.2917		
Saline Creek	OK121600-02-0030D	Ammonia	2001-2002	20	0.0273	0.041	decreasing
			2006-2007	20	0.0106		
		Available N	2001-2002	20	0.8161	0.067	decreasing
			2006-2007	20	0.6363		
		OrthoPhos	2001-2002	20	0.0058	0.001	increasing
			2006-2007	20	0.0099		
		TotPhosphorus	2001-2002	20	0.0145	0.029	increasing
			2006-2007	20	0.0230		
Sand Creek	OK121400-04-0010F	Ammonia	2001-2002	20	0.1034	0.002	decreasing
			2006-2007	20	0.0213		
		Nitrate	2001-2002	20	0.3356	0.000	decreasing
			2006-2007	20	0.1047		
		Available N	2001-2002	20	0.8830	0.000	decreasing
			2006-2007	20	0.1462		
Sycamore Creek	OK121600-03-0510D	OrthoPhos	2001-2002	16	0.0084	0.034	increasing
			2006-2007	20	0.0260		
		TotPhosphorus	2001-2002	17	0.0220	0.093	increasing
			2006-2007	20	0.0445		
		Chloride	2001-2002	19	8.379	0.091	increasing
			2006-2007	20	9.891		
Tar Creek	OK121600-04-0060D	Ammonia	2001-2002	19	0.1809	0.009	decreasing
			2006-2007	19	0.0799		
		Nitrate	2001-2002	20	1.6350	0.000	decreasing
			2006-2007	19	0.3589		
		TKN	2001-2002	19	0.6249	0.100	decreasing
			2006-2007	19	0.4220		
		TotNitrogen	2001-2002	20	1.8200	0.000	decreasing



Site	WBID	Variable	RB Cycle	N	Mean	p value	
			2006-2007	19	0.8020		
		Available N	2001-2002	20	2.2420	0.000	decreasing
			2006-2007	19	0.4597		
		OrthoPhos	2001-2002	19	0.2539	0.000	decreasing
			2006-2007	19	0.0556		
		TotPhosphorus	2001-2002	19	0.3255	0.000	decreasing
Trail Creek	OK520620-02-0090G		2006-2007	19	0.0949		
		Nitrate	2001-2002	19	0.4185	0.001	decreasing
			2006-2007	19	0.1604		
		Nitrite	2001-2002	19	0.0074	0.011	increasing
			2006-2007	19	0.0181		
		Available N	2001-2002	19	0.7197	0.000	decreasing
			2006-2007	19	0.2431		
Walnut Creek	OK520610-03-0010F	TotPhosphorus	2001-2002	18	0.0478	0.102	increasing
			2006-2007	19	0.1048		
		Chloride	2001-2002	20	25.59	0.023	increasing
			2006-2007	19	39.74		

### 3.2 BIOLOGICAL MONITORING

#### 3.2.1 Habitat Assessment

Total habitat scores for each site, and computed metric scores are listed below (Table 11). Sycamore Creek had the highest habitat scores of all the sites, while Lone Creek had the lowest habitat score.

Table 11. Habitat assessment metric values for monitoring sites in the Rotating Basin Group1, Cycle 2.

SiteName	WBID	Instream Cover	Pool Bottom Substrate	Pool Variability	Canopy Cover Shading	Presence of Rocky Runs or Riffles	Flow	Channel Alteration	Channel Sinuosity	Bank Stability	Bank Vegetation Stability	Streamside Cover	Total Points
Big Cabin Creek	OK121600-06-0220I	4.8	10.5	15	19.9	13.3	3.6	15.1	1.5	9.4	3.4	10	107
Big Creek	OK121510-03-0010D	4.5	4.7	3.8	14.8	0	20	16.5	0.6	9	5.9	10	89.8
Bird Creek	OK121300-02-0010C	2.7	3.8	0	7.5	0	15	12.3	0.4	9.7	8	10	69
Bird Creek	OK121300-02-0010C	2.2	0.4	0	7.3	0	11	13.7	0.5	9.5	6.7	10	61.6
Buck Creek	OK121400-03-0170C	8.2	11.4	17.7	8.3	5.9	15	1.4	2.9	7	4.3	9.7	91.5
Buggy Creek	OK520610-02-0120C	1.5	0.4	14.4	3.8	0	5.1	8.7	0.4	9.6	7.2	10	61.1
Bull Creek	OK121500-02-0090D	5.6	12.2	19.3	2.5	0	20	1.8	3.4	7.1	3.8	8.9	84.2
California Creek	OK121510-02-0050C	7.3	14	13	17.3	0	16	3.5	6.5	5.1	5	9.7	97.2
Chouteau Creek	OK121600-01-0430M	3.7	12.8	20.1	19.6	0	20	12.3	0.3	7	3.6	9.3	109
Commission Creek	OK520620-05-0160C	4.4	0.4	0	4.4	4.1	11	1.4	2	6.1	5.8	5	44.6
Curl Creek	OK121400-01-0270C	2	5.6	17.9	10.3	0	17	11.1	4.5	7	4.9	9.7	89.6
Deer Creek	OK520620-06-0010F	0.5	1.9	0	3.8	0	20	0.4	1.2	9.4	2.8	9.6	49.4
Delaware Creek	OK121300-01-0150H	2.5	2.4	20	12.6	0	16	16.5	6.6	6	5.5	9.1	96.9
Dog Creek	OK121500-02-0360D	2.3	3.5	16.1	16.1	0	11	9.9	5.2	4.6	2.8	6.6	77.6

SiteName	WBID	Instream Cover	Pool Bottom Substrate	Pool Variability	Canopy Cover Shading	Presence of Rocky Runs or Riffles	Flow	Channel Alteration	Channel Sinuosity	Bank Stability	Bank Vegetation Stability	Streamside Cover	Total Points
Fivemile Creek	OK121600-07-0110G	12.9	15.3	18.7	8.7	15.2	6.6	1.8	0.1	9.9	4	9.2	102
Fourteenmile Creek	OK121600-01-0100G	10.5	8.6	6.1	12.1	14.1	15	2.3	0	7.6	4.4	10	91.1
Fourteenmile Creek	OK121600-01-0100G	11.8	14.4	1.6	11.2	10.3	3.2	2.8	1	7.1	4.2	10	77.6
Hackberry Creek	OK520620-04-0050D	1	2.4	14.6	16.6	0	17	13.7	4.7	10	6.6	4	90.6
Hogshooter Creek	OK121400-01-0300D	3.7	11	7.1	20	0	20	1	7.1	4.7	5.4	9.6	89.6
Hominy Creek: Downstream	OK121300-04-0010C	5.5	8.1	14.6	9.1	9	20	16.5	2	9.1	5.7	9.9	110
Hominy Creek: Upstream	OK121300-04-0280G	7.5	12.2	0	7.9	9	2.9	3.5	1.2	7.5	5.3	9.7	66.7
Little Cabin Creek	OK121600-06-0080C	2.4	9.9	1.2	18.5	0	18	2.8	1.1	5.6	3.7	8.9	71.6
Little Caney River	OK121400-02-0140H	3.3	3.3	14.6	8.8	4.1	19	6.7	5.4	4.9	1.2	6.4	77.2
Little Horse Creek	OK121600-03-0190A	1.7	14.4	19.3	9.6	0	17	8.7	0.6	6.5	4.8	9.7	92.1
Lone Creek	OK520620-03-0020C	0.9	0.4	0	20	0	0.2	0.4	0.5	4.3	4.4	9.5	40.6
Mission Creek	OK121400-02-0190B	9.3	13.3	20.2	16.3	4.1	1.4	11.1	3	7	4.8	8.9	99.4
Pryor Creek: HWY 20	OK121610-00-0050D	4.1	3.4	17.2	17.5	0	20	7.7	2	6.4	3.9	6.8	88.8
Pryor Creek: HWY 69	OK121610-00-0050M	4.6	7.2	19.7	19.3	0	20	6.7	3.4	7.4	3.5	9.2	101
Ranger Creek	OK121600-01-0060D	10.1	13.7	0	11	12.4	1.3	13.7	1.1	10	6.2	10	89.5
Saline Creek	OK121600-02-0030D	13	17.2	0	2.7	16.3	17	1.4	-0.1	3.1	1.8	8.9	81.3
Sand Creek	OK121400-04-0010F	5.8	2.8	20.2	5.8	7.5	12	11.1	0.9	8.9	4.8	9.6	88.9
Sycamore Creek	OK121600-03-0510D	13.3	15.8	17.2	15	16.2	13	1	2.2	6.8	5	10	115
Tar Creek	OK121600-04-0060D	1.9	2.2	0	19.8	0	5.6	15.1	0.5	9.2	6.3	10	70.6
Trail Creek	OK520620-02-0090G	5.6	2.4	0	14.5	0	6.8	0.4	5	5.9	5.3	4.2	50.1
Walnut Creek	OK520610-03-0010F	1.9	0.9	13	14.8	0	1.8	1	1.6	10	5.7	10	60.7

Sites were compared relative to the mean total habitat score of high quality sites in the respective ecoregion and a range determined by +/- two standard deviations (Figure 4). The BM ecoregion only had one high quality site, so no range is shown. Sites tended to be within the high quality range in most ecoregions. In the Ozark Highlands ecoregion, however, three of the four sites had significantly lower habitat scores than the high quality sites. Several of the Central Irregular Plains sites had scores higher than the average high quality site. Sites with scores that are within +/- two standard deviations of the mean of the high quality sites do not necessarily have “reference” conditions; rather, sites outside of these values have either extremely good or extremely poor conditions which merit further investigation. Low habitat scores could be the result of anthropogenic activities, could be naturally occurring, or could indicate an unrepresentative reach. During 2006, northeastern Oklahoma experienced a severe drought which most likely resulted in lower habitat scores at some sites. Parameters like pool variability and flow would be particularly affected by lack of water or low water conditions.

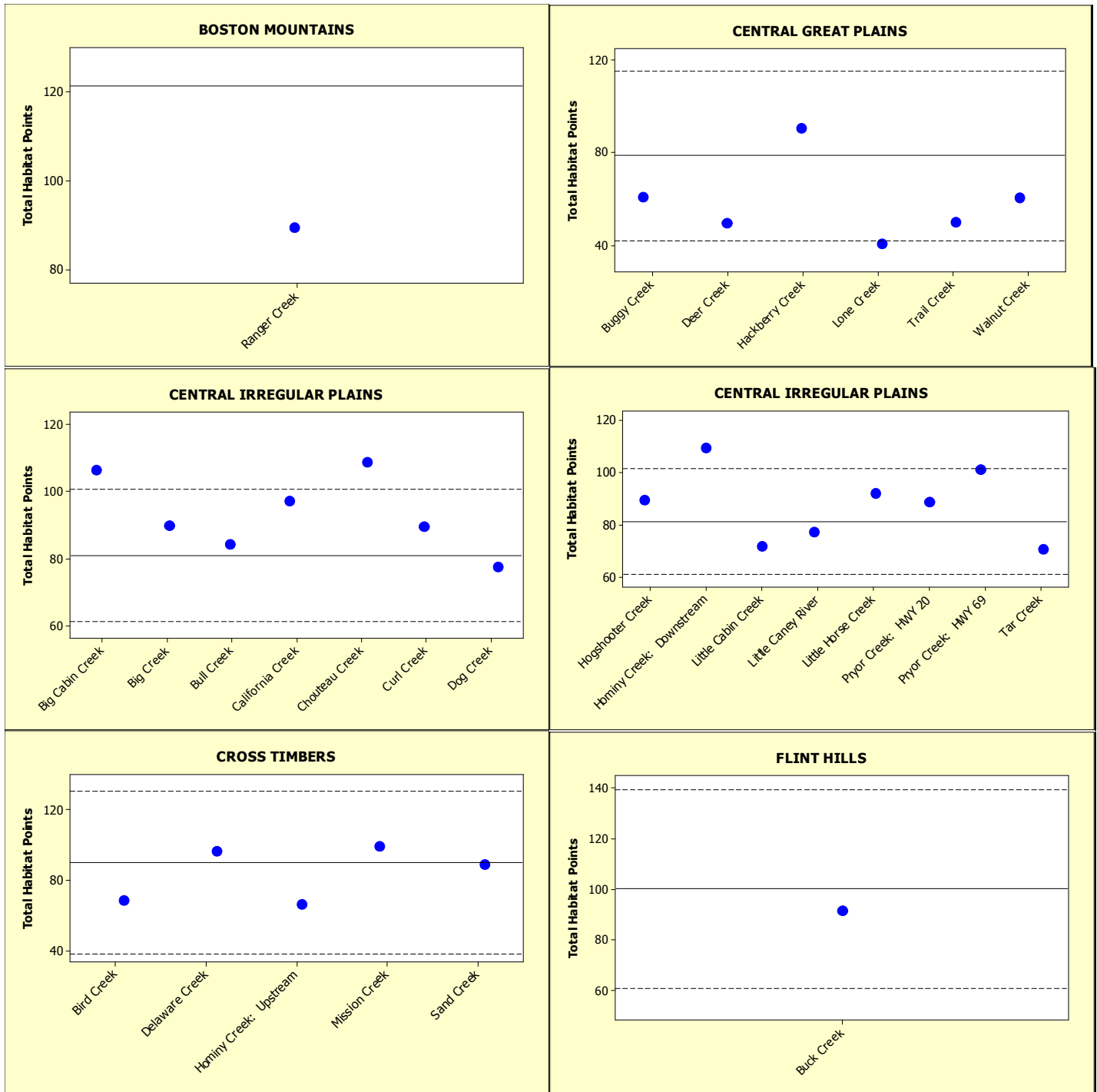


Figure 4. Total habitat score for each site by ecoregion. Solid lines indicate the mean value of high quality sites in each ecoregion; dashed lines represent +/- two standard deviations.

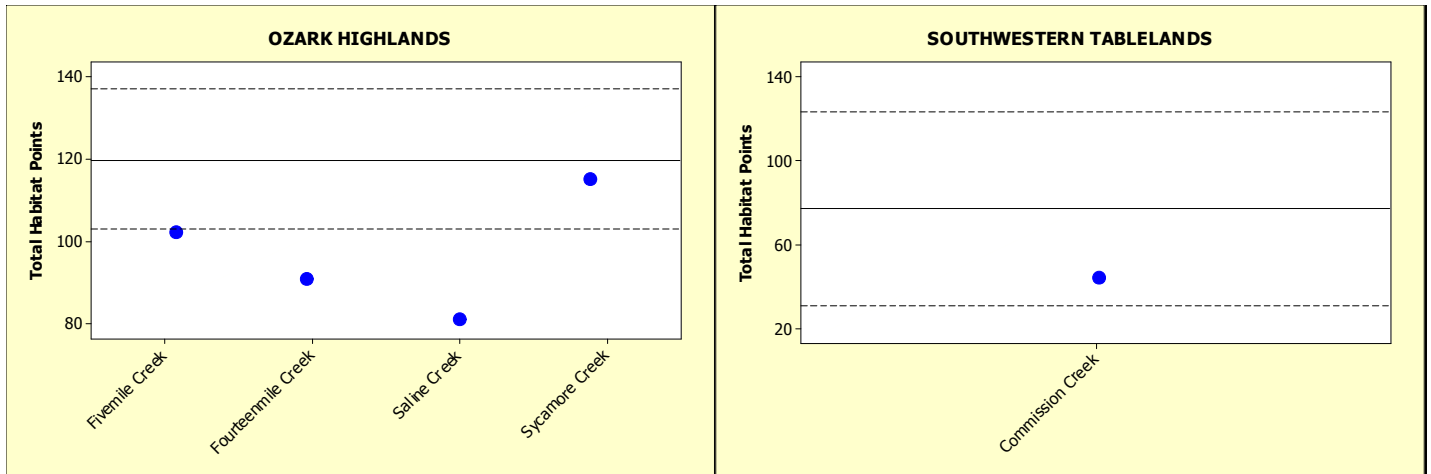


Figure 4, cont. Total habitat score for each site by ecoregion. Solid lines indicate the mean value of high quality sites in each ecoregion; dashed lines represent +/- two standard deviations.

### 3.2.2 Fish Collections

Fish metrics used to compute IBI scores for the Rotating Basin sites using the OCC method are listed in Table 12. Use of this IBI method allows assessment of streams which lack definite support assignment using the state biocriteria method. For a complete listing of fish collection data, including species and numbers caught, consult Appendix B. All data was compared relative to the same mean of the high quality sites for the respective ecoregion in order to obtain the IBI score (OCC method). Although, ideally, one would use collections from the same years for comparison, multiyear collections at sites deemed “high quality” were not available.

Table 13 presents the results of fish assessment based on the OCC’s modified RBP method compared with the fish assessment based on Oklahoma state biocriteria (as described in Oklahoma Water Resource Board, *Implementation of Oklahoma’s Water Quality Standards, Subchapter 15: Use Support Assessment Protocols* (USAP), OAC 785:46-15). The state biocriteria are based on older delineations of the level 3 ecoregions, so there were some differences in scoring based on the differences in grouping of sites. The OCC method allowed greater discrimination of the biological condition among sites. Five sites had fish communities that were “fair,” four sites were “poor” relative to high quality sites in the ecoregion, and one site was “very poor.” Tar Creek, the “very poor” site, has a Habitat Limited Aquatic Community designation, indicating that irreversible, man-made conditions are preventing attainment of a warm water aquatic community use.

**Table 12. Metric values for calculation of fish IBI scores (OCC method) for Rotating Basin Group 1 Cycle 2 monitoring sites.**

SiteName	WBID	Date	Total Number	Total Spp	Darter Spp	Sensitive Benthic Spp	Sunfish Spp	Intolerant Spp	Percent Tolerant	Percent Insectivorous Cyprinids	Percent Lithophytic Spawners
Big Cabin Creek	OK121600-06-0220I	20-Jul-06	324	18	3	4	7	1	0.75	0.00	0.19
Big Creek	OK121510-03-0010D	19-Jul-06	242	24	1	5	10	3	0.62	0.07	0.13
Bird Creek	OK121300-02-0010C	06-Jun-06	784	18	2	4	6	3	0.55	0.04	0.40
Buggy Creek	OK520610-02-0120C	17-May-06	234	12	0	0	4	0	0.96	0.04	0.00
Bull Creek	OK121500-02-0090D	27-Jun-06	395	23	0	0	10	0	0.74	0.00	0.01
California Creek	OK121510-02-0050C	28-Jun-06	168	27	1	4	8	2	0.66	0.10	0.20
Chouteau Creek	OK121600-01-0430M	24-Jul-06	232	14	0	1	8	1	0.94	0.00	0.02
Commission Creek	OK520620-05-0160C	18-Jul-06	339	7	0	1	2	1	0.27	0.73	0.00
Curl Creek	OK121400-01-0270C	29-Jun-06	383	14	1	2	7	0	0.98	0.00	0.00
Deer Creek	OK520620-06-0010F	07-Aug-06	3632	15	0	1	3	1	0.89	0.12	0.00
Delaware Creek	OK121300-01-0150H	22-Jun-06	131	22	2	6	9	3	0.84	0.05	0.05
Dog Creek	OK121500-02-0360D	26-Jul-06	214	16	1	3	6	1	0.92	0.02	0.03
Fivemile Creek	OK121600-07-0110G	01-Aug-06	704	20	3	7	6	11	0.05	0.43	0.95
Fourteenmile Creek	OK121600-01-0100G	14-Jul-06	726	20	3	7	7	11	0.10	0.40	0.90
Hackberry Creek	OK520620-04-0050D	21-Jun-07	288	9	0	0	2	0	0.90	0.10	0.00
Hogshooter Creek	OK121400-01-0300D	29-Jun-06	294	14	1	3	4	1	0.89	0.02	0.04
Hominy Creek: Downstream	OK121300-04-0010C	25-Jul-06	113	17	2	5	7	3	0.52	0.04	0.38
Hominy Creek: Upstream	OK121300-04-0280G	31-May-06	316	20	2	5	4	2	0.70	0.09	0.22
Little Cabin Creek	OK121600-06-0080C	27-Jul-06	167	21	2	4	8	3	0.75	0.05	0.13
Little Caney River	OK121400-02-0140H	10-Jul-06	463	19	1	5	3	3	0.92	0.05	0.01
Little Horse Creek	OK121600-03-0190A	31-Jul-06	40	10	1	2	5	2	0.85	0.00	0.05
Lone Creek	OK520620-03-0020C	08-Jun-06	625	8	0	1	0	1	0.65	0.35	0.00
Mission Creek	OK121400-02-0190B	02-Jun-06	227	26	3	7	8	4	0.63	0.11	0.16
Pryor Creek: HWY 20	OK121610-00-0050D	28-Jul-06	306	18	1	4	7	2	0.81	0.02	0.14
Pryor Creek: HWY 69	OK121610-00-0050M	28-Jul-06	254	19	1	4	8	2	0.77	0.02	0.17
Ranger Creek	OK121600-01-0060D	18-Jul-06	200	18	1	4	6	3	0.49	0.21	0.50
Saline Creek	OK121600-02-0030D	13-Jul-06	360	19	4	10	5	12	0.02	0.23	0.96
Sand Creek	OK121400-04-0010F	07-Jun-06	601	27	2	6	8	5	0.84	0.02	0.11
Sycamore Creek	OK121600-03-0510D	31-Jul-06	649	24	3	7	9	10	0.14	0.40	0.85
Tar Creek	OK121600-04-0060D	01-Aug-06	10	6	0	1	2	0	0.80	0.00	0.20
Trail Creek	OK520620-02-0090G	18-May-06	269	8	0	1	2	1	0.51	0.49	0.00
Walnut Creek	OK520610-03-0010F	29-Jun-06	1496	11	0	0	4	0	0.61	0.39	0.00

**Table 13. IBI scores based on Use Support Assessment Protocol biocriteria (OWRB 2008) and OCC's modified RBP method. WWAC=warm water aquatic community, CWAC=cold water aquatic community, HLAC=habitat limited aquatic community. S=supporting, NS=not supporting, U=undetermined, \*=no criteria for that ecoregion.**

SiteName	WBID	FWProp	IBI Total Score (USAP)	FWProp Support (USAP)	IBI Total Score (OCC)	Percent of Reference	Score Interpretation (OCC)
Big Cabin Creek	OK121600-06-0220I	WWAC	34	S	21	0.81	good
Big Creek	OK121510-03-0010D	WWAC	37	S	21	0.81	good
Bird Creek	OK121300-02-0010C	WWAC	28	S	27	1.17	excellent
Buck Creek	OK121400-03-0170C	WWAC	43	S*	29	1.07	excellent
Buggy Creek	OK520610-02-0120C	WWAC	23	S	15	0.68	fair
Bull Creek	OK121500-02-0090D	WWAC	35	S	15	0.58	poor
California Creek	OK121510-02-0050C	WWAC	36	S	23	0.88	good
Chouteau Creek	OK121600-01-0430M	WWAC	30	S	15	0.58	poor
Commission Creek	OK520620-05-0160C	WWAC	24	S*	23	0.96	excellent
Curl Creek	OK121400-01-0270C	WWAC	30	S	15	0.58	poor
Deer Creek	OK520620-06-0010F	WWAC	24	S	21	0.95	excellent
Delaware Creek	OK121300-01-0150H	WWAC	29	S	23	1.00	excellent
Dog Creek	OK121500-02-0360D	WWAC	31	S	19	0.73	fair
Fivemile Creek	OK121600-07-0110G	CWAC	42	S	33	1.00	excellent
Fourteenmile Creek	OK121600-01-0100G	CWAC	40	S	33	1.00	excellent
Hackberry Creek	OK520620-04-0050D	WWAC	21	U	11	0.50	poor
Hogshooter Creek	OK121400-01-0300D	WWAC	27	NS	15	0.58	poor
Hominy Creek: Downstream	OK121300-04-0010C	WWAC	30	S	25	0.96	excellent
Hominy Creek: Upstream	OK121300-04-0280G	WWAC	30	U	23	1.00	excellent
Little Cabin Creek	OK121600-06-0080C	WWAC	32	S	21	0.81	good
Little Caney River	OK121400-02-0140H	WWAC	24	U	19	0.73	fair
Little Horse Creek	OK121600-03-0190A	WWAC	35	S	19	0.73	fair
Lone Creek	OK520620-03-0020C	WWAC	23	S	17	0.77	good
Mission Creek	OK121400-02-0190B	WWAC	32	S	23	1.00	excellent
Pryor Creek: HWY 20	OK121610-00-0050D	WWAC	31	S	21	0.81	good
Pryor Creek: HWY 69	OK121610-00-0050M	WWAC	31	S	21	0.81	good
Ranger Creek	OK121600-01-0060D	WWAC	35	S	23	0.70	fair
Saline Creek	OK121600-02-0030D	CWAC	39	S	33	1.00	excellent
Sand Creek	OK121400-04-0010F	WWAC	31	S	23	1.00	excellent
Sycamore Creek	OK121600-03-0510D	CWAC	42	S	31	0.94	excellent
Tar Creek	OK121600-04-0060D	HLAC	24	U	11	0.42	very poor
Trail Creek	OK520620-02-0090G	WWAC	20	U	21	0.95	excellent
Walnut Creek	OK520610-03-0010F	WWAC	23	S	17	0.77	good

Figure 5 shows the IBI score for each site (indicated by a blue dot) relative to the mean value for the high quality sites in that ecoregion (indicated by a solid line). The dashed lines in each graph represent +/- two standard deviations of the mean IBI score of the high quality sites in that ecoregion. The BM ecoregion only had one high quality site, and the OH ecoregion had only one high quality site with the CWAC designation, so no range is given for these two ecoregions.

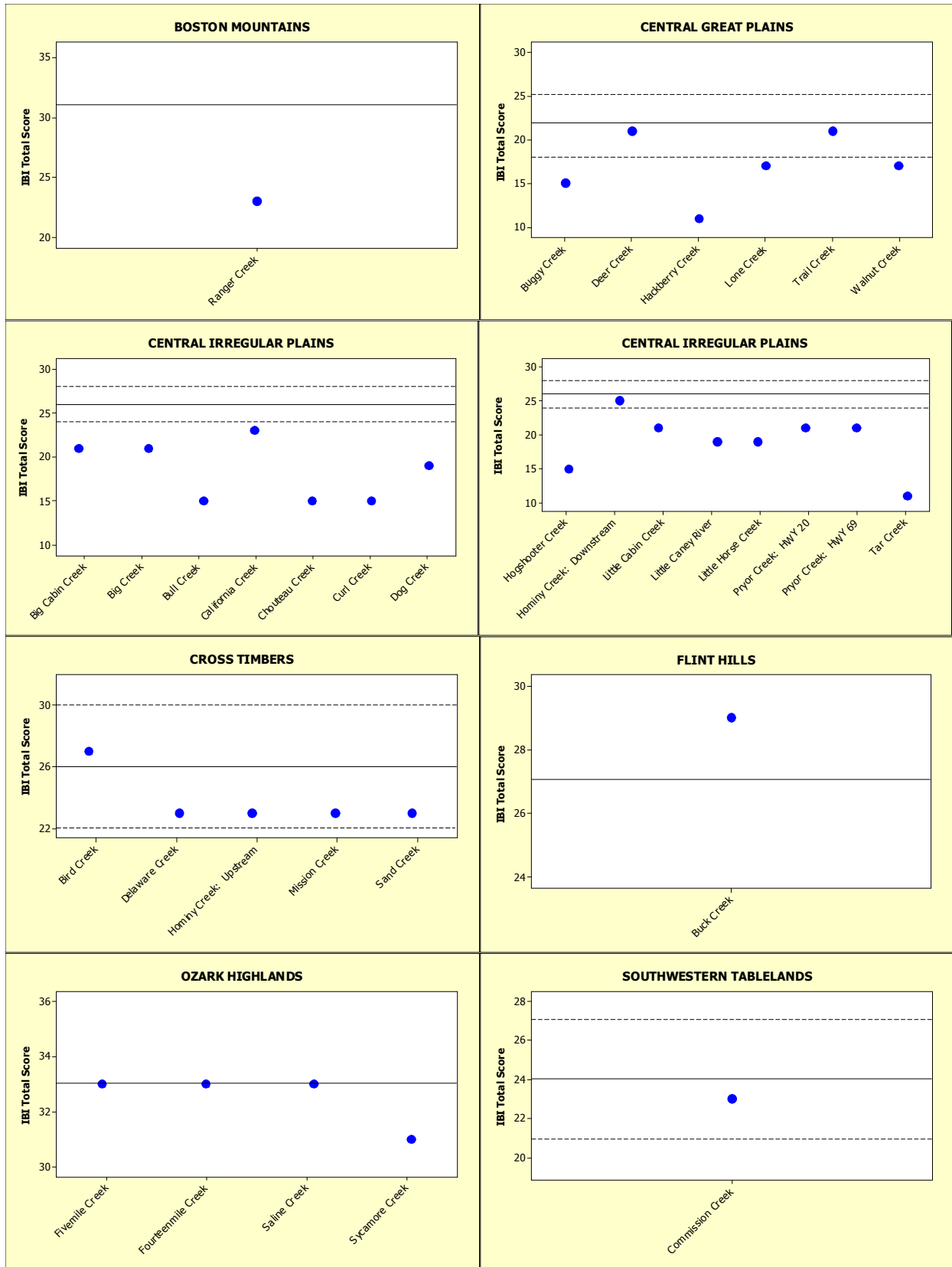


Figure 5. IBI score (fish) for each site by ecoregion. Solid lines indicate the mean value of high quality sites in each ecoregion; dashed lines represent +/- two standard deviations.

Many of the sites had IBI scores that were significantly lower than the average of the high quality sites for an ecoregion (Figure 5). It is possible that these collections were lower than normal due to the 2006 drought conditions. These results will be discussed further at the end of this report.

Table 14 shows a comparison between fish data collected in cycle 1 (2001) and cycle 2 (2006) of the rotating basin project in order to examine whether biological conditions have improved, worsened, or remained the same at a particular site. IBI scores were calculated relative to the same high quality sites data for both cycles, so any change in condition is due only to a change in the rotating basin cycle 2 collection, not to a change in the high quality sites. The fish community remained in the same condition for eleven of the sites compared. Ten streams had worse fish community conditions in cycle 2 relative to cycle 1, while twelve streams had improved fish communities. Sites in the Central Irregular Plains tended to have either worse or stable fish collections in 2006, while sites in other ecoregions were more likely to have improved fish communities. The effects of the drought may have been more pronounced in the CIP ecoregion, which would have had a negative impact on the fish community.

**Table 14. Comparison of fish data from Cycle 1 (2001) to Cycle 2 (2006) .**

SiteName	WBID	Year	Total Score	IBI	Condition
Big Cabin Creek	OK121600-06-0220I	2001	25	0.96	excellent
Big Cabin Creek	OK121600-06-0220I	2006	21	0.81	good
Big Creek	OK121510-03-0010D	2001	23	0.88	good
Big Creek	OK121510-03-0010D	2006	21	0.81	good
Bird Creek	OK121300-02-0010C	2001	23	1.00	excellent
Bird Creek	OK121300-02-0010C	2006	27	1.17	excellent
Buck Creek	OK121400-03-0170C	2001	25	0.93	good
Buck Creek	OK121400-03-0170C	2006	29	1.07	excellent
Buggy Creek	OK520610-02-0120C	2001	19	0.86	good
Buggy Creek	OK520610-02-0120C	2006	15	0.68	fair
Bull Creek	OK121500-02-0090D	2001	19	0.73	fair
Bull Creek	OK121500-02-0090D	2006	15	0.58	poor
California Creek	OK121510-02-0050C	2001	23	0.88	good
California Creek	OK121510-02-0050C	2006	23	0.88	good
Chouteau Creek	OK121600-01-0430M	2001	17	0.65	fair
Chouteau Creek	OK121600-01-0430M	2006	15	0.58	poor
Commission Creek	OK520620-05-0160C	2001	21	0.88	good
Commission Creek	OK520620-05-0160C	2006	23	0.96	excellent
Curl Creek	OK121400-01-0270G	2001	19	0.73	fair
Curl Creek	OK121400-01-0270C	2006	15	0.58	poor
Deer Creek	OK520620-06-0010F	2001	19	0.86	good
Deer Creek	OK520620-06-0010F	2006	21	0.95	excellent
Delaware Creek	OK121300-01-0150H	2001	21	0.91	good
Delaware Creek	OK121300-01-0150H	2006	23	1.00	excellent
Dog Creek	OK121500-02-0360D	2002	19	0.73	fair
Dog Creek	OK121500-02-0360D	2006	19	0.73	fair



SiteName	WBID	Year	Total Score	IBI	Condition
Fivemile Creek	OK121600-07-0110G	2001	29	0.88	good
Fivemile Creek	OK121600-07-0110G	2006	33	1.00	excellent
Fourteenmile Creek	OK121600-01-0100G	2001	27	0.82	good
Fourteenmile Creek	OK121600-01-0100G	2006	33	1.00	excellent
Hackberry Creek	OK520620-04-0050D	2001	17	0.77	good
Hackberry Creek	OK520620-04-0050D	2007	11	0.50	poor
Hogshooter Creek	OK121400-01-0300D	2001	17	0.65	fair
Hogshooter Creek	OK121400-01-0300D	2006	15	0.58	poor
Hominy Creek: Downstream	OK121300-04-0010C	2001	15	0.58	poor
Hominy Creek: Downstream	OK121300-04-0010C	2006	25	0.96	excellent
Hominy Creek: Upstream	OK121300-04-0280G	2001	19	0.83	good
Hominy Creek: Upstream	OK121300-04-0280G	2006	23	1.00	excellent
Little Cabin Creek	OK121600-06-0080C	2001	23	0.88	good
Little Cabin Creek	OK121600-06-0080C	2006	21	0.81	good
Little Caney River	OK121400-02-0140H	2001	19	0.73	fair
Little Caney River	OK121400-02-0140H	2006	19	0.73	fair
Little Horse Creek	OK121600-03-0190A	2001	31	1.19	excellent
Little Horse Creek	OK121600-03-0190A	2006	19	0.73	fair
Lone Creek	OK520620-03-0020C	2001	19	0.86	good
Lone Creek	OK520620-03-0020C	2006	17	0.77	good
Mission Creek	OK121400-02-0190B	2001	17	0.74	fair
Mission Creek	OK121400-02-0190B	2006	23	1.00	excellent
Pryor Creek: Hwy 20	OK121610-00-0050D	2001	23	0.88	good
Pryor Creek: Hwy 20	OK121610-00-0050D	2006	21	0.81	good
Pryor Creek: Hwy 69	OK121610-00-0050M	2001	23	0.88	good
Pryor Creek: Hwy 69	OK121610-00-0050M	2006	21	0.81	good
Ranger Creek	OK121600-01-0060D	2001	21	0.64	fair
Ranger Creek	OK121600-01-0060D	2006	23	0.70	fair
Saline Creek	OK121600-02-0030D	2001	29	0.88	good
Saline Creek	OK121600-02-0030D	2006	33	1.00	excellent
Sand Creek	OK121400-04-0010F	2001	21	0.91	good
Sand Creek	OK121400-04-0010F	2006	23	1.00	excellent
Sycamore Creek	OK121600-03-0510D	2001	31	0.94	excellent
Sycamore Creek	OK121600-03-0510D	2006	31	0.94	excellent
Tar Creek	OK121600-04-0060D	2001	15	0.58	poor
Tar Creek	OK121600-04-0060D	2006	11	0.42	very poor
Trail Creek	OK520620-02-0090G	2001	19	0.86	good
Trail Creek	OK520620-02-0090G	2006	21	0.95	excellent
Walnut Creek	OK520610-03-0010C	2001	21	0.95	excellent
Walnut Creek	OK520610-03-0010F	2006	17	0.77	good

### 3.2.3 Macroinvertebrate Collections

The complete macroinvertebrate dataset, including species and numbers captured per site, can be found in Appendix C. Macroinvertebrates were collected for each site at least once during the project period. Lack of flow during the collection periods prevented collection of all planned samples over the cycle; only 14 sites had four collections over the two-year project period. Few collections were obtained during the summer of 2006 due to the severe drought in the state. Two sites had only a single bug collection during the project period: Bull Creek and Chouteau Creek.

Table 15 presents the mean values, by season and sample type, for each metric at each site for the two-year cycle 2 monitoring period. Riffle samples were collected at most sites and, generally, best reflect the macroinvertebrate community as a single habitat (Plafkin et al. 1989). Summer samples, as opposed to winter samples, represent the harshest time for macroinvertebrates; thus, their use constitutes a more conservative approach in assessing the communities. Table 16 contains the overall bioassessment scores determined for each monitoring site averaged over sample types and seasons.

**Table 15. Macroinvertebrate metric values determined for each monitoring site, averaged per season and habitat.**

NI=non-impaired, SI=slightly impaired, MI=moderately impaired.

Sitename	WBID	Sample Type	Winter or Summer	Total Species	EPT Taxa	Percent EPT	Shannon Diversity	HBI	Percent Dominant 2 Taxa	Total Points	% of Reference	Condition
Big Cabin Creek	OK121600-06-0220I	riffle	S	15	7	0.44	1.94	5.72	0.57	26	1.00	NI
		riffle	W	17	4	0.31	2.29	5.04	0.45	22	0.94	NI
Big Creek	OK121510-03-0010D	riffle	S	15	8	0.61	1.68	6.81	0.66	24	0.92	NI
		riffle	W	8	2	0.03	1.16	3.84	0.88	8	0.34	MI
		veg	W	13	4	0.17	1.19	4.58	0.81	20	0.91	NI
		wood	S	10	3	0.28	1.71	4.08	0.53	16	0.67	SI
		wood	W	6	1.5	0.33	1.40	3.60	0.62	14	0.64	SI
Bird Creek	OK121300-02-0010C	riffle	S	15	6	0.59	1.92	5.61	0.52	20	0.74	SI
		riffle	W	16	5	0.45	2.01	6.15	0.61	22	0.88	NI
		veg	S	18	6	0.22	1.90	6.09	0.62	20	0.75	SI
		veg	W	17	7	0.23	1.70	4.10	0.65	24	0.98	NI
		wood	S	10	4.5	0.53	1.52	5.41	0.68	20	0.78	SI
		wood	W	13	4	0.63	1.74	6.06	0.61	24	1.09	NI
Buck Creek	OK121400-03-0170C	riffle	S	15	10	0.70	1.95	3.12	0.57	26	0.87	NI
		riffle	W	9.5	2.5	0.04	1.17	6.15	0.77	10	0.36	MI
Buggy Creek	OK520610-02-0120C	veg	W	8	2	0.03	0.90	8.39	0.90	6	0.27	MI
		wood	S	9	4	0.14	0.76	7.64	0.89	8	0.29	MI
		wood	W	9	3	0.23	1.30	4.63	0.79	14	0.64	SI
Bull Creek	OK121500-02-0090D	riffle	W	11	3	0.21	1.58	4.91	0.63	16	0.68	SI
California Creek	OK121510-02-0050C	riffle	S	15	9	0.44	1.98	4.76	0.59	26	1.00	NI
		riffle	W	13	4	0.63	1.74	6.99	0.61	18	0.77	SI
Chouteau Creek	OK121600-01-0430M	riffle	W	10	1	0.03	1.44	6.83	0.76	8	0.34	MI
Commission Creek	OK520620-05-0160C	riffle	S	9	3	0.16	1.21	4.44	0.84	12	0.43	MI
		riffle	W	25	11	0.53	2.58	4.77	0.38	30	1.50	NI
		veg	S	18	7.5	0.56	2.48	4.98	0.39	28	1.00	NI

Sitename	WBID	Sample Type	Winter or Summer	Total Species	EPT Taxa	Percent EPT	Shannon Diversity	HBI	Percent Dominant 2 Taxa	Total Points	% of Reference	Condition
		veg	W	15	7	0.40	2.22	6.12	0.46	26	1.08	NI
Curl Creek	OK121400-01-0270C	riffle	W	7	1.5	0.02	0.74	6.68	0.92	6	0.26	MI
Deer Creek	OK520620-06-0010F	riffle	S	13	7	0.51	2.20	7.06	0.35	24	0.86	NI
		veg	W	20	5	0.16	2.44	6.26	0.38	24	1.09	NI
		wood	S	11.5	5.5	0.31	1.62	5.15	0.68	22	0.79	SI
		wood	W	7.5	2.5	0.04	0.90	6.22	0.88	8	0.36	MI
Delaware Creek	OK121300-01-0150H	riffle	S	14	6	0.36	1.94	6.96	0.56	18	0.66	SI
		riffle	W	13	2.5	0.05	1.41	5.07	0.71	10	0.40	MI
		wood	W	11	3	0.15	2.08	6.08	0.50	14	0.64	SI
Dog Creek	OK121500-02-0360D	riffle	S	10.5	1.5	0.05	1.92	5.70	0.53	12	0.46	MI
		riffle	W	10.5	1	0.19	1.98	6.71	0.52	12	0.51	MI
		veg	S	10	2	0.02	1.35	4.67	0.78	10	0.40	MI
		veg	W	11	1	0.02	1.69	6.19	0.69	14	0.64	SI
		wood	W	8	0	0.00	1.67	5.17	0.60	12	0.55	SI
Fivemile Creek	OK121600-07-0110G	riffle	S	11.5	4.5	0.31	1.76	4.09	0.60	18	0.66	SI
		riffle	W	13.5	6	0.20	1.48	5.43	0.77	10	0.33	MI
Fourteenmile Creek	OK121600-01-0100G	riffle	S	23	10	0.56	2.56	5.68	0.35	28	1.02	NI
		riffle	W	18.5	10	0.63	2.38	4.81	0.39	22	0.72	SI
		veg	S	25	11	0.50	2.67	6.17	0.35	30	1.20	NI
Hackberry Creek	OK520620-04-0050D	veg	W	5	0	0.00	0.99	6.28	0.85	8	0.36	MI
		wood	S	9	4	0.28	1.93	3.87	0.46	14	0.50	MI
		wood	W	4	2	0.14	0.66	5.95	0.91	8	0.36	MI
Hogshooter Creek	OK121400-01-0300D	riffle	S	9	5	0.20	1.72	6.75	0.55	12	0.46	MI
		riffle	W	11.5	2.5	0.12	1.78	4.78	0.55	14	0.60	SI
		wood	S	12	5	0.09	1.55	5.96	0.74	20	0.83	NI
Hominy Creek: Downstream	OK121300-04-0010C	riffle	S	21.5	10.5	0.70	2.20	5.03	0.51	26	1.00	NI
		riffle	W	20	7	0.41	2.08	4.32	0.59	26	1.11	NI
		veg	S	25	7	0.30	2.81	4.38	0.26	32	1.28	NI
		veg	W	14	4	0.04	1.59	6.31	0.69	20	0.91	NI
		wood	S	16	6	0.21	1.87	6.51	0.66	24	1.00	NI
Hominy Creek: Upstream	OK121300-04-0280G	riffle	S	20	9	0.43	2.23	3.74	0.50	26	0.96	NI
		riffle	W	18.5	5.5	0.21	2.06	5.28	0.55	22	0.88	NI
		wood	W	5	0	0.00	0.52	6.03	0.93	6	0.27	MI
Little Cabin Creek	OK121600-06-0080C	riffle	S	13	5	0.70	1.45	3.78	0.72	20	0.77	SI
		riffle	W	16	4.5	0.17	1.76	5.62	0.60	20	0.85	NI
Little Caney River	OK121400-02-0140H	riffle	S	14	7.5	0.59	1.86	7.02	0.56	22	0.85	NI
		riffle	W	14	4	0.15	1.45	6.33	0.74	14	0.60	SI
		wood	S	14	7	0.63	2.19	5.26	0.45	26	1.08	NI
		wood	W	10.5	3.5	0.19	1.45	5.94	0.72	16	0.73	SI
Little Horse Creek	OK121600-03-0190A	riffle	S	18	9	0.60	1.51	5.67	0.76	26	1.00	NI
		riffle	W	9	2.5	0.13	1.44	4.62	0.71	10	0.43	MI
		veg	W	4	1	0.04	0.43	4.00	0.94	6	0.27	MI
Lone Creek	OK520620-03-0020C	veg	S	14	3	0.33	2.06	5.70	0.40	20	0.71	SI

Sitename	WBID	Sample Type	Winter or Summer	Total Species	EPT Taxa	Percent EPT	Shannon Diversity	HBI	Percent Dominant 2 Taxa	Total Points	% of Reference	Condition
		veg	W	14	3.5	0.06	1.37	5.82	0.79	16	0.73	SI
		wood	S	11	2	0.29	1.84	4.28	0.55	16	0.57	SI
Mission Creek	OK121400-02-0190B	rifle	S	14	2	0.04	1.34	4.36	0.76	10	0.37	MI
		rifle	W	15.5	3	0.06	1.73	7.87	0.63	10	0.40	MI
		wood	S	6	1	0.02	0.38	4.22	0.95	6	0.23	MI
Pryor Creek: HWY 20	OK121610-00-0050D	rifle	S	7	3	0.59	1.41	4.03	0.72	14	0.54	SI
		rifle	W	27	6	0.07	2.65	6.09	0.36	22	0.94	NI
		wood	S	7	3	0.60	1.10	6.80	0.82	14	0.58	SI
		wood	W	14	0	0.00	1.55	5.80	0.76	14	0.64	SI
Pryor Creek: HWY 69	OK121610-00-0050M	rifle	S	10	4	0.61	1.56	6.31	0.68	16	0.62	SI
		rifle	W	16.5	4	0.10	1.79	5.82	0.60	18	0.77	SI
Ranger Creek	OK121600-01-0060D	rifle	S	20.5	8	0.47	2.39	6.79	0.45	22	0.73	SI
		rifle	W	14.5	6	0.46	1.79	5.13	0.60	16	0.62	SI
Saline Creek	OK121600-02-0030D	rifle	S	15	5.5	0.21	1.72	5.50	0.65	16	0.59	SI
		rifle	W	20	9	0.16	1.58	2.25	0.71	16	0.52	SI
Sand Creek	OK121400-04-0010F	rifle	S	11.5	5.5	0.83	1.43	6.27	0.72	12	0.44	MI
		rifle	W	15.5	5	0.21	2.22	4.87	0.44	22	0.88	NI
		wood	S	13	6	0.50	1.73	6.34	0.64	26	1.02	NI
		wood	W	11	5	0.12	1.25	5.69	0.79	18	0.82	NI
Sycamore Creek	OK121600-03-0510D	rifle	S	21	8	0.32	2.51	5.77	0.39	28	1.02	NI
		rifle	W	17.5	8	0.57	2.18	5.42	0.46	16	0.52	SI
		veg	S	9	1	0.02	1.41	6.14	0.52	8	0.32	MI
		veg	W	12	1.5	0.02	1.47	7.43	0.74	6	0.22	MI
Tar Creek	OK121600-04-0060D	rifle	S	11	2.5	0.52	1.34	6.11	0.75	14	0.54	SI
		rifle	W	12	1	0.25	1.89	4.02	0.51	16	0.68	SI
Trail Creek	OK520620-02-0090G	veg	S	11	2.5	0.56	1.56	7.91	0.67	16	0.57	SI
		veg	W	11	3.5	0.11	1.70	5.86	0.61	20	0.91	NI
Walnut Creek	OK520610-03-0010F	veg	S	17.5	6.5	0.63	2.04	6.66	0.55	24	0.86	NI
		veg	W	30	2	0.08	2.35	6.55	0.54	12	0.55	SI
		wood	S	11	7	0.37	1.65	5.57	0.67	24	0.86	NI
		wood	W	7	3	0.12	0.87	4.39	0.86	10	0.45	MI

**Table 16. Overall bioassessment of sites based on all macroinvertebrate collections at a site (averaged over all seasons and habitat types). NI=non-impaired, SI=slightly impaired, MI=moderately impaired.**

Site	WBID	Overall Biological Condition	Site	WBID	Overall Biological Condition
Big Cabin Creek	OK121600-06-0220I	NI	Hominy Creek: Downstream	OK121300-04-0010C	NI
Big Creek	OK121510-03-0010D	SI	Hominy Creek: Upstream	OK121300-04-0280G	NI
Bird Creek	OK121300-02-0010C	NI	Little Cabin Creek	OK121600-06-0080C	SI
Buck Creek	OK121400-03-0170C	SI	Little Caney River	OK121400-02-0140H	SI
Buggy Creek	OK520610-02-0120C	MI	Little Horse Creek	OK121600-03-0190A	SI
Bull Creek	OK121500-02-0090D	SI	Lone Creek	OK520620-03-0020C	SI
California Creek	OK121510-02-0050C	NI	Mission Creek	OK121400-02-0190B	MI
Chouteau Creek	OK121600-01-0430M	MI	Pryor Creek: HWY 20	OK121610-00-0050D	SI
Commission Creek	OK520620-05-0160C	NI	Pryor Creek: HWY 69	OK121610-00-0050M	SI
Curl Creek	OK121400-01-0270C	MI	Ranger Creek	OK121600-01-0060D	SI
Deer Creek	OK520620-06-0010F	NI	Saline Creek	OK121600-02-0030D	SI
Delaware Creek	OK121300-01-0150H	SI	Sand Creek	OK121400-04-0010F	SI
Dog Creek	OK121500-02-0360D	MI	Sycamore Creek	OK121600-03-0510D	SI
Fivemile Creek	OK121600-07-0110G	SI	Tar Creek	OK121600-04-0060D	SI
Fourteenmile Creek	OK121600-01-0100G	NI	Trail Creek	OK520620-02-0090G	SI
Hackberry Creek	OK520620-04-0050D	MI	Walnut Creek	OK520610-03-0010F	SI
Hogshooter Creek	OK121400-01-0300D	SI			

Most sites had slightly impaired macroinvertebrate communities overall; only eight streams were non-impaired, and six streams were moderately impaired. Poor macroinvertebrate scores could indicate water quality problems where habitat scores are acceptable; however, it is possible that the macroinvertebrate collection was not taken at a time which would best represent the community there (i.e., drought influences). Hence, the macroinvertebrate scores should be examined in conjunction with habitat and fish scores to better represent the general health of the stream.

### 3.2.4 Overall Biological Assessment

In order to synthesize the biological findings into a meaningful representation of the quality of each site, habitat, fish, and macroinvertebrate scores (relative to the mean of high quality sites in the respective ecoregions) were examined in concert with one another (Figure 6). A determination of “good” or “excellent” stream health is indicated by a relatively high score for all three parameters. It is generally recognized that fish communities are especially sensitive to habitat degradation and that macroinvertebrates more quickly integrate effects of water quality decline. Thus, sites with a high habitat and fish score yet a low macroinvertebrate score could indicate potential water quality impairment. Low habitat scores correlated with low fish scores yet high bug scores could indicate habitat impairments despite good water quality.

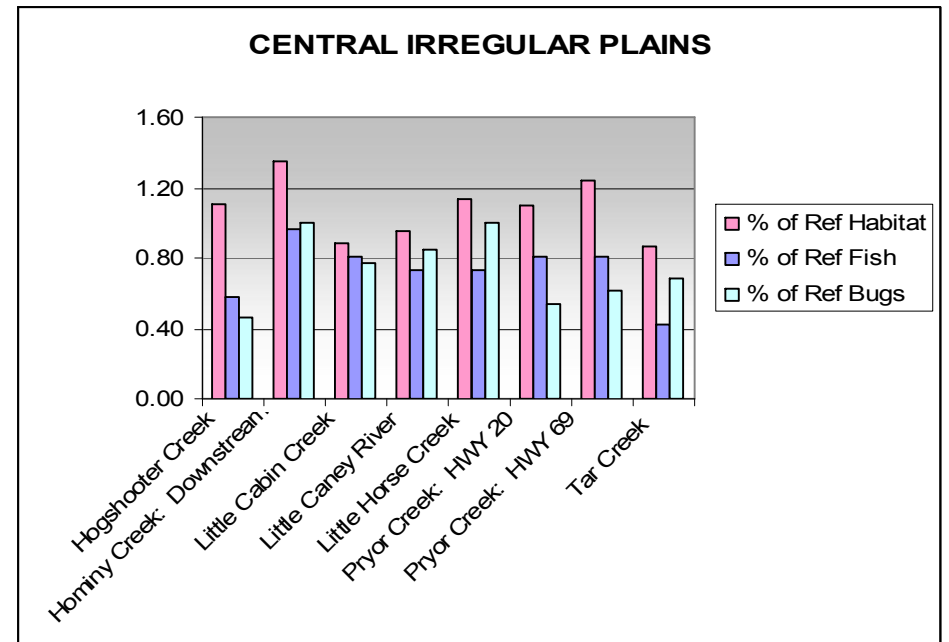
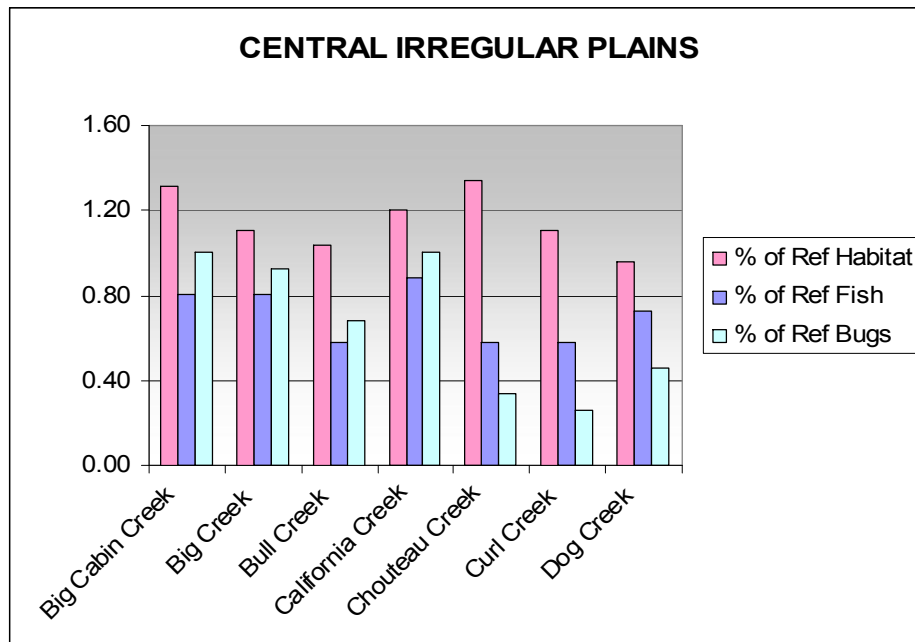
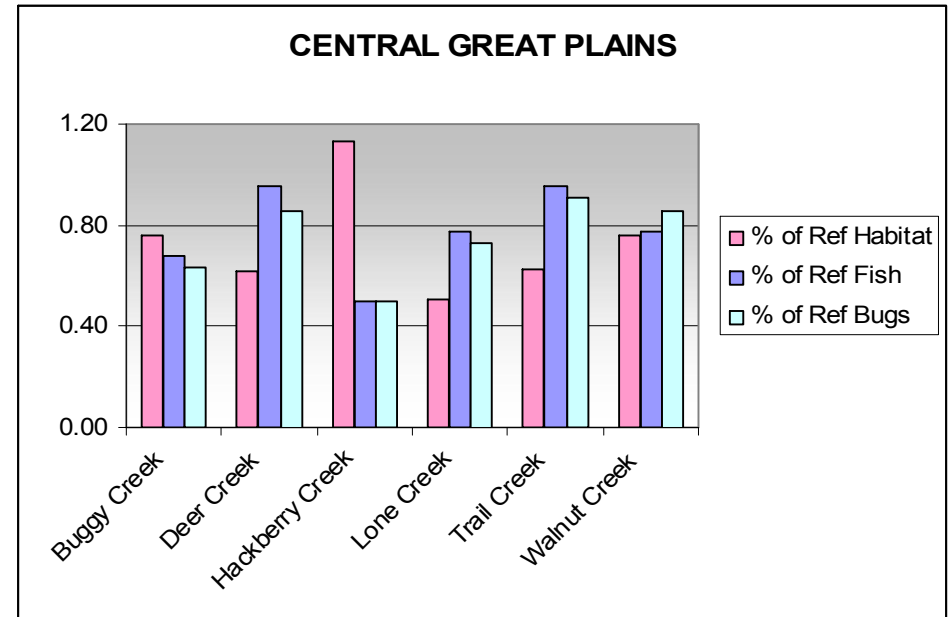
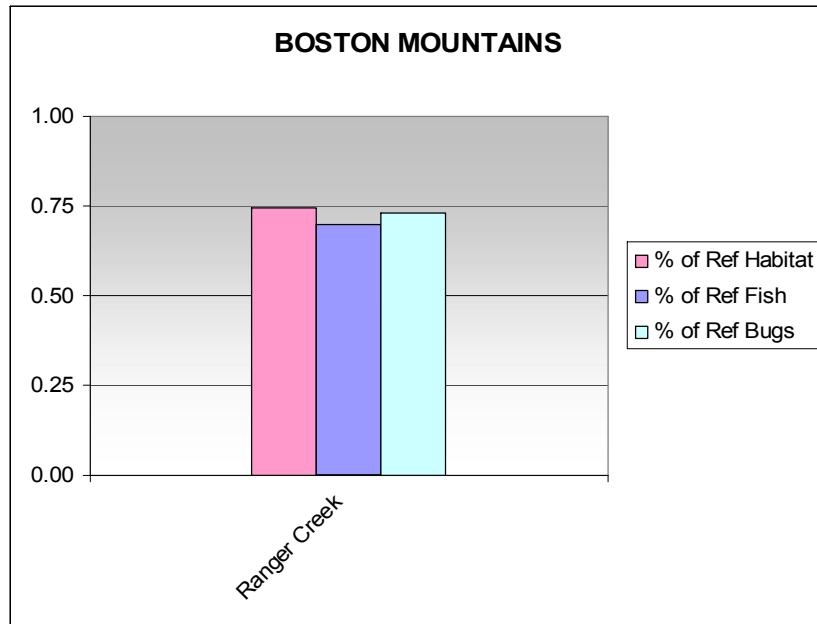


Figure 6. Comparison of habitat, fish, and bug scores relative to the average high quality site in each ecoregion.

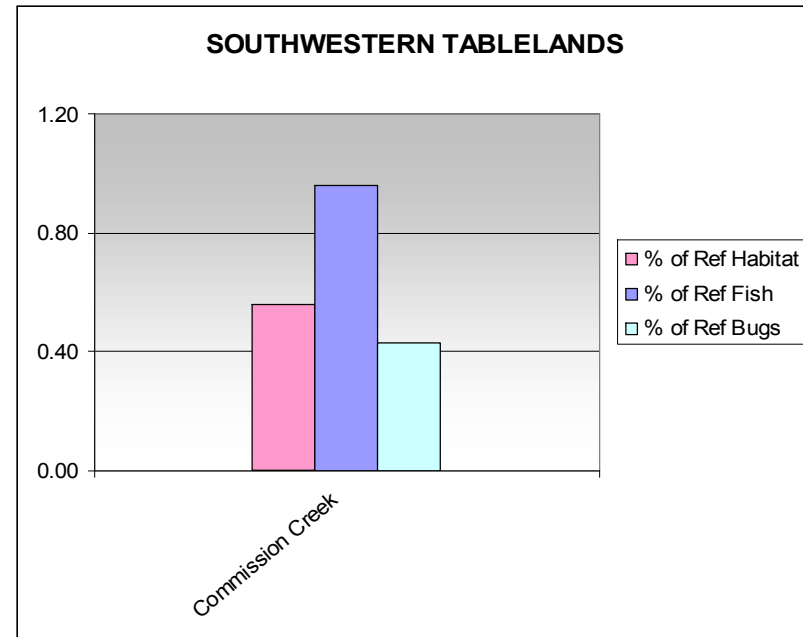
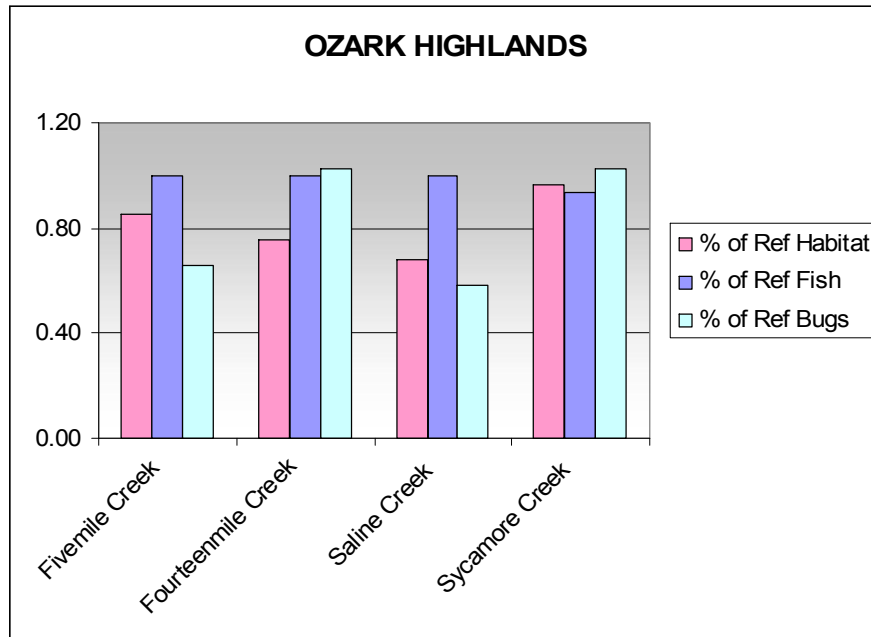
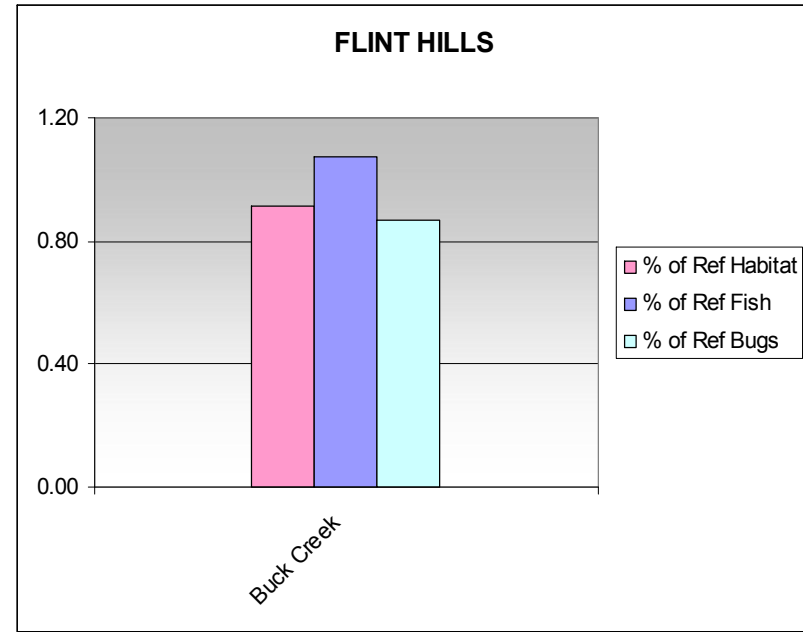
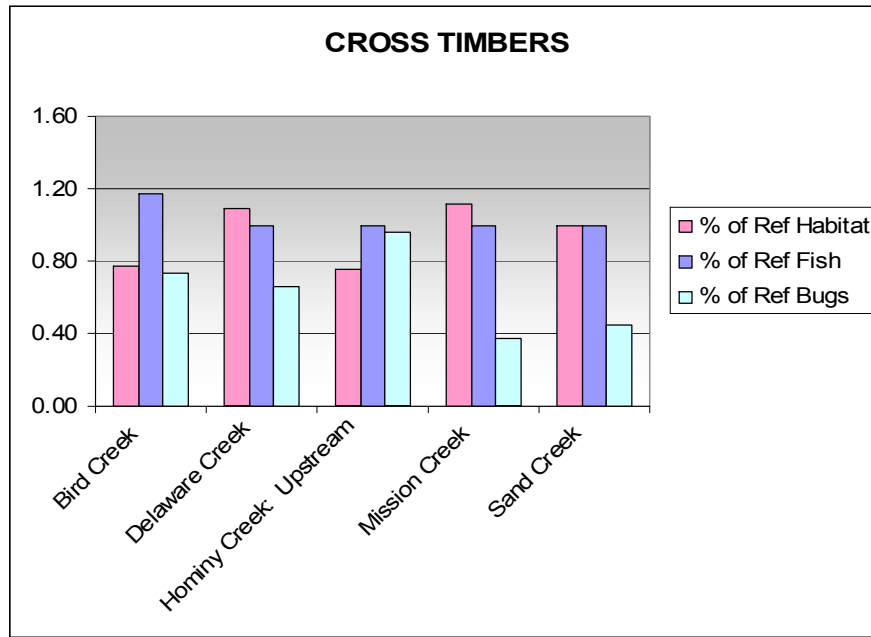


Figure 6, cont. Comparison of habitat, fish, and bug scores relative to the average high quality site in each ecoregion.

The four streams in the Ozark Highlands ecoregion had excellent fish communities, and three of them actually had improved from a “good” condition in 2001. However, three of these four streams had decreased macroinvertebrate scores as compared to the cycle 1 assessment. Although the scores only indicate “slight impairment,” this trend will be watched closely, and efforts to educate the local landowners about the high quality of these streams will be included in activities ongoing in the northeast part of the state.

Several streams had high habitat scores relative to high quality sites, yet the fish and bug scores were quite low. In particular, Hackberry, Bull, Chouteau, Curl, and Hogshooter had declining fish and bug communities in cycle 2 relative to the assessments made for cycle 1. Chouteau Creek had very low dissolved oxygen values, lower than the state criterion for 53% of samples. This stream has excellent habitat, but the “moderately impaired” bugs and “poor” fish community indicate that this low DO is significantly impacting the biological communities in the stream.

### 3.3 WATERSHED ASSESSMENT

Table 17 shows the landuse upstream of each monitoring site as obtained through GIS using the 2001 NRCS National Land Cover Dataset. As compared to the data reported in the 2005 report on these streams (Rotating Basin Group 1 Cycle 1), which was based on 1992 satellite imagery, many watersheds have had decreased cropland and grassland area and increased pastureland. There is now landuse data on Fivemile and Sycamore Creeks. According to this latest LandSat imagery, there is very little development in the area; however, there has been quite a lot of new development in the Grand Lake watershed (Delaware and Ottawa Counties) in the past several years which is not represented in the 2001 coverage and likely influenced the area streams.

In general, the Neosho-Grand basin is about 65% pasture and grassland, with another 25% comprised of forest. The Upper Canadian basin is 46% grassland and 31% cultivated cropland. Table 18 presents the types and number of permitted activities that occur in the watershed upstream of each site. Four sites had no permitted activities in the watershed: Big, Fivemile, Sycamore, and Little Horse Creeks. Fourteenmile Creek had only one oil/gas well.

Thirteen sites currently have national pollution discharge elimination systems (NPDES), while only 10 sites had these permits in the 2005 report. NPDES’s are classified as either major or minor based upon their size and/or their potential to impact the receiving stream, with majors having larger effects than minors. Of the sites in this project, Dog Creek and Deer Creek each had one major NPDES, while the other sites only had minor NPDES (Table 18). The 2005 report examined the effects of point source versus non-point source pollution on nutrient levels at the monitoring sites and found that nutrients tended to be significantly higher at sites with a NPDES in the watershed. Specifically, the high nutrient levels observed at Walnut, Big Cabin, and Dog Creeks are likely due to NPDES associated discharges. The biological communities at these sites are in decline relative to cycle 1 assessments. Other potential sources of impairment are given in Appendix D.1 for impaired streams included on the 2008 303(d) list.



**Table 17. Watershed landuse for each Group 1 monitoring site based on the most recent NLCD (USGS 2001).**

WBID	Sitename	Barren Land (Rock/Sand/Clay)	Cultivated Crops	Deciduous Forest	Developed, High Intensity	Developed, Low Intensity	Developed, Medium Intensity	Developed, Open Space	Emergent Herbaceous Wetlands	Evergreen Forest	Grassland/ Herbaceous	Mixed Forest	Open Water	Pasture/Hay	Shrub/Scrub	Woody Wetlands	Total Acres
OK121600-06-0220I	Big Cabin Creek		2.7%	13.4%		0.4%	0.1%	4.4%		0.3%	18.0%		0.5%	60.2%			149,845
OK121510-03-0010D	Big Creek		1.9%	13.0%				3.2%		0.2%	27.3%		0.2%	54.1%			91,990
OK121300-02-0010C	Bird Creek		0.8%	27.6%	0.1%	0.4%	0.1%	5.0%			59.8%		1.2%	4.9%			236,720
OK121400-03-0170C	Buck Creek		0.2%	7.2%				3.2%		0.1%	81.3%		0.1%	7.9%			40,989
OK520610-02-0120C	Buggy Creek		25.9%	4.9%	0.1%	0.7%	0.1%	4.5%		7.7%	55.8%		0.2%	0.2%			63,308
OK121500-02-0090D	Bull Creek		11.3%	6.3%		0.6%	0.1%	4.3%		0.1%	19.5%		0.4%	57.3%			31,174
OK121510-02-0050C	California Creek		4.6%	14.8%			0.1%	3.5%			26.3%		0.8%	49.9%			25,550
OK121600-01-0430M	Chouteau Creek		4.4%	16.5%			0.2%	3.4%			27.4%		0.9%	47.2%			22,159
OK520620-05-0160C	Commission Creek	0.2%	1.6%					0.1%			62.0%	0.1%	0.1%		35.8%	0.1%	31,543
OK121400-01-0270G	Curl Creek		0.1%	11.7%		0.1%		4.2%			40.2%		0.3%	43.4%			29,087
OK520620-06-0010F	Deer Creek		61.3%	1.2%	0.2%	1.0%	0.4%	5.0%		1.6%	29.1%	0.1%	0.1%				205,052
OK121300-01-0150H	Delaware Creek			57.9%		0.1%		3.8%			21.0%		0.2%	17.0%			29,167
OK121500-02-0360D	Dog Creek		0.2%	33.2%	0.7%	2.8%	1.3%	9.2%		0.1%	20.2%		1.3%	31.1%			68,496
OK121600-07-0110G	Fivemile Creek		2.8%	52.1%		1.0%	0.1%	4.3%			1.2%		0.1%	37.4%	0.4%	0.4%	8,221
OK121600-01-0100G	Fourteenmile Creek			31.7%				3.9%		0.4%	1.3%	0.1%	0.1%	62.0%	0.2%	0.2%	42,268
OK520620-04-0050D	Hackberry Creek		5.1%					3.3%		0.2%	54.9%		0.1%		36.3%		63,776
OK121400-01-0300D	Hogshooter Creek		0.2%	12.7%		0.1%		6.6%		0.1%	29.1%		0.8%	50.4%			27,583
OK121300-04-0010C	Hominy Creek: downstream		1.1%	33.2%		0.4%	0.1%	4.5%		0.1%	49.4%		4.2%	7.0%			264,589
OK121300-04-0280G	Hominy Creek: upstream		0.8%	22.4%		0.1%		3.2%		0.1%	71.9%		0.1%	1.4%			45,585
OK121600-06-0080C	Little Cabin Creek	0.1%	8.3%	8.2%		1.0%	0.1%	4.4%			5.4%		0.4%	71.4%	0.4%	0.2%	80,985
OK121400-02-0140H	Little Caney River		5.5%	13.2%		0.9%	0.2%	5.9%	0.1%	0.4%	25.2%		8.8%	39.8%			59,745
OK121600-03-0190A	Little Horse Creek		13.9%	1.9%		2.6%	0.3%	6.0%			0.5%		0.7%	73.8%	0.1%	0.1%	18,385
OK520620-03-0020C	Lone Creek		1.3%					4.0%		23.8%	67.0%		0.1%		3.8%		17,750
OK121400-02-0190B	Mission Creek		0.5%	26.8%		0.1%		4.2%			35.3%		0.3%	32.8%			26,666
OK121610-00-0050D	Pryor Creek: Hwy 20		3.4%	20.5%	0.1%	0.6%	0.2%	5.4%			13.9%		0.3%	55.7%			127,155
OK121610-00-0050M	Pryor Creek: Hwy 69		3.2%	20.9%	0.2%	1.0%	0.4%	5.7%			14.2%		0.3%	54.2%			147,789
OK121600-01-0060D	Ranger Creek		0.2%	29.2%		0.5%	0.2%	5.7%		0.2%	2.0%	0.2%	0.1%	61.2%	0.5%	0.2%	22,101
OK121600-02-0030D	Saline Creek		0.2%	60.7%		0.3%	0.1%	3.4%		0.9%	5.7%	0.1%		27.0%	1.6%	0.1%	66,848



### 3.4 DESIGNATED USE SUPPORT ASSESSMENT

The designated uses assessed for the monitoring sites are presented below, along with the current attainment status of each use based on the 2008 Integrated Report (ODEQ 2008). The causes and potential source(s) (if known) of any impairments are presented in Appendix D.1, and the key for the cause and source codes is given in Appendix D.2.

**Table 19. Beneficial use support assessment. F=fully supporting, N=not supporting, I=insufficient information, X=use not assessed, \*=antidegradation designation.**

SITENAME	WBID	COOL WATER AQ. COMM.	WARM WATER AQ. COMM.	HABITAT LIMITED AQ. COMM.	PRIMARY CONTACT (RECR)	SECONDARY CONTACT (RECR)	AESTHETICS	AGRICULTURE	EMERGENCY WATER SUPPLY	FISH CONSUMPTION	PUBLIC/ PRIVATE WATER SUP.	SENSITIVE WATER SUPPLY	HIGH QUALITY WATER
Big Cabin Creek	OK121600-06-0220I		F			F	I	N		X			
Big Creek	OK121510-03-0010D		N		N		F	N		X	I		
Bird Creek	OK121300-02-0010C		I		N		F	F		F	F		
Buck Creek	OK121400-03-0170C		F		N		I	F		X	I		
Buggy Creek	OK520610-02-0120C		F		N		F	F	F	X			
Bull Creek	OK121500-02-0090D		N		N		F	F		X			
California Creek	OK121510-02-0050C		N		N		F	N		X	I		
Chouteau Creek	OK121600-01-0430M		N		N		I	F		X	I		
Commission Creek	OK520620-05-0160C		F		N		I	F		X	I		
Curl Creek	OK121400-01-0270C		N		N		F	F		X			
Deer Creek	OK520620-06-0010F		F		N		F	F		X	F		
Delaware Creek	OK121300-01-0150H		N		N		F	N		X	I		
Dog Creek	OK121500-02-0360D		N		N		F	F		X	I		
Five Mile Creek	OK121600-07-0110G	F			F		F	F		F	F		
Fourteen Mile Creek	OK121600-01-0100G	F			F		F	F		F	F		*
Hackberry Creek	OK520620-04-0050D		I		N		I	N		X	I		
Hogshooter Creek	OK121400-01-0300D		N		N		F			X			
Hominy Creek: Downstream	OK121300-04-0010C		F		N		F	F		X	I		
Hominy Creek: Upstream	OK121300-04-0280G		I		N		I	N		X	I	*	
Little Cabin Creek	OK121600-06-0080C		N		N		I	N		X			
Little Caney River	OK121400-02-0140H		N		F		F	F		X	I	*	
Little Horse Creek	OK121600-03-0190A		N		N		I	F		X			
Lone Creek	OK520620-03-0020C		F		N		F	N		X	I		
Mission Creek	OK121400-02-0190B		N		N		F	F		X			
Pryor Creek	OK121610-00-0050D		X		X		X	X		X			
Ranger Creek	OK121600-01-0060D		F		N		F	F		X	X		
Saline Creek	OK121600-02-0030D	F			F		F	F		F	F		
Sand Creek	OK121400-04-0010F		F		N		I	F		X	I		
Sycamore Creek	OK121600-03-0510D	F			N		I	F		X	I		
Tar Creek	OK121600-04-0060D			N		I				X	I		
Trail Creek	OK520620-02-0090G			X	N		F	N	F	X			
Walnut Creek	OK520610-03-0010F		F		N		F	F		X			

Only Fivemile, Fourteenmile, and Saline Creeks were fully supporting for all assigned uses. *Enterococcus* and *E. coli* were the two most abundant impairments, listed as exceeding acceptable levels in 28 of the 33 streams.

### SUMMARY

On the whole, the Rotating Basin Group 1 monitoring sites have remained stable with a few notable exceptions. The number of sites which had improved biological communities, declining biological communities, and stable biological communities was approximately equal. Nitrogen levels have decreased overall while phosphorus levels have increased at many sites. The sites in the Central Irregular Plains ecoregion were more likely to have decreased fish scores in cycle 2 relative to cycle 1 than other ecoregions. Sites with significantly high nutrient levels tended to have declining biological communities, and the site with the largest percentage of low dissolved oxygen samples showed very poor fish and bug communities.

The four streams in the Ozark Highlands ecoregion were the least impacted of all streams. Three of them, Fivemile, Fourteenmile, and Saline, are fully attaining all assessed uses. The other one, Sycamore Creek, is only impaired by *Enterococcus*. All four of these Ozarkian streams have excellent fish communities, but the health of the macroinvertebrate communities has decreased slightly from the cycle 1 assessment. This could indicate a decline in water quality, so it will be important to continue to monitor these high quality streams and to educate the landowners in these watersheds about the quality of these streams. Efforts to install Best Management Practices and provide nonpoint source education are ongoing in many of the areas of the state represented by the Rotating Basin Group 1 sites, and the results of this cycle of monitoring will be incorporated into those efforts so that improvement may be observed in the coming years and the integrity of the unimpaired streams may be protected.

#### **4.0 LITERATURE CITED**

Gallant, A. L., T. R. Whittier, D. P. Larsen, J. M. Omernik, R. M. Hughes. 1989. *Regionalization as a Tool for Managing Environmental Resources*. EPA/600/3-89/060. U. S. Environmental Protection Agency, Corvallis, OR.

Minitab, Inc. 2003. *Minitab, Release 14* for Windows.

Oklahoma Conservation Commission, Water Quality Division. 2008. *Standard Operating Procedures*. Oklahoma Conservation Commission, Oklahoma City, Oklahoma.

Oklahoma Department of Environmental Quality. 2008. *Water Quality in Oklahoma: 2008 Integrated Report*.

Oklahoma Department of Environmental Quality. 2007. *Continuing Planning Process, Chapter 3: Integrated Water Quality Report Listing Methodology*, pages 168-196.

Oklahoma Water Resource Board. 2007. *Implementation of Oklahoma's Water Quality Standards, Chapter 46, Subchapter 15: Use Support Assessment Protocols (USAP)*. OAC 785:46-15.

Plafkin, J. L., M. T. Barbour, K. D. Porter, S. K. Gross, R. M. Hughes. 1989. *Rapid Bioassessment Protocols for Use in Streams and Rivers*. USEPA/444/4-89-001. U. S. E.P.A., Assessment and Watershed Protection Division, Washington, D. C.

USGS. 1992. National Land Coverage Dataset. <http://landcover.usgs.gov>.

Woods, A.J., Omernik, J.M., Butler, D.R., Ford, J.G., Henley, J.E., Hoagland, B.W., Arndt, D.S., and Moran, B.C. 2005. *Ecoregions of Oklahoma* (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,250,000).

SiteName	WRID	SAMPLEID	Date	DO (mg/L)	DOPerSat	Turb (NTU)	Turb Cause	Alkalinity (CaCO3)	Temp (°C)	Cond (uS/cm)	pH (SU)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	Available Nitrogen (mg/L)	Total Nitrogen (mg/L)	ToDisSolids (mg/L)	ToHardness (mg/L as Ca CO3)	ToOrthoPhos (mg/L)	TotPhosphorus (mg/L)	TotSusSolids (mg/L)	Flow (cfs)
Big Cabin Creek	OK121600-06-0220I	35231	6/19/2006	6.24	68.2	187.0	I	85.0	22.5	444.3	8.2	2.9	151.6	0.0740	0.41	0.07	0.36	0.554	0.840	347	220.7	0.099	0.142	112	
Big Cabin Creek	OK121600-06-0220I	35601	8/7/2006	6.54	81.2	4.4	O	52.0	26.6	635.0	8.0	63.2	88.4	0.0400	22.91	0.01	1.45	22.964	24.374	476	191.8	2.720	2.972	7	0.00
Big Cabin Creek	OK121600-06-0220I	35845	9/11/2006	5.98	71.3	5.0	O	53.0	24.3	625.0	6.5	61.8	74.0	0.0106	19.93	0.01	1.49	19.955	21.434	425	166.9	2.484	3.299	7	0.00
Big Cabin Creek	OK121600-06-0220I	35923	10/23/2006	7.25	73.6	6.6	O	104.0	15.9	627.0	6.9	52.6	56.0	0.0106	18.92	0.01	0.71	18.945	19.644	362	174.2	2.528	2.914	7	0.00
Big Cabin Creek	OK121600-06-0220I	35951	11/13/2006	7.28	72.0	2.8	O	95.0	15.3	499.0	7.6	55.9	55.2	0.0340	7.34	0.01	0.76	7.388	8.114	322	172.8	1.905	1.948	7	0.00
Big Cabin Creek	OK121600-06-0220I	36200	12/19/2006	6.87	57.3	2.9	O	80.0	7.4	629.0	7.0	72.2	150.5	0.0106	0.27	0.01	0.08	0.295	0.362	342	240.6	0.009	0.035	7	1.30
Big Cabin Creek	OK121600-06-0220I	36532	1/22/2007	13.95	96.1	533.0	I	42.0	0.3	316.2	8.4	11.3	203.4	0.0106	0.36	0.01	0.35	0.385	0.724	374	278.7	0.045	0.087	29	
Big Cabin Creek	OK121600-06-0220I	36732	2/26/2007	10.27	88.2	48.6	I	53.0	8.5	674.0	7.3	7.7	234.4	0.0106	0.46	0.01	0.42	0.485	0.894	447	325.2	0.027	0.102	38	
Big Cabin Creek	OK121600-06-0220I	36945	4/2/2007	6.85	71.3	49.3	I	72.0	17.3	527.0	6.4	5.2	148.5	0.0420	0.20	0.05	0.66	0.292	0.910	352	244.3	0.028	0.142	31	
Big Cabin Creek	OK121600-06-0220I	37057	5/7/2007	5.61	64.8	62.8	I	91.0	21.8	457.8	7.2	6.6	113.8	0.1610	0.35	0.09	1.05	0.601	1.490	296	196.4	0.100	0.200	71	
Big Cabin Creek	OK121600-06-0220I	37223	6/11/2007	5.57	67.0	414.0	I	151.0	24.0	566.0	7.8	4.3	184.1	0.0106	0.38	0.06	1.41	0.451	1.850	399	266.7	0.681	0.944	783	
Big Cabin Creek	OK121600-06-0220I	37860	7/16/2007	5.88	70.8	75.3	I	50.0	24.5	670.0	7.9	4.0	230.2	0.0310	0.28	0.04	0.82	0.351	1.140	484	320.1	0.068	0.168	55	
Big Cabin Creek	OK121600-06-0220I	38035	8/20/2007	7.91	97.2	17.9	O	98.0	25.4	950.0	8.8	8.4	331.7	0.0450	0.22	0.01	0.08	0.279	0.312	666	449.4	0.032	0.081	15	1.08
Big Cabin Creek	OK121600-06-0220I	38971	9/24/2007	5.15	61.1	12.6	O	86.0	23.5	680.0	8.6	5.4	198.0	0.0106	0.08	0.01	0.08	0.105	0.172	440	317.6	0.015	0.053	12	10.13
Big Cabin Creek	OK121600-06-0220I	38491	10/29/2007	8.23	75.5	13.8	O	107.0	11.7	726.0	8.9	8.4	204.8	0.0106	0.15	0.04	0.39	0.201	0.580	469	351.9	0.036	0.062	11	14.93
Big Cabin Creek	OK121600-06-0220I	38639	12/3/2007	9.28	74.0	8.2	O	147.0	5.7	1388.0	7.6	13.2	589.0	0.0106	0.14	0.01	0.33	0.165	0.484	1063	830.5	0.017	0.037	7	3.68
Big Cabin Creek	OK121600-06-0220I	39141	1/16/2008	12.63	96.0	13.4	I	112.0	3.9	790.0	7.6	8.1	256.3	0.0106	0.39	0.01	0.08	0.415	0.482	497	371.5	0.019	0.039	7	51.53
Big Cabin Creek	OK121600-06-0220I	39501	2/19/2008	10.51	81.5	77.2	I	94.0	4.8	403.9	7.0	7.5	109.4	0.0106	0.62	0.01	0.60	0.645	1.234	277	161.1	0.069	0.166	42	
Big Cabin Creek	OK121600-06-0220I	39764	3/24/2008	8.67	79.0	21.5	I	76.0	11.1	774.0	7.1	7.1	262.8	0.0106	0.29	0.01	0.38	0.315	0.684	520	370.7	0.029	0.050	12	
Big Cabin Creek	OK121600-06-0220I	40100	4/28/2008	7.80	77.9	20.7	I	90.0	15.2	676.0	7.3	6.3	224.5	0.0106	0.30	0.01	0.08	0.325	0.392	440	313.2	0.026	0.070	12	
Big Creek	OK121510-03-0010D	35596	6/19/2006	5.13	60.6	37.4	I	65.0	23.7	187.6	7.4	3.6	10.7	0.0250	0.56	0.06	0.50	0.645	1.120	131	88.6	0.099	0.160	31	
Big Creek	OK121510-03-0010D	35619	8/14/2006	3.61	47.3	18.5	O	121.0	28.8	303.0	7.4	11.2	14.2	0.0660	0.05	0.01	0.71	0.130	0.774	154	136.9	0.024	0.047	16	0.00
Big Creek	OK121510-03-0010D	35856	9/18/2006	3.80	41.9	19.4	O	63.0	19.7	256.2	7.4	6.6	35.8	0.1300	0.28	0.07	0.73	0.480	1.080	175	114.9	0.032	0.072	46	0.00
Big Creek	OK121510-03-0010D	35917	10/23/2006	9.38	86.7	2.3	O	109.0	11.5	377.9	7.2	10.8	41.2	0.0106	0.01	0.01	0.75	0.039	0.778	203	181.7	0.004	0.037	7	0.00
Big Creek	OK121510-03-0010D	35962	11/27/2006	6.58	65.9	2.2	O	151.0	15.7	446.9	7.5	14.6	42.0	0.0106	0.01	0.01	0.08	0.039	0.106	299	221.7	0.009	0.021	7	0.00
Big Creek	OK121510-03-0010D	36465	1/2/2007	10.73	84.0	39.0	I	117.0	5.0	273.7	7.8	6.2	27.3	0.0106	1.59	0.01	0.78	1.615	2.384	158	133.7	0.063	0.131	7	40.06
Big Creek	OK121510-03-0010D	36559	1/29/2007	13.68	96.4	38.1	I	81.0	1.1	147.0	7.9	5.6	23.1	0.0106	1.19	0.08	0.47	1.281	1.740	180	130.0	0.041	0.092	12	58.89
Big Creek	OK121510-03-0010D	36803	3/5/2007	12.18	103.4	10.8	O	166.0	8.2	331.0	8.2	7.6	31.5	0.0106	0.26	0.01	0.08	0.285	0.352	210	177.5	0.007	0.040	7	18.47
Big Creek	OK121510-03-0010D	36956	4/9/2007	11.60	100.3	3.4	O	154.0	8.9	371.3	8.2	7.1	25.4	0.0106	0.26	0.01	0.25	0.285	0.524	227	203.0	0.004	0.025	29	48.12
Big Creek	OK121510-03-0010D	37103	5/14/2007	6.54	78.2	18.0	I	141.0	23.9	396.1		6.9	19.6	0.0106	0.39	0.01	0.08	0.415	0.482	233	204.9	0.014	0.059	7	87.58
Big Creek	OK121510-03-0010D	37284	6/19/2007	7.42	89.2	8.2	O	196.0	24.6	416.7	8.0	10.5	20.0	0.0106	0.30	0.07	0.24	0.381	0.610	271	216.8	0.014	0.039	7	77.92
Big Creek	OK121510-03-0010D	37776	7/23/2007	6.24	80.4	10.3	O	187.0	28.4	423.5	7.8	15.4	20.1	0.0106	0.01	0.01	0.34	0.039	0.368	238	203.3	0.007	0.043	7	6.63
Big Creek	OK121510-03-0010D	38071	8/27/2007	5.38	68.8	150.0	I	113.0	27.6	292.9	7.1	18.4	23.6	0.0380	0.37	0.01	0.38	0.422	0.764	215	129.1	0.046	0.150	54	13.41
Big Creek	OK121510-03-0010D	38370	10/2/2007	4.73	69.5	8.8	O	127.0	23.6	284.5		7.7	16.6	0.0220	0.08	0.01	0.19	0.116	0.284	173	137.6	0.017	0.049	7	
Big Creek	OK121510-03-0010D	38527	11/6/2007	8.74	80.4	14.6	O	206.0	11.7	259.8		8.9	20.5	0.0106	0.01	0.04	0.22	0.065	0.274	253	226.6	0.020	0.047	15	8.51
Big Creek	OK121510-03-0010D	38650	12/3/2007	8.48	71.5	8.5	O	229.0	7.9	332.9	8.0	18.6	25.3	0.0106	0.14	0.01	0.08	0.165	0.232	299	222.8	0.027	0.027	7	10.05
Big Creek	OK121510-03-0010D	39544	2/26/2008	11.02	90.3	21.7	I	153.0	6.7	360.4	8.0	6.8	24.1	0.0106	0.22	0.01	0.08	0.245	0.312	232	173.9	0.012	0.047	14	147.50
Big Creek	OK121510-03-0010D	39827	3/31/2008	9.21	90.3	8.9	O	193.0	14.6	441.8	7.9	11.1	27.5	0.0106	0.07	0.01	0.08	0.095	0.162	277	220.7	0.004	0.013	7	
Big Creek	OK121510-03-0010D	40135	5/6/2008	7.92	87.3	4.6	O	175.0	20.1	422.8	7.8	12.8	27.9	0.0106	0.01	0.01	0.70	0.039	0.728	236	203.4	0.004	0.026	7	
Bird Creek	OK121300-02-0010C	35048	6/23/2006	4.37	55.3	8.6	O	81.0	27.1	373.4	7.6	33.6	14.9	0.0106	0.01	0.01	0.39	0.039	0.418	197	129.2	0.010	0.020	7	3.80
Bird Creek	OK121300-02-0010C	35584	8/7/2006	5.09	66.9	7.4	O	73.0	29.7	305.9	7.8	37.0	11.3	0.0106	0.01	0.01	0.36	0.039	0.388	192	115.7	0.004	0.036	7	2.62
Bird Creek	OK121300-02-0010C	35840	9/11/2006	8.26	102.4	6.0	O	118.0	26.4	350.0	7.9	54.1	12.9	0.0106	0.01	0.01	0.27	0.039	0.298	182	121.6	0.011	0.028	7	12.66
Bird Creek	OK121300-02-0010C	35910	10/16/2006	7.76	79.8	7.8	O	87.0	16.6	378.3	7.7	52.9	13.7	0.0106	0.01	0.01	0.14	0.039	0.168	248	130.3	0.010	0.016	7	9.14
Bird Creek	OK121300-02-0010C	35946	11/13/2006	8.71	82.0	4.4	O	105.0	12.7	381.0	7.7	60.9	17.3	0.0106	0.01	0.01	0.31	0.039	0.338	192	135.4	0.004	0.030	7	9.03
Bird Creek	OK121300-02-0010C	36213	12/19/2006	10.98	93.2	8.1	O	82.0	8.2	319.7	7.7	36.8	18.2	0.0106	0.01	0.01	0.26	0.039	0.288	204	119.5	0.011	0.043	7	7.95
Bird Creek	OK121300-02-0010C	36527	1/22/2007	12.19	92.6	7.7	O	110.0	3.8	403.7	7.9	46.1	25.1	0.0106	0.06	0.01	0.27	0.085	0.344	222	144.0	0.010	0.041	7	34.99
Bird Creek	OK121300-02-0010C	36745	2/26/2007	11.19	101.3	8.5	O	84.0	10.8	363.4	8.2	58.5	27.0	0.0106	0.01	0.01	0.27	0.039	0.298	198</					

SiteName	WBID	SAMPLEID	Date	DO (mg/L)	DOPerSat	Turb (NTU)	Turb Cause	Alkalinity (CaCO3)	Temp (°C)	Cond (uS/cm)	pH (SU)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	Available Nitrogen (mg/L)	Total Nitrogen (mg/L)	ToDisSolids (mg/L)	ToHardness (mg/L as Ca CO3)	ToOrthoPhos (mg/L)	ToTotPhosphorus (mg/L)	ToTotSolids (mg/L)	Flow (cfs)
Bird Creek	OK121300-02-0010C	37069	5/7/2007	6.03	66.3	1000.0	I	44.0	19.5	121.5	7.1	6.3	7.7	0.1220	0.19	0.01	2.66	0.326	2.864	176	51.0	0.209	0.860	1245	
Bird Creek	OK121300-02-0010C	37235	6/11/2007	6.40	78.5	23.4	O	96.0	25.7	248.3		15.6	13.4	0.0106	0.06	0.01	0.51	0.085	0.584	167	101.3	0.009	0.060	13	98.15
Bird Creek	OK121300-02-0010C	37854	7/16/2007	6.76	87.2	79.8	I	83.0	28.3	217.4	7.4	7.6	10.2	0.0106	0.12	0.01	0.34	0.145	0.474	166	90.3	0.030	0.097	22	140.83
Bird Creek	OK121300-02-0010C	38047	8/20/2007	6.75	84.0	32.6	O	49.0	26.5		7.2	15.1	6.0	0.0420	0.16	0.01	0.08	0.216	0.252	125	60.5	0.026	0.064	12	238.73
Bird Creek	OK121300-02-0010C	38348	9/24/2007	7.61	94.6	7.5	O	122.0	26.7		7.9	32.9	14.8	0.0106	0.01	0.01	0.08	0.039	0.106	215	145.0	0.007	0.037	7	47.91
Bird Creek	OK121300-02-0010C	38489	10/30/2007	9.19	88.2	98.9	I	53.0	14.1		7.9	16.6	13.5	0.0106	0.23	0.07	0.43	0.311	0.730	174	92.3	0.038	0.100	20	42.37
Bird Creek	OK121300-02-0010C	38692	12/12/2007	11.62	87.3	54.0	I	54.0	3.8	210.0		26.3	22.3	0.0106	0.39	0.01	0.44	0.415	0.844	145	77.3	0.042	0.085	25	
Bird Creek	OK121300-02-0010C	39151	1/15/2008	13.20	103.7	20.8	O	91.0	5.1	380.5	8.0	39.4	21.8	0.0106	0.15	0.01	0.16	0.175	0.324	204	136.7	0.010	0.045	10	34.37
Bird Creek	OK121300-02-0010C	39514	2/19/2008	12.63	101.3	119.0	I	107.0	5.9	340.1	7.6	29.1	22.0	0.0150	0.35	0.01	0.55	0.379	0.914	257	128.5	0.037	0.104	37	
Bird Creek	OK121300-02-0010C	39777	3/24/2008	10.86	98.9	68.4	I	75.0	11.2	232.0	7.7	16.7	15.3	0.0106	0.22	0.01	0.08	0.245	0.312	193	87.8	0.025	0.084	24	
Bird Creek	OK121300-02-0010C	40094	4/28/2008	9.93	101.8		I	54.0	16.7	182.9	7.5	17.7	13.6	0.0106	0.22	0.01	0.08	0.245	0.312	153	67.1	0.021	0.063	10	
Buck Creek	OK121400-03-0170C	35051	6/12/2006	6.12	76.1	16.0	O	199.0	26.3	411.7	7.8	7.9	16.7	0.0106	0.05	0.01	0.21	0.075	0.274	200	194.2	0.007	0.036	13	0.75
Buck Creek	OK121400-03-0170C	35587	8/7/2006	5.90	76.7	5.3	O	92.0	28.9	276.4	7.7	10.3	13.9	0.0290	0.09	0.01	0.20	0.133	0.304	156	110.4	0.004	0.035	10	0.00
Buck Creek	OK121400-03-0170C	35837	9/11/2006	5.65	65.7	19.6	I	67.0	22.7	218.6	7.5	40.8	11.9	0.0106	0.06	0.01	0.11	0.085	0.184	132	106.6	0.012	0.013	12	0.00
Buck Creek	OK121400-03-0170C	35907	10/16/2006	2.61	25.6	16.4	O	134.0	14.6	319.5	7.4	29.7	13.0	0.0210	0.10	0.01	0.08	0.135	0.192	222	160.0	0.014	0.021	7	0.00
Buck Creek	OK121400-03-0170C	35943	11/13/2006	3.69	31.4	8.0	O	87.0	8.5	422.0	7.5	10.4	14.2	0.0240	0.01	0.01	0.66	0.052	0.688	247	218.6	0.010	0.065	11	0.00
Buck Creek	OK121400-03-0170C	36210	12/19/2006	7.30	59.8	7.2	O	165.0	7.6	415.6	7.3	25.2	33.9	0.0106	0.16	0.01	0.08	0.185	0.252	261	211.4	0.017	0.026	7	0.00
Buck Creek	OK121400-03-0170C	36524	1/22/2007	12.51	90.5	4.1	O	169.0	2.0	376.7	8.1	13.4	18.9	0.0106	0.06	0.01	0.18	0.085	0.254	191	198.5	0.013	0.031	7	0.68
Buck Creek	OK121400-03-0170C	36742	2/26/2007	10.58	89.4	11.1	O	170.0	8.0	362.3	8.1	45.8	28.0	0.0106	0.31	0.01	0.15	0.335	0.474	211	187.0	0.006	0.029	7	1.85
Buck Creek	OK121400-03-0170C	36937	4/2/2007	8.90	91.0	27.9	I	147.0	16.7	317.3	8.1	4.5	15.9	0.0106	0.26	0.01	0.23	0.285	0.504	211	167.1	0.016	0.087	11	121.27
Buck Creek	OK121400-03-0170C	37067	5/7/2007	9.03	96.4	1000.0	I	65.0	18.5	132.0	7.7	2.0	4.2	0.0106	0.16	0.01	2.12	0.185	2.294	167	67.2	0.164	0.621	858	
Buck Creek	OK121400-03-0170C	37233	6/11/2007	7.76	87.8	1000.0	I	61.0	21.1	89.0		12.5	6.0	0.0106	0.15	0.01	2.05	0.175	2.214	117	48.8	0.264	0.801	1378	
Buck Creek	OK121400-03-0170C	37852	7/16/2007	6.53	82.5	11.8	O	160.0	27.7	364.4	8.0	4.6	11.8	0.0106	0.05	0.01	0.16	0.075	0.224	209	169.2	0.010	0.043	7	44.44
Buck Creek	OK121400-03-0170C	38045	8/20/2007	4.69	58.4	13.2	O	174.0	27.0		7.8	52.7	21.3	0.0106	0.14	0.01	0.08	0.165	0.232	244	194.9	0.009	0.040	7	0.97
Buck Creek	OK121400-03-0170C	38346	9/24/2007	5.94	70.9	6.4	O	148.0	24.2		7.6	16.0	16.8	0.0106	0.12	0.01	0.08	0.145	0.212	197	48.1	0.008	0.022	7	0.82
Buck Creek	OK121400-03-0170C	38483	10/29/2007	9.67	92.8	7.3	O	160.0	13.5		8.4	15.0	15.3	0.0106	0.19	0.06	0.08	0.261	0.328	10	187.7	0.006	0.023	207	17.45
Buck Creek	OK121400-03-0170C	38690	12/12/2007	12.02	90.1	7.4	O	218.0	3.4	453.6		7.6	19.7	0.0106	0.15	0.01	0.08	0.175	0.242	240	229.2	0.008	0.023	10	53.10
Buck Creek	OK121400-03-0170C	39148	1/15/2008	12.69	94.9	4.9	O	193.0	3.2	473.1	8.2	28.8	30.9	0.0106	0.01	0.01	0.08	0.039	0.106	264	239.0	0.008	0.022	7	19.07
Buck Creek	OK121400-03-0170C	39511	2/19/2008	12.58	96.9	53.3	I	125.0	4.4	298.0	8.1	11.3	18.1	0.0106	0.24	0.01	0.29	0.265	0.544	216	137.3	0.013	0.063	7	75.05
Buck Creek	OK121400-03-0170C	39774	3/24/2008	10.05	90.1	10.7	O	201.0	10.5	431.3	8.2	16.8	23.1	0.0106	0.05	0.01	0.08	0.075	0.142	259	216.2	0.008	0.018	7	44.12
Buck Creek	OK121400-03-0170C	40092	4/28/2008	9.01	93.8	12.1	O	170.0	17.2	386.5	8.1	22.6	23.4	0.0106	0.01	0.01	0.08	0.039	0.106	235	188.0	0.011	0.047	7	
Buggy Creek	OK520610-02-0120C	35215	6/19/2006	6.22	77.7	8.6	O	202.0	26.6	1015.0	7.7	38.7	228.7	0.7630	0.32	0.06	1.37	1.143	1.750	683	371.6	0.100	0.148	7	0.77
Buggy Creek	OK520610-02-0120C	35694	8/14/2006	6.43	83.5	19.9	O	436.0	27.4	1474.0	7.9	117.2	251.2	0.0106	0.01	0.01	1.34	0.039	1.368	923	455.7	0.177	0.273	22	0.00
Buggy Creek	OK520610-02-0120C	36024	9/19/2006	7.36	75.8	74.3	I	165.0	16.8	705.0	7.9	20.9	246.7		0.59	0.07	1.06		1.720	602	397.3	0.150	0.199	59	1.55
Buggy Creek	OK520610-02-0120C	36046	10/24/2006	9.56	88.1	4.6	I	303.0	11.8	1607.0	8.1	55.0	487.0	0.0106	0.53	0.01	0.49	0.555	1.034	1272	713.3	0.023	0.038	7	0.16
Buggy Creek	OK520610-02-0120C	36131	11/28/2006	7.13	72.2	4.2	I	305.0	16.2	1592.0	7.9	59.1	545.9	0.0106	0.47	0.01	0.08	0.495	0.562	1177	709.6	0.018	0.034	7	0.98
Buggy Creek	OK520610-02-0120C	36472	1/2/2007	13.69	104.3	16.9	I	269.0	3.9	1265.0	8.2	49.8	314.8	0.1400	0.62	0.01	0.86	0.774	1.494	865	677.2	0.078	0.128	11	2.02
Buggy Creek	OK520610-02-0120C	36576	1/30/2007	13.73	99.0	41.9	I	278.0	1.9		8.3	40.7	286.5	0.0480	0.61	0.01	0.67	0.672	1.294	807	494.3	0.070	0.146	39	4.41
Buggy Creek	OK520610-02-0120C	36810	3/5/2007	14.37	131.6	15.5	O	251.0	11.4	1166.0	8.3	34.2	276.9	0.0106	0.30	0.01	0.15	0.325	0.464	801	521.8	0.053	0.079	7	2.98
Buggy Creek	OK520610-02-0120C	36962	4/9/2007	10.70	92.1	48.3	I	338.0	8.8	1154.0	8.1	34.6	314.6	0.1570	0.83	0.12	0.52	1.107	1.470	914	622.3	0.127	0.177	34	
Buggy Creek	OK520610-02-0120C	37090	5/14/2007	7.37	83.9	122.0	I	296.0	21.8	1014.0	7.8	26.8	273.3	0.0480	0.78	0.01	0.38	0.842	1.174	807	535.4	0.194	0.349	158	30.92
Buggy Creek	OK520610-02-0120C	37261	6/18/2007	7.45	87.2	107.0	I	2.6	23.2	976.0	7.7	20.8	185.6	0.0380	0.61	0.08	0.77	0.728	1.460	698	431.9	0.314	0.395	204	41.26
Buggy Creek	OK520610-02-0120C	37746	7/23/2007	7.16	87.8	42.8	I	340.0	25.8	1283.0	8.0	35.1	370.4	0.0106	1.88	0.01	0.59	1.905	2.484	997	634.1	0.110	0.155	125	29.57
Buggy Creek	OK520610-02-0120C	38063	8/27/2007	7.22	94.4	140.0	I	304.0	29.2	1297.0	8.0	28.7	322.3	0.0106	1.72	0.01	0.46	1.745	2.194	936	635.6	0.137	0.237	252	49.59
Buggy Creek	OK520610-02-0120C	38358	10/1/2007	9.40	102.4	21.9	I	319.0	19.4	784.0	8.1	32.8	391.6	0.0106	1.66	0.01	0.23	1.685	1.904	1035	620.1	0.035	0.076	89	21.45
Buggy Creek	OK520610-02-0120C	38519	11/6/2007	10.67	95.1	26.8	I	318.0	10.3	1165.0	8.3	28.9	320.7	0.0106	1.77	0.11	0.08	1.891	1.958	979	597.7	0.053	0.093	73	12.98
Buggy Creek	OK520610-02-0120C	38682	12/12/2007	12.38	91.7	308.0	I	280.0	2.8	930.0	8.2	26.9	237.9	0.0450	1.24	0.01	1.13	1.299	2.384	640	434.0	0.322	0.477	629	72.53
Buggy Creek	OK520610-02-0120C																								

SiteName	WBID	SAMPLEID	Date	DO (mg/L)	DOPerSat	Turb (NTU)	Turb Cause	Alkalinity (CaCO3)	Temp (°C)	Cond (uS/cm)	pH (SU)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	Available Nitrogen (mg/L)	Total Nitrogen (mg/L)	ToDisSolids (mg/L)	ToHardness (mg/L as Ca CO3)	ToOrthoPhos (mg/L)	ToTotPhosphorus (mg/L)	ToTotSusSolids (mg/L)	Flow (cfs)
Buggy Creek	OK520610-02-0120C	39834	3/31/2008	8.08	88.2	1000.0	1		19.6	531.0	7.8	13.3	108.0	0.2040	0.70	0.08	5.89	0.984	6.670	411	215.7	1.002	2.434	3930	261.54
Buggy Creek	OK520610-02-0120C	40142	5/7/2008	7.62	80.6	1000.0	1		18.0	524.0	8.0	17.3	178.9	0.0710	0.75	0.01	4.07	0.835	4.834	353	197.3	0.933	1.672	2624	
Bull Creek	OK121500-02-0090D	35597	6/20/2006	4.01	50.3	14.1	O	78.0	27.0	333.3	7.2	16.8	41.0	0.0350	0.12	0.01	0.65	0.169	0.784	209	127.9	0.011	0.052	7	0.00
Bull Creek	OK121500-02-0090D	35621	8/15/2006	2.94	38.0	21.9	O	94.0	28.2	330.3	7.3	28.1	35.4	0.0670	0.21	0.01	1.00	0.291	1.224	195	115.6	0.022	0.110	21	0.00
Bull Creek	OK121500-02-0090D	35858	9/19/2006	5.34	58.6	131.0	1	52.0	19.9	173.7	7.0	8.8	19.8	0.1560	0.37	0.07	0.60	0.596	1.040	156	59.1	0.045	0.083	43	2.45
Bull Creek	OK121500-02-0090D	35919	10/24/2006	8.85	80.0	61.2	1	70.0	11.2	220.3	6.7	12.1	31.1	0.0106	0.12	0.01	0.86	0.145	0.994	152	83.3	0.037	0.102	24	0.00
Bull Creek	OK121500-02-0090D	35964	11/28/2006	8.17	81.6	43.1	1	66.0	15.6	236.2	6.9	12.8	26.2	0.0106	0.20	0.01	0.08	0.225	0.292	122	93.3	0.004	0.023	21	0.00
Bull Creek	OK121500-02-0090D	36467	1/3/2007	12.29	93.2	52.2	1	34.0	3.8	198.5	6.9	11.6	34.9	0.0270	0.68	0.01	0.96	0.721	1.654	132	64.2	0.101	0.188	7	13.17
Bull Creek	OK121500-02-0090D	36560	1/30/2007	13.63	97.6	35.8	1	32.0	1.7	290.0	6.6	17.0	58.8	0.0590	0.72	0.08	1.26	0.859	2.060	212	91.7	0.068	0.109	7	7.11
Bull Creek	OK121500-02-0090D	36805	3/6/2007	12.56	109.7	24.6	O	83.0	9.3	367.7	7.3	24.4	88.8	0.0106	0.15	0.01	0.27	0.175	0.434	248	126.2	0.013	0.066	15	1.45
Bull Creek	OK121500-02-0090D	36958	4/10/2007	10.14	93.5	12.3	O	64.0	11.6	407.2	7.4	22.8	87.2	0.0106	0.44	0.08	0.66	0.531	1.180	255	141.8	0.011	0.050	7	4.82
Bull Creek	OK121500-02-0090D	37097	5/14/2007	3.77	45.8	35.9	1	68.0	24.5	269.5	7.8	12.4	37.2	0.0250	0.32	0.08	0.82	0.425	1.220	191	91.1	0.072	0.162	18	
Bull Creek	OK121500-02-0090D	37278	6/18/2007	5.25	64.0	23.8	1	64.0	25.3	293.1	7.2	15.4	167.7	0.0210	0.22	0.07	1.16	0.311	1.450	191	118.0	0.046	0.138	7	4.00
Bull Creek	OK121500-02-0090D	37778	7/23/2007	2.44	30.4	150.0	1	73.0	27.5	229.7	8.9	11.7	26.5	0.0106	0.01	0.01	0.90	0.039	0.928	144	77.6	0.020	0.088	23	
Bull Creek	OK121500-02-0090D	38073	8/28/2007	4.35	54.8	47.2	1	65.0	27.2	347.4		27.4	43.3	0.0320	0.48	0.01	0.63	0.526	1.124	202	97.8	0.023	0.103	37	9.89
Bull Creek	OK121500-02-0090D	38364	10/2/2007	4.66	53.4	44.2	1	44.0	23.1	151.7	8.7	9.8	49.9	0.0630	0.63	0.11	0.64	0.803	1.380	134	93.5	0.030	0.130	17	
Bull Creek	OK121500-02-0090D	38529	11/7/2007	8.85	76.4	18.8	O	79.0	9.2	301.2		20.2	45.6	0.0106	0.34	0.06	0.15	0.411	0.550	184	94.1	0.016	0.070	7	
Bull Creek	OK121500-02-0090D	38652	12/5/2007	8.98	73.8	24.5	O	72.0	7.4	215.6	7.0	27.1	50.7	0.0106	0.57	0.01	0.37	0.595	0.954	195	105.8	0.004	0.035	16	
Bull Creek	OK121500-02-0090D	39538	2/26/2008	6.19	51.3	35.1	1	56.0	6.7	371.9	7.1	19.4	83.0	0.0106	0.57	0.01	0.08	0.595	0.662	244	119.1	0.035	0.091	12	
Bull Creek	OK121500-02-0090D	39829	4/1/2008	9.11	88.0	116.0	1	26.0	13.8	134.8		5.7	25.4	0.0500	0.29	0.07	0.52	0.410	0.880	164	44.8	0.116	0.237	51	
Bull Creek	OK121500-02-0090D	40129	5/6/2008	6.93	76.0	12.0	1	70.0	20.0	351.2	7.1	20.0	75.4	0.0200	0.21	0.01	0.42	0.244	0.644	201	102.1	0.009	0.061	7	
California Creek	OK121510-02-0050C	35595	6/19/2006	4.02	47.7	11.7	O	138.0	24.0	370.7	7.2	20.9	20.9	0.0106	0.21	0.05	0.39	0.271	0.650	225	156.3	0.010	0.045	13	0.00
California Creek	OK121510-02-0050C	35618	8/14/2006	3.69	45.4	35.5	O	68.0	25.6	299.5	7.3	20.2	12.1	0.0280	0.06	0.01	0.37	0.102	0.444	117	108.2	0.020	0.024	29	0.00
California Creek	OK121510-02-0050C	35855	9/18/2006	3.89	39.7	36.9	O	88.0	16.1	352.8	7.3	28.2	22.5	0.0150	0.21	0.01	0.53	0.239	0.754	231	132.2	0.022	0.050	28	0.00
California Creek	OK121510-02-0050C	35916	10/23/2006	6.05	52.5	37.2	O	34.0	9.4	433.6	7.3	38.9	14.9	0.0106	0.01	0.01	0.84	0.039	0.868	236	174.4	0.009	0.084	27	0.00
California Creek	OK121510-02-0050C	35961	11/27/2006	0.12	1.1	10.3	O	235.0	11.1	644.0	7.1	47.8	4.7	0.0106	0.01	0.01	0.77	0.039	0.798	421	278.4	0.183	0.293	20	0.00
California Creek	OK121510-02-0050C	36464	1/2/2007	10.41	80.9	50.9	1	90.0	4.7	446.3	7.3	21.2	100.8	0.0106	0.92	0.01	1.09	0.945	2.024	279	189.7	0.064	0.190	15	1.95
California Creek	OK121510-02-0050C	36558	1/29/2007	13.46	94.5	73.1	1	54.0	1.2	138.4	6.9	19.9	32.0	0.0820	0.96	0.08	0.76	1.122	1.800	163	92.2	0.098	0.184	24	18.00
California Creek	OK121510-02-0050C	36802	3/5/2007	12.63	102.1	7.5	O	134.0	6.2	445.8	7.8	38.3	78.7	0.0106	0.61	0.01	0.14	0.635	0.764	281	188.7	0.005	0.036	7	0.56
California Creek	OK121510-02-0050C	36955	4/9/2007	12.31	107.7	9.2	O	90.0	9.4	358.4	8.4	27.5	40.6	0.0106	0.39	0.01	0.52	0.415	0.924	216	148.8	0.009	0.060	21	6.80
California Creek	OK121510-02-0050C	37102	5/14/2007	6.62	78.8	27.4	1	71.0	24.2	319.2		19.6	28.8	0.0106	0.34	0.01	0.23	0.365	0.584	195	130.7	0.021	0.081	16	16.42
California Creek	OK121510-02-0050C	37283	6/19/2007	6.94	83.5	61.1	1	84.0	24.6	268.3	7.6	19.8	21.4	0.0106	0.30	0.01	0.54	0.325	0.854	198	103.1	0.031	0.104	27	28.68
California Creek	OK121510-02-0050C	37775	7/23/2007	7.20	90.5	10.3	O	142.0	27.1	542.0	7.8	71.8	41.4	0.0106	0.06	0.01	0.45	0.085	0.524	340	198.4	0.008	0.041	7	2.93
California Creek	OK121510-02-0050C	38070	8/27/2007	4.76	59.7	8.4	O	138.0	26.8	605.0		84.4	40.0	0.0180	0.06	0.01	0.25	0.092	0.324	328	201.4	0.010	0.028	7	0.19
California Creek	OK121510-02-0050C	38369	10/2/2007	5.26	60.1	11.4	O	96.0	22.0	319.3		39.3	30.9	0.0106	0.08	0.01	0.14	0.105	0.234	214	138.6	0.016	0.039	7	0.03
California Creek	OK121510-02-0050C	38526	11/6/2007	6.24	55.6	10.2	O	102.0	10.1	331.4		36.4	28.2	0.0106	0.11	0.01	0.29	0.135	0.414	202	139.0	0.029	0.063	7	0.11
California Creek	OK121510-02-0050C	38649	12/3/2007	8.55	67.8	5.3	O	130.0	5.3	274.0	7.5	63.6	30.3	0.0106	0.15	0.01	0.40	0.175	0.564	256	168.1	0.036	0.062	7	
California Creek	OK121510-02-0050C	39543	2/26/2008	12.46	97.0	41.5	1	95.0	4.7	358.0	7.9	35.6	46.2	0.0106	0.32	0.01	0.08	0.345	0.412	236	128.8	0.021	0.078	11	17.93
California Creek	OK121510-02-0050C	39826	3/31/2008	9.12	90.5	80.2	1	114.0	15.0	406.8	7.8	37.8	41.2	0.0230	0.07	0.01	0.08	0.107	0.162	271	154.2	0.022	0.068	50	16.18
California Creek	OK121510-02-0050C	40134	5/6/2008	8.18	88.3	5.9	O	125.0	19.0	465.3	7.8	39.6	45.5	0.0106	0.01	0.01	0.08	0.039	0.106	263	157.8	0.006	0.029	7	
Chouteau Creek	OK121600-01-0430M	35598	6/20/2006	1.36	16.5	26.3	O	111.0	25.1	273.4	6.9	10.1	13.7	0.2460	0.05	0.01	0.89	0.310	0.954	335	107.9	0.094	0.154	38	0.00
Chouteau Creek	OK121600-01-0430M	35622	8/15/2006	1.85	22.5	85.2	O	95.0	26.8	271.9	7.1	6.3	11.4	0.2660	0.10	0.05	0.98	0.416	1.130	199	103.7	0.085	0.124	156	0.00
Chouteau Creek	OK121600-01-0430M	35859	9/19/2006	3.75	40.2	220.0	1	51.0	18.7	100.6	6.6	3.2	12.1	0.1590	0.29	0.07	0.52	0.519	0.880	182	35.5	0.058	0.113	46	3.11
Chouteau Creek	OK121600-01-0430M	35920	10/24/2006	3.97	33.8	20.2	O	57.0	9.2	182.6	6.5	4.0	7.5	0.0340	0.01	0.01	0.77	0.062	0.798	86	74.3	0.046	0.123	19	0.00
Chouteau Creek	OK121600-01-0430M	35965	11/28/2006	0.53	5.0	24.1	O	64.0	13.4	238.4	6.5	5.0	4.9	0.0106	0.01	0.01	0.08	0.039	0.106	134	93.6	0.046	0.098	21	0.00
Chouteau Creek	OK121600-01-0430M	36468	1/3/2007	11.90	90.0	50.0	1	62.0	3.7	166.8	6.9	7.2	28.4	0.0106	0.64	0.01	1.02	0.665	1.674	116	50.8	0.042	0.130	7	12.78
Chouteau Creek	OK121600-01-0430M	36561	1/30/2007	13.76	96.5	36.0	1	35.0	0.8	201.7	7.1	10.9	40.9	0.0106	0.63	0.01	0.50	0.655	1.144	173	65.3	0.02			



SiteName	WBID	SAMPLEID	Date	DO (mg/L)	DOPerSat	Turb (NTU)	Turb Cause	Alkalinity (CaCO3)	Temp (°C)	Cond (uS/cm)	pH (SU)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	Available Nitrogen (mg/L)	Total Nitrogen (mg/L)	ToDisSolids (mg/L)	ToHardness (mg/L as Ca CO3)	ToOrthoPhos (mg/L)	ToTotPhosphorus (mg/L)	ToTotSusSolids (mg/L)	Flow (cfs)
Chouteau Creek	OK121600-01-0430M	36959	4/10/2007	9.17	82.7	27.4	O	56.0	10.7	234.3	7.3	10.8	42.3	0.0106	0.10	0.01	0.64	0.125	0.754	167	88.0	0.019	0.080	7	3.06
Chouteau Creek	OK121600-01-0430M	37100	5/14/2007	5.07	60.4	67.8	I	61.0	24.3	213.7	7.7	6.9	26.3	0.0960	0.21	0.08	1.20	0.386	1.490	172	74.5	0.036	0.188	50	
Chouteau Creek	OK121600-01-0430M	37281	6/18/2007	5.56	66.8	42.2	I	78.0	24.8	209.8	7.3	6.8	26.8	0.0106	0.22	0.01	0.75	0.245	0.984	158	75.3	0.045	0.104	20	12.09
Chouteau Creek	OK121600-01-0430M	37779	7/23/2007	3.99	49.8	50.8	I	91.0	26.7	209.3	8.8	6.9	19.8	0.0520	0.28	0.01	1.00	0.346	1.294	145	74.4	0.027	0.140	21	
Chouteau Creek	OK121600-01-0430M	38152	8/28/2007	3.66		22.4	O	96.0	27.5	309.6		21.3	22.9	0.2110	0.20	0.01	0.88	0.425	1.094	185	106.2	0.015	0.094	13	0.00
Chouteau Creek	OK121600-01-0430M	38367	10/2/2007	3.47	41.2	24.4	O	84.0	24.1	244.9	7.5	8.9	19.2	0.0580	0.12	0.01	0.25	0.192	0.384	138	91.8	0.026	0.063	7	
Chouteau Creek	OK121600-01-0430M	38530	11/7/2007	4.17	33.3	7.5	O	75.0	6.8	239.1		8.6	19.8	0.0106	0.04	0.04	0.08	0.091	0.158	137	85.9	0.027	0.083	11	
Chouteau Creek	OK121600-01-0430M	38653	12/4/2007	2.08	16.0	9.0	O	98.0	5.1	185.5	7.1	14.7	20.4	0.0106	0.14	0.01	0.47	0.165	0.624	170	106.8	0.030	0.069	7	
Chouteau Creek	OK121600-01-0430M	39541	2/26/2008	8.66	70.8	52.4	I	46.0	6.7	245.8	7.0	11.5	51.0	0.0300	0.47	0.01	0.08	0.514	0.562	179	75.4	0.020	0.080	14	
Chouteau Creek	OK121600-01-0430M	39830	4/1/2008	8.45	80.1	90.1	I	30.0	12.9	148.6		3.9	28.2	0.0310	0.27	0.01	0.73	0.315	1.014	182	49.3	0.062	0.167	35	107.32
Chouteau Creek	OK121600-01-0430M	40132	5/6/2008	5.14	56.4	31.0	I	67.0	19.2	260.5	7.1	10.4	37.7	0.0150	0.20	0.01	0.39	0.229	0.604	141	75.4	0.015	0.079	30	
Commission Creek	OK520620-05-0160C	37094	5/15/2000	8.87	94.2	14.2	I		18.4	890.0	8.1	103.2	31.5	0.0106	0.19	0.01	0.08	0.215	0.282	508	264.1	0.018	0.047	31	7.36
Commission Creek	OK520620-05-0160C	35218	6/20/2006	9.07	108.2	24.0	I	234.0	24.1	857.0	8.3	110.2	29.8	0.0106	0.28	0.01	0.34	0.305	0.634	478	245.9	0.018	0.022	34	1.61
Commission Creek	OK520620-05-0160C	35697	8/15/2006	6.93	79.5	130.0	I	153.0	22.1	869.0	7.9	146.1	53.4	0.0106	0.28	0.01	0.85	0.305	1.144	504	212.8	0.056	0.103	158	5.91
Commission Creek	OK520620-05-0160C	36021	9/18/2006	9.57	97.4	9.4	I	272.0	16.3	739.0	8.1	118.1	26.0	0.0106	0.40	0.01	0.28	0.425	0.694	549	261.5	0.008	0.025	13	4.22
Commission Creek	OK520620-05-0160C	36042	10/23/2006	11.41	100.6	1.7	I	238.0	9.8	867.0	8.4	117.2	25.2	0.0106	0.42	0.01	0.44	0.445	0.874	482	264.4	0.012	0.022	7	4.10
Commission Creek	OK520620-05-0160C	36127	11/27/2006	10.42	94.0	1.5	O	214.0	10.8	858.0	8.2	119.1	24.0	0.0106	0.42	0.01	0.08	0.445	0.512	507	265.4	0.008	0.012	7	5.29
Commission Creek	OK520620-05-0160C	36475	1/3/2007	11.08	87.1	13.9	I	243.0	5.2	877.0	8.1	101.8	55.8	0.0106	0.49	0.01	0.50	0.515	1.004	495	270.7	0.017	0.047	7	8.05
Commission Creek	OK520620-05-0160C	36572	1/29/2007	12.03	91.4	7.8	I	245.0	3.8	885.0	8.2	103.6	40.0	0.0106	0.51	0.01	0.21	0.535	0.734	518	271.9	0.007	0.033	7	7.11
Commission Creek	OK520620-05-0160C	36813	3/6/2007	11.51	101.2	6.2	I	235.0	9.7	865.0	8.2	97.0	116.5	0.0106	0.38	0.01	0.08	0.405	0.472	469	275.1	0.012	0.028	11	5.84
Commission Creek	OK520620-05-0160C	36966	4/10/2007	12.10	106.5	4.5	I	254.0	9.7	876.0	8.1	100.5	31.6	0.0106	0.37	0.01	0.15	0.395	0.534	502	274.3	0.018	0.030	7	
Commission Creek	OK520620-05-0160C	37264	6/19/2007	7.88	91.2	22.4	I	256.0	22.6	804.0	7.3	99.7	28.6	0.0106	0.30	0.01	0.36	0.325	0.674	497	257.9	0.032	0.042	39	5.88
Commission Creek	OK520620-05-0160C	37750	7/24/2007	8.13	97.1	11.2	I	262.0	24.5	742.0	8.1	103.3	29.2	0.0106	0.29	0.01	0.29	0.315	0.594	495	249.9	0.018	0.040	20	6.73
Commission Creek	OK520620-05-0160C	38066	8/28/2007	8.76	103.0	11.1	I	225.0	23.4	848.0	8.1	100.0	29.0	0.0106	0.26	0.01	0.16	0.285	0.434	485	239.2	0.015	0.028	20	3.26
Commission Creek	OK520620-05-0160C	38360	10/2/2007	8.13	91.2	4.9	I	237.0	21.0	827.0	8.3	98.7	25.2	0.0106	0.28	0.26	0.15	0.551	0.690	490	285.9	0.014	0.026	15	3.39
Commission Creek	OK520620-05-0160C	38521	11/7/2007	11.64	96.8	5.9	I	261.0	7.4	903.0	8.3	105.2	25.6	0.0106	0.42	0.19	0.26	0.621	0.870	499	258.2	0.010	0.018	7	5.39
Commission Creek	OK520620-05-0160C	38678	12/11/2007	10.93	84.9	46.6	I	227.0	4.7	979.0	8.2	109.4	181.8	0.0106	0.45	0.01	0.79	0.475	1.254	510	282.2	0.054	0.113	83	14.06
Commission Creek	OK520620-05-0160C	39547	2/26/2008	11.85	98.0	9.0	I	235.0	7.1	972.0	8.4	100.7	27.0	0.0106	0.56	0.01	0.08	0.585	0.652	479	244.2	0.008	0.022	16	7.02
Commission Creek	OK520620-05-0160C	39837	4/1/2008	10.34	76.5	7.3	I	223.0	12.2	861.0	8.4	99.5	151.6	0.0106	0.15	0.01	0.08	0.175	0.242	499	245.4	0.012	0.013	28	20.00
Commission Creek	OK520620-05-0160C	40138	5/6/2008	10.18	113.3	12.5	I	231.0	20.5	817.0	8.3	26.2	97.7	0.0106	0.14	0.01	0.36	0.165	0.514	449	239.8	0.020	0.028	19	
Curl Creek	OK121400-01-0270C	35054	6/13/2006	2.27	26.8	25.8	O	120.0	22.7	338.3		23.4	13.7	0.1310	0.05	0.01	0.69	0.195	0.754	192	130.6	0.038	0.087	15	0.00
Curl Creek	OK121400-01-0270C	35591	8/8/2006	3.35	43.5	28.8	O	145.0	29.9	380.5	7.5	26.5	9.3	0.0160	0.06	0.01	0.53	0.090	0.604	241	147.9	0.016	0.063	44	0.00
Curl Creek	OK121400-01-0270C	35842	9/12/2006	2.96	33.4	35.6	O	99.0	21.1	348.5	7.2	22.2	12.7	0.0470	0.05	0.01	0.38	0.111	0.444	184	134.0	0.024	0.044	27	0.00
Curl Creek	OK121400-01-0270C	35912	10/17/2006	1.98	19.5	52.0	I	149.0	14.8	362.6	7.2	21.1	11.4	0.0106	0.01	0.01	0.43	0.039	0.458	261	145.0	0.035	0.095	33	0.00
Curl Creek	OK121400-01-0270C	35948	11/14/2006	0.45	3.8	43.1	O	168.0	8.8	445.6	7.1	28.4	5.7	0.0106	0.07	0.01	0.64	0.095	0.724	244	185.5	0.306	0.396	49	0.00
Curl Creek	OK121400-01-0270C	36215	12/20/2006	9.12	81.0	101.0	I	23.0	10.0	104.1	6.7	5.6	6.5	0.0106	0.28	0.01	0.38	0.305	0.674	110	26.8	0.733	0.744	53	0.29
Curl Creek	OK121400-01-0270C	36529	1/23/2007	12.31	84.9	3.5	O	48.0	0.2	234.0	7.6	19.3	28.0	0.0106	0.22	0.01	0.66	0.245	0.894	161	81.5	0.048	0.111	7	16.79
Curl Creek	OK121400-01-0270C	36747	2/27/2007	9.16	78.4	22.7	O	67.0	8.5	314.1	7.2	26.1	51.9	0.0106	0.01	0.01	0.41	0.039	0.438	190	119.4	0.032	0.087	13	1.19
Curl Creek	OK121400-01-0270C	36941	4/3/2007	6.97	75.9	31.3	I	64.0	19.5	282.2	7.1	24.1	31.7	0.0106	0.41	0.01	0.69	0.435	1.114	202	104.2	0.036	0.097	13	11.94
Curl Creek	OK121400-01-0270C	37071	5/8/2007	6.50	70.6	128.0	I	42.0	19.4	115.7	6.5	5.6	10.7	0.0280	0.17	0.06	0.90	0.258	1.130	137	47.4	0.084	0.193	46	
Curl Creek	OK121400-01-0270C	37237	6/12/2007	5.95	69.3	278.0	I	36.5	23.0	114.4		6.5	7.2	0.0106	0.20	0.01	0.98	0.225	1.194	120	39.5	0.102	0.242	116	
Curl Creek	OK121400-01-0270C	37856	7/17/2007	5.72	71.1	14.5	O	102.0	26.6	480.0	6.5	28.0	34.7	0.0106	0.08	0.01	0.89	0.105	0.984	235	129.3	0.021	0.093	7	
Curl Creek	OK121400-01-0270C	38049	8/21/2007	6.98	88.4	18.7	O	175.0	27.2		7.6	64.7	33.1	0.0106	0.09	0.01	0.36	0.115	0.464	346	205.1	0.018	0.115	19	0.02
Curl Creek	OK121400-01-0270C	38350	9/25/2007	5.15	61.2	15.1	O	88.0	23.9		7.1	26.8	19.9	0.0106	0.09	0.15	0.08	0.251	0.318	154	94.6	0.026	0.095	7	
Curl Creek	OK121400-01-0270C	38487	10/30/2007	4.53	42.1	14.4	O	98.0	12.2		7.4	16.9	18.3	0.0106	0.12	0.07	0.41	0.201	0.600	177	114.1	0.031	0.067	7	
Curl Creek	OK121400-01-0270C	38685	12/11/2007	13.37	95.8	78.5	I	39.0	1.7		7.4	12.5	20.6	0.0106	0.53	0.01	0.86	0.555	1.404	130	47.4	0.118	0.387	40	31.67
Curl Creek	OK121400-01-0270C	39153	1/16/2008	12.58	94.7	16.3	O	70.0	3.5	488.1	7.5	58.3	63.3	0.0106	0.07	0.01	0.13	0.095	0.214	278	153.4	0.016	0.051	7	2

SiteName	WBID	SAMPLEID	Date	DO (mg/L)	DOPerSat	Turb (NTU)	Turb Cause	Alkalinity (CaCO3)	Temp (°C)	Cond (uS/cm)	pH (SU)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	Available Nitrogen (mg/L)	Total Nitrogen (mg/L)	ToDisSolids (mg/L)	ToHardness (mg/L as Ca CO3)	ToOrthoPhos (mg/L)	ToTotPhosphorus (mg/L)	ToTotSusSolids (mg/L)	Flow (cfs)
Curl Creek	OK121400-01-0270C	39779	3/25/2008	9.44	85.0	25.4	O	93.0	10.7	431.8	7.5	36.7	47.9	0.0106	0.10	0.09	0.08	0.201	0.268	283	142.1	0.018	0.038	7	7.33
Curl Creek	OK121400-01-0270C	40096	4/29/2008	8.46	85.5	23.8	I	82.0	15.8	457.5	7.2	46.3	44.9	0.0106	0.16	0.01	0.08	0.185	0.252	280	147.1	0.018	0.063	13	
Deer Creek	OK520620-06-0010F	35216	6/19/2006	12.72	176.8	17.1	I	128.0	32.4	755.0	8.7	15.0	252.5	0.0106	0.07	0.05	0.40	0.131	0.520	551	398.7	0.098	0.156	40	39.49
Deer Creek	OK520620-06-0010F	35695	8/14/2006	12.10	172.2	2.8	I	133.0	34.3	803.0	8.7	31.6	237.5	0.0106	0.06	0.01	0.42	0.085	0.494	540	366.7	0.110	0.183	7	15.32
Deer Creek	OK520620-06-0010F	36026	9/19/2006	8.23	102.2	19.6	I	149.0	26.2	1046.0	8.0	16.3	376.5	0.0390	1.58	0.07	0.37	1.689	2.020	836	541.7	0.142	0.169	35	29.46
Deer Creek	OK520620-06-0010F	36047	10/24/2006	11.07	113.6	7.7	I	181.0	16.6	1053.0	8.3	22.9	379.1	0.0106	2.61	0.01	0.30	2.635	2.924	796	548.3	0.144	0.215	10	26.13
Deer Creek	OK520620-06-0010F	36132	11/28/2006	10.51	109.7	17.7	I	180.0	17.4	1084.0	8.2	24.6	366.2	0.0106	2.04	0.01	0.08	2.065	2.132	817	563.5	0.170	0.222	29	32.47
Deer Creek	OK520620-06-0010F	36473	1/2/2007	13.02	104.2	7.6	I	191.0	5.8	1176.0	8.2	22.1	397.1	0.0230	2.20	0.01	0.32	2.237	2.534	891	629.9	0.127	0.161	7	28.37
Deer Creek	OK520620-06-0010F	36575	1/30/2007	14.22	101.1	9.1	I	186.0	1.4		8.2	20.5	507.7	0.0620	2.28	0.09	0.31	2.432	2.680	970	695.0	0.130	0.171	12	33.92
Deer Creek	OK520620-06-0010F	36811	3/5/2007	12.62	121.8	4.9	I	162.0	13.8	1214.0	8.2	24.1	428.1	0.1061	1.89	0.01	0.08	2.010	1.982	908	635.5	0.152	0.190	7	31.07
Deer Creek	OK520620-06-0010F	36964	4/9/2007	10.90	96.2	15.5	I	218.0	9.8	1528.0	8.2	25.5	544.2	0.0230	2.37	0.07	0.26	2.463	2.700	1204	887.9	0.160	0.190	28	
Deer Creek	OK520620-06-0010F	37092	5/14/2007	7.59	91.8	196.0	I	234.0	24.9	1497.0	7.7	34.6	710.2	0.0106	2.13	0.01	0.50	2.155	2.644	1441	1016.7	0.213	0.334	270	
Deer Creek	OK520620-06-0010F	37262	6/18/2007	7.11	89.8	190.0	I	239.0	24.1	1280.0	7.4	20.2	413.2	0.0106	1.30	0.01	1.07	1.325	2.384	979	631.4	0.283	0.436	372	
Deer Creek	OK520620-06-0010F	37748	7/23/2007	8.88	121.2	30.2	I	198.0	32.4	1697.0	8.1	30.2	580.1	0.0106	1.30	0.01	0.87	1.325	2.184	1437	1010.8	0.087	0.197	99	59.50
Deer Creek	OK520620-06-0010F	38064	8/27/2007	7.21	93.5	77.1	I	227.0	28.8	1341.0	7.8	23.3	436.2	0.0106	1.94	0.01	0.43	1.965	2.384	1028	752.2	0.151	0.232	80	84.09
Deer Creek	OK520620-06-0010F	38363	10/2/2007	8.56	108.8	14.7	I	207.0	27.6	1529.0	8.1	27.4	702.3	0.0106	1.97	0.01	0.22	1.995	2.204	1283	854.7	0.101	0.136	40	62.88
Deer Creek	OK520620-06-0010F	38524	11/7/2007	10.77	100.9	14.5	I	228.0	12.4	1571.0	8.2	23.5	659.3	0.0106	2.53	0.10	0.30	2.641	2.930	1192	911.2	0.094	0.148	34	51.12
Deer Creek	OK520620-06-0010F	38681	12/12/2007	12.41	92.4	152.0	I	188.0	3.1	1602.0	8.1	22.4	609.3	0.1550	2.27	0.01	0.07	2.439	2.354	1099	820.4	0.239	0.270	335	196.31
Deer Creek	OK520620-06-0010F	39550	2/27/2008	11.56	89.1	38.2	I	248.0	4.4	1538.0	8.3	34.9	834.7	0.1440	5.32	0.01	0.08	5.478	5.412	1412	887.6	0.175	0.180	142	263.30
Deer Creek	OK520620-06-0010F	39833	3/31/2008	7.78	79.0	1000.0	I		16.1	439.6	7.6	5.2	126.2	0.3160	0.49	0.07	3.22	0.876	3.780	302	191.3	1.490	2.444	4019	
Deer Creek	OK520620-06-0010F	40141	5/7/2008	7.76	84.2	80.0	I	197.0	19.4	1450.0	8.0	25.4	567.5	0.0106	1.86	0.01	0.56	1.885	2.434	1103	593.8	0.183	0.274	373	
Delaware Creek	OK121300-01-0150H	35593	6/19/2006	4.95	58.0	27.6	I	86.0	23.2	569.0	7.1	97.8	158.7	0.0106	0.01	0.01	0.43	0.039	0.458	346	144.8	0.016	0.040	20	0.01
Delaware Creek	OK121300-01-0150H	35617	8/14/2006	2.84	35.7	29.8	O	85.0	26.4	361.4	7.2	41.6	100.8	0.0330	0.07	0.01	0.38	0.117	0.464	151	118.2	0.027	0.033	19	0.00
Delaware Creek	OK121300-01-0150H	35854	9/18/2006	5.91	59.9	154.0	I	90.0	15.9	318.9	7.1	50.8	20.3	0.0240	0.15	0.01	0.36	0.188	0.524	244	103.0	0.042	0.109	35	
Delaware Creek	OK121300-01-0150H	35915	10/23/2006	7.05	59.1	36.1	O	91.0	7.9	424.4	6.3	55.9	8.7	0.0106	0.01	0.01	0.71	0.039	0.738	220	127.3	0.021	0.091	16	0.00
Delaware Creek	OK121300-01-0150H	35960	11/27/2006	1.61	15.3	14.6	O	137.0	13.2	516.0	7.1	63.4	5.1	0.0106	0.01	0.01	0.26	0.039	0.288	325	171.6	0.056	0.125	20	0.02
Delaware Creek	OK121300-01-0150H	36463	1/2/2007	11.01		71.8	I	52.0	4.3	251.6	7.1	34.4	78.8	0.0106	0.12	0.01	0.70	0.145	0.834	162	76.1	0.029	0.103	7	12.00
Delaware Creek	OK121300-01-0150H	36557	1/29/2007	13.36	96.0	37.3	I	39.0	1.8	251.8	7.1	33.7	27.2	0.0106	0.14	0.08	0.38	0.231	0.600	194	75.5	0.024	0.046	15	14.49
Delaware Creek	OK121300-01-0150H	36801	3/5/2007	11.06	89.4	25.9	O	86.0	6.2	509.0	7.2	100.5	126.7	0.0106	0.01	0.01	0.08	0.039	0.106	305	137.5	0.016	0.035	7	1.15
Delaware Creek	OK121300-01-0150H	36954	4/9/2007	9.76	83.2	17.7	O	51.0	8.4	382.1	7.2	61.9	26.4	0.0106	0.07	0.01	0.41	0.095	0.494	233	106.2	0.012	0.048	18	5.54
Delaware Creek	OK121300-01-0150H	37101	5/14/2007	6.34	74.8	29.5	I	50.0	23.6	283.6		32.3	19.2	0.0106	0.14	0.01	0.08	0.165	0.232	167	86.5	0.025	0.065	21	21.89
Delaware Creek	OK121300-01-0150H	37282	6/19/2007	6.45	77.2	35.8	I	75.0	24.4	318.5	7.4	34.1	20.1	0.0106	0.16	0.01	0.46	0.185	0.634	215	102.1	0.028	0.075	23	16.40
Delaware Creek	OK121300-01-0150H	37774	7/23/2007	5.18	64.2	313.0	I	51.0	26.3	205.0	7.1	24.9	120.3	0.0106	0.24	0.01	0.97	0.265	1.224	155	72.7	0.056	0.196	170	46.54
Delaware Creek	OK121300-01-0150H	38069	8/27/2007	4.19	51.6	11.0	O	115.0	25.7	963.0		170.5	185.9	0.0106	0.05	0.01	0.45	0.075	0.514	514	232.8	0.020	0.034	7	0.22
Delaware Creek	OK121300-01-0150H	38368	10/2/2007	3.34	38.4	34.6	O	72.0	21.5	446.5		162.9	14.7	0.0150	0.10	0.01	0.48	0.129	0.594	477	146.8	0.019	0.157	14	1.23
Delaware Creek	OK121300-01-0150H	38525	11/6/2007	4.27	39.0	11.6	O	102.0	11.6	833.0		192.8	76.6	0.0106	0.23	0.38	0.83	0.621	1.440	536	200.0	0.014	0.058	7	0.15
Delaware Creek	OK121300-01-0150H	38648	12/3/2007	5.39	45.4	10.7	O	130.0	7.8	815.0	6.5	252.0	18.3	0.0106	0.16	0.01	0.78	0.185	0.954	677	254.3	0.004	0.026	7	0.21
Delaware Creek	OK121300-01-0150H	39542	2/26/2008	11.21	90.0	38.8	I	68.0	6.0	358.8	7.2	78.9	26.3	0.0106	0.12	0.01	0.08	0.145	0.212	254	102.3	0.015	0.066	7	8.17
Delaware Creek	OK121300-01-0150H	39825	3/31/2008	7.97	80.7	26.6	O	71.0	15.9	576.0	7.1	112.2	29.3	0.0150	0.08	0.01	0.08	0.109	0.172	351	141.1	0.022	0.029	7	6.69
Delaware Creek	OK121300-01-0150H	40133	5/6/2008	6.44	71.6	27.1	I	79.0	20.6	585.0	7.1	93.1	28.8	0.0106	0.11	0.01	0.73	0.135	0.854	317	125.2	0.013	0.044	17	
Dog Creek	OK121500-02-0360D	35594	6/19/2006	2.47	28.9	6.7	O	114.0	23.3	526.0	7.2	51.2	53.5	2.0160	1.70	0.20	3.06	3.916	4.960	310	132.1	1.644	1.657	7	8.39
Dog Creek	OK121500-02-0360D	35620	8/14/2006	7.13	94.4	3.3	O	132.0	29.9	598.0	7.8	61.1	41.6	0.0340	1.37	0.01	0.84	1.418	2.224	320	141.6	2.125	2.073	7	1.23
Dog Creek	OK121500-02-0360D	35857	9/18/2006	4.12	45.6	66.8	I	54.0	20.4	237.6	6.7	12.8	16.3	0.1620	0.77	0.07	0.69	1.002	1.530	166	80.7	0.463	0.549	38	18.29
Dog Creek	OK121500-02-0360D	35918	10/23/2006	9.74	86.2	5.7	O	95.0	10.0	427.4	6.8	33.1	42.7	0.0290	1.93	0.01	1.12	1.973	3.064	251	128.2	1.105	1.144	7	1.55
Dog Creek	OK121500-02-0360D	35963	11/27/2006	5.37	51.3	3.5	O	105.0	13.3	569.0	7.1	63.6	48.0	0.2610	4.16	0.01	0.85	4.435	5.024	362	144.1	2.434	2.759	7	1.07
Dog Creek	OK121500-02-0360D	36466	1/2/2007	10.02	80.5	39.1	I	57.0	6.0	280.8	7.2	15.5	38.2	0.0910	1.25	0.01	1.16	1.355	2.424	165	95.1	0.173	0.293	7	5.25
Dog Creek	OK121500-02-0360D	36564	1/29/2007	13.04	96.5	23.9	O	57.0	3.1	325.9	8.1	19.9	42.7	0.1140	0.87	0.10									

SiteName	WRID	SAMPLEID	Date	DO (mg/L)	DOPerSat	Turb (NTU)	Turb Cause	Alkalinity (CaCO3)	Temp (°C)	Cond (uS/cm)	pH (SU)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	Available Nitrogen (mg/L)	Total Nitrogen (mg/L)	ToDisSolids (mg/L)	ToHardness (mg/L as Ca CO3)	ToOrthoPhos (mg/L)	ToTotPhosphorus (mg/L)	ToTotSusSolids (mg/L)	Flow (cfs)
Dog Creek	OK121500-02-0360D	36957	4/9/2007	8.04	70.1	4.0	O	87.0	9.4	408.9	7.4	27.3	56.7	0.2790	2.40	0.18	1.07	2.859	3.650	241	140.8	0.482	0.532	7	3.94
Dog Creek	OK121500-02-0360D	37104	5/14/2007	5.32	63.4	19.7	I	63.0	24.1	251.9		11.9	31.7	0.1190	0.58	0.11	0.46	0.809	1.150	160	99.4	0.133	0.233	7	17.10
Dog Creek	OK121500-02-0360D	37285	6/19/2007	3.05	36.6	26.5	O	56.0	24.7	181.5	7.3	7.6	20.9	0.1240	0.59	0.12	0.74	0.834	1.450	155	73.0	0.131	0.199	7	16.25
Dog Creek	OK121500-02-0360D	37777	7/23/2007	4.28	54.7	12.7	O	83.0	27.9	253.2	7.2	11.6	24.7	0.0410	0.93	0.08	0.70	1.051	1.710	158	90.1	0.346	0.351	7	7.47
Dog Creek	OK121500-02-0360D	38072	8/27/2007	4.09	51.9	12.9	O	91.0	27.6	311.6	6.4	17.4	31.5	0.0450	1.05	0.01	0.25	1.109	1.314	187	108.1	0.251	0.300	7	6.70
Dog Creek	OK121500-02-0360D	38371	10/2/2007	3.60	52.8	7.8	O	100.0	23.2	427.8		27.6	45.9	0.0230	2.48	0.01	0.43	2.517	2.924	258	131.4	0.717	0.783	7	2.42
Dog Creek	OK121500-02-0360D	38528	11/6/2007	7.00	65.4	4.3	O	111.0	12.4	436.4		28.4	51.9	0.0106	3.53	0.12	0.72	3.661	4.370	264	136.0	0.837	0.882	7	2.95
Dog Creek	OK121500-02-0360D	38651	12/3/2007	9.37	80.2	2.7	O	98.0	8.7	330.0	7.5	31.3	60.7	0.0230	2.42	0.01	0.56	2.457	2.994	282	144.5	1.025	0.875	7	1.03
Dog Creek	OK121500-02-0360D	39545	2/26/2008	11.42	95.4	16.5	I	80.0	7.7	318.3	7.5	19.5	52.6	0.2300	0.68	0.01	0.08	0.924	0.772	194	114.1	0.147	0.251	14	64.14
Dog Creek	OK121500-02-0360D	39828	3/31/2008	7.40	73.6	81.6	I	76.0	15.2	349.7	7.1	16.2	53.8	0.1080	1.08	0.09	0.08	1.278	1.248	264	124.7	0.278	0.344	93	
Dog Creek	OK121500-02-0360D	40136	5/6/2008	5.60	62.0	16.0	O	66.0	20.4	273.9	8.1	13.7	40.8	0.0380	0.82	0.01	0.35	0.872	1.184	161	88.9	0.241	0.302	7	
Fivemile Creek	OK121600-05-0110G	35236	6/19/2006	8.35	98.8	1.3	O	163.0	24.9	273.0	7.6	6.1	22.7	0.0106	0.29	0.01	0.08	0.315	0.382	172	140.7	0.012	0.021	7	1.37
Fivemile Creek	OK121600-05-0110G	35606	8/7/2006	5.08	63.8	0.5	O	160.0	26.7	273.2	7.5	6.6	6.2	0.0106	0.25	0.01	0.08	0.275	0.342	190	153.3	0.004	0.027	7	1.97
Fivemile Creek	OK121600-05-0110G	35850	9/11/2006	7.79	91.0	0.8	O	148.0	23.2	285.2	6.8	2.7	16.6	0.0106	0.07	0.01	0.08	0.095	0.162	155	150.9	0.017	0.026	7	0.31
Fivemile Creek	OK121600-05-0110G	35928	10/23/2006	10.10	103.7	0.6	O	102.0	16.7	185.2	7.7	9.6	59.5	0.0106	0.09	0.01	0.08	0.115	0.182	150	154.0	0.012	0.022	7	0.69
Fivemile Creek	OK121600-05-0110G	35956	11/13/2006	10.00	95.5	0.3	O	128.0	13.3	231.6	7.8	11.5	78.9	0.0106	0.09	0.01	0.08	0.115	0.182	151	162.3	0.009	0.017	7	1.04
Fivemile Creek	OK121600-05-0110G	36205	12/19/2006	11.74	104.0	0.9	O	110.0	10.0	307.7	8.2	13.5	45.9	0.0106	0.17	0.10	0.08	0.281	0.348	167	161.7	0.008	0.032	7	6.15
Fivemile Creek	OK121600-05-0110G	36537	1/22/2007	12.14	95.3	1.1	O	61.0	5.1	189.8	10.0	12.5	12.1	0.0106	0.39	0.01	0.08	0.415	0.482	160	157.3	0.012	0.020	7	17.23
Fivemile Creek	OK121600-05-0110G	36737	2/26/2007	12.11	107.1	1.2	O	95.0	10.2	276.3	8.2	14.6	13.3	0.0106	0.84	0.01	0.08	0.865	0.932	138	149.2	0.024	0.025	7	11.96
Fivemile Creek	OK121600-05-0110G	36950	4/2/2007	10.76	115.6	1.2	O	111.0	18.9	280.9	6.6	14.0	48.3	0.0106	0.33	0.01	0.08	0.355	0.422	162	137.6	0.013	0.050	7	6.91
Fivemile Creek	OK121600-05-0110G	37062	5/7/2007	9.15	98.1	18.6	I	105.0	18.8	238.0	7.6	7.7	7.4	0.0106	0.56	0.01	0.19	0.585	0.764	136	108.8	0.013	0.035	10	17.90
Fivemile Creek	OK121600-05-0110G	37227	6/11/2007	7.93	88.6		I	89.0	20.9	124.6	7.3	3.2	4.1	0.0106	0.33	0.01	0.263	0.355	2.974	132	58.3	0.158	0.695	671	
Fivemile Creek	OK121600-05-0110G	37865	7/16/2007	7.20	88.5	2.3	O	109.0	25.8	272.5	7.7	6.5	5.6	0.0106	0.39	0.01	0.08	0.415	0.482	159	131.5	0.016	0.028	7	5.99
Fivemile Creek	OK121600-05-0110G	38040	8/20/2007	7.84	98.3	0.4	O	84.0	27.0	283.8	8.0	10.1	128.7	0.0106	0.28	0.01	0.08	0.305	0.372	146	144.5	0.014	0.019	7	4.08
Fivemile Creek	OK121600-05-0110G	38976	9/24/2007	8.87	106.1	0.5	O	138.0	24.5	299.6	7.6	98.0	9.5	0.0106	0.26	0.01	0.08	0.285	0.352	161	153.5	0.012	0.017	7	8.74
Fivemile Creek	OK121600-05-0110G	38496	10/29/2007	9.59	98.3	0.2	O	124.0	16.5	310.4	8.1	9.0	65.1	0.0106	0.30	0.04	0.12	0.351	0.460	165	149.4	0.012	0.019	7	8.87
Fivemile Creek	OK121600-05-0110G	38644	12/3/2007	10.55	96.1	0.5	O	150.0	11.2	334.5	8.0	13.5	120.0	0.0106	0.29	0.01	0.08	0.315	0.382	161	160.5	0.023	0.024	7	7.42
Fivemile Creek	OK121600-05-0110G	39146	1/16/2008	12.48	102.0	0.4	O	106.0	6.7	278.1	6.0	12.7	70.5	0.0106	0.35	0.01	0.08	0.375	0.442	155	148.8	0.010	0.017	7	4.17
Fivemile Creek	OK121600-05-0110G	39506	2/19/2008	12.07	102.2	3.7	I	75.0	8.0	244.4	8.0	14.0	49.2	0.0106	0.81	0.01	0.12	0.835	0.944	132	104.8	0.012	0.020	7	38.23
Fivemile Creek	OK121600-05-0110G	39769	3/24/2008	10.33	93.7	2.4	I	62.0	11.0	202.5	7.1	7.9	74.7	0.0106	0.63	0.01	0.08	0.655	0.722	111	98.5	0.012	0.020	7	47.37
Fivemile Creek	OK121600-05-0110G	40105	4/28/2008	12.43	125.7	1.0	O	65.0	15.9	204.1	8.3	5.8	7.6	0.0106	0.25	0.01	0.08	0.275	0.342	114	91.7	0.008	0.025	7	
Fourteenmile Creek	OK121600-01-0100G	35238	6/20/2006	7.37	89.2	3.6	O	83.0	25.1	191.5	7.9	6.0	7.7	0.0106	0.15	0.01	0.08	0.175	0.242	119	95.0	0.024	0.030	7	2.63
Fourteenmile Creek	OK121600-01-0100G	35608	8/8/2006	5.55	72.1	6.1	O	84.0	28.8	233.8	7.9	6.7	6.5	0.0106	0.08	0.01	0.18	0.105	0.274	129	101.6	0.025	0.045	7	0.53
Fourteenmile Creek	OK121600-01-0100G	35852	9/12/2006	5.97	70.1	2.8	O	86.0	23.2	219.5	7.5	9.0	7.7	0.0106	0.05	0.01	0.08	0.075	0.142	129	101.2	0.021	0.028	7	2.11
Fourteenmile Creek	OK121600-01-0100G	35930	10/24/2006	8.55	79.5	0.7	O	84.0	12.0	202.2	7.7	8.5	8.9	0.0106	0.01	0.01	0.08	0.039	0.106	120	94.3	0.035	0.045	7	5.40
Fourteenmile Creek	OK121600-01-0100G	35958	11/14/2006	9.83	89.9	1.2	O	80.0	11.4	148.8	7.6	9.2	10.4	0.0106	0.01	0.01	0.08	0.039	0.106	100	94.8	0.015	0.023	7	3.02
Fourteenmile Creek	OK121600-01-0100G	36207	12/20/2006	10.24	93.1	8.9	I	72.0	11.1	192.9	7.8	6.4	14.2	0.0106	0.86	0.08	0.08	0.951	1.018	122	88.1	0.004	0.040	7	30.47
Fourteenmile Creek	OK121600-01-0100G	36539	1/23/2007	11.95	97.2	3.9	I	56.0	6.6	85.5	9.4	4.5	11.1	0.0106	1.58	0.01	0.08	1.605	1.672	95	57.2	0.031	0.034	7	29.83
Fourteenmile Creek	OK121600-01-0100G	36739	2/27/2007	12.91	110.5	1.5	O	64.0	8.6	168.6	8.0	5.9	14.9	0.0106	0.66	0.01	0.08	0.685	0.752	83	77.2	0.022	0.026	7	13.42
Fourteenmile Creek	OK121600-01-0100G	36952	4/3/2007	9.59	104.1	4.5	O	97.0	19.3	210.9	6.2	5.7	14.0	0.0106	0.34	0.01	0.08	0.365	0.432	116	96.0	0.021	0.053	7	5.83
Fourteenmile Creek	OK121600-01-0100G	37064	5/8/2007	8.43	87.6	89.8	I	62.0	16.9	126.1	7.3	2.8	8.1	0.0106	0.70	0.01	0.54	0.725	1.254	93	56.4	0.077	0.167	46	
Fourteenmile Creek	OK121600-01-0100G	37230	6/12/2007	7.45	87.0	49.9	I	52.0	23.1	147.9	7.9	3.6	6.8	0.0106	0.66	0.01	0.26	0.685	0.934	89	61.1	0.080	0.154	13	29.13
Fourteenmile Creek	OK121600-01-0100G	37867	7/17/2007	9.30	116.6	2.5	O	60.0	26.2	175.0	7.8	4.3	7.3	0.0106	0.50	0.01	0.08	0.525	0.592	102	75.3	0.035	0.058	7	16.32
Fourteenmile Creek	OK121600-01-0100G	38042	8/21/2007	7.43	93.5	4.9	I	86.0	27.2	201.9	8.7	5.6	6.2	0.0106	0.20	0.01	0.08	0.225	0.292	102	86.6	0.030	0.053	7	7.57
Fourteenmile Creek	OK121600-01-0100G	38978	9/25/2007	6.74	80.7	3.9	O	70.0	24.1	207.9	7.2	6.4	7.9	0.0106	0.16	0.01	0.08	0.185	0.252	105	89.4	0.023	0.041	7	6.38
Fourteenmile Creek	OK121600-01-0100G	38498	10/30/2007	9.55	92.6	1.4	O	76.0	14.0	215.1	8.0	6.0	11.0	0.0106	0.36	0.01	0.08	0.385	0.452	118	92.8	0.019	0.028	7	8.80
Fourteenmile Creek	OK121600-01-0100G	38647	12/4/2007	11.68	103.5	0.6	O	93.0	10.0	205.1	6.9	12.1	12.1	0.0106	0.30	0.01	0.08	0.325	0.392	115	88.1	0.023	0.028	7	7.25
Fourteenmile Creek	OK121600-01-0100G	39																							

SiteName	WRID	SAMPLEID	Date	DO (mg/L)	DOPerSat	Turb (NTU)	Turb Cause	Alkalinity (CaCO3)	Temp (°C)	Cond (uS/cm)	pH (SU)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	Available Nitrogen (mg/L)	Total Nitrogen (mg/L)	ToDisSolids (mg/L)	ToHardness (mg/L as Ca CO3)	ToOrthoPhos (mg/L)	ToTotPhosphorus (mg/L)	ToTotSusSolids (mg/L)	Flow (cfs)
Fourteenmile Creek	OK121600-01-0100G	39508	2/20/2008	10.75	91.9	12.3	I	88.0	8.5	138.1	7.0	4.5	11.6	0.0106	1.30	0.01	0.08	1.325	1.392	78	54.7	0.052	0.073	7	78.02
Fourteenmile Creek	OK121600-01-0100G	39771	3/25/2008	9.80	89.1	7.8	I	42.0	10.8	119.2	6.9	3.7	7.3	0.0106	1.09	0.01	0.08	1.115	1.182	76	47.6	0.061	0.070	7	164.44
Fourteenmile Creek	OK121600-01-0100G	40107	4/29/2008	10.74	104.8	1.7	I	52.0	14.4	140.9	7.8	4.2	10.4	0.0106	0.45	0.01	0.08	0.475	0.542	77	59.5	0.020	0.039	7	
Hackberry Creek	OK520620-04-0050D	36474	1/3/2007	12.60		7.1	I	252.0	1.5		8.2	73.1	556.6	0.0106	0.15	0.01	0.65	0.175	0.814	1305	827.1	0.049	0.082	7	1.31
Hackberry Creek	OK520620-04-0050D	36571	1/29/2007	12.48	87.5	15.0	I	256.0	0.9		8.2	66.1	394.0	0.0106	0.08	0.01	0.43	0.105	0.524	1022	819.1	0.045	0.093	7	3.72
Hackberry Creek	OK520620-04-0050D	36812	3/6/2007	11.46	94.9	2.8	I	2.8	7.2	2296.0	8.2	75.6	932.1	0.0106	0.31	0.01	0.08	0.335	0.402	1981	1292.5	0.016	0.026	7	1.25
Hackberry Creek	OK520620-04-0050D	36965	4/10/2007	10.10	86.7	4.2	I	304.0	8.7	2260.0	8.0	59.7	820.1	0.0106	0.71	0.01	0.27	0.735	0.994	1887	1294.9	0.009	0.039	7	
Hackberry Creek	OK520620-04-0050D	37093	5/15/2007	7.26	77.2	20.2	I	313.0	18.2	2812.0	7.8	82.2	1265.2	0.0106	0.27	0.01	0.30	0.295	0.584	2494	1666.2	0.050	0.079	19	8.46
Hackberry Creek	OK520620-04-0050D	37263	6/19/2007	6.45	76.4	3.5	O	270.0	23.8	2460.0	7.5	73.7	983.5	0.0106	0.01	0.01	0.42	0.039	0.448	2080	1336.8	0.025	0.030	7	2.85
Hackberry Creek	OK520620-04-0050D	37749	7/24/2007	7.29	84.2	3.4	I	259.0	22.5	2980.0	7.9	83.2	1429.0	0.0106	0.01	0.01	0.45	0.039	0.478	2815	1799.3	0.009	0.024	7	0.50
Hackberry Creek	OK520620-04-0050D	38359	10/2/2007	8.81	100.5	3.8	I	254.0	21.8	2878.0	8.1	84.1	1525.5	0.0106	0.14	0.01	0.33	0.165	0.484	2650	1728.9	0.013	0.029	7	0.85
Hackberry Creek	OK520620-04-0050D	38520	11/7/2007	12.05	95.0	1.8	I	252.0	5.3	2667.0	8.2	84.7	1263.6	0.0106	0.06	0.38	0.45	0.451	0.890	2184	1426.5	0.007	0.016	7	1.21
Hackberry Creek	OK520620-04-0050D	38677	12/11/2007	10.46	78.4	33.7	I	232.0	33.0	2059.0	8.2	71.4	771.4	0.0106	0.17	0.01	0.39	0.195	0.574	1535	985.2	0.070	0.071	31	5.20
Hackberry Creek	OK520620-04-0050D	39546	2/26/2008	10.72	87.1	7.3	I	265.0	6.4	1832.0	8.2	72.8	870.9	0.0106	0.01	0.01	0.08	0.039	0.106	1781	1048.6	0.010	0.029	7	2.74
Hackberry Creek	OK520620-04-0050D	39836	4/1/2008	10.21	94.5	4.3	I	248.0	11.8	1829.0	8.2	67.7	847.4	0.0106	0.01	0.01	0.26	0.039	0.288	1831	1241.8	0.005	0.006	7	7.22
Hackberry Creek	OK520620-04-0050D	40137	5/6/2008	8.00	87.7	4.7	I	250.0	19.8	2484.0	7.9	79.7	1122.1	0.0106	0.01	0.01	0.51	0.039	0.538	2083	1613.3	0.016	0.030	7	
Hogshooter Creek	OK121400-01-0300D	35055	6/13/2006	6.93	78.8	8.0	O	172.0	21.7	522.0		38.2	21.8	0.0106	0.19	0.01	0.51	0.215	0.714	289	209.7	0.021	0.033	7	0.29
Hogshooter Creek	OK121400-01-0300D	35590	8/8/2006	4.60	61.2	10.6	O	156.0	28.5	516.0	7.5	47.4	11.2	0.0200	0.06	0.01	0.49	0.094	0.564	301	197.2	0.009	0.039	18	0.00
Hogshooter Creek	OK121400-01-0300D	35843	9/12/2006	3.10	34.9	29.2	O	117.0	21.2	471.1	7.4	40.3	13.1	0.0470	0.07	0.01	0.28	0.131	0.364	252	179.4	0.020	0.056	22	0.00
Hogshooter Creek	OK121400-01-0300D	35913	10/17/2006	1.74	16.9	9.4	O	48.0	14.1	468.8	7.2	39.8	14.2	0.0106	0.01	0.01	0.26	0.039	0.288	304	184.5	0.016	0.045	7	0.00
Hogshooter Creek	OK121400-01-0300D	35949	11/14/2006	0.34	2.9	13.0	O	164.0	9.1	522.0	7.2	48.2	11.2	0.0106	0.01	0.01	0.93	0.039	0.958	293	217.1	0.143	0.306	20	0.00
Hogshooter Creek	OK121400-01-0300D	36216	12/20/2006	8.10	68.6	50.6	I	97.0	8.2	421.0	7.1	22.3	11.5	0.0106	0.11	0.01	0.62	0.135	0.744	198	122.8	0.257	0.419	31	0.00
Hogshooter Creek	OK121400-01-0300D	36530	1/23/2007	11.10	78.3	15.1	O	128.0	1.1	464.0	7.8	26.1	67.2	0.0106	1.46	0.11	0.58	1.581	2.150	291	197.1	0.030	0.076	11	5.80
Hogshooter Creek	OK121400-01-0300D	36748	2/27/2007	12.49	108.6	3.3	O	132.0	9.1	486.4	8.1	42.6	44.4	0.0106	0.91	0.01	0.17	0.935	1.094	280	216.2	0.015	0.044	7	3.68
Hogshooter Creek	OK121400-01-0300D	36942	4/3/2007	7.61	82.8	10.3	O	124.0	19.4	393.3	7.6	24.0	31.7	0.0106	0.84	0.01	0.20	0.865	1.054	234	175.8	0.025	0.060	7	37.53
Hogshooter Creek	OK121400-01-0300D	37072	5/8/2007	6.25	67.2	52.2	I	83.0	18.8	200.3	6.1	11.4	14.0	0.0106	0.35	0.01	0.54	0.375	0.904	171	101.4	0.059	0.118	23	
Hogshooter Creek	OK121400-01-0300D	37238	6/12/2007	4.80	56.7	2.5	I	90.5	23.9	236.4		12.2	12.1	0.0106	0.30	0.01	0.58	0.325	0.894	170	99.5	0.068	0.140	39	
Hogshooter Creek	OK121400-01-0300D	37857	7/17/2007	5.25	65.5	13.8	O	205.0	25.6	512.0	6.9	37.1	23.0	0.0106	0.15	0.01	0.33	0.175	0.494	290	185.8	0.022	0.052	14	
Hogshooter Creek	OK121400-01-0300D	38050	8/21/2007	5.65	69.7	11.5	O	195.0	26.0		7.7	77.4	26.2	0.0106	0.13	0.01	0.08	0.155	0.222	399	241.0	0.026	0.068	7	0.47
Hogshooter Creek	OK121400-01-0300D	38351	9/25/2007	5.68	66.0	15.4	O	137.0	22.8		7.6	26.4	21.1	0.0106	0.10	0.01	0.08	0.125	0.192	227	154.7	0.041	0.084	18	1.94
Hogshooter Creek	OK121400-01-0300D	38488	10/30/2007	7.22	67.2	4.8	O	164.0	12.1		7.5	42.2	21.6	0.0106	0.09	0.12	0.37	0.221	0.580	292	197.8	0.043	0.071	7	
Hogshooter Creek	OK121400-01-0300D	38686	12/11/2007	10.72	79.4	19.5	I	171.0	2.9	555.0	7.8	55.1	17.5	0.0106	0.19	0.01	0.50	0.215	0.704	316	185.4	0.080	0.212	21	1.94
Hogshooter Creek	OK121400-01-0300D	39154	1/16/2008	12.14	93.1	3.6	O	171.0	4.2	539.0	8.0	37.2	42.4	0.0106	0.01	0.01	0.08	0.039	0.106	307	232.9	0.010	0.025	7	5.53
Hogshooter Creek	OK121400-01-0300D	39517	2/20/2008	11.58	91.0	24.6	I	122.0	5.2	371.5	7.7	23.9	25.2	0.0106	0.27	0.01	0.37	0.295	0.654	240	150.0	0.025	0.059	7	29.84
Hogshooter Creek	OK121400-01-0300D	39780	3/25/2008	11.04	99.8	10.0	O	152.0	10.9	459.5	7.9	31.0	27.4	0.0106	0.06	0.09	0.08	0.161	0.228	273	186.9	0.011	0.021	7	25.98
Hogshooter Creek	OK121400-01-0300D	40097	4/29/2008	9.68	95.4	8.3	O	150.0	14.7	499.6	7.6	42.2	27.3	0.0106	0.11	0.01	0.08	0.135	0.202	290	196.3	0.019	0.035	7	
Hominy Creek: Downstream	OK121300-04-0010C	35053	6/13/2006	7.26	85.3	51.2	I	76.0	23.4	298.1		78.8	16.6	0.0106	0.05	0.01	0.38	0.075	0.444	159	104.4	0.014	0.031	51	187.93
Hominy Creek: Downstream	OK121300-04-0010C	35592	8/8/2006	7.47	97.8	20.5	O	61.0	29.4	311.1	7.8	38.3	12.3	0.0106	0.06	0.01	0.38	0.085	0.454	193	105.7	0.007	0.032	35	155.82
Hominy Creek: Downstream	OK121300-04-0010C	35841	9/12/2006	6.74	81.6	22.5	O	49.0	24.9	319.6	7.8	39.8	14.4	0.0180	0.05	0.01	0.16	0.082	0.224	150	104.6	0.029	0.054	44	154.43
Hominy Creek: Downstream	OK121300-04-0010C	35911	10/17/2006	7.87	83.8	17.9	O	67.0	18.3	326.8	7.6	41.0	13.6	0.0390	0.20	0.08	0.08	0.319	0.358	208	109.1	0.055	0.067	28	66.03
Hominy Creek: Downstream	OK121300-04-0010C	35947	11/14/2006	8.35	76.7	9.8	O	70.0	11.6	332.7	7.4	46.9	14.6	0.0450	0.16	0.01	0.25	0.219	0.424	162	112.9	0.031	0.043	19	56.49
Hominy Creek: Downstream	OK121300-04-0010C	36214	12/20/2006	10.18	88.3	89.4	I	82.0	9.1	323.6	7.4	41.9	14.3	0.1260	0.22	0.01	0.08	0.360	0.312	218	105.4	0.055	0.084	46	76.79
Hominy Creek: Downstream	OK121300-04-0010C	36528	1/23/2007	12.42	89.7	35.1	O	74.0	2.0	320.0	7.9	32.7	23.0	0.2740	0.26	0.01	0.69	0.548	0.964	186	106.0	0.100	0.156	17	91.31
Hominy Creek: Downstream	OK121300-04-0010C	36746	2/27/2007	10.95	91.1	8.6	O	64.0	7.4	352.4	7.5	51.0	17.0	0.1570	0.21	0.01	0.36	0.381	0.584	186	117.3	0.039	0.072	7	47.54
Hominy Creek: Downstream	OK121300-04-0010C	36940	4/3/2007	6.15	67.5	43.3	I	80.0	19.9	312.3	7.2	32.7	25.1	0.4260	0.24	0.06	1.04	0.726	1.340	209	109.0	0.106	0.182	22	40.33
Hominy Creek: Downstream	OK121300-04-0010C	37070	5/8/2007	6.40	69.6	130.0	I	42.0	19.4	118.3	6.8	5.1	7.2	0.0300	0.12	0.01	0.88	0.164	1.014	135	49.0	0.146	0.225	42	
Hominy Creek: Downstream	OK121300-04-0010C	37236	6/11/2007	6.80	81.6	40.8	I	80.0	24.5	299.2		37.1	15.2	0.0106	0.23	0.01	0.41	0.							

SiteName	WBID	SAMPLEID	Date	DO (mg/L)	DOPerSat	Turb (NTU)	Turb Cause	Alkalinity (CaCO3)	Temp (°C)	Cond (uS/cm)	pH (SU)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	Available Nitrogen (mg/L)	Total Nitrogen (mg/L)	ToDisSolids (mg/L)	ToHardness (mg/L as CaCO3)	ToOrthoPhos (mg/L)	ToTotPhosphorus (mg/L)	ToTotSusSolids (mg/L)	Flow (cfs)
Hominy Creek: Downstream	OK121300-04-0010C	38048	8/21/2007	3.88	48.8	9.6	O	97.0	27.1		7.3	104.0	19.1	0.0660	0.25	0.01	0.46	0.330	0.724	408	167.5	0.051	0.081	12	7.06
Hominy Creek: Downstream	OK121300-04-0010C	38349	9/25/2007	6.92	83.7	24.9	O	63.0	25.0		7.4	28.4	12.0	0.0106	0.09	0.01	0.08	0.115	0.182	141	88.5	0.028	0.051	21	267.53
Hominy Creek: Downstream	OK121300-04-0010C	38490	10/30/2007	9.06	92.1	22.9	O	54.0	16.0		7.8	37.7	12.4	0.0210	0.20	0.11	0.49	0.331	0.800	175	103.5	0.059	0.080	12	34.72
Hominy Creek: Downstream	OK121300-04-0010C	38684	12/11/2007	12.57	94.4	76.2	I	66.0	3.5	125.7	7.6	19.8	19.2	0.0310	0.55	0.01	0.69	0.595	1.254	158	78.8	0.324	0.486	49	
Hominy Creek: Downstream	OK121300-04-0010C	39152	1/16/2008	13.26	103.4	14.7	O	84.0	4.8	434.4	7.6	64.6	18.9	0.2250	0.18	0.01	0.13	0.419	0.324	220	136.4	0.057	0.086	7	17.35
Hominy Creek: Downstream	OK121300-04-0010C	39515	2/20/2008	10.97	88.7	58.9	I	73.0	6.3	307.8	7.1	32.7	25.7	0.4650	0.30	0.01	1.21	0.779	1.524	230	98.2	0.129	0.239	16	31.90
Hominy Creek: Downstream	OK121300-04-0010C	39778	3/25/2008	11.65	99.9	29.6	I	80.0	8.9	270.6	7.2	25.0	12.9	0.0180	0.18	0.08	0.08	0.278	0.338	168	88.3	0.017	0.022	44	
Hominy Creek: Downstream	OK121300-04-0010C	40095	4/29/2008	9.43	91.1	46.2	I	70.0	13.8	252.2	7.5	26.7	12.9	0.0106	0.22	0.01	0.08	0.245	0.312	169	85.3	0.024	0.061	82	
Hominy Creek: Upstream	OK121300-04-0280G	35052	6/12/2006	6.65	82.6	19.6		98.0	26.4	1339.0		262.9	26.3	0.0106	0.06	0.01	0.55	0.085	0.624	815	303.8	0.007	0.014	7	0.29
Hominy Creek: Upstream	OK121300-04-0280G	35588	8/7/2006	6.45	87.5	10.6	O	90.0	30.7	1060.0	7.8	243.8	15.1	0.0106	0.01	0.01	0.55	0.039	0.578	648	245.2	0.004	0.026	7	0.00
Hominy Creek: Upstream	OK121300-04-0280G	35836	9/11/2006	4.56	53.2	8.3	O	33.0	23.0	1706.0	7.3	433.3	13.6	0.0106	0.06	0.01	0.25	0.085	0.324	1314	374.7	0.010	0.014	7	0.00
Hominy Creek: Upstream	OK121300-04-0280G	35906	10/16/2006	7.98	78.3	6.6	O	79.0	15.5	1761.0	7.1	461.8	19.3	0.0106	0.75	0.01	0.13	0.775	0.894	1025	386.3	0.009	0.012	7	0.15
Hominy Creek: Upstream	OK121300-04-0280G	35942	11/13/2006	9.20	78.1	1.7	O	82.0	8.1	1462.0	6.7	691.2	16.5	0.0106	0.74	0.01	0.27	0.765	1.024	1316	493.3	0.008	0.010	7	0.50
Hominy Creek: Upstream	OK121300-04-0280G	36209	12/19/2006	10.05	82.8	2.5	O	106.0	7.0	2122.0	7.6	588.7	21.8	0.0106	0.11	0.01	0.21	0.135	0.334	1238	493.8	0.004	0.038	7	2.50
Hominy Creek: Upstream	OK121300-04-0280G	36523	1/22/2007	13.67	98.1	11.6	O	122.0	1.7	2540.0	8.0	643.7	23.6	0.0106	0.16	0.01	0.15	0.185	0.324	1340	562.7	0.014	0.014	7	4.86
Hominy Creek: Upstream	OK121300-04-0280G	36741	2/26/2007	10.74	89.2	6.5	O	135.0	7.3	1826.0	7.7	456.3	31.7	0.0106	0.01	0.01	0.30	0.039	0.328	1003	434.4	0.006	0.029	7	1.55
Hominy Creek: Upstream	OK121300-04-0280G	36936	4/2/2007	8.61	89.1	41.9	I	97.0	17.0	388.6	7.8	46.1	20.7	0.0106	0.13	0.01	0.54	0.155	0.684	251	138.9	0.020	0.077	22	46.14
Hominy Creek: Upstream	OK121300-04-0280G	37066	5/7/2007	7.52	81.4	1000.0	I	86.0	19.4	132.4	7.4	7.5	6.6	0.0640	0.15	0.01	0.19	0.228	0.358	266	57.6	0.218	0.725	1468	
Hominy Creek: Upstream	OK121300-04-0280G	37232	6/11/2007	6.53	79.2	14.0	O	143.0	25.1	714.0	7.6	125.2	107.5	0.0106	0.01	0.01	0.59	0.039	0.618	420	230.6	0.014	0.058	11	7.36
Hominy Creek: Upstream	OK121300-04-0280G	37851	7/16/2007	6.56	81.8	32.2	I	131.0	26.6	481.1	7.6	51.7	17.0	0.0106	0.11	0.01	0.52	0.135	0.644	312	172.3	0.010	0.055	14	19.95
Hominy Creek: Upstream	OK121300-04-0280G	38044	8/20/2007	6.08	75.2	11.1	O	134.0	26.1		7.7	301.5	29.2	0.0106	0.01	0.01	0.22	0.039	0.248	809	322.7	0.010	0.029	7	1.71
Hominy Creek: Upstream	OK121300-04-0280G	38345	9/24/2007	6.27	74.2	5.3	O	111.0	23.6		7.6	160.3	21.3	0.0106	0.08	0.01	0.20	0.105	0.294	486	219.4	0.007	0.023	7	1.81
Hominy Creek: Upstream	OK121300-04-0280G	38482	10/29/2007	10.91	105.4	24.7	O	102.0	13.8		8.3	103.3	24.7	0.0106	0.14	0.19	0.54	0.341	0.870	354	178.3	0.034	0.070	7	2.17
Hominy Creek: Upstream	OK121300-04-0280G	38689	12/12/2007	12.66	95.5	71.6	I	154.0	3.6	1503.0		291.4	38.3	0.0106	0.23	0.01	0.41	0.255	0.654	801	341.1	0.037	0.077	23	67.26
Hominy Creek: Upstream	OK121300-04-0280G	39147	1/15/2008	13.04	94.2	5.6	O	183.0	2.0	960.0	8.1	141.4	44.6	0.0106	0.10	0.01	0.08	0.125	0.192	526	299.8	0.009	0.016	7	7.53
Hominy Creek: Upstream	OK121300-04-0280G	39510	2/19/2008	12.92	97.3	117.0	I	85.0	3.5	333.2	7.9	34.6	20.6	0.0106	0.41	0.01	0.62	0.435	1.044	260	110.9	0.031	0.117	31	43.27
Hominy Creek: Upstream	OK121300-04-0280G	39773	3/24/2008	10.35	89.8	38.9	O	135.0	9.1	605.0	7.8	75.1	31.9	0.0106	0.17	0.12	0.08	0.301	0.368	386	198.2	0.013	0.028	11	21.25
Hominy Creek: Upstream	OK121300-04-0280G	40091	4/28/2008	8.63	85.3	111.0	O	169.0	14.8	834.0	7.9	134.6	40.2	0.0106	0.01	0.01	0.08	0.039	0.106	483	276.9	0.012	0.024	10	
Little Cabin Creek	OK121600-06-0080C	35232	6/19/2006	4.02	47.3	38.8	I	111.0	23.2	250.1	7.9	7.9	43.0	0.0510	0.14	0.05	0.45	0.241	0.640	213	134.2	0.025	0.051	13	0.61
Little Cabin Creek	OK121600-06-0080C	35602	8/7/2006	3.81	48.6	15.6		129.0	27.5	746.0	7.4	11.5	187.8	0.0210	0.07	0.01	0.43	0.105	0.514	486	211.4	0.023	0.043	17	0.00
Little Cabin Creek	OK121600-06-0080C	35846	9/11/2006	4.55	52.9	18.9	O	148.0	22.9	1110.0	7.2	3.9	65.2	0.0106	0.52	0.01	0.26	0.545	0.794	775	280.4	0.004	0.017	7	0.00
Little Cabin Creek	OK121600-06-0080C	35924	10/23/2006		50.1	93.1	O	111.0	8.2	562.0	7.1	12.3	140.5	0.0460	1.28	0.01	0.79	1.340	2.084	348	179.0	0.065	0.137	65	0.00
Little Cabin Creek	OK121600-06-0080C	35952	11/13/2006	1.69	14.3	30.9	O	146.0	8.0	432.9	6.8	14.2	155.8	0.0106	0.01	0.01	1.26	0.039	1.288	421	217.1	0.091	0.263	45	0.00
Little Cabin Creek	OK121600-06-0080C	36201	12/19/2006	4.90	41.8	18.6	O	120.0	8.3	344.2	7.3	13.9	33.3	0.0106	0.09	0.01	0.08	0.115	0.182	184	149.9	0.022	0.055	7	0.25
Little Cabin Creek	OK121600-06-0080C	36533	1/22/2007	13.88	95.6	71.6		60.0	0.3	156.4	7.1	19.9	50.1	0.0290	0.64	0.01	0.51	0.683	1.164	179	111.0	0.068	0.118	34	
Little Cabin Creek	OK121600-06-0080C	36733	2/26/2007	9.82	84.0	170.0	I	55.0	8.7	270.3	7.2	13.9	66.7	0.1620	1.09	0.11	1.60	1.362	2.800	231	96.4	0.089	0.259	74	
Little Cabin Creek	OK121600-06-0080C	36946	4/2/2007	5.93	62.8	47.4	I	69.0	18.2	367.2	5.3	13.7	79.0	0.0960	0.36	0.06	0.97	0.516	1.390	240	132.1	0.044	0.149	29	
Little Cabin Creek	OK121600-06-0080C	37058	5/7/2007	5.58	62.4	227.0		89.0	21.1	204.9	8.9	6.1	26.8	0.1370	0.38	0.10	1.54	0.617	2.020	174	76.4	0.121	0.367	248	
Little Cabin Creek	OK121600-06-0080C	37224	6/11/2007	5.59	64.8	232.0	I	141.0	22.8	159.6	7.0	5.5	17.7	0.0780	0.56	0.07	1.50	0.708	2.130	155	54.4	0.145	0.320	186	
Little Cabin Creek	OK121600-06-0080C	37861	7/16/2007	4.20	52.4	35.2	I	125.0	26.2	319.0	7.8	8.2	57.7	0.0106	0.26	0.01	0.60	0.285	0.874	214	133.7	0.022	0.082	12	9.75
Little Cabin Creek	OK121600-06-0080C	38036	8/20/2007	4.89	62.8	16.0	O	108.0	25.1	341.4	8.8	11.9	68.0	0.0410	0.11	0.01	0.23	0.165	0.354	192	135.7	0.029	0.083	17	0.19
Little Cabin Creek	OK121600-06-0080C	38972	9/24/2007	5.61	52.9	19.1	O	63.0	23.1	190.9	8.7	5.7	20.6	0.0106	0.19	0.01	0.08	0.215	0.282	118	75.4	0.053	0.098	7	0.46
Little Cabin Creek	OK121600-06-0080C	38492	10/29/2007	7.21	66.1	15.8	O	99.0	11.5	314.8	8.7	11.4	56.3	0.0106	0.23	0.05	0.65	0.291	0.930	192	119.8	0.044	0.090	7	4.23
Little Cabin Creek	OK121600-06-0080C	38640	12/3/2007	3.61	29.6	4.3	O	134.0	5.3	317.9	7.0	14.8	100.6	0.0106	0.14	0.01	0.57	0.165	0.724	207	147.7	0.072	0.081	7	0.39
Little Cabin Creek	OK121600-06-0080C	39142	1/16/2008	11.15	86.1	39.4	I	65.0	4.4	401.7	6.9	20.6	144.8	0.0106	0.42	0.01	0.08	0.445	0.512	286	164.9	0.047	0.102	7	14.47
Little Cabin Creek	OK121600-06-0080C	39502	2/19/2008	10.57	81.7	116.0	I	89.0	4.5	232.1	6.9	10.5	47.4	0.0720	0.86	0.01	0.94	0.946	1.814	203	76.3	0.196	0.339	38	
Little Cabin Creek	OK121600-06-0080C	39765	3/24/2008	8.44	76.1	46.2	I																		

SiteName	WBID	SAMPLEID	Date	DO (mg/L)	DOPerSat	Turb (NTU)	Turb Cause	Alkalinity (CaCO3)	Temp (°C)	Cond (uS/cm)	pH (SU)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	Available Nitrogen (mg/L)	Total Nitrogen (mg/L)	ToDisSolids (mg/L)	ToHardness (mg/L as Ca CO3)	ToOrthoPhos (mg/L)	ToTotPhosphorus (mg/L)	ToTotSusSolids (mg/L)	Flow (cfs)
Little Caney River	OK121400-02-0140H	35056	6/13/2006	7.63	90.8	94.5	I	85.0	24.1	251.5		17.6	4.3	0.0106	0.05	0.01	0.44	0.075	0.504	182	19.1	0.044	0.054	45	14.42
Little Caney River	OK121400-02-0140H	35589	8/8/2006	5.65	73.1	85.0	I	118.0	28.8	272.5	7.7	13.2	8.0	0.0270	0.19	0.04	0.35	0.252	0.575	201	118.3	0.063	0.091	83	14.46
Little Caney River	OK121400-02-0140H	35844	9/12/2006	7.04	81.2	92.0	I	108.0	22.3	290.6	7.8	18.4	10.6	0.0106	0.11	0.01	0.25	0.135	0.374	174	123.8	0.052	0.080	59	12.77
Little Caney River	OK121400-02-0140H	35914	10/17/2006	10.55	114.0	72.7	I	126.0	19.1	294.6	7.9	17.6	10.6	0.0106	0.14	0.01	0.36	0.165	0.514	236	128.1	0.060	0.080	28	5.31
Little Caney River	OK121400-02-0140H	35950	11/14/2006	9.98	91.1	44.0	I	137.0	11.3	294.1	7.6	21.3	11.2	0.0106	0.01	0.01	0.40	0.039	0.428	171	127.3	0.035	0.082	19	4.12
Little Caney River	OK121400-02-0140H	36217	12/20/2006	10.41	88.9	106.0	I	113.0	8.5	297.4	7.6	22.9	11.4	0.0106	0.09	0.01	0.08	0.115	0.182	230	122.4	0.048	0.084	40	10.78
Little Caney River	OK121400-02-0140H	36531	1/23/2007	13.96	102.0	22.7	O	106.0	2.4	336.7	8.2	28.5	13.8	0.0106	0.11	0.01	0.50	0.135	0.624	211	127.6	0.006	0.056	7	3.71
Little Caney River	OK121400-02-0140H	36749	2/27/2007	10.83	102.1	45.4	I	120.0	12.7	312.2	7.7	24.8	11.5	0.0106	0.01	0.01	0.58	0.039	0.608	184	133.8	0.018	0.091	31	2.39
Little Caney River	OK121400-02-0140H	36943	4/3/2007	9.37	99.0	85.8	I	81.0	18.2	235.3	7.4	16.5	13.0	0.0210	0.25	0.05	0.53	0.321	0.830	178	98.9	0.044	0.138	83	
Little Caney River	OK121400-02-0140H	37073	5/8/2007	7.28	78.9	620.0	I	59.0	19.2	192.8	6.2	17.1	11.1	0.0690	0.30	0.06	1.17	0.429	1.530	230	68.0	0.164	0.423	415	250.00
Little Caney River	OK121400-02-0140H	37239	6/12/2007	6.80	79.8	145.0	I	54.6	23.3	157.3		11.5	5.9	0.0106	0.20	0.01	0.71	0.225	0.924	144	62.3	0.111	0.273	217	
Little Caney River	OK121400-02-0140H	37858	7/17/2007	7.66	92.7	24.9	I	54.0	25.1	140.1	6.5	6.0	4.7	0.0106	0.04	0.01	0.39	0.065	0.444	96	58.2	0.046	0.105	19	
Little Caney River	OK121400-02-0140H	38051	8/21/2007	3.84	50.2	94.5	I	80.0	29.5		7.4	17.0	5.5	0.1230	0.34	0.07	0.08	0.533	0.488	162	85.7	0.193	0.273	49	13.18
Little Caney River	OK121400-02-0140H	38352	9/25/2007	6.11	73.8	92.5	I	75.0	24.9		7.7	12.5	6.3	0.0106	0.32	0.01	0.08	0.345	0.412	146	90.3	0.080	0.161	80	22.90
Little Caney River	OK121400-02-0140H	38485	10/29/2007	9.69	97.2	50.3	I	65.0	15.1		8.6	13.6	6.4	0.0106	0.30	0.05	0.30	0.361	0.650	136	94.0	0.041	0.090	28	
Little Caney River	OK121400-02-0140H	38687	12/11/2007	11.60	89.3	68.1	I	96.0	4.4	293.5	8.3	37.8	13.7	0.0106	0.38	0.01	0.36	0.405	0.754	196	112.1	0.033	0.145	20	13.66
Little Caney River	OK121400-02-0140H	39155	1/16/2008	13.34	105.0	28.3	I	89.0	5.2	229.2	8.4	15.5	12.9	0.0106	0.14	0.01	0.20	0.165	0.354	126	102.6	0.012	0.066	30	
Little Caney River	OK121400-02-0140H	39518	2/20/2008	14.02	108.4	21.8	O	99.0	4.5	264.6	8.1	19.0	11.2	0.0106	0.01	0.01	0.47	0.039	0.498	170	105.5	0.010	0.054	29	
Little Caney River	OK121400-02-0140H	39781	3/25/2008	12.55	115.3	49.2	I	100.0	11.5	275.8	7.9	18.3	16.8	0.0180	0.25	0.08	0.08	0.348	0.408	181	111.0	0.030	0.081	22	
Little Caney River	OK121400-02-0140H	40098	4/29/2008	10.22	104.2	82.6	I	82.0	16.4	215.8	8.0	18.1	15.9	0.0106	0.27	0.01	0.08	0.295	0.362	184	88.7	0.047	0.121	23	
Little Horse Creek	OK121600-03-0190A	35233	6/19/2006	4.13	48.5	3.7	O	171.0	22.9	351.0	7.8	18.2	15.1	0.0720	2.53	0.08	0.21	2.682	2.820	249	170.4	0.041	0.058	7	0.47
Little Horse Creek	OK121600-03-0190A	35603	8/7/2006	3.03	34.3	9.7	O	101.0	27.5	346.1	7.4	22.2	24.3	0.0310	0.01	0.01	1.65	0.059	1.678	223	101.0	0.852	0.949	14	0.00
Little Horse Creek	OK121600-03-0190A	35847	9/11/2006	5.24	60.4	5.0	O	129.0	22.8	409.8	7.8	22.0	84.6	0.0320	0.07	0.01	1.14	0.116	1.224	277	149.0	0.161	0.236	7	0.00
Little Horse Creek	OK121600-03-0190A	36202	12/19/2006	6.76	57.2	17.6	O	93.0	7.9	302.7	7.6	10.6	26.9	0.0106	0.26	0.01	0.08	0.285	0.352	159	140.7	0.096	0.146	17	0.00
Little Horse Creek	OK121600-03-0190A	36534	1/22/2007	13.11	91.6	33.5		32.0	0.5	98.6	8.3	17.0	14.9	0.3190	0.96	0.01	1.55	1.293	2.524	113	58.2	0.730	0.776	10	24.42
Little Horse Creek	OK121600-03-0190A	36734	2/26/2007	11.93	99.1	40.7	I	87.0	7.2	298.2	7.6	23.1	23.9	0.0106	1.08	0.01	1.20	1.105	2.294	207	117.4	0.318	0.428	11	15.04
Little Horse Creek	OK121600-03-0190A	36947	4/2/2007	8.59	89.9	8.8	O	140.0	17.6	227.9	4.8	25.2	22.1	0.0106	0.06	0.01	0.60	0.085	0.674	240	174.3	0.122	0.212	7	3.98
Little Horse Creek	OK121600-03-0190A	37059	5/7/2007	5.64	65.1	198.0		61.0	22.2	314.6	8.2	6.8	6.8	0.2600	0.70	0.09	2.86	1.050	3.650	157	70.5	0.738	1.068	401	
Little Horse Creek	OK121600-03-0190A	37225	6/11/2007	6.09	69.4	310.0	I	72.0	24.1	121.8	7.2	4.3	4.4	0.0400	0.31	0.01	1.45	0.364	1.774	110	47.6	0.401	0.575	291	
Little Horse Creek	OK121600-03-0190A	37862	7/16/2007	3.81	46.5	11.9	O	104.0	26.1	386.6	7.8	14.4	13.3	0.0106	0.20	0.01	0.79	0.225	1.004	232	161.7	0.093	0.148	7	5.95
Little Horse Creek	OK121600-03-0190A	38037	8/20/2007	5.45	63.5	14.5	O	138.0	25.6	374.8	7.1	12.3	12.6	0.1280	0.13	0.01	0.86	0.272	1.004	204	154.7	0.178	0.240	39	0.00
Little Horse Creek	OK121600-03-0190A	38973	9/24/2007	7.06	79.3	11.5	O	102.0	24.1	257.3	8.8	6.7	17.5	0.0106	0.16	0.01	0.08	0.185	0.252	172	124.4	0.218	0.273	7	
Little Horse Creek	OK121600-03-0190A	38493	10/29/2007	5.99	46.0	15.0	O	121.0	11.8	365.8	7.8	13.8	30.3	0.0106	0.15	0.06	0.88	0.221	1.090	225	143.9	0.273	0.315	7	16.79
Little Horse Creek	OK121600-03-0190A	38641	12/3/2007	4.09	33.4	3.1	O	135.0	6.7	420.7	7.3	19.6	24.1	0.0106	0.15	0.01	0.63	0.175	0.794	252	173.5	0.167	0.176	7	0.79
Little Horse Creek	OK121600-03-0190A	39143	1/16/2008	9.91	76.8	12.9	I	90.0	5.4	419.6	7.2	23.7	43.5	0.0106	0.55	0.01	0.08	0.575	0.642	240	166.6	0.081	0.121	7	5.45
Little Horse Creek	OK121600-03-0190A	39503	2/19/2008	7.81	63.4	55.8	I	109.0	5.2	257.4	7.0	13.5	21.6	0.0240	1.23	0.01	0.68	1.268	1.924	185	95.2	0.300	0.390	15	20.18
Little Horse Creek	OK121600-03-0190A	39766	3/24/2008	9.62	82.5	18.6	I	99.0	8.8	328.1	7.1	12.9	21.6	0.0106	1.13	0.07	0.56	1.211	1.760	196	137.2	0.096	0.128	7	11.19
Little Horse Creek	OK121600-03-0190A	40102	4/28/2008	8.43	79.9	19.8	I	92.0	13.0	314.5	7.5	11.7	19.7	0.0106	0.59	0.01	0.08	0.615	0.682	199	130.6	0.107	0.156	7	
Lone Creek	OK520620-03-0020C	35219	6/20/2006	10.16	146.1	5.9	O	203.0	34.9	2785.0	8.0	50.0	1416.6	0.7650	0.30	0.06	1.68	1.125	2.040	2771	1991.2	0.042	0.097	15	0.02
Lone Creek	OK520620-03-0020C	36043	10/23/2006	10.52	102.5	1.2	I	170.0	14.1	2648.0	8.2	40.8	1351.8	0.0106	1.12	0.01	0.34	1.145	1.474	2526	2086.9	0.017	0.025	7	0.04
Lone Creek	OK520620-03-0020C	36128	11/27/2006	11.00	99.0	0.6	I	128.0	10.6	2637.0	8.2	35.1	1407.7	0.0106	0.26	0.01	0.08	0.285	0.352	2506	2041.8	0.006	0.015	7	0.46
Lone Creek	OK520620-03-0020C	36476	1/3/2007	12.47	100.0	41.5	I	171.0	5.9	2612.0	8.1	35.0	1498.3	0.0106	0.28	0.01	0.63	0.305	0.924	2575	2092.2	0.034	0.107	48	0.64
Lone Creek	OK520620-03-0020C	36573	1/29/2007	12.84	99.8	4.6	I	158.0	4.7	2589.0	8.0	30.7	1374.3	0.0106	0.25	0.01	0.18	0.275	0.444	2444	1905.8	0.006	0.036	7	0.83
Lone Creek	OK520620-03-0020C	36814	3/6/2007	10.07	99.5	9.4	I	163.0	14.7	2700.0	8.2	29.8	1591.1	0.0106	0.21	0.01	0.08	0.235	0.302	2534	2007.2	0.011	0.030	7	0.84
Lone Creek	OK520620-03-0020C	36967	4/10/2007	11.43	104.1	3.1	I	193.0	11.4	2807.0	8.1	41.9	1563.5	0.0106	0.18	0.01	0.08	0.205	0.272	2693	2149.9	0.017	0.030	7	
Lone Creek	OK520620-03-0020C	37095	5/15/2007	9.05	100.8	4.7	I	208.0	20.7	2976.0	7.9	47.0	1423.7	0.0106	0.18	0.01	0.21	0.205	0.404	2824	2531.2	0.016	0.193	13	2.31
Lone Creek	OK520620-03-0020C	37265	6/19/2007	9.60	118.2	3.0	I	185.0	25.9	2738.0	7.3	45.4</													

SiteName	WBID	SAMPLEID	Date	DO (mg/L)	DOPerSat	Turb (NTU)	Turb Cause	Alkalinity (CaCO3)	Temp (°C)	Cond (uS/cm)	pH (SU)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	Available Nitrogen (mg/L)	Total Nitrogen (mg/L)	ToDisSolids (mg/L)	ToHardness (mg/L as Ca CO3)	ToOrthoPhos (mg/L)	ToTotPhosphorus (mg/L)	ToTotSusSolids (mg/L)	Flow (cfs)
Lone Creek	OK520620-03-0020C	38067	8/28/2007	8.06	106.1	3.1	I	176.0	29.6	2768.0	8.0	50.0	1415.4	0.0106	0.24	0.01	0.17	0.265	0.424	2694	2044.9	0.009	0.018	7	0.76
Lone Creek	OK520620-03-0020C	38361	10/2/2007	8.50	101.9	3.3	I	190.0	24.4	2805.0	8.0	41.3	1751.9	0.0106	0.26	0.01	0.24	0.285	0.514	2867	2062.5	0.015	0.022	12	1.73
Lone Creek	OK520620-03-0020C	38522	11/7/2007	11.20	100.1	3.4	I	220.0	10.3	2997.0	8.1	39.9	1484.0	0.0106	0.27	0.12	0.28	0.401	0.670	2760	202.4	0.007	0.020	7	1.57
Lone Creek	OK520620-03-0020C	38679	12/11/2007	11.62	88.0	152.0	I	173.0	3.7	1385.0	8.1	34.7	1286.8	0.0106	0.57	0.01	0.94	0.595	1.524	2027	1471.1	0.133	0.208	313	34.55
Lone Creek	OK520620-03-0020C	39548	2/26/2008	10.98	95.0	2.0	I	231.0	9.0	1781.0	8.2	52.8	1595.1	0.0106	0.36	0.01	0.08	0.385	0.452	2690	1765.4	0.005	0.011	7	2.88
Lone Creek	OK520620-03-0020C	39838	4/1/2008	11.10	113.0	2.8	I	192.0	16.2	1827.0	8.3	46.2	1302.2	0.0106	0.17	0.01	0.08	0.195	0.262	2568	1838.0	0.007	0.007	13	3.08
Lone Creek	OK520620-03-0020C	40139	5/6/2008	10.00	12.0	9.3	I	189.0	24.3	2407.0	8.0	50.8	1310.7	0.0106	0.30	0.01	0.68	0.325	0.994	2745	2550.2	0.008	0.036	18	
Mission Creek	OK121400-02-0190B	35050	6/12/2006	3.32	39.8	50.8	O	95.0	24.1	252.1	7.0	13.9	10.4	0.0106	0.06	0.01	0.72	0.085	0.794	148	109.8	0.043	0.121	47	
Mission Creek	OK121400-02-0190B	35586	8/7/2006	3.45	44.7	6.0	O	104.0	28.5	277.6	7.1	14.8	15.1	0.0106	0.01	0.01	0.45	0.039	0.478	168	119.6	0.004	0.056	7	0.00
Mission Creek	OK121400-02-0190B	35838	9/11/2006	5.07	60.3	9.4	O	110.0	23.4	299.3	7.2	13.9	6.2	0.0106	0.01	0.01	0.31	0.039	0.338	176	129.0	0.016	0.027	10	0.00
Mission Creek	OK121400-02-0190B	35908	10/16/2006	4.85	48.2	10.6	O	131.0	15.2	318.4	7.4	14.5	7.7	0.0106	0.06	0.01	0.32	0.085	0.394	209	137.8	0.017	0.046	7	0.00
Mission Creek	OK121400-02-0190B	35944	11/13/2006	5.95	52.2	4.1	O	140.0	9.9	355.8	7.4	17.3	11.2	0.0106	0.01	0.01	0.55	0.039	0.578	207	169.4	0.012	0.059	7	0.00
Mission Creek	OK121400-02-0190B	36211	12/19/2006	7.87	65.1	36.3	O	141.0	8.3	379.1	7.1	15.0	29.5	0.0106	0.01	0.01	0.28	0.039	0.308	232	174.2	0.021	0.044	20	0.00
Mission Creek	OK121400-02-0190B	36525	1/22/2007	11.31	86.2	15.7	O	101.0	4.1	341.8	7.2	10.8	15.6	0.0106	0.11	0.01	0.52	0.135	0.644	153	120.8	0.030	0.088	7	0.05
Mission Creek	OK121400-02-0190B	36743	2/26/2007	8.09	69.6	12.4	O	96.0	8.7	243.1	7.3	11.5	15.1	0.0106	0.07	0.01	0.42	0.095	0.504	141	109.7	0.026	0.092	7	0.10
Mission Creek	OK121400-02-0190B	36944	4/3/2007	7.82	86.3	19.8	O	66.0	20.0	146.7	7.1	6.6	12.5	0.0106	0.08	0.01	0.84	0.105	0.934	117	62.9	0.020	0.083	16	56.31
Mission Creek	OK121400-02-0190B	37074	5/8/2007	8.37	91.6	186.0	I	26.0	19.7	78.6		3.3	5.5	0.0106	0.13	0.01	0.90	0.155	1.044	113	36.7	0.045	0.169	99	
Mission Creek	OK121400-02-0190B	37240	6/12/2007	6.65	88.8	222.0	I	24.4	22.5	65.4		3.0	3.6	0.0106	0.14	0.01	0.69	0.165	0.844	92	26.1	0.049	0.185	138	
Mission Creek	OK121400-02-0190B	37859	7/17/2007	6.73	87.1	29.3	I	67.0	29.4	214.9	6.7	11.2	12.0	0.0106	0.14	0.01	0.83	0.165	0.984	149	83.3	0.015	0.097	23	
Mission Creek	OK121400-02-0190B	38052	8/21/2007	5.25	67.7	19.5	O	129.0	28.7		7.2	33.6	23.3	0.0450	0.10	0.01	0.16	0.159	0.274	219	159.3	0.022	0.066	18	0.04
Mission Creek	OK121400-02-0190B	38353	9/25/2007	4.33	50.7	24.1	O	25.0	23.3		6.7	17.6	14.9	0.0106	0.13	0.01	0.41	0.155	0.554	149	94.4	0.026	0.088	15	0.08
Mission Creek	OK121400-02-0190B	38484	10/29/2007	6.92	64.3	32.3	O	53.0	12.3		8.4	12.0	13.3	0.0106	0.26	0.05	0.44	0.321	0.750	114	72.4	0.022	0.076	13	1.69
Mission Creek	OK121400-02-0190B	38688	12/11/2007	7.13	54.0	10.0	O	111.0	3.7	364.0	6.9	31.9	19.0	0.0106	0.16	0.01	0.42	0.185	0.594	213	134.5	0.032	0.082	22	4.60
Mission Creek	OK121400-02-0190B	39149	1/15/2008	12.17	91.7	35.4	I	96.0	3.6	404.4	7.4	50.8	25.8	0.0106	0.22	0.01	0.08	0.245	0.312	242	121.9	0.019	0.046	7	6.65
Mission Creek	OK121400-02-0190B	39512	2/19/2008	12.58	97.2	75.3	I	68.0	4.5	171.9	7.3	11.2	16.1	0.0150	0.34	0.01	0.61	0.369	0.964	159	63.2	0.025	0.106	20	29.81
Mission Creek	OK121400-02-0190B	39775	3/24/2008	9.49	83.2	51.1	I	66.0	9.6	183.1	7.2	10.4	16.4	0.0200	0.16	0.01	0.08	0.194	0.252	161	72.8	0.018	0.039	7	24.12
Mission Creek	OK121400-02-0190B	40099	4/28/2008	8.15	84.1	29.5	O	71.0	16.8	211.3	7.1	14.8	16.0	0.0106	0.21	0.01	0.08	0.235	0.302	154	81.7	0.026	0.081	7	
Pryor Creek: HWY 20	OK121610-00-0050D	35600	6/20/2006	7.96	102.8	20.0	O	71.0	28.5	256.2	7.5	13.2	28.1	0.0650	0.17	0.05	0.58	0.285	0.800	184	89.4	0.066	0.105	10	0.20
Pryor Creek: HWY 20	OK121610-00-0050D	35624	8/15/2006	6.26	79.2	174.0	I	83.0	27.3	451.6	7.5	68.2	18.7	0.0610	0.25	0.01	0.83	0.325	1.094	254	102.9	0.064	0.127	112	0.45
Pryor Creek: HWY 20	OK121610-00-0050D	35861	9/19/2006	4.76	52.4	73.7	I	72.0	20.3	448.6	7.1	80.9	15.5	0.0650	0.11	0.01	0.45	0.189	0.574	278	87.6	0.041	0.084	46	12.60
Pryor Creek: HWY 20	OK121610-00-0050D	35922	10/24/2006	9.95	88.8	24.1	O	102.0	10.4	268.2	6.7	17.0	16.7	0.0106	0.01	0.01	0.31	0.039	0.338	141	82.2	0.044	0.073	12	0.02
Pryor Creek: HWY 20	OK121610-00-0050D	35967	11/28/2006	2.53	23.5	25.9	O	89.0	16.0	307.7	6.7	23.3	20.9	0.0106	0.11	0.01	0.08	0.135	0.202	210	112.4	0.049	0.129	40	0.00
Pryor Creek: HWY 20	OK121610-00-0050D	36470	1/3/2007	11.62	91.6	52.1	I	65.0	5.3	193.4	6.9	13.6	29.8	0.0220	0.53	0.01	0.78	0.566	1.324	129	60.9	0.058	0.158	16	60.00
Pryor Creek: HWY 20	OK121610-00-0050D	36563	1/30/2007	12.50	88.2	44.9	I	45.0	1.7	190.4	6.2	11.5	31.6	0.1270	0.66	0.09	1.79	0.877	2.540	106	60.4	0.061	0.122	11	84.26
Pryor Creek: HWY 20	OK121610-00-0050D	36808	3/6/2007	11.13	97.4	23.3	O	46.0	9.5	247.2	7.0	16.6	45.4	0.0106	0.20	0.01	0.08	0.225	0.292	159	85.8	0.033	0.081	14	22.89
Pryor Creek: HWY 20	OK121610-00-0050D	36961	4/10/2007	9.77	88.0	17.0	O	56.0	10.6	287.4	7.2	18.1	45.3	0.0106	0.12	0.01	0.53	0.145	0.664	189	101.8	0.034	0.079	24	14.62
Pryor Creek: HWY 20	OK121610-00-0050D	37098	5/14/2007	5.22	60.7	44.6	I	63.0	22.8	210.1	7.5	9.0	29.0	0.1010	0.31	0.07	0.64	0.481	1.020	159	75.2	0.096	0.185	52	
Pryor Creek: HWY 20	OK121610-00-0050D	37279	6/18/2007	5.87	69.8	46.2	I	65.0	24.0	199.8	7.9	7.9	28.5	0.0410	0.31	0.01	0.65	0.365	0.974	145	72.4	0.075	0.151	34	4.00
Pryor Creek: HWY 20	OK121610-00-0050D	37780	7/23/2007	4.49	55.5	61.5	I	74.0	26.0	158.6	8.5	5.9	18.6	0.0490	0.29	0.01	0.87	0.353	1.174	118	55.7	0.076	0.168	46	
Pryor Creek: HWY 20	OK121610-00-0050D	38076	8/28/2007	3.57	45.3	69.2	I	49.4	27.5	196.5		15.5	23.5	0.2320	0.43	0.01	0.88	0.676	1.324	164	56.1	0.194	0.302	17	5.28
Pryor Creek: HWY 20	OK121610-00-0050D	38365	10/2/2007	5.41	63.3	20.7	O	58.0	22.1	268.5	8.4	21.4	28.3	0.0106	0.14	0.01	0.27	0.165	0.424	172	86.6	0.030	0.079	20	4.32
Pryor Creek: HWY 20	OK121610-00-0050D	38532	11/7/2007	6.26	57.1	21.0	O	64.0	11.3	283.3		16.9	38.1	0.0106	0.12	0.07	0.08	0.201	0.268	165	94.4	0.056	0.099	7	3.47
Pryor Creek: HWY 20	OK121610-00-0050D	38655	12/4/2007	7.30	63.0	17.7	O	84.0	9.0	236.7	7.2	42.2	41.1	0.0106	0.15	0.01	0.37	0.175	0.534	236	115.4	0.032	0.057	16	7.15
Pryor Creek: HWY 20	OK121610-00-0050D	39539	2/26/2008	11.28	88.8	41.6	I	46.0	5.2	282.4	7.2	15.1	55.3	0.0460	0.38	0.01	0.08	0.440	0.472	178	88.1	0.035	0.080	10	106.17
Pryor Creek: HWY 20	OK121610-00-0050D	39832	4/1/2008	7.75	76.8	255.0	I	4.1	15.0	209.3		12.5	38.9	0.0530	0.31	0.01	0.79	0.377	1.114	190	71.8	0.086	0.297	262	
Pryor Creek: HWY 20	OK121610-00-0050D	40130	5/6/2008	6.15	58.9	30.2	I	59.0	18.7	239.7	7.0	11.6	40.5	0.0600	0.31	0.01	0.28	0.384	0.604	148	73.0	0.032	0.082	34	
Pryor Creek: HWY 69	OK121610-00-0050M	35599	6/20/2006	3.65	44.4	22.3	O	61.0	25.2	245.9	7.2	12.9	29.8	0.0530	0.12	0.01									

SiteName	WBID	SAMPLEID	Date	DO (mg/L)	DOPerSat	Turb (NTU)	Turb Cause	Alkalinity (CaCO3)	Temp (°C)	Cond (uS/cm)	pH (SU)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	Available Nitrogen (mg/L)	Total Nitrogen (mg/L)	ToDisSolids (mg/L)	ToHardness (mg/L as Ca CO3)	ToOrthoPhos (mg/L)	ToTotPhosphorus (mg/L)	ToTotSolids (mg/L)	Flow (cfs)
Pryor Creek: HWY 69	OK121610-00-0050M	35860	9/19/2006	4.51	48.9	196.0	I	35.0	19.2	156.0	6.7	18.1	12.6	0.1540	0.45	0.10	0.55	0.704	1.100	183	39.0	0.081	0.125	47	20.10
Pryor Creek: HWY 69	OK121610-00-0050M	35921	10/24/2006	7.75	66.8	19.5	O	52.0	9.2	258.0	6.7	15.1	19.8	0.0106	0.03	0.01	0.50	0.055	0.544	125	70.1	0.027	0.080	18	0.00
Pryor Creek: HWY 69	OK121610-00-0050M	35966	11/28/2006	5.71	56.9	21.0	O	73.0	15.3	370.8	6.7	30.2	26.5	0.0106	0.15	0.01	0.08	0.175	0.242	227	112.2	0.010	0.023	7	0.00
Pryor Creek: HWY 69	OK121610-00-0050M	36469	1/3/2007	11.28	88.5	61.0	I	29.0	5.1	189.0	6.9	12.6	28.7	0.0210	0.50	0.01	0.91	0.535	1.424	134	59.0	0.064	0.156	7	86.02
Pryor Creek: HWY 69	OK121610-00-0050M	36562	1/30/2007	13.74	97.9	42.2	I	30.0	1.5	190.2	7.1	11.9	31.5	0.0400	0.69	0.09	0.62	0.820	1.400	159	59.4	0.065	0.128	15	103.83
Pryor Creek: HWY 69	OK121610-00-0050M	36807	3/6/2007	10.96	94.9	21.6	O	86.0	9.1	246.3	7.1	16.8	46.3	0.0106	0.21	0.01	0.08	0.235	0.302	155	84.5	0.029	0.066	7	24.64
Pryor Creek: HWY 69	OK121610-00-0050M	36960	4/10/2007	9.27	83.3	14.3	O	59.0	10.6	283.6	7.3	15.2	44.9	0.0106	0.11	0.01	0.58	0.135	0.704	187	102.6	0.029	0.079	7	15.71
Pryor Creek: HWY 69	OK121610-00-0050M	37099	5/14/2007	5.40	62.7	47.0	I	54.0	22.8	200.9	7.9	8.2	27.6	0.0990	0.31	0.07	0.63	0.479	1.010	153	74.8	0.087	0.168	42	
Pryor Creek: HWY 69	OK121610-00-0050M	37280	6/18/2007	5.87	70.1	42.9	I	58.0	24.2	201.7	7.8	7.8	28.2	0.0106	0.32	0.08	0.72	0.411	1.120	151	72.2	0.082	0.158	40	
Pryor Creek: HWY 69	OK121610-00-0050M	37781	7/23/2007	5.41	67.0	59.7	I	86.0	26.1	159.6	7.8	5.4	18.4	0.0390	0.28	0.01	0.80	0.333	1.094	120	56.9	0.062	0.168	54	
Pryor Creek: HWY 69	OK121610-00-0050M	38075	8/28/2007	3.95	49.1	52.6	I	40.2	26.5	189.7		15.2	27.0	0.0780	0.52	0.01	0.68	0.612	1.214	147	58.4	0.112	0.219	24	7.96
Pryor Creek: HWY 69	OK121610-00-0050M	38366	10/2/2007	5.38	62.2	20.9	O	80.0	22.4	216.9	7.3	13.8	28.5	0.0106	0.10	0.01	0.22	0.125	0.334	157	79.6	0.022	0.068	12	2.00
Pryor Creek: HWY 69	OK121610-00-0050M	38531	11/7/2007	7.61	66.4	15.8	O	62.0	9.4	283.3		16.0	37.7	0.0106	0.07	0.06	0.08	0.141	0.208	184	95.2	0.046	0.084	7	4.32
Pryor Creek: HWY 69	OK121610-00-0050M	38654	12/4/2007	8.65	69.8	11.5	O	78.0	6.2	250.4	7.4	44.0	40.4	0.0106	0.14	0.01	0.34	0.165	0.494	231	115.0	0.030	0.053	7	6.20
Pryor Creek: HWY 69	OK121610-00-0050M	39540	2/26/2008	11.48	90.3	30.8	I	49.0	5.2	281.2	7.1	14.9	57.7	0.0490	0.34	0.01	0.08	0.403	0.432	181	86.8	0.037	0.067	11	60.63
Pryor Creek: HWY 69	OK121610-00-0050M	39831	4/1/2008	7.98	78.1	121.0	I	47.0	14.4	250.7		11.0	45.3	0.0530	0.31	0.06	0.31	0.423	0.680	206	85.4	0.080	0.219	144	
Pryor Creek: HWY 69	OK121610-00-0050M	40131	5/6/2008	5.53	66.3	37.1	I	54.0	18.5	241.9	7.0	13.1	46.1	0.0830	0.28	0.01	0.38	0.377	0.674	143	73.9	0.045	0.111	24	
Ranger Creek	OK121600-01-0060D	35237	6/20/2006	5.13	64.1	19.1	O	84.0	26.3	252.1	8.0	4.9	10.7	0.0106	0.04	0.01	0.08	0.065	0.132	147	117.8	0.024	0.056	7	3.27
Ranger Creek	OK121600-01-0060D	35607	8/8/2006	3.78	53.6	6.6		115.0	28.2	262.3	8.2	5.3	5.6	0.0520	0.09	0.01	0.46	0.156	0.564	134	117.2	0.054	0.059	7	0.00
Ranger Creek	OK121600-01-0060D	35851	9/12/2006	2.87	33.5	8.8	O	181.0	23.1	265.8	7.5	4.8	14.2	0.0106	0.01	0.01	0.20	0.039	0.228	158	126.7	0.022	0.039	7	0.00
Ranger Creek	OK121600-01-0060D	35929	10/24/2006	7.42	65.2	7.9	O	84.0	9.7	276.5	7.6	6.3	17.6	0.0150	0.01	0.01	0.49	0.043	0.518	133	136.6	0.024	0.048	7	0.00
Ranger Creek	OK121600-01-0060D	35957	11/14/2006	8.17	72.1	2.9	O	114.0	9.9	213.3	7.7	8.9	18.3	0.0106	0.01	0.01	0.16	0.039	0.188	160	147.8	0.005	0.044	7	2.19
Ranger Creek	OK121600-01-0060D	36206	12/20/2006	9.46	85.3	37.3	I	84.0	10.8	333.4	8.1	5.1	28.2	0.0106	0.35	0.07	0.08	0.431	0.498	237	176.2	0.059	0.097	23	
Ranger Creek	OK121600-01-0060D	36538	1/23/2007	11.17	85.1	5.7	I	55.0	3.8	145.5	9.8	4.5	17.4	0.0106	0.76	0.01	0.08	0.785	0.852	134	122.6	0.044	0.077	7	
Ranger Creek	OK121600-01-0060D	36738	2/27/2007	11.22	94.8	7.8	I	95.0	8.0	296.5	8.0	6.0	23.9	0.0106	0.26	0.01	0.16	0.285	0.434	158	150.6	0.024	0.055	7	37.65
Ranger Creek	OK121600-01-0060D	36951	4/3/2007	7.96	88.4	3.8	O	110.0	20.4	374.8	6.9	4.7	24.9	0.0106	0.04	0.01	0.15	0.065	0.204	194	170.2	0.021	0.054	7	6.26
Ranger Creek	OK121600-01-0060D	37063	5/8/2007	8.79	91.3	45.9	I	84.0	17.4	233.1	8.3	2.6	14.4	0.0106	0.37	0.01	0.55	0.395	0.934	145	109.1	0.109	0.172	26	
Ranger Creek	OK121600-01-0060D	37229	6/12/2007	5.47	65.4	6.2	I	150.0	24.4	220.1	7.7	5.0	15.3	0.0106	0.09	0.01	0.31	0.115	0.414	169	141.9	0.026	0.054	7	13.65
Ranger Creek	OK121600-01-0060D	37866	7/17/2007	6.78	83.1	5.5	O	148.0	25.7	340.5	7.9	4.1	14.3	0.0106	0.26	0.01	0.13	0.285	0.404	196	158.2	0.050	0.083	7	26.87
Ranger Creek	OK121600-01-0060D	38041	8/21/2007	3.42	43.3	4.2	O	123.0	27.4	269.3	8.1	5.1	10.2	0.0106	0.09	0.01	0.08	0.115	0.182	145	119.9	0.048	0.103	7	6.94
Ranger Creek	OK121600-01-0060D	38977	9/25/2007	4.42	53.0	4.7	O	115.0	24.4	288.3	7.2	6.2	17.4	0.0106	0.10	0.01	0.08	0.125	0.192	153	127.7	0.033	0.064	7	0.44
Ranger Creek	OK121600-01-0060D	38497	10/30/2007	8.83	82.0	2.4	O	125.0	12.0	361.3	8.2	5.2	24.8	0.0106	0.12	0.04	0.25	0.171	0.410	197	170.4	0.025	0.043	7	11.49
Ranger Creek	OK121600-01-0060D	38645	12/4/2007	10.60	84.2	1.4	O	104.0	5.5	378.8	7.6	11.0	19.3	0.0106	0.16	0.01	0.12	0.185	0.294	199	177.6	0.031	0.051	7	8.33
Ranger Creek	OK121600-01-0060D	39138	1/15/2008	12.18	92.0	3.4	I	107.0	3.6	262.2	7.8	4.7	24.3	0.0106	0.62	0.01	0.08	0.645	0.712	199	176.2	0.019	0.027	7	23.99
Ranger Creek	OK121600-01-0060D	39507	2/20/2008	10.44	88.0	9.8	I	106.0	7.9	292.4	7.3	5.7	18.7	0.0106	0.94	0.01	0.13	0.965	1.084	160	133.4	0.040	0.060	7	43.76
Ranger Creek	OK121600-01-0060D	39770	3/25/2008	10.31	90.9	3.9	I	85.0	9.9	249.3	7.5	3.8	15.4	0.0106	0.79	0.01	0.08	0.815	0.882	141	117.2	0.021	0.032	7	116.39
Ranger Creek	OK121600-01-0060D	40106	4/29/2008	9.10	88.4	2.4	I	69.0	14.1	264.1	7.9	4.5	16.1	0.0106	0.09	0.01	0.08	0.115	0.182	144	121.1	0.008	0.031	7	
Saline Creek	OK121600-02-0030D	35239	6/20/2006	10.69	125.9	2.0	O	142.0	23.5	231.4	6.9	10.2	6.1	0.0106	0.41	0.01	0.08	0.435	0.502	128	114.1	0.014	0.021	7	12.20
Saline Creek	OK121600-02-0030D	35609	8/8/2006	9.39	115.6	1.5	O	101.0	26.2	253.5	7.5	9.2	3.5	0.0106	0.19	0.01	0.29	0.215	0.494	152	122.7	0.012	0.026	7	3.26
Saline Creek	OK121600-02-0030D	35853	9/12/2006	8.94	101.9	1.9	O	113.0	22.0	254.5	7.6	11.1	5.8	0.0106	0.22	0.01	0.08	0.245	0.312	145	124.9	0.011	0.014	7	4.77
Saline Creek	OK121600-02-0030D	35931	10/24/2006	10.35	113.1	0.4	O	89.0	19.6	243.1	7.2	11.2	5.9	0.0106	0.22	0.01	0.08	0.245	0.312	122	116.2	0.004	0.025	7	6.15
Saline Creek	OK121600-02-0030D	35959	11/14/2006	10.24	105.6	0.4	O	144.0	17.1	202.2	7.6	12.3	5.5	0.0106	0.21	0.01	0.08	0.235	0.302	128	116.5	0.006	0.012	7	8.21
Saline Creek	OK121600-02-0030D	36208	12/20/2006	8.10	79.1	3.0		74.0	10.4	169.3	7.3	7.0	4.9	0.0106	0.95	0.10	0.08	1.061	1.128	110	75.9	0.017	0.019	7	43.75
Saline Creek	OK121600-02-0030D	36540	1/23/2007	9.91	87.7	2.0	O	64.0	10.0	219.6	8.7	11.3	10.2	0.0106	1.15	0.01	0.08	1.175	1.242	104	99.8	0.012	0.017	7	168.67
Saline Creek	OK121600-02-0030D	36740	2/27/2007	11.84	107.0	0.3	O	84.0	10.9	221.4	8.2	12.5	7.4	0.0106	0.74	0.01	0.08	0.765	0.832	117	102.5	0.006	0.024	7	12.22
Saline Creek	OK121600-02-0030D	36953	4/3/2007	10.57	108.2	4.3	O	127.0	16.5	240.8	6.9	11.8	7.0	0.0106	0.48	0.01	0.08	0.505	0.572	137	109.4	0.010	0.022	7	8.01
Saline Creek	OK121600-02-0030D	37065	5/8/2007	9.40	93.9	7.6	I	70.0	15.5	177.2	7.7	5.6	6.7	0.0106	0.64	0.01	0.11	0.665	0.764	104	80.9	0.009			



SiteName	WBID	SAMPLEID	Date	DO (mg/L)	DOPerSat	Turb (NTU)	Turb Cause	Alkalinity (CaCO3)	Temp (°C)	Cond (uS/cm)	pH (SU)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	Available Nitrogen (mg/L)	Total Nitrogen (mg/L)	ToDisSolids (mg/L)	ToHardness (mg/L as Ca CO3)	ToOrthoPhos (mg/L)	ToTotPhosphorus (mg/L)	ToTotSusSolids (mg/L)	Flow (cfs)
Saline Creek	OK121600-02-0030D	38646	12/4/2007	9.41	90.3	0.2	O	94.0	12.9	261.8	7.8	13.2	12.1	0.0106	0.45	0.01	0.08	0.475	0.542	139	114.7	0.011	0.023	7	16.59
Saline Creek	OK121600-02-0030D	39140	1/15/2008	9.31	85.2	2.5	I	47.0	11.7	176.6	7.0	5.5	6.6	0.0106	1.47	0.01	0.08	1.495	1.562	96	78.2	0.010	0.014	7	162.71
Saline Creek	OK121600-02-0030D	39509	2/20/2008	10.09	89.9	4.1	I	49.0	10.2	147.1	7.2	6.6	6.4	0.0106	1.22	0.01	0.08	1.245	1.312	81	60.7	0.012	0.019	7	282.75
Saline Creek	OK121600-02-0030D	39772	3/25/2008	10.37	96.1	4.9	I	47.0	11.9	139.9	7.2	3.5	6.0	0.0106	1.00	0.01	0.08	1.025	1.092	87	60.5	0.016	0.024	7	358.45
Saline Creek	OK121600-02-0030D	40108	4/29/2008	10.48	102.1	1.9	I	63.0	14.1	143.0	7.5	3.9	5.9	0.0106	0.57	0.01	0.08	0.595	0.662	83	62.3	0.010	0.023	7	
Sand Creek	OK121400-04-0010F	35049	6/12/2006	4.24	52.6	21.0	I	94.0	27.2	422.3	7.4	43.6	18.7	0.0106	0.01	0.01	0.39	0.039	0.418	239	142.9	0.017	0.019	7	2.26
Sand Creek	OK121400-04-0010F	35585	8/7/2006	4.04	52.7	21.4	O	28.0	29.2	635.0	7.3	130.2	15.5	0.0990	0.13	0.01	0.74	0.243	0.884	362	210.1	0.024	0.072	11	0.04
Sand Creek	OK121400-04-0010F	35839	9/11/2006	6.47	77.5	12.2	O	168.0	24.3	822.0	7.3	158.2	23.6	0.0250	0.06	0.01	0.40	0.099	0.474	550	237.5	0.024	0.044	25	
Sand Creek	OK121400-04-0010F	35909	10/16/2006	7.08	69.5	9.9	O	131.0	14.5	800.0	7.6	146.9	22.2	0.0190	0.07	0.01	0.44	0.103	0.524	499	245.2	0.023	0.034	7	
Sand Creek	OK121400-04-0010F	35945	11/13/2006	7.95	71.5	5.6	O	116.0	10.6	852.0	7.5	170.7	27.4	0.0440	0.01	0.01	0.39	0.072	0.418	502	265.5	0.011	0.020	7	0.06
Sand Creek	OK121400-04-0010F	36212	12/19/2006	9.56	79.8	15.6	O	117.0	7.5	930.0	7.5	188.7	50.5	0.0320	0.01	0.01	0.59	0.060	0.618	542	272.0	0.014	0.026	7	0.14
Sand Creek	OK121400-04-0010F	36526	1/22/2007	11.81	88.2	12.2	O	70.0	3.2	731.0	7.3	101.1	82.2	0.0106	0.07	0.01	0.32	0.095	0.404	422	242.5	0.017	0.042	7	2.31
Sand Creek	OK121400-04-0010F	36744	2/26/2007	10.13	89.9	27.0	O	80.0	10.0	618.0	7.4	148.8	54.7	0.0106	0.01	0.01	0.45	0.039	0.478	342	177.4	0.012	0.064	28	3.61
Sand Creek	OK121400-04-0010F	36938	4/2/2007	8.42	89.7	89.5	I	63.0	18.3	190.5	7.5	12.0	15.4	0.0106	0.21	0.01	0.62	0.235	0.844	170	82.4	0.028	0.106	35	268.00
Sand Creek	OK121400-04-0010F	37068	5/7/2007	6.50	71.2	1000.0	I	37.0	19.9	96.3	7.0	5.0	5.3	0.0580	0.14	0.01	2.01	0.212	2.164	173	39.8	0.118	0.534	997	
Sand Creek	OK121400-04-0010F	37234	6/11/2007	6.12	73.7	210.0	I	134.0	24.5	240.8		14.3	15.2	0.0106	0.10	0.01	0.82	0.125	0.934	220	99.1	0.056	0.197	102	
Sand Creek	OK121400-04-0010F	37853	7/16/2007	6.11	77.4	54.1	I	65.0	27.5	208.0	7.2	11.9	10.9	0.0106	0.12	0.01	0.34	0.145	0.474	148	81.6	0.020	0.083	23	89.22
Sand Creek	OK121400-04-0010F	38046	8/20/2007	5.54	71.2	26.4	O	143.0	28.3		7.5	50.1	21.7	0.0106	0.07	0.01	0.08	0.095	0.162	311	190.2	0.015	0.046	22	3.80
Sand Creek	OK121400-04-0010F	38347	9/24/2007	6.34	78.1	16.5	O	145.0	25.9		7.5	40.7	20.1	0.0106	0.01	0.01	0.08	0.039	0.106	267	175.2	0.012	0.050	20	9.12
Sand Creek	OK121400-04-0010F	38486	10/30/2007	9.14	86.2	39.3	I	95.0	13.0		7.3	17.7	11.7	0.0106	0.19	0.07	0.25	0.271	0.510	157	105.6	0.024	0.068	29	20.73
Sand Creek	OK121400-04-0010F	38691	12/12/2007	13.35	101.5	22.7	I	78.0	3.8	490.4	7.3	55.2	73.8	0.0106	0.18	0.01	0.25	0.205	0.444	280	165.1	0.016	0.035	20	78.04
Sand Creek	OK121400-04-0010F	39150	1/15/2008	13.85	105.6	7.3	O	138.0	4.0	463.7	7.9	38.3	29.3	0.0106	0.01	0.01	0.08	0.039	0.106	245	188.6	0.009	0.028	7	21.27
Sand Creek	OK121400-04-0010F	39513	2/19/2008	13.04	102.4	105.0	I	97.0	5.1	273.7	7.5	16.3	20.0	0.0106	0.38	0.01	0.45	0.405	0.844	218	107.9	0.041	0.097	26	230.86
Sand Creek	OK121400-04-0010F	39776	3/24/2008	10.63	96.0	84.5	I	78.0	10.8	233.5	7.6	16.0	19.2	0.0106	0.20	0.08	0.08	0.291	0.358	230	90.7	0.029	0.060	18	125.74
Sand Creek	OK121400-04-0010F	40093	4/28/2008	9.58	100.2	20.0	O	99.0	17.5	298.5	7.7	19.7	20.7	0.0106	0.09	0.01	0.08	0.115	0.182	191	118.7	0.012	0.056	10	
Sycamore Creek	OK121600-03-0510D	35234	6/19/2006	3.60	72.4	11.4	O	228.0	22.3	177.6	6.4	10.5	5.8	0.0106	1.09	0.01	0.08	1.115	1.182	177	135.7	0.020	0.031	14	6.33
Sycamore Creek	OK121600-03-0510D	35604	8/7/2006	5.37	67.8	1.6	O	143.0	27.1	227.6	7.7	11.9	4.2	0.0106	0.28	0.01	0.08	0.305	0.372	171	127.0	0.022	0.026	7	3.77
Sycamore Creek	OK121600-03-0510D	35848	9/11/2006	6.56	76.9	2.3	O	125.0	23.2	272.9	7.1	10.7	4.5	0.0106	0.29	0.01	0.08	0.315	0.382	162	128.4	0.016	0.033	7	2.82
Sycamore Creek	OK121600-03-0510D	35926	10/23/2006	8.28	76.6	1.7	O	105.0	11.9	288.5	7.4	11.3	6.5	0.0106	0.67	0.01	0.08	0.695	0.762	146	137.2	0.020	0.037	7	5.09
Sycamore Creek	OK121600-03-0510D	35954	11/13/2006	9.92	90.6	0.9	O	102.0	11.5	219.0	7.5	12.4	5.2	0.0106	0.76	0.01	0.08	0.785	0.852	165	140.8	0.016	0.016	7	4.50
Sycamore Creek	OK121600-03-0510D	36203	12/19/2006	11.73	103.3	1.2	O	113.0	9.6	303.0	7.9	13.8	6.8	0.0106	1.44	0.01	0.08	1.465	1.532	145	142.6	0.010	0.038	7	8.34
Sycamore Creek	OK121600-03-0510D	36535	1/22/2007	12.17	103.7	6.6	I	74.0	8.3	188.7	9.7	13.6	8.3	0.0106	3.13	0.01	0.15	3.155	3.294	145	123.4	0.029	0.036	7	37.26
Sycamore Creek	OK121600-03-0510D	36735	2/26/2007	12.41	110.3	1.6	O	89.0	10.1	269.6	8.2	12.9	7.6	0.0106	2.59	0.01	0.08	2.615	2.682	154	126.8	0.006	0.017	7	42.38
Sycamore Creek	OK121600-03-0510D	36948	4/2/2007	10.63	107.8	4.0	O	110.0	16.0	231.8	5.5	10.9	6.8	0.0106	1.91	0.01	0.08	1.935	2.002	160	130.8	0.017	0.032	7	6.24
Sycamore Creek	OK121600-03-0510D	37060	5/7/2007	8.64	89.2	35.4	I	77.0	16.9	250.3	7.3	7.8	5.9	0.0106	2.09	0.01	0.20	2.115	2.304	140	108.6	0.029	0.048	7	
Sycamore Creek	OK121600-03-0510D	37226	6/11/2007	6.14	66.2	112.0	I	68.0	18.8	189.4	7.2	5.2	4.0	0.0106	1.63	0.01	0.87	1.655	2.514	106	78.9	0.154	0.259	81	
Sycamore Creek	OK121600-03-0510D	37863	7/16/2007	8.83	104.4	2.3	O	99.0	23.9	303.9	7.7	10.3	5.5	0.0106	1.99	0.01	0.08	2.015	2.082	185	132.6	0.015	0.035	7	5.73
Sycamore Creek	OK121600-03-0510D	38038	8/20/2007	7.61	92.1	2.8	O	111.0	25.0	292.2	7.6	10.7	5.5	0.1480	1.34	0.01	0.08	1.502	1.432	143	126.4	0.024	0.036	7	6.38
Sycamore Creek	OK121600-03-0510D	38974	9/24/2007	8.15	94.1	2.5	O	121.0	22.6	312.7	8.9	0.4	0.1	0.0106	0.01	0.01	0.08	0.039	0.106	10	3.5	0.004	0.004	7	9.13
Sycamore Creek	OK121600-03-0510D	38494	10/29/2007	10.33	100.3	1.5	O	121.0	14.0	314.5	7.6	8.7	7.3	0.0106	2.24	0.05	0.14	2.301	2.430	167	138.6	0.018	0.025	7	14.23
Sycamore Creek	OK121600-03-0510D	38642	12/3/2007	10.76	89.1	0.9	O	123.0	8.1	326.6	7.8	14.0	11.9	0.0106	2.00	0.01	0.13	2.025	2.144	185	144.0	0.032	0.052	7	6.64
Sycamore Creek	OK121600-03-0510D	39144	1/16/2008	10.67	92.8	2.6	I		9.2	291.5	7.5	10.5	6.3	0.0106	2.59	0.01	0.08	2.615	2.682	162	132.3	0.018	0.026	7	43.25
Sycamore Creek	OK121600-03-0510D	39504	2/19/2008	11.20	101.4	11.2	I	57.0	10.9	216.3	7.3	7.3	7.2	0.0106	2.63	0.01	0.11	2.655	2.754	125	87.0	0.030	0.066	7	113.35
Sycamore Creek	OK121600-03-0510D	39767	3/24/2008	9.76	88.3	4.0	I	81.0	10.9	219.4	7.3	7.1	8.1	0.0106	2.61	0.01	0.08	2.635	2.702	134	96.1	0.024	0.034	7	194.45
Sycamore Creek	OK121600-03-0510D	40103	4/28/2008	11.06	105.3	1.2	O	93.0	13.1	245.8	7.9	7.8	6.5	0.0106	2.25	0.01	0.08	2.275	2.342	135	107.1	0.016	0.040	14	
Tar Creek	OK121600-04-0060D	35235	6/19/2006	6.83	80.6	30.0		85.0	23.8	589.0	6.8	10.5	195.6	0.0830	0.27	0.01	0.21	0.367	0.494	428	285.8	0.070	0.115	20	
Tar Creek	OK121600-04-0060D	35605	8/7/2006	8.43	10.7	1.4		97.0	28.0	1912.0	7.6	35.2	1055.9	0.0610	0.25	0.06	0.66	0.371	0.970	1980	1352.1	0.025	0.054	7	0.55
Tar Creek	OK121600-04-0060D	35849	9/11/2006																						

SiteName	WBID	SAMPLEID	Date	DO (mg/L)	DOPerSat	Turb (NTU)	Turb Cause	Alkalinity (CaCO3)	Temp (°C)	Cond (uS/cm)	pH (SU)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	Available Nitrogen (mg/L)	Total Nitrogen (mg/L)	ToDisSolids (mg/L)	ToHardness (mg/L as Ca CO3)	ToOrthoPhos (mg/L)	ToTotPhosphorus (mg/L)	ToTotSolids (mg/L)	Flow (cfs)
Tar Creek	OK121600-04-0060D	37061	5/7/2007	6.26	67.8	295.0	1	51.0	18.8	371.1	8.9	6.0	96.3	0.1540	0.58	0.07	1.49	0.804	2.140	275	152.9	0.330	0.534	230	
Tar Creek	OK121600-04-0060D	37864	7/16/2007	3.62	46.1	11.9	1	113.0	27.6	489.0	8.9	6.9	70.1	0.2410	0.17	0.01	0.83	0.425	1.014	247	163.5	0.081	0.158	7	
Tar Creek	OK121600-04-0060D	38039	8/20/2007	7.40	93.4	5.1	O	74.0	26.8	2030.0	8.7	19.8	1014.8	0.0106	0.43	0.01	0.08	0.455	0.522	1780	1269.0	0.025	0.049	7	3.48
Tar Creek	OK121600-04-0060D	38975	9/24/2007	8.74	105.0	3.0	O	107.0	24.6	202.9	7.0	22.1	963.9	0.0106	0.36	0.01	0.08	0.385	0.452	1757	1203.2	0.026	0.048	7	4.99
Tar Creek	OK121600-04-0060D	38495	10/29/2007	10.43	99.4	4.7	O	104.0	13.2	1543.0	7.7	21.7	587.6	0.0106	0.43	0.04	0.38	0.481	0.850	1209	824.1	0.024	0.043	7	7.94
Tar Creek	OK121600-04-0060D	38643	12/3/2007	11.23	94.2	3.6	O	104.0	7.7	1937.0	7.3	27.6	822.0	0.0106	0.49	0.01	0.28	0.515	0.784	1559	1086.2	0.018	0.026	7	6.37
Tar Creek	OK121600-04-0060D	39145	1/16/2008	12.76	100.7	9.6	1	111.0	5.4	1542.0	7.3	40.2	805.5	0.1610	0.19	0.01	0.08	0.365	0.282	1190	936.6	0.026	0.037	7	9.74
Tar Creek	OK121600-04-0060D	39505	2/19/2008	10.67	87.6	62.0	1	84.0	6.9	849.0	7.1	19.9	279.1	0.1170	0.67	0.01	0.61	0.801	1.294	585	371.3	0.072	0.133	23	
Tar Creek	OK121600-04-0060D	39768	3/24/2008	8.96	80.9	15.5	1	89.0	10.9	1250.0	7.0	19.3	438.1	0.1650	0.48	0.01	0.46	0.659	0.954	939	657.2	0.035	0.049	7	
Tar Creek	OK121600-04-0060D	40104	4/28/2008	7.83	78.6	13.4	1	73.0	15.5	1160.0	7.0	17.1	474.9	0.0640	0.26	0.01	0.08	0.338	0.352	858	562.4	0.042	0.053	7	
Trail Creek	OK520620-02-0090G	35220	6/20/2006	7.45	102.0	8.7	1	147.0	28.1	2118.0	7.3	17.9	1298.4	0.0490	0.08	0.01	0.53	0.143	0.624	2105	1764.4	0.022	0.089	7	0.01
Trail Creek	OK520620-02-0090G	35699	8/15/2006	5.74	69.4	48.2	1	232.0	24.9	1852.0	7.7	16.4	817.7	0.0680	0.11	0.01	0.58	0.192	0.704	1680	1248.9	0.068	0.105	44	0.01
Trail Creek	OK520620-02-0090G	36023	9/18/2006	6.70	69.0	9.4	1	278.0	16.8	1947.0	7.5	7.7	1159.7	0.5040	0.07	0.01	2.60	0.588	2.684	2253	1868.2	0.097	0.155	7	0.00
Trail Creek	OK520620-02-0090G	36044	10/23/2006	11.30	107.5	1.1	1	176.0	13.1	2500.0	8.1	23.0	1419.5	0.0106	0.01	0.01	0.32	0.039	0.348	2432	2009.5	0.020	0.032	7	0.18
Trail Creek	OK520620-02-0090G	36129	11/27/2006		92.2	1.1	O	168.0	11.3	2589.0	8.1	24.3	1467.2	0.0106	0.01	0.01	0.08	0.039	0.106	2496	2071.3	0.010	0.017	7	1.42
Trail Creek	OK520620-02-0090G	36477	1/3/2007	12.20	96.6	3.4	1	180.0	5.4	2574.0	7.9	25.9	1446.8	0.0770	0.24	0.01	0.39	0.331	0.644	2412	1991.9	0.021	0.043	7	2.54
Trail Creek	OK520620-02-0090G	36574	1/29/2007	12.43	95.4	166.0	1	3.6	4.2	2507.0	8.0	23.7	1435.9	0.0820	0.27	0.01	0.26	0.366	0.544	2379	1901.7	0.019	0.051	21	2.77
Trail Creek	OK520620-02-0090G	36815	3/6/2007	11.38	110.3	2.3	1	156.0	13.9	2588.0	8.0	25.2	1528.0	0.0230	0.15	0.01	0.08	0.187	0.242	2449	2170.2	0.022	0.043	7	2.41
Trail Creek	OK520620-02-0090G	36968	4/10/2007	10.15	93.2	14.2	1	208.0	11.6	2658.0	7.9	33.0	1629.7	0.0290	0.17	0.01	0.26	0.213	0.444	2517	2130.6	0.059	0.098	92	
Trail Creek	OK520620-02-0090G	37096	5/15/2007	7.72	86.4	42.5	1	214.0	20.9	2734.0	7.8	37.2	1434.8	0.0770	0.22	0.01	0.15	0.311	0.384	2461	2005.7	0.114	0.180	289	11.89
Trail Creek	OK520620-02-0090G	37266	6/19/2007	7.18	89.8	34.5	1	222.0	26.8	2567.0	7.1	32.7	1315.7	0.0106	0.18	0.01	0.55	0.205	0.744	2396	1747.8	0.106	0.151	256	5.09
Trail Creek	OK520620-02-0090G	37752	7/24/2007	7.78	104.9	8.2	1	195.0	30.8	2637.0	7.9	33.6	1423.3	0.0106	0.10	0.01	0.40	0.125	0.514	2578	1986.3	0.039	0.065	63	4.85
Trail Creek	OK520620-02-0090G	38068	8/28/2007	7.32	99.4	9.7	1	171.0	31.5	2555.0	7.9	31.7	1558.7	0.0106	0.13	0.01	0.22	0.155	0.364	2486	2052.2	0.030	0.046	36	2.85
Trail Creek	OK520620-02-0090G	38362	10/2/2007	8.20	101.5	5.4	1	165.0	26.3	2593.0	8.1	25.6	1357.9	0.0106	0.09	0.01	0.08	0.115	0.182	2563	1736.0	0.019	0.039	21	2.61
Trail Creek	OK520620-02-0090G	38523	11/7/2007	11.00	98.7	7.0	1	199.0	10.4	2759.0	8.0	26.7	1689.1	0.0480	0.09	0.09	0.30	0.228	0.480	2535	1853.5	0.023	0.048	17	3.26
Trail Creek	OK520620-02-0090G	38680	12/11/2007	11.18	82.8	336.0	1		2.9	1954.0	8.0	27.9	1115.1	0.1100	0.49	0.01	1.15	0.614	1.654	1753	1285.8	0.557	0.647	1511	29.58
Trail Creek	OK520620-02-0090G	39549	2/26/2008	10.41	91.6	6.3	1	205.0	9.6	1836.0	8.1	39.2	1648.3	0.0740	0.37	0.01	0.08	0.458	0.462	2597	1887.2	0.028	0.057	46	5.04
Trail Creek	OK520620-02-0090G	39839	4/1/2008	8.93	95.9	7.7	1	175.0	18.6	1851.0	8.2	32.2	1562.6	0.0106	0.08	0.01	0.08	0.105	0.172	2661	2302.5	0.020	0.031	38	5.47
Trail Creek	OK520620-02-0090G	40140	5/6/2008	9.07	110.7	25.2	1	175.0	25.6	2438.0	7.9	33.0	1508.1	0.0106	0.18	0.01	0.44	0.205	0.634	2481	2424.1	0.022	0.094	90	
Walnut Creek	OK520610-03-0010F	35214	6/19/2006	7.06	92.8	12.5	1	206.0	29.6	526.0	7.7	20.2	25.8	0.4470	0.11	0.07	0.77	0.627	0.950	292	220.2	0.229	0.294	7	4.31
Walnut Creek	OK520610-03-0010F	35693	8/14/2006			3.8	O	360.0	31.1	665.0	8.5	100.2	32.0	0.8720	0.06	0.08	0.97	1.012	1.110	554	330.4	1.468	1.614	7	0.26
Walnut Creek	OK520610-03-0010F	36025	9/19/2006	6.14	68.5	8.5	1	340.0	20.7	863.0	7.7	72.6	27.3	7.9150	5.62	0.52	7.87	14.055	14.010	602	397.3	1.268	1.508	59	0.74
Walnut Creek	OK520610-03-0010F	36045	10/24/2006	7.00	63.2	9.6	1	351.0	10.7	861.0	7.7	42.3	111.5	0.3790	0.25	0.05	0.90	0.679	1.200	505	400.0	0.149	0.249	7	0.63
Walnut Creek	OK520610-03-0010F	36130	11/28/2006	6.77	68.9	22.9	1	224.0	16.2	510.0	7.9	22.1	48.9	0.0106	0.35	0.01	0.08	0.375	0.442	286	253.5	0.119	0.146	15	6.03
Walnut Creek	OK520610-03-0010F	36471	1/2/2007	12.21	94.3	27.4	1	331.0	4.5	661.0	8.2	38.1	44.0	0.0106	0.09	0.01	0.51	0.115	0.614	445	379.8	0.091	0.141	16	7.92
Walnut Creek	OK520610-03-0010F	36577	1/30/2007	12.14	96.5	9.6	1	333.0	5.5	904.0	8.2	61.9	46.6	0.0106	0.15	0.01	0.35	0.175	0.514	528	388.3	0.064	0.086	7	10.12
Walnut Creek	OK520610-03-0010F	36809	3/5/2007	11.67	100.6	5.2	1	379.0	8.9	932.0	8.2	98.7	51.2	0.0106	0.09	0.01	0.08	0.115	0.182	510	442.0	0.035	0.046	7	5.79
Walnut Creek	OK520610-03-0010F	36963	4/9/2007	10.01	89.0	9.4	1	387.0	10.2	965.0	8.2	32.6	95.6	0.0210	0.29	0.01	0.29	0.325	0.594	547	470.1	0.038	0.070	7	
Walnut Creek	OK520610-03-0010F	37091	5/14/2007	7.49	89.7	59.9	1	317.0	24.5	766.0	7.8	23.2	72.4	0.0210	0.29	0.01	0.08	0.325	0.382	437	363.8	0.094	0.169	58	103.26
Walnut Creek	OK520610-03-0010F	37260	6/18/2007	7.33	85.2	119.0	1	293.0	22.8	671.0	7.4	20.2	30.2	0.0540	0.23	0.09	0.74	0.374	1.060	416	322.9	0.129	0.200	106	88.44
Walnut Creek	OK520610-03-0010F	37747	7/23/2007	7.00	87.2	58.9	1	497.0	26.6	883.0	8.1	27.7	99.4	0.0106	0.56	0.01	0.40	0.585	0.974	527	447.2	0.041	0.088	80	111.04
Walnut Creek	OK520610-03-0010F	38062	8/27/2007	7.50	94.7	59.2	1	379.0	27.3	877.0	8.0	25.7	43.7	0.0106	0.60	0.01	0.17	0.625	0.784	501	423.5	0.039	0.119	51	90.58
Walnut Creek	OK520610-03-0010F	38357	10/1/2007	7.84	87.7	19.1	1	361.0	20.9	853.0	7.9	36.4	51.9	0.0106	0.22	0.12	0.08	0.351	0.418	484	416.3	0.015	0.040	29	30.79
Walnut Creek	OK520610-03-0010F	38518	11/6/2007	11.16	102.9	10.9	1	395.0	11.7	776.0	8.2	29.6	46.4	0.0106	0.09	0.10	0.08	0.201	0.268	486	430.1	0.011	0.029	22	16.81
Walnut Creek	OK520610-03-0010F	38683	12/12/2007	11.43	86.4	788.0	1		3.6	412.6	8.1	25.6	19.8	0.1060	0.46	0.01	1.27	0.580	1.744	215	168.1	0.234	0.486	755	
Walnut Creek	OK520610-03-0010F	39552	2/27/2008			18.2	1		11.5	1003.0	8.1	35.7	59.1	0.0106	0.40	0.01	0.08	0.425	0.492	479	346.4	0.016	0.042	34	68.23
Walnut Creek	OK520610-03-0010F	39835	3/31/2008	8.84	99.5	26.8	1	368.0	21.2																

**Appendix A.2. Raw bacteria data. Greater than or less than the detection limit is noted if applicable.**

SiteName	WBID	SAMPLEID	Date	<i>E. Coli</i>		<i>Enterococcus</i>	
Big Cabin Creek	OK121600-06-0220I	35231	6/19/2006		250		530
Big Cabin Creek	OK121600-06-0220I	35601	8/7/2006		275		80
Big Cabin Creek	OK121600-06-0220I	35845	9/11/2006		430		40
Big Cabin Creek	OK121600-06-0220I	36945	4/2/2007		330		40
Big Cabin Creek	OK121600-06-0220I	37057	5/7/2007		1940	>	2000
Big Cabin Creek	OK121600-06-0220I	37223	6/11/2007		1900		1060
Big Cabin Creek	OK121600-06-0220I	37833	7/9/2007		140		130
Big Cabin Creek	OK121600-06-0220I	37860	7/16/2007	>	1000	>	1000
Big Cabin Creek	OK121600-06-0220I	38035	8/20/2007		40		50
Big Cabin Creek	OK121600-06-0220I	40100	4/28/2008		280		40
Big Creek	OK121510-03-0010D	35596	6/19/2006		410		510
Big Creek	OK121510-03-0010D	35619	8/14/2006		50		40
Big Creek	OK121510-03-0010D	35856	9/18/2006		290		310
Big Creek	OK121510-03-0010D	36956	4/9/2007		40		20
Big Creek	OK121510-03-0010D	37103	5/14/2007		120		150
Big Creek	OK121510-03-0010D	37284	6/19/2007		140		240
Big Creek	OK121510-03-0010D	37722	7/10/2007		10		10
Big Creek	OK121510-03-0010D	37776	7/23/2007		30		10
Big Creek	OK121510-03-0010D	38071	8/27/2007		540		400
Big Creek	OK121510-03-0010D	40135	5/6/2008		240		40
Bird Creek	OK121300-02-0010C	35048	6/23/2006		20		50
Bird Creek	OK121300-02-0010C	35584	8/7/2006		15		10
Bird Creek	OK121300-02-0010C	35840	9/11/2006		10		10
Bird Creek	OK121300-02-0010C	36939	4/2/2007		170		120
Bird Creek	OK121300-02-0010C	37069	5/7/2007		8600	>	10000
Bird Creek	OK121300-02-0010C	37235	6/11/2007		40		40
Bird Creek	OK121300-02-0010C	37714	7/9/2007		20		20
Bird Creek	OK121300-02-0010C	37854	7/16/2007		150		100
Bird Creek	OK121300-02-0010C	38047	8/20/2007		10		50
Bird Creek	OK121300-02-0010C	40094	4/28/2008		50		60
Buck Creek	OK121400-03-0170C	35051	6/12/2006		310		340
Buck Creek	OK121400-03-0170C	35587	8/7/2006		15		5
Buck Creek	OK121400-03-0170C	35837	9/11/2006		10		25
Buck Creek	OK121400-03-0170C	36937	4/2/2007		380		350
Buck Creek	OK121400-03-0170C	37067	5/7/2007		8900	>	10000
Buck Creek	OK121400-03-0170C	37233	6/11/2007	>	10000		9200
Buck Creek	OK121400-03-0170C	37712	7/9/2007		50		30
Buck Creek	OK121400-03-0170C	37852	7/16/2007		230		120
Buck Creek	OK121400-03-0170C	38045	8/20/2007		160		50
Buck Creek	OK121400-03-0170C	40092	4/28/2008		160		80
Buggy Creek	OK520610-02-0120C	35215	6/19/2006		450		190
Buggy Creek	OK520610-02-0120C	35694	8/14/2006		140		130
Buggy Creek	OK520610-02-0120C	36024	9/19/2006		320		390
Buggy Creek	OK520610-02-0120C	36962	4/9/2007		425		220
Buggy Creek	OK520610-02-0120C	37090	5/14/2007		800		1080
Buggy Creek	OK520610-02-0120C	37261	6/18/2007		800		3400
Buggy Creek	OK520610-02-0120C	37746	7/23/2007		40		180
Buggy Creek	OK520610-02-0120C	37883	7/30/2007		120		480
Buggy Creek	OK520610-02-0120C	38063	8/27/2007		130		570
Buggy Creek	OK520610-02-0120C	40142	5/7/2008	>	10000	>	10000

**Appendix A.2. Raw bacteria data. Greater than or less than the detection limit is noted if applicable.**

SiteName	WBID	SAMPLEID	Date	E. Coli	Enterococcus
Bull Creek	OK121500-02-0090D	35597	6/20/2006	450	480
Bull Creek	OK121500-02-0090D	35621	8/15/2006	10	170
Bull Creek	OK121500-02-0090D	35858	9/19/2006	670	280
Bull Creek	OK121500-02-0090D	36958	4/10/2007	60	20
Bull Creek	OK121500-02-0090D	37097	5/14/2007	240	800
Bull Creek	OK121500-02-0090D	37278	6/18/2007	160	380
Bull Creek	OK121500-02-0090D	37838	7/10/2007	260	420
Bull Creek	OK121500-02-0090D	37778	7/23/2007	< 10	30
Bull Creek	OK121500-02-0090D	38073	8/28/2007	230	390
Bull Creek	OK121500-02-0090D	40129	5/6/2008	80	80
California Creek	OK121510-02-0050C	35595	6/19/2006	80	40
California Creek	OK121510-02-0050C	35618	8/14/2006	50	260
California Creek	OK121510-02-0050C	35855	9/18/2006	710	610
California Creek	OK121510-02-0050C	36955	4/9/2007	85	35
California Creek	OK121510-02-0050C	37102	5/14/2007	390	300
California Creek	OK121510-02-0050C	37283	6/19/2007	1960	1900
California Creek	OK121510-02-0050C	37721	7/10/2007	160	320
California Creek	OK121510-02-0050C	37775	7/23/2007	120	50
California Creek	OK121510-02-0050C	38070	8/27/2007	60	170
California Creek	OK121510-02-0050C	40134	5/6/2008	80	20
Chouteau Creek	OK121600-01-0430M	35598	6/20/2006	10	40
Chouteau Creek	OK121600-01-0430M	35622	8/15/2006	> 1000	760
Chouteau Creek	OK121600-01-0430M	35859	9/19/2006	400	400
Chouteau Creek	OK121600-01-0430M	36959	4/10/2007	370	140
Chouteau Creek	OK121600-01-0430M	37100	5/14/2007	160	420
Chouteau Creek	OK121600-01-0430M	37281	6/18/2007	420	640
Chouteau Creek	OK121600-01-0430M	37839	7/10/2007	810	920
Chouteau Creek	OK121600-01-0430M	37779	7/23/2007	50	410
Chouteau Creek	OK121600-01-0430M	38074	8/28/2007	130	480
Chouteau Creek	OK121600-01-0430M	40132	5/6/2008	80	120
Commission Creek	OK520620-05-0160C	37094	5/15/2000	60	110
Commission Creek	OK520620-05-0160C	35218	6/20/2006	120	200
Commission Creek	OK520620-05-0160C	35697	8/15/2006	> 1000	> 1000
Commission Creek	OK520620-05-0160C	36021	9/18/2006	25	60
Commission Creek	OK520620-05-0160C	36966	4/10/2007	30	25
Commission Creek	OK520620-05-0160C	37264	6/19/2007	150	130
Commission Creek	OK520620-05-0160C	37750	7/24/2007	10	20
Commission Creek	OK520620-05-0160C	37879	7/30/2007	130	210
Commission Creek	OK520620-05-0160C	38066	8/28/2007	120	480
Commission Creek	OK520620-05-0160C	40138	5/6/2008	40	50
Curl Creek	OK121400-01-0270C	35054	6/13/2006	290	230
Curl Creek	OK121400-01-0270C	35591	8/8/2006	< 5	185
Curl Creek	OK121400-01-0270C	35842	9/12/2006	100	85
Curl Creek	OK121400-01-0270C	36941	4/3/2007	550	340
Curl Creek	OK121400-01-0270C	37071	5/8/2007	2900	7600
Curl Creek	OK121400-01-0270C	37237	6/12/2007	> 2000	> 2000
Curl Creek	OK121400-01-0270C	37717	7/10/2007	280	410
Curl Creek	OK121400-01-0270C	37856	7/17/2007	10	110
Curl Creek	OK121400-01-0270C	38049	8/21/2007	20	30
Curl Creek	OK121400-01-0270C	40096	4/29/2008	140	130

**Appendix A.2. Raw bacteria data. Greater than or less than the detection limit is noted if applicable.**

SiteName	WBID	SAMPLEID	Date	<i>E. Coli</i>		<i>Enterococcus</i>
Deer Creek	OK520620-06-0010F	35216	6/19/2006		40	280
Deer Creek	OK520620-06-0010F	35695	8/14/2006	<	10	30
Deer Creek	OK520620-06-0010F	36026	9/19/2006		40	30
Deer Creek	OK520620-06-0010F	36964	4/9/2007		195	85
Deer Creek	OK520620-06-0010F	37092	5/14/2007		400	440
Deer Creek	OK520620-06-0010F	37262	6/18/2007		1300	2600
Deer Creek	OK520620-06-0010F	37748	7/23/2007		40	50
Deer Creek	OK520620-06-0010F	37882	7/30/2007		130	40
Deer Creek	OK520620-06-0010F	38064	8/27/2007		450	220
Deer Creek	OK520620-06-0010F	40141	5/7/2008		450	500
Delaware Creek	OK121300-01-0150H	35593	6/19/2006		60	> 1000
Delaware Creek	OK121300-01-0150H	35617	8/14/2006		20	180
Delaware Creek	OK121300-01-0150H	35854	9/18/2006		640	370
Delaware Creek	OK121300-01-0150H	36954	4/9/2007		160	205
Delaware Creek	OK121300-01-0150H	37101	5/14/2007		170	510
Delaware Creek	OK121300-01-0150H	37282	6/19/2007		160	440
Delaware Creek	OK121300-01-0150H	37716	7/9/2007		110	90
Delaware Creek	OK121300-01-0150H	37774	7/23/2007	>	1000	> 1000
Delaware Creek	OK121300-01-0150H	38069	8/27/2007		70	80
Delaware Creek	OK121300-01-0150H	40133	5/6/2008		120	420
Dog Creek	OK121500-02-0360D	35594	6/19/2006		140	190
Dog Creek	OK121500-02-0360D	35620	8/14/2006		60	30
Dog Creek	OK121500-02-0360D	35857	9/18/2006	>	1000	> 1000
Dog Creek	OK121500-02-0360D	36957	4/9/2007		45	20
Dog Creek	OK121500-02-0360D	37104	5/14/2007		480	260
Dog Creek	OK121500-02-0360D	37285	6/19/2007		280	180
Dog Creek	OK121500-02-0360D	37723	7/10/2007		260	630
Dog Creek	OK121500-02-0360D	37777	7/23/2007		30	20
Dog Creek	OK121500-02-0360D	38072	8/27/2007		100	170
Dog Creek	OK121500-02-0360D	40136	5/6/2008		120	120
Fivemile Creek	OK121600-05-0110G	35236	6/19/2006		50	70
Fivemile Creek	OK121600-05-0110G	35606	8/7/2006		20	20
Fivemile Creek	OK121600-05-0110G	35850	9/11/2006		970	20
Fivemile Creek	OK121600-05-0110G	36950	4/2/2007		5	10
Fivemile Creek	OK121600-05-0110G	37062	5/7/2007		240	760
Fivemile Creek	OK121600-05-0110G	37227	6/11/2007		5300	9500
Fivemile Creek	OK121600-05-0110G	37837	7/9/2007		60	20
Fivemile Creek	OK121600-05-0110G	37865	7/16/2007		20	20
Fivemile Creek	OK121600-05-0110G	38040	8/20/2007		30	60
Fivemile Creek	OK121600-05-0110G	40105	4/28/2008	<	5	5
Fourteenmile Creek	OK121600-01-0100G	35238	6/20/2006		25	45
Fourteenmile Creek	OK121600-01-0100G	35608	8/8/2006		75	45
Fourteenmile Creek	OK121600-01-0100G	35852	9/12/2006		95	65
Fourteenmile Creek	OK121600-01-0100G	36952	4/3/2007		100	10
Fourteenmile Creek	OK121600-01-0100G	37064	5/8/2007		1360	> 2000
Fourteenmile Creek	OK121600-01-0100G	37230	6/12/2007	>	1000	> 1000
Fourteenmile Creek	OK121600-01-0100G	37843	7/10/2007		20	100
Fourteenmile Creek	OK121600-01-0100G	37867	7/17/2007		110	50
Fourteenmile Creek	OK121600-01-0100G	38042	8/21/2007		140	80
Fourteenmile Creek	OK121600-01-0100G	40107	4/29/2008		20	5

**Appendix A.2. Raw bacteria data. Greater than or less than the detection limit is noted if applicable.**

Site Name	WBID	SAMPLEID	Date	<i>E. Coli</i>		<i>Enterococcus</i>
Hackberry Creek	OK520620-04-0050D	36965	4/10/2007		295	95
Hackberry Creek	OK520620-04-0050D	37093	5/15/2007		350	450
Hackberry Creek	OK520620-04-0050D	37263	6/19/2007		180	270
Hackberry Creek	OK520620-04-0050D	37749	7/24/2007		190	330
Hackberry Creek	OK520620-04-0050D	37878	7/30/2007		940	870
Hackberry Creek	OK520620-04-0050D	40137	5/6/2008		890	330
Hogshooter Creek	OK121400-01-0300D	35055	6/13/2006		690	390
Hogshooter Creek	OK121400-01-0300D	35590	8/8/2006		30	40
Hogshooter Creek	OK121400-01-0300D	35843	9/12/2006		720	380
Hogshooter Creek	OK121400-01-0300D	36942	4/3/2007		230	480
Hogshooter Creek	OK121400-01-0300D	37072	5/8/2007		1920	> 2000
Hogshooter Creek	OK121400-01-0300D	37238	6/12/2007		1920	1780
Hogshooter Creek	OK121400-01-0300D	37718	7/10/2007		580	570
Hogshooter Creek	OK121400-01-0300D	37857	7/17/2007		220	380
Hogshooter Creek	OK121400-01-0300D	38050	8/21/2007		30	500
Hogshooter Creek	OK121400-01-0300D	40097	4/29/2008		290	350
Hominy Creek: Downstream	OK121300-04-0010C	35053	6/13/2006		70	150
Hominy Creek: Downstream	OK121300-04-0010C	35592	8/8/2006		15	30
Hominy Creek: Downstream	OK121300-04-0010C	35841	9/12/2006		30	55
Hominy Creek: Downstream	OK121300-04-0010C	36940	4/3/2007		250	660
Hominy Creek: Downstream	OK121300-04-0010C	37070	5/8/2007	>	2000	> 2000
Hominy Creek: Downstream	OK121300-04-0010C	37236	6/11/2007		340	880
Hominy Creek: Downstream	OK121300-04-0010C	37715	7/9/2007		120	20
Hominy Creek: Downstream	OK121300-04-0010C	37855	7/17/2007		200	160
Hominy Creek: Downstream	OK121300-04-0010C	38048	8/21/2007		30	40
Hominy Creek: Downstream	OK121300-04-0010C	40095	4/29/2008		20	< 10
Hominy Creek: Upstream	OK121300-04-0280G	35052	6/12/2006		330	280
Hominy Creek: Upstream	OK121300-04-0280G	35588	8/7/2006		135	125
Hominy Creek: Upstream	OK121300-04-0280G	35836	9/11/2006		80	80
Hominy Creek: Upstream	OK121300-04-0280G	36936	4/2/2007		140	90
Hominy Creek: Upstream	OK121300-04-0280G	37066	5/7/2007		8200	> 10000
Hominy Creek: Upstream	OK121300-04-0280G	37232	6/11/2007		60	110
Hominy Creek: Upstream	OK121300-04-0280G	37711	7/9/2007		40	10
Hominy Creek: Upstream	OK121300-04-0280G	37851	7/16/2007		110	200
Hominy Creek: Upstream	OK121300-04-0280G	38044	8/20/2007		120	180
Hominy Creek: Upstream	OK121300-04-0280G	40091	4/28/2008		190	30
Little Cabin Creek	OK121600-06-0080C	35232	6/19/2006		450	510
Little Cabin Creek	OK121600-06-0080C	35602	8/7/2006	>	500	255
Little Cabin Creek	OK121600-06-0080C	35846	9/11/2006		850	90
Little Cabin Creek	OK121600-06-0080C	36946	4/2/2007		180	80
Little Cabin Creek	OK121600-06-0080C	37058	5/7/2007		6100	> 10000
Little Cabin Creek	OK121600-06-0080C	37224	6/11/2007	>	2000	> 2000
Little Cabin Creek	OK121600-06-0080C	37834	7/9/2007		260	120
Little Cabin Creek	OK121600-06-0080C	37861	7/16/2007		220	170
Little Cabin Creek	OK121600-06-0080C	38036	8/20/2007		120	100
Little Cabin Creek	OK121600-06-0080C	40101	4/28/2008		160	80
Little Caney River	OK121400-02-0140H	35056	6/13/2006		440	260
Little Caney River	OK121400-02-0140H	35589	8/8/2006		70	65
Little Caney River	OK121400-02-0140H	35844	9/12/2006		190	230
Little Caney River	OK121400-02-0140H	36943	4/3/2007		90	30

**Appendix A.2. Raw bacteria data. Greater than or less than the detection limit is noted if applicable.**

SiteName	WBID	SAMPLEID	Date	<i>E. Coli</i>		<i>Enterococcus</i>	
Little Caney River	OK121400-02-0140H	37073	5/8/2007	>	2000	>	2000
Little Caney River	OK121400-02-0140H	37239	6/12/2007		1420		1620
Little Caney River	OK121400-02-0140H	37719	7/10/2007		40		230
Little Caney River	OK121400-02-0140H	37858	7/17/2007		10	<	10
Little Caney River	OK121400-02-0140H	38051	8/21/2007		20		120
Little Caney River	OK121400-02-0140H	40098	4/29/2008		10	<	10
Little Horse Creek	OK121600-03-0190A	35233	6/19/2006		110		120
Little Horse Creek	OK121600-03-0190A	35603	8/7/2006		30		30
Little Horse Creek	OK121600-03-0190A	35847	9/11/2006		960		30
Little Horse Creek	OK121600-03-0190A	36947	4/2/2007		345	<	5
Little Horse Creek	OK121600-03-0190A	37059	5/7/2007	>	10000	>	10000
Little Horse Creek	OK121600-03-0190A	37225	6/11/2007		5800	>	10000
Little Horse Creek	OK121600-03-0190A	37835	7/9/2007		150		90
Little Horse Creek	OK121600-03-0190A	37862	7/16/2007		250		130
Little Horse Creek	OK121600-03-0190A	38037	8/20/2007		640		340
Little Horse Creek	OK121600-03-0190A	40102	4/28/2008		100		10
Lone Creek	OK520620-03-0020C	35219	6/20/2006	>	1000		790
Lone Creek	OK520620-03-0020C	36967	4/10/2007		480		140
Lone Creek	OK520620-03-0020C	37095	5/15/2007		720		140
Lone Creek	OK520620-03-0020C	37265	6/19/2007		170		350
Lone Creek	OK520620-03-0020C	37751	7/24/2007	>	1000		160
Lone Creek	OK520620-03-0020C	37880	7/30/2007		760		390
Lone Creek	OK520620-03-0020C	38067	8/28/2007		400		610
Lone Creek	OK520620-03-0020C	40139	5/6/2008	>	1000		440
Mission Creek	OK121400-02-0190B	35050	6/12/2006		710		530
Mission Creek	OK121400-02-0190B	35586	8/7/2006		50		55
Mission Creek	OK121400-02-0190B	35838	9/11/2006		10		5
Mission Creek	OK121400-02-0190B	36944	4/3/2007		190		70
Mission Creek	OK121400-02-0190B	37074	5/8/2007	>	2000	>	2000
Mission Creek	OK121400-02-0190B	37240	6/12/2007	>	2000		1640
Mission Creek	OK121400-02-0190B	37720	7/10/2007	>	1000	>	1000
Mission Creek	OK121400-02-0190B	37859	7/17/2007		110		30
Mission Creek	OK121400-02-0190B	39775	3/24/2008		340		60
Mission Creek	OK121400-02-0190B	40099	4/28/2008		280		70
Pryor Creek: HWY 20	OK121610-00-0050D	35600	6/20/2006		40		30
Pryor Creek: HWY 20	OK121610-00-0050D	35624	8/15/2006	>	1000		820
Pryor Creek: HWY 20	OK121610-00-0050D	35861	9/19/2006		520		640
Pryor Creek: HWY 20	OK121610-00-0050D	36961	4/10/2007		90		60
Pryor Creek: HWY 20	OK121610-00-0050D	37098	5/14/2007		120		400
Pryor Creek: HWY 20	OK121610-00-0050D	37279	6/18/2007		220		360
Pryor Creek: HWY 20	OK121610-00-0050D	37841	7/10/2007		170		330
Pryor Creek: HWY 20	OK121610-00-0050D	37780	7/23/2007		260		110
Pryor Creek: HWY 20	OK121610-00-0050D	38076	8/28/2007		220		380
Pryor Creek: HWY 20	OK121610-00-0050D	40130	5/6/2008		480		220
Pryor Creek: HWY 69	OK121610-00-0050M	35599	6/20/2006		240		330
Pryor Creek: HWY 69	OK121610-00-0050M	35623	8/15/2006		670		450
Pryor Creek: HWY 69	OK121610-00-0050M	35860	9/19/2006		400		900
Pryor Creek: HWY 69	OK121610-00-0050M	36960	4/10/2007		410		170
Pryor Creek: HWY 69	OK121610-00-0050M	37099	5/14/2007		140		380
Pryor Creek: HWY 69	OK121610-00-0050M	37280	6/18/2007		180		420

**Appendix A.2. Raw bacteria data. Greater than or less than the detection limit is noted if applicable.**

SiteName	WBID	SAMPLEID	Date	<i>E. Coli</i>		<i>Enterococcus</i>	
Pryor Creek: HWY 69	OK121610-00-0050M	37840	7/10/2007		170		280
Pryor Creek: HWY 69	OK121610-00-0050M	37781	7/23/2007		190		130
Pryor Creek: HWY 69	OK121610-00-0050M	38075	8/28/2007		270		470
Pryor Creek: HWY 69	OK121610-00-0050M	40131	5/6/2008		300		20
Ranger Creek	OK121600-01-0060D	35237	6/20/2006		20		20
Ranger Creek	OK121600-01-0060D	35607	8/8/2006		25		80
Ranger Creek	OK121600-01-0060D	35851	9/12/2006		35		30
Ranger Creek	OK121600-01-0060D	36951	4/3/2007		55		30
Ranger Creek	OK121600-01-0060D	37063	5/8/2007		1240	>	2000
Ranger Creek	OK121600-01-0060D	37229	6/12/2007		40		130
Ranger Creek	OK121600-01-0060D	37844	7/10/2007	>	2000	>	2000
Ranger Creek	OK121600-01-0060D	37866	7/17/2007		70		100
Ranger Creek	OK121600-01-0060D	38041	8/21/2007		200		210
Ranger Creek	OK121600-01-0060D	40106	4/29/2008		110		25
Saline Creek	OK121600-02-0030D	35239	6/20/2006		5		10
Saline Creek	OK121600-02-0030D	35609	8/8/2006		20		115
Saline Creek	OK121600-02-0030D	35853	9/12/2006		20		95
Saline Creek	OK121600-02-0030D	36953	4/3/2007		25		45
Saline Creek	OK121600-02-0030D	37065	5/8/2007		120		750
Saline Creek	OK121600-02-0030D	37231	6/12/2007		600		940
Saline Creek	OK121600-02-0030D	37842	7/10/2007		250		670
Saline Creek	OK121600-02-0030D	37868	7/17/2007		30		60
Saline Creek	OK121600-02-0030D	38043	8/21/2007		10		60
Saline Creek	OK121600-02-0030D	40108	4/29/2008		15		5
Sand Creek	OK121400-04-0010F	35049	6/12/2006		640		510
Sand Creek	OK121400-04-0010F	35585	8/7/2006		260		80
Sand Creek	OK121400-04-0010F	35839	9/11/2006		70		10
Sand Creek	OK121400-04-0010F	36938	4/2/2007		390		210
Sand Creek	OK121400-04-0010F	37068	5/7/2007		9900	>	10000
Sand Creek	OK121400-04-0010F	37234	6/11/2007		1940		1940
Sand Creek	OK121400-04-0010F	37713	7/9/2007		100		50
Sand Creek	OK121400-04-0010F	37853	7/16/2007		350		170
Sand Creek	OK121400-04-0010F	38046	8/20/2007		10		30
Sand Creek	OK121400-04-0010F	40093	4/28/2008		330	<	10
Sycamore Creek	OK121600-03-0510D	35234	6/19/2006		190		480
Sycamore Creek	OK121600-03-0510D	35604	8/7/2006		95		95
Sycamore Creek	OK121600-03-0510D	35848	9/11/2006		30		90
Sycamore Creek	OK121600-03-0510D	36948	4/2/2007		85	<	5
Sycamore Creek	OK121600-03-0510D	37060	5/7/2007		1300	>	2000
Sycamore Creek	OK121600-03-0510D	37226	6/11/2007	>	2000	>	2000
Sycamore Creek	OK121600-03-0510D	37836	7/9/2007		220		200
Sycamore Creek	OK121600-03-0510D	37863	7/16/2007		20		30
Sycamore Creek	OK121600-03-0510D	38038	8/20/2007		140		120
Sycamore Creek	OK121600-03-0510D	40103	4/28/2008		40		20
Tar Creek	OK121600-04-0060D	35235	6/19/2006		620		190
Tar Creek	OK121600-04-0060D	35605	8/7/2006	>	500		195
Tar Creek	OK121600-04-0060D	35849	9/11/2006	>	1000		360
Tar Creek	OK121600-04-0060D	36949	4/2/2007		25		5
Tar Creek	OK121600-04-0060D	37061	5/7/2007		7600	>	10000
Tar Creek	OK121600-04-0060D	37864	7/16/2007		10		50



**Appendix A.2. Raw bacteria data. Greater than or less than the detection limit is noted if applicable.**

SiteName	WBID	SAMPLEID	Date	<i>E. Coli</i>		<i>Enterococcus</i>	
Tar Creek	OK121600-04-0060D	38039	8/20/2007		460		130
Tar Creek	OK121600-04-0060D	40104	4/28/2008		60		50
Trail Creek	OK520620-02-0090G	35220	6/20/2006		590		680
Trail Creek	OK520620-02-0090G	35699	8/15/2006	>	1000	>	1000
Trail Creek	OK520620-02-0090G	36023	9/18/2006		115		275
Trail Creek	OK520620-02-0090G	36968	4/10/2007		65		155
Trail Creek	OK520620-02-0090G	37096	5/15/2007		300		360
Trail Creek	OK520620-02-0090G	37266	6/19/2007		540		820
Trail Creek	OK520620-02-0090G	37752	7/24/2007		80		90
Trail Creek	OK520620-02-0090G	37881	7/30/2007		210		320
Trail Creek	OK520620-02-0090G	38068	8/28/2007		220		250
Trail Creek	OK520620-02-0090G	40140	5/6/2008	>	1000	>	1000
Walnut Creek	OK520610-03-0010F	35214	6/19/2006		35		115
Walnut Creek	OK520610-03-0010F	35693	8/14/2006		840		30
Walnut Creek	OK520610-03-0010F	36025	9/19/2006		345		390
Walnut Creek	OK520610-03-0010F	36963	4/9/2007		95		160
Walnut Creek	OK520610-03-0010F	37091	5/14/2007		380		620
Walnut Creek	OK520610-03-0010F	37260	6/18/2007		800		2800
Walnut Creek	OK520610-03-0010F	37747	7/23/2007		60		40
Walnut Creek	OK520610-03-0010F	37884	7/31/2007		820		1820
Walnut Creek	OK520610-03-0010F	38062	8/27/2007		910		360
Walnut Creek	OK520610-03-0010F	40143	5/7/2008	>	10000	>	10000

## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
DO (mg/L)	Big Cabin Creek	OK121600-06-0220I	20	0	7.924	0.532	2.38	5.15	6.045	7.265	9.128	13.95
	Big Creek	OK121510-03-0010D	19	0	8.019	0.67	2.922	3.61	5.38	7.92	10.73	13.68
	Bird Creek	OK121300-02-0010C	20	0	8.905	0.579	2.59	4.37	6.753	8.64	11.138	13.2
	Buck Creek	OK121400-03-0170C	20	0	8.162	0.678	3.03	2.61	5.91	8.33	10.448	12.69
	Buggy Creek	OK520610-02-0120C	18	1	9.252	0.638	2.706	6.22	7.205	7.85	11.12	14.37
	Bull Creek	OK121500-02-0090D	19	0	7.287	0.771	3.361	2.44	4.35	6.93	9.11	13.63
	California Creek	OK121510-02-0050C	19	0	7.469	0.827	3.603	0.12	4.76	6.94	10.41	13.46
	Chouteau Creek	OK121600-01-0430M	19	0	5.651	0.861	3.752	0.53	3.47	4.17	8.66	13.76
	Commission Creek	OK520620-05-0160C	19	0	10.044	0.367	1.599	6.93	8.76	10.34	11.51	12.1
	Curl Creek	OK121400-01-0270C	20	0	6.937	0.843	3.769	0.45	3.645	6.735	9.37	13.37
	Deer Creek	OK520620-06-0010F	19	0	10.264	0.523	2.281	7.11	7.78	10.77	12.41	14.22
	Delaware Creek	OK121300-01-0150H	19	0	6.754	0.737	3.211	1.61	4.27	6.34	9.76	13.36
	Dog Creek	OK121500-02-0360D	19	0	7.087	0.769	3.351	2.47	4.12	7	9.74	13.59
	Fivemile Creek	OK121600-05-0110G	20	0	9.826	0.458	2.046	5.08	8.035	10.05	11.988	12.48
	Fourteenmile Creek	OK121600-01-0100G	20	0	9.263	0.458	2.047	5.55	7.435	9.57	10.748	12.91
	Hackberry Creek	OK520620-04-0050D	13	0	9.838	0.58	2.093	6.45	7.645	10.21	11.755	12.6
	Hogshooter Creek	OK121400-01-0300D	20	0	7.301	0.789	3.528	0.34	4.913	7.075	10.96	12.49
	Hominy Creek: Downstrm	OK121300-04-0010C	20	0	8.589	0.626	2.799	3.44	6.755	8.11	10.965	13.26
	Hominy Creek: Upstrm	OK121300-04-0280G	20	0	8.969	0.607	2.713	4.56	6.538	8.62	10.868	13.67
	Little Cabin Creek	OK121600-06-0080C	19	1	6.461	0.706	3.078	1.69	4.2	5.59	8.44	13.88
	Little Caney River	OK121400-02-0140H	20	0	9.427	0.642	2.872	3.84	7.1	9.835	11.408	14.02
	Little Horse Creek	OK121600-03-0190A	18	0	7.038	0.662	2.808	3.03	4.963	6.425	8.848	13.11
	Lone Creek	OK520620-03-0020C	17	0	10.404	0.338	1.394	8.06	9.325	10.52	11.315	12.84
	Mission Creek	OK121400-02-0190B	20	0	7.275	0.591	2.645	3.32	5.115	7.025	8.315	12.58
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	7.357	0.672	2.928	2.53	5.22	6.26	9.95	12.5
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	7.425	0.652	2.842	3.65	5.4	6.94	9.27	13.74
	Ranger Creek	OK121600-01-0060D	20	0	7.876	0.638	2.853	2.87	5.215	8.48	10.408	12.18
	Saline Creek	OK121600-02-0030D	20	0	9.987	0.195	0.873	8.1	9.393	10	10.548	11.84
	Sand Creek	OK121400-04-0010F	20	0	8.495	0.663	2.964	4.04	6.175	8.185	10.505	13.85
	Sycamore Creek	OK121600-03-0510D	20	0	9.191	0.536	2.395	3.6	7.745	9.84	10.985	12.41
Tar Creek	OK121600-04-0060D	19	0	9.394	0.536	2.334	3.62	7.83	9.64	11.23	12.76	
Trail Creek	OK520620-02-0090G	18	1	9.23	0.486	2.062	5.74	7.418	9	11.21	12.43	
Walnut Creek	OK520610-03-0010F	17	2	8.784	0.519	2.14	6.14	7.03	7.73	11.295	12.21	
Turb (NTU)	Big Cabin Creek	OK121600-06-0220I	20	0	78.9	32	143	2.8	7	19.3	72.2	533
	Big Creek	OK121510-03-0010D	19	0	22.35	7.58	33.05	2.19	8.16	10.8	21.7	150
	Bird Creek	OK121300-02-0010C	19	1	88.5	51.5	224.3	4.4	7.7	20.8	79.8	1000

## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
	Buck Creek	OK121400-03-0170C	20	0	112.1	67.9	303.8	4.1	7.2	11.5	18.8	1000
	Buggy Creek	OK520610-02-0120C	19	0	160	69.9	304.5	4.2	16.9	41.9	122	1000
	Bull Creek	OK121500-02-0090D	19	0	47.56	9.29	40.51	12	21.9	35.8	52.2	150
	California Creek	OK121510-02-0050C	19	0	28.11	5.52	24.07	5.25	9.23	11.7	41.5	80.2
	Chouteau Creek	OK121600-01-0430M	19	0	48.3	10.9	47.4	7.5	24.1	31.4	52.4	220
	Commission Creek	OK520620-05-0160C	19	0	18.1	6.65	28.99	1.51	5.87	9.41	14.2	130
	Curl Creek	OK121400-01-0270C	20	0	51.1	13.9	62.1	3.5	16.9	27.3	61.7	278
	Deer Creek	OK520620-06-0010F	19	0	99.7	52	226.7	2.8	9.1	17.7	80	1000
	Delaware Creek	OK121300-01-0150H	19	0	50.2	16.3	71.2	10.7	17.7	29.5	37.3	313
	Dog Creek	OK121500-02-0360D	19	0	19.48	4.97	21.64	2.72	4.25	12.9	23.9	81.6
	Fivemile Creek	OK121600-05-0110G	19	1	1.991	0.944	4.116	0.24	0.46	0.85	1.33	18.6
	Fourteenmile Creek	OK121600-01-0100G	20	0	10.61	4.8	21.47	0.55	1.52	3.91	7.4	89.8
	Hackberry Creek	OK520620-04-0050D	13	0	8.59	2.56	9.22	1.8	3.43	4.32	11.14	33.7
	Hogshooter Creek	OK121400-01-0300D	20	0	15.78	3.12	13.94	2.5	8.1	11.05	18.48	52.2
	Hominy Creek: Downstrm	OK121300-04-0010C	20	0	39.82	6.82	30.52	8.64	18.55	32.35	49.95	130
	Hominy Creek: Upstrm	OK121300-04-0280G	20	0	77	49.2	219.9	1.7	6.5	12.8	41.2	1000
	Little Cabin Creek	OK121600-06-0080C	20	0	64.7	15.5	69.1	4.3	18.7	38	87.7	232
	Little Caney River	OK121400-02-0140H	20	0	96.3	28.5	127.5	21.8	44.4	77.7	94	620
	Little Horse Creek	OK121600-03-0190A	18	0	43.9	18.8	80	3.1	9.5	14.8	35.3	310
	Lone Creek	OK520620-03-0020C	17	0	14.84	8.87	36.58	0.58	2.61	3.3	7.59	152
	Mission Creek	OK121400-02-0190B	20	0	44	12.9	57.8	4.1	11.1	26.7	47.2	222
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	55.9	13.8	60.1	17	21	41.6	61.5	255
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	47.5	10.2	44.4	11.5	20.9	37.1	59.7	196
	Ranger Creek	OK121600-01-0060D	20	0	9.48	2.62	11.72	1.4	3.46	5.63	8.58	45.9
	Saline Creek	OK121600-02-0030D	20	0	3.79	1.74	7.79	0.23	0.48	1.9	3.83	35.9
	Sand Creek	OK121400-04-0010F	20	0	90	49.1	219.7	5.6	13.1	22.1	76.9	1000
	Sycamore Creek	OK121600-03-0510D	20	0	10.39	5.62	25.15	0.88	1.49	2.39	5.97	112
	Tar Creek	OK121600-04-0060D	19	0	27.6	15.2	66.4	1.2	3	9.6	15.5	295
	Trail Creek	OK520620-02-0090G	19	0	38.8	18.6	81.2	1.1	5.4	8.7	34.5	336
	Walnut Creek	OK520610-03-0010F	19	0	100.8	50.5	220.3	3.8	9.6	19.1	59.2	788
<b>Alkalinity (CaCO3)</b>	Big Cabin Creek	OK121600-06-0220I	20	0	86.9	6.61	29.56	42	57.75	88	102.5	151
	Big Creek	OK121510-03-0010D	19	0	144.6	10.8	47.3	63	113	151	187	229
	Bird Creek	OK121300-02-0010C	20	0	82.45	5.18	23.18	44	58.75	82.5	102.75	122
	Buck Creek	OK121400-03-0170C	20	0	145.3	10.7	47.8	61	100.3	160	173	218
	Buggy Creek	OK520610-02-0120C	17	2	279.4	22.5	92.7	2.6	260	303	328.5	436
	Bull Creek	OK121500-02-0090D	19	0	62.63	4.14	18.04	26	52	66	73	94
	California Creek	OK121510-02-0050C	19	0	106.74	9.95	43.38	34	84	96	134	235
	Chouteau Creek	OK121600-01-0430M	19	0	69.11	5.13	22.35	30	56	64	91	111
	Commission Creek	OK520620-05-0160C	18	1	235.83	6.06	25.7	153	226.5	236	254.5	272

## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
	Curl Creek	OK121400-01-0270C	20	0	88.18	9.98	44.64	23	49.75	85	115.5	175
	Deer Creek	OK520620-06-0010F	18	1	194.11	8.31	35.28	128	175.5	194	227.25	248
	Delaware Creek	OK121300-01-0150H	19	0	80.53	6.2	27.01	39	52	79	91	137
	Dog Creek	OK121500-02-0360D	19	0	86.32	5.37	23.4	54	63	87	105	132
	Fivemile Creek	OK121600-05-0110G	20	0	109.25	7.08	31.66	61	85.25	107.5	135.5	163
	Fourteenmile Creek	OK121600-01-0100G	20	0	72.05	3.55	15.89	42	57	74	85.5	97
	Hackberry Creek	OK520620-04-0050D	13	0	242.9	20.9	75.5	2.8	249	254	267.5	313
	Hogshooter Creek	OK121400-01-0300D	20	0	138.93	8.76	39.18	48	118.25	143.5	169.25	205
	Hominy Creek: Downstrm	OK121300-04-0010C	20	0	70.85	2.95	13.2	42	63.25	71.5	80	97
	Hominy Creek: Upstrm	OK121300-04-0280G	20	0	113.75	7.89	35.27	33	87	108.5	135	183
	Little Cabin Creek	OK121600-06-0080C	20	0	99.55	7.28	32.55	45	66	103.5	128	148
	Little Caney River	OK121400-02-0140H	20	0	92.38	5.39	24.1	54	76.25	92.5	111.75	137
	Little Horse Creek	OK121600-03-0190A	18	0	104.22	7.6	32.25	32	89.25	101.5	130.5	171
	Lone Creek	OK520620-03-0020C	17	0	185.47	6	24.72	128	170.5	189	203	231
	Mission Creek	OK121400-02-0190B	20	0	86.02	8.23	36.82	24.4	66	95.5	110.75	141
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	62.92	4.82	21.03	4.1	49.4	64	74	102
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	59.75	4.63	20.17	29	47	58	78	102
	Ranger Creek	OK121600-01-0060D	20	0	106.9	6.62	29.62	55	84	106.5	121	181
	Saline Creek	OK121600-02-0030D	20	0	87.75	6.37	28.49	47	65.5	84	101.75	144
	Sand Creek	OK121400-04-0010F	20	0	98.8	8.38	37.46	28	72	96	133.25	168
	Sycamore Creek	OK121600-03-0510D	19	1	107.58	8.44	36.81	57	81	105	123	228
	Tar Creek	OK121600-04-0060D	19	0	92.05	4.49	19.55	51	74	98	107	114
	Trail Creek	OK520620-02-0090G	18	1	181.6	12.8	54.5	3.6	167.3	178	209.5	278
	Walnut Creek	OK520610-03-0010F	16	3	345.1	16.9	67.6	206	320.5	355.5	379	497
Temp (°C)	Big Cabin Creek	OK121600-06-0220I	20	0	15.49	1.87	8.37	0.3	7.68	15.6	23.88	26.6
	Big Creek	OK121510-03-0010D	19	0	16.41	2.01	8.76	1.1	8.2	15.7	23.9	28.8
	Bird Creek	OK121300-02-0010C	20	0	16.89	2.01	9	3.8	8.85	16.65	26.48	29.7
	Buck Creek	OK121400-03-0170C	20	0	15.3	2.02	9.03	2	7.7	15.65	23.83	28.9
	Buggy Creek	OK520610-02-0120C	19	0	16.01	1.96	8.55	1.9	9.2	16.8	23.2	29.2
	Bull Creek	OK121500-02-0090D	19	0	16.47	2.03	8.87	1.7	9.2	15.6	25.3	28.2
	California Creek	OK121510-02-0050C	19	0	15.08	2.02	8.81	1.2	6.2	15	24.2	27.1
	Chouteau Creek	OK121600-01-0430M	19	0	15.58	2.08	9.06	0.8	6.8	13.4	24.8	27.5
	Commission Creek	OK520620-05-0160C	19	0	14.38	1.69	7.38	3.8	7.4	12.2	22.1	24.5
	Curl Creek	OK121400-01-0270C	20	0	15.2	2.02	9.05	0.2	8.58	15.3	22.93	29.9
	Deer Creek	OK520620-06-0010F	19	0	18.47	2.41	10.52	1.4	9.8	17.4	27.6	34.3
	Delaware Creek	OK121300-01-0150H	19	0	15.3	1.94	8.44	1.8	7.8	15.9	23.6	26.4
	Dog Creek	OK121500-02-0360D	19	0	16.64	1.94	8.46	3.1	8.8	15.2	24.1	29.9
	Fivemile Creek	OK121600-05-0110G	20	0	16.77	1.59	7.1	5.1	10.4	16.6	24.18	27
	Fourteenmile Creek	OK121600-01-0100G	20	0	16.41	1.67	7.49	6.6	10.2	14.2	23.88	28.8
	Hackberry Creek	OK520620-04-0050D	13	0	13.92	2.75	9.92	0.9	5.85	11.8	22.15	33

## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
	Hogshooter Creek	OK121400-01-0300D	20	0	14.98	1.9	8.48	1.1	8.43	14.4	22.53	28.5
	Hominy Creek: Downstrm	OK121300-04-0010C	20	0	16.14	2	8.95	2	7.78	17.15	24.8	29.4
	Hominy Creek: Upstrm	OK121300-04-0280G	20	0	15.22	2.12	9.49	1.7	7.08	15.15	24.73	30.7
	Little Cabin Creek	OK121600-06-0080C	20	0	14.76	1.94	8.67	0.3	8.05	13.25	23.05	27.5
	Little Caney River	OK121400-02-0140H	20	0	16.33	1.9	8.49	2.4	9.2	17.3	23.9	29.5
	Little Horse Creek	OK121600-03-0190A	18	0	15.52	2.11	8.96	0.5	7.08	15.3	24.1	27.5
	Lone Creek	OK520620-03-0020C	17	0	17.02	2.33	9.59	3.7	9.65	14.7	25.15	34.9
	Mission Creek	OK121400-02-0190B	20	0	15.82	2	8.96	3.6	8.4	16	23.38	29.4
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	16.38	1.95	8.49	1.7	9.5	16	24	28.5
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	15.71	1.96	8.53	1.5	9.1	15.3	24.2	27.5
	Ranger Creek	OK121600-01-0060D	20	0	15.63	1.91	8.56	3.6	8.43	13.05	24.4	28.2
	Saline Creek	OK121600-02-0030D	20	0	17.23	1.27	5.69	10	11.75	16.8	23.05	26.2
	Sand Creek	OK121400-04-0010F	20	0	16.26	2.05	9.16	3.2	8.13	16	25.55	29.2
	Sycamore Creek	OK121600-03-0510D	20	0	15.67	1.41	6.3	8.1	10.3	13.55	22.53	27.1
	Tar Creek	OK121600-04-0060D	19	0	15.51	1.91	8.32	2	8.5	13.2	24.2	28
	Trail Creek	OK520620-02-0090G	19	0	17.51	2.12	9.24	2.9	10.4	16.8	26.3	31.5
	Walnut Creek	OK520610-03-0010F	19	0	17.18	2	8.74	3.6	10.2	18.9	24.5	31.1
<b>Cond (uS/cm)</b>	Big Cabin Creek	OK121600-06-0220I	20	0	652.9	50.7	226.6	316.2	506	632	714.5	1388
	Big Creek	OK121510-03-0010D	19	0	332.9	19.6	85.5	147	273.7	332.9	416.7	446.9
	Bird Creek	OK121300-02-0010C	17	3	295.7	20.8	85.9	121.5	218	319.7	375.9	403.7
	Buck Creek	OK121400-03-0170C	17	3	338.1	26.3	108.6	89	287.2	364.4	418.8	473.1
	Buggy Creek	OK520610-02-0120C	18	1	1103.2	76.6	325	524	893.5	1159.5	1316.5	1607
	Bull Creek	OK121500-02-0090D	19	0	274.9	18.4	80	134.8	215.6	290	347.4	407.2
	California Creek	OK121510-02-0050C	19	0	388.4	27.8	121.3	138.4	319.2	358.4	446.3	644
	Chouteau Creek	OK121600-01-0430M	19	0	219.6	11.2	48.9	100.6	185.5	234.3	245.8	309.6
	Commission Creek	OK520620-05-0160C	19	0	859.8	13.8	60.4	739	827	865	885	979
	Curl Creek	OK121400-01-0270C	16	4	323.6	32.2	128.7	104.1	245.4	343.4	442.2	488.1
	Deer Creek	OK520620-06-0010F	18	1	1255.8	80.7	342.2	439.6	1051.3	1310.5	1531.3	1697
	Delaware Creek	OK121300-01-0150H	19	0	472	48.7	212.4	205	318.5	424.4	576	963
	Dog Creek	OK121500-02-0360D	19	0	361	26.2	114.3	181.5	273.9	330	427.8	598
	Fivemile Creek	OK121600-05-0110G	20	0	254.8	11.6	51.8	124.6	211	273.1	284.9	334.5
	Fourteenmile Creek	OK121600-01-0100G	20	0	174.57	8.9	39.79	85.5	142.65	183.25	207.2	233.8
	Hackberry Creek	OK520620-04-0050D	11	2	2414	121	401	1829	2059	2460	2812	2980
	Hogshooter Creek	OK121400-01-0300D	17	3	449.3	24.3	100.2	200.3	407.2	471.1	519	555
	Hominy Creek: Downstrm	OK121300-04-0010C	17	3	304.5	21	86.6	118.3	284.4	312.3	329.8	471.5
	Hominy Creek: Upstrm	OK121300-04-0280G	17	3	1163	168	691	132	543	1060	1734	2540
	Little Cabin Creek	OK121600-06-0080C	20	0	361.7	50.2	224.7	156.4	231.4	316.4	393.1	1110
	Little Caney River	OK121400-02-0140H	17	3	256.1	13.2	54.6	140.1	222.5	272.5	294.4	336.7
	Little Horse Creek	OK121600-03-0190A	18	0	310.9	21.6	91.8	98.6	257.4	321.4	377.8	420.7
	Lone Creek	OK520620-03-0020C	17	0	2526	108	446	1385	2442	2648	2795	2997

## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
	Mission Creek	OK121400-02-0190B	17	3	253.4	24.9	102.6	65.4	177.5	252.1	348.8	404.4
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	259.8	17.9	78.1	158.6	199.8	247.2	283.3	451.6
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	254.4	23.3	101.7	156	190.2	245.9	281.2	617
	Ranger Creek	OK121600-01-0060D	20	0	279	12.9	57.9	145.5	250	267.6	324.2	378.8
	Saline Creek	OK121600-02-0030D	20	0	210.91	9.44	42.22	139.9	171.13	226.4	247.23	261.8
	Sand Creek	OK121400-04-0010F	17	3	488.6	65.5	270.1	96.3	237.2	463.7	765.5	930
	Sycamore Creek	OK121600-03-0510D	20	0	257.1	10.4	46.5	177.6	219.1	260	300.3	326.6
	Tar Creek	OK121600-04-0060D	19	0	1194	124	542	203	817	1250	1542	2030
	Trail Creek	OK520620-02-0090G	19	0	2381.9	76	331.1	1836	1954	2555	2593	2759
	Walnut Creek	OK520610-03-0010F	19	0	757	43.2	188.3	373.6	661	853	883	1003
pH (SU)	Big Cabin Creek	OK121600-06-0220I	20	0	7.602	0.161	0.719	6.41	7.048	7.56	8.133	8.86
	Big Creek	OK121510-03-0010D	16	3	7.7275	0.0888	0.3551	7.05	7.4225	7.835	7.9775	8.24
	Bird Creek	OK121300-02-0010C	18	2	7.6917	0.0633	0.2684	7.14	7.555	7.71	7.9	8.17
	Buck Creek	OK121400-03-0170C	18	2	7.8506	0.0779	0.3306	7.27	7.53	7.895	8.09	8.41
	Buggy Creek	OK520610-02-0120C	19	0	8.0332	0.0456	0.1989	7.71	7.88	8.04	8.21	8.34
	Bull Creek	OK121500-02-0090D	16	3	7.303	0.162	0.65	6.56	6.893	7.13	7.373	8.87
	California Creek	OK121510-02-0050C	15	4	7.5247	0.0986	0.3819	6.87	7.25	7.49	7.8	8.37
	Chouteau Creek	OK121600-01-0430M	16	3	7.142	0.138	0.553	6.5	6.89	7.06	7.318	8.83
	Commission Creek	OK520620-05-0160C	19	0	8.1558	0.0564	0.2459	7.3	8.07	8.19	8.32	8.42
	Curl Creek	OK121400-01-0270C	18	2	7.1917	0.08	0.3396	6.49	7.0975	7.175	7.515	7.62
	Deer Creek	OK520620-06-0010F	19	0	8.1042	0.0747	0.3255	7.42	7.98	8.19	8.23	8.71
	Delaware Creek	OK121300-01-0150H	15	4	7.0547	0.0689	0.2669	6.34	7.06	7.11	7.18	7.42
	Dog Creek	OK121500-02-0360D	16	3	7.312	0.116	0.462	6.43	7.095	7.27	7.565	8.13
	Fivemile Creek	OK121600-05-0110G	20	0	7.704	0.178	0.794	6.01	7.333	7.7	8.055	10.02
	Fourteenmile Creek	OK121600-01-0100G	20	0	7.617	0.157	0.701	6.22	7.038	7.735	7.905	9.42
	Hackberry Creek	OK520620-04-0050D	13	0	8.0331	0.0623	0.2247	7.46	7.895	8.17	8.195	8.22
	Hogshooter Creek	OK121400-01-0300D	18	2	7.468	0.114	0.483	6.05	7.168	7.625	7.818	8.05
	Hominy Creek: Downstrm	OK121300-04-0010C	18	2	7.3944	0.0879	0.3727	6.43	7.1925	7.44	7.6575	7.85
	Hominy Creek: Upstrm	OK121300-04-0280G	18	2	7.6472	0.0889	0.3772	6.65	7.5125	7.695	7.87	8.29
	Little Cabin Creek	OK121600-06-0080C	20	0	7.425	0.19	0.85	5.31	7.01	7.16	7.875	8.86
	Little Caney River	OK121400-02-0140H	18	2	7.727	0.141	0.597	6.2	7.523	7.75	8.128	8.64
	Little Horse Creek	OK121600-03-0190A	18	0	7.461	0.191	0.81	4.82	7.16	7.52	7.81	8.81
	Lone Creek	OK520620-03-0020C	17	0	8.03	0.0525	0.2164	7.32	7.975	8.08	8.17	8.25
	Mission Creek	OK121400-02-0190B	18	2	7.2089	0.0864	0.3666	6.69	7.075	7.195	7.3075	8.44
	Pryor Creek: HWY 20	OK121610-00-0050D	16	3	7.278	0.15	0.599	6.18	6.893	7.19	7.52	8.47
	Pryor Creek: HWY 69	OK121610-00-0050M	16	3	7.1906	0.0969	0.3876	6.69	6.9	7.115	7.3575	7.91
	Ranger Creek	OK121600-01-0060D	20	0	7.855	0.13	0.582	6.89	7.545	7.82	8.11	9.82
	Saline Creek	OK121600-02-0030D	20	0	7.568	0.119	0.531	6.87	7.21	7.465	7.745	8.88
	Sand Creek	OK121400-04-0010F	19	1	7.4305	0.0468	0.2039	7	7.31	7.45	7.52	7.92
	Sycamore Creek	OK121600-03-0510D	20	0	7.57	0.188	0.839	5.47	7.285	7.57	7.855	9.68

## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
	Tar Creek	OK121600-04-0060D	19	0	7.626	0.23	1.002	6.35	6.99	7.33	7.81	10.67
	Trail Creek	OK520620-02-0090G	19	0	7.8658	0.0672	0.2931	7.07	7.81	7.93	8.05	8.18
	Walnut Creek	OK520610-03-0010F	19	0	8.0016	0.0589	0.2568	7.44	7.77	8.06	8.16	8.45
Ammonia (mg/L)	Big Cabin Creek	OK121600-06-0220I	20	0	0.02824	0.00801	0.03584	0.01061	0.01061	0.01061	0.0385	0.161
	Big Creek	OK121510-03-0010D	19	0	0.0226	0.00677	0.02951	0.01061	0.01061	0.01061	0.022	0.13
	Bird Creek	OK121300-02-0010C	20	0	0.01797	0.0057	0.02547	0.01061	0.01061	0.01061	0.01061	0.122
	Buck Creek	OK121400-03-0170C	20	0	0.01272	0.00119	0.00532	0.01061	0.01061	0.01061	0.01061	0.029
	Buggy Creek	OK520610-02-0120C	18	1	0.093	0.0417	0.1769	0.0106	0.0106	0.0415	0.0913	0.763
	Bull Creek	OK121500-02-0090D	19	0	0.03368	0.00812	0.03541	0.01061	0.01061	0.021	0.05	0.156
	California Creek	OK121510-02-0050C	19	0	0.01655	0.00381	0.01659	0.01061	0.01061	0.01061	0.015	0.082
	Chouteau Creek	OK121600-01-0430M	19	0	0.0675	0.0198	0.0862	0.0106	0.0106	0.03	0.096	0.266
	Commission Creek	OK520620-05-0160C	19	0	0.010607	0	0	0.010607	0.010607	0.010607	0.010607	0.010607
	Curl Creek	OK121400-01-0270C	20	0	0.01959	0.00619	0.02766	0.01061	0.01061	0.01061	0.01061	0.131
	Deer Creek	OK520620-06-0010F	19	0	0.0518	0.0181	0.0791	0.0106	0.0106	0.0106	0.062	0.316
	Delaware Creek	OK121300-01-0150H	19	0	0.01295	0.00134	0.00584	0.01061	0.01061	0.01061	0.01061	0.033
	Dog Creek	OK121500-02-0360D	19	0	0.198	0.103	0.448	0.011	0.029	0.091	0.162	2.016
	Fivemile Creek	OK121600-05-0110G	20	0	0.010607	0	0	0.010607	0.010607	0.010607	0.010607	0.010607
	Fourteenmile Creek	OK121600-01-0100G	20	0	0.010607	0	0	0.010607	0.010607	0.010607	0.010607	0.010607
	Hackberry Creek	OK520620-04-0050D	13	0	0.010607	0	0	0.010607	0.010607	0.010607	0.010607	0.010607
	Hogshooter Creek	OK121400-01-0300D	20	0	0.0129	0.00186	0.0083	0.01061	0.01061	0.01061	0.01061	0.047
	Hominy Creek: Downstrm	OK121300-04-0010C	20	0	0.1063	0.0311	0.1389	0.0106	0.0125	0.035	0.1508	0.465
	Hominy Creek: Upstrm	OK121300-04-0280G	20	0	0.01328	0.00267	0.01194	0.01061	0.01061	0.01061	0.01061	0.064
	Little Cabin Creek	OK121600-06-0080C	20	0	0.0422	0.0101	0.0452	0.0106	0.0106	0.018	0.0668	0.162
	Little Caney River	OK121400-02-0140H	20	0	0.02085	0.00615	0.0275	0.01061	0.01061	0.01061	0.01615	0.123
	Little Horse Creek	OK121600-03-0190A	18	0	0.0562	0.0213	0.0905	0.0106	0.0106	0.0106	0.048	0.319
	Lone Creek	OK520620-03-0020C	17	0	0.055	0.0444	0.183	0.0106	0.0106	0.0106	0.0106	0.765
	Mission Creek	OK121400-02-0190B	20	0	0.01302	0.00176	0.00786	0.01061	0.01061	0.01061	0.01061	0.045
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	0.0524	0.0126	0.0548	0.0106	0.0106	0.046	0.065	0.232
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	0.04023	0.0091	0.03967	0.01061	0.01061	0.021	0.053	0.154
	Ranger Creek	OK121600-01-0060D	20	0	0.0129	0.00207	0.00926	0.01061	0.01061	0.01061	0.01061	0.052
	Saline Creek	OK121600-02-0030D	20	0	0.010607	0	0	0.010607	0.010607	0.010607	0.010607	0.010607
	Sand Creek	OK121400-04-0010F	20	0	0.02127	0.00504	0.02252	0.01061	0.01061	0.01061	0.0235	0.099
	Sycamore Creek	OK121600-03-0510D	20	0	0.01748	0.00687	0.03072	0.01061	0.01061	0.01061	0.01061	0.148
	Tar Creek	OK121600-04-0060D	19	0	0.0799	0.0188	0.0822	0.0106	0.0106	0.061	0.154	0.269
	Trail Creek	OK520620-02-0090G	19	0	0.0645	0.0255	0.1112	0.0106	0.0106	0.029	0.077	0.504
Walnut Creek	OK520610-03-0010F	19	0	0.523	0.414	1.804	0.011	0.011	0.011	0.106	7.915	
Chloride (mg/L)	Big Cabin Creek	OK121600-06-0220I	20	0	20.61	5.45	24.37	2.9	5.63	7.9	42.75	72.2
	Big Creek	OK121510-03-0010D	19	0	10.021	0.987	4.301	3.6	6.8	8.9	12.8	18.6
	Bird Creek	OK121300-02-0010C	20	0	30.79	3.85	17.23	6.3	15.85	31	44.43	60.9
	Buck Creek	OK121400-03-0170C	20	0	18.9	3.19	14.26	2	8.5	14.2	27.9	52.7

## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
	Buggy Creek	OK520610-02-0120C	19	0	37.82	5.2	22.68	13.3	26.8	34.2	40.7	117.2
	Bull Creek	OK121500-02-0090D	19	0	17.03	1.54	6.73	5.7	11.7	16.8	22.8	28.1
	California Creek	OK121510-02-0050C	19	0	37.41	4.24	18.48	19.6	20.9	36.4	39.6	84.4
	Chouteau Creek	OK121600-01-0430M	19	0	8.947	0.994	4.333	3.2	6.3	8.6	10.9	21.3
	Commission Creek	OK520620-05-0160C	19	0	103.13	5.03	21.91	26.2	99.7	103.2	110.2	146.1
	Curl Creek	OK121400-01-0270C	20	0	26.2	3.5	15.64	5.6	17.5	24.5	28.3	64.7
	Deer Creek	OK520620-06-0010F	19	0	23.67	1.59	6.95	5.2	20.5	23.5	27.4	34.9
	Delaware Creek	OK121300-01-0150H	19	0	89.1	14.6	63.6	24.9	34.4	63.4	112.2	252
	Dog Creek	OK121500-02-0360D	19	0	25.97	3.75	16.34	7.6	13.7	19.9	31.3	63.6
	Fivemile Creek	OK121600-05-0110G	20	0	13.98	4.5	20.12	2.7	6.53	9.85	13.5	98
	Fourteenmile Creek	OK121600-01-0100G	20	0	6.005	0.504	2.256	2.8	4.35	5.8	6.625	12.1
	Hackberry Creek	OK520620-04-0050D	13	0	74.92	2.13	7.68	59.7	69.55	73.7	82.7	84.7
	Hogshooter Creek	OK121400-01-0300D	20	0	36.25	3.4	15.19	11.4	24.53	37.7	42.5	77.4
	Hominy Creek: Downstrm	OK121300-04-0010C	20	0	42.14	4.86	21.73	5.1	29.48	38	49.98	104
	Hominy Creek: Upstrm	OK121300-04-0280G	20	0	262.7	47.9	214.4	7.5	82.2	202.1	450.6	691.2
	Little Cabin Creek	OK121600-06-0080C	20	0	10.98	1.04	4.65	3.9	6.55	11.45	13.9	20.6
	Little Caney River	OK121400-02-0140H	20	0	18.36	1.5	6.69	6	14.08	17.6	20.73	37.8
	Little Horse Creek	OK121600-03-0190A	18	0	15.44	1.48	6.3	4.3	11.43	14.1	22.05	25.2
	Lone Creek	OK520620-03-0020C	17	0	42.27	1.75	7.22	29.8	35.05	41.9	48.6	52.8
	Mission Creek	OK121400-02-0190B	20	0	15.91	2.49	11.13	3	10.9	13.9	16.73	50.8
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	22.13	4.61	20.11	5.9	11.6	15.5	21.4	80.9
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	18.94	3.81	16.59	5.4	11.9	14.9	16.8	77.7
	Ranger Creek	OK121600-01-0060D	20	0	5.42	0.401	1.795	2.6	4.55	5.05	5.925	11
	Saline Creek	OK121600-02-0030D	20	0	8.48	0.703	3.143	3.5	5.8	8.75	11.275	13.2
	Sand Creek	OK121400-04-0010F	20	0	69.3	14.2	63.7	5	16.1	42.2	142.7	188.7
	Sycamore Creek	OK121600-03-0510D	20	0	9.891	0.738	3.301	0.41	7.8	10.6	12.275	14
	Tar Creek	OK121600-04-0060D	19	0	34.33	6.16	26.85	6	19.3	25.7	40.5	118.8
	Trail Creek	OK520620-02-0090G	19	0	27.21	1.76	7.67	7.7	23.7	26.7	33	39.2
	Walnut Creek	OK520610-03-0010F	19	0	39.74	5.82	25.38	13.3	23.2	29.6	42.3	100.2
<b>Nitrate (mg/L)</b>	Big Cabin Creek	OK121600-06-0220I	20	0	3.7	1.67	7.48	0.08	0.23	0.36	0.58	22.91
	Big Creek	OK121510-03-0010D	19	0	0.3069	0.0959	0.4179	0.0141	0.0141	0.22	0.37	1.59
	Bird Creek	OK121300-02-0010C	20	0	0.1232	0.0266	0.1188	0.0141	0.0141	0.09	0.215	0.39
	Buck Creek	OK121400-03-0170C	20	0	0.1191	0.019	0.085	0.0141	0.05	0.11	0.16	0.31
	Buggy Creek	OK520610-02-0120C	19	0	0.903	0.133	0.581	0.014	0.53	0.7	1.66	1.88
	Bull Creek	OK121500-02-0090D	19	0	0.3502	0.048	0.2093	0.0141	0.2	0.32	0.57	0.72
	California Creek	OK121510-02-0050C	19	0	0.2575	0.0659	0.2873	0.0141	0.06	0.15	0.34	0.96
	Chouteau Creek	OK121600-01-0430M	19	0	0.2225	0.0422	0.1842	0.0141	0.1	0.22	0.28	0.64
	Commission Creek	OK520620-05-0160C	19	0	0.3468	0.0274	0.1193	0.14	0.28	0.37	0.42	0.56
	Curl Creek	OK121400-01-0270C	20	0	0.1549	0.0307	0.1374	0.0141	0.0625	0.095	0.215	0.53
	Deer Creek	OK520620-06-0010F	19	0	1.906	0.258	1.126	0.06	1.3	1.97	2.28	5.32



## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
	Delaware Creek	OK121300-01-0150H	19	0	0.1051	0.0157	0.0683	0.0141	0.05	0.11	0.15	0.24
	Dog Creek	OK121500-02-0360D	19	0	1.566	0.233	1.017	0.58	0.82	1.15	2.4	4.16
	Fivemile Creek	OK121600-05-0110G	20	0	0.3485	0.0478	0.2136	0.07	0.25	0.295	0.39	0.84
	Fourteenmile Creek	OK121600-01-0100G	20	0	0.541	0.107	0.477	0.014	0.153	0.405	0.82	1.58
	Hackberry Creek	OK520620-04-0050D	13	0	0.1508	0.0543	0.1957	0.0141	0.0141	0.08	0.22	0.71
	Hogshooter Creek	OK121400-01-0300D	20	0	0.2716	0.0834	0.3729	0.0141	0.0625	0.12	0.2925	1.46
	Hominy Creek: Downstrm	OK121300-04-0010C	20	0	0.2035	0.025	0.1117	0.05	0.13	0.205	0.2475	0.55
	Hominy Creek: Upstrm	OK121300-04-0280G	20	0	0.1735	0.0484	0.2166	0.0141	0.0256	0.11	0.1675	0.75
	Little Cabin Creek	OK121600-06-0080C	20	0	0.4232	0.078	0.3489	0.0141	0.14	0.37	0.62	1.28
	Little Caney River	OK121400-02-0140H	20	0	0.1761	0.0268	0.1197	0.0141	0.06	0.165	0.2925	0.38
	Little Horse Creek	OK121600-03-0190A	18	0	0.571	0.15	0.635	0.014	0.145	0.285	0.99	2.53
	Lone Creek	OK520620-03-0020C	17	0	0.3094	0.056	0.231	0.15	0.18	0.26	0.3	1.12
	Mission Creek	OK121400-02-0190B	20	0	0.1213	0.0197	0.0879	0.0141	0.06	0.12	0.16	0.34
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	0.2586	0.0371	0.1616	0.0141	0.12	0.25	0.31	0.66
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	0.2626	0.0414	0.1807	0.03	0.11	0.28	0.34	0.69
	Ranger Creek	OK121600-01-0060D	20	0	0.2606	0.0647	0.2895	0.0141	0.0525	0.11	0.365	0.94
	Saline Creek	OK121600-02-0030D	20	0	0.6055	0.0832	0.3723	0.19	0.31	0.485	0.8975	1.47
	Sand Creek	OK121400-04-0010F	20	0	0.1047	0.0209	0.0935	0.0141	0.0141	0.08	0.17	0.38
	Sycamore Creek	OK121600-03-0510D	20	0	1.677	0.203	0.907	0.014	0.843	1.95	2.505	3.13
	Tar Creek	OK121600-04-0060D	19	0	0.3589	0.0379	0.1653	0.17	0.22	0.31	0.48	0.71
	Trail Creek	OK520620-02-0090G	19	0	0.1604	0.0274	0.1193	0.0141	0.08	0.13	0.22	0.49
	Walnut Creek	OK520610-03-0010F	19	0	0.543	0.284	1.24	0.06	0.11	0.25	0.4	5.62
<b>Nitrite (mg/L)</b>	Big Cabin Creek	OK121600-06-0220I	20	0	0.0274	0.00515	0.02304	0.01414	0.01414	0.01414	0.04	0.09
	Big Creek	OK121510-03-0010D	19	0	0.02726	0.00543	0.02366	0.01414	0.01414	0.01414	0.04	0.08
	Bird Creek	OK121300-02-0010C	20	0	0.01694	0.00279	0.01249	0.01414	0.01414	0.01414	0.01414	0.07
	Buck Creek	OK121400-03-0170C	20	0	0.01644	0.00229	0.01025	0.01414	0.01414	0.01414	0.01414	0.06
	Buggy Creek	OK520610-02-0120C	19	0	0.03704	0.00843	0.03676	0.01414	0.01414	0.01414	0.07	0.12
	Bull Creek	OK121500-02-0090D	19	0	0.04082	0.00767	0.03345	0.01414	0.01414	0.01414	0.07	0.11
	California Creek	OK121510-02-0050C	19	0	0.0195	0.00385	0.0168	0.01414	0.01414	0.01414	0.01414	0.08
	Chouteau Creek	OK121600-01-0430M	19	0	0.0238	0.00473	0.0206	0.01414	0.01414	0.01414	0.01414	0.08
	Commission Creek	OK520620-05-0160C	19	0	0.0363	0.0155	0.0675	0.0141	0.0141	0.0141	0.0141	0.26
	Curl Creek	OK121400-01-0270C	20	0	0.02981	0.00803	0.03593	0.01414	0.01414	0.01414	0.01414	0.15
	Deer Creek	OK520620-06-0010F	19	0	0.03336	0.007	0.03051	0.01414	0.01414	0.01414	0.07	0.1
	Delaware Creek	OK121300-01-0150H	19	0	0.0369	0.0194	0.0845	0.0141	0.0141	0.0141	0.0141	0.38
	Dog Creek	OK121500-02-0360D	19	0	0.0638	0.014	0.0612	0.0141	0.0141	0.0141	0.11	0.2
	Fivemile Creek	OK121600-05-0110G	20	0	0.01973	0.00442	0.01976	0.01414	0.01414	0.01414	0.01414	0.1
	Fourteenmile Creek	OK121600-01-0100G	20	0	0.01744	0.00329	0.01473	0.01414	0.01414	0.01414	0.01414	0.08
	Hackberry Creek	OK520620-04-0050D	13	0	0.0423	0.0281	0.1015	0.0141	0.0141	0.0141	0.0141	0.38
	Hogshooter Creek	OK121400-01-0300D	20	0	0.02802	0.00766	0.03426	0.01414	0.01414	0.01414	0.01414	0.12
	Hominy Creek: Downstrm	OK121300-04-0010C	20	0	0.02961	0.00658	0.02944	0.01414	0.01414	0.01414	0.04104	0.11

## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
	Hominy Creek: Upstrm	OK121300-04-0280G	20	0	0.0282	0.01	0.0448	0.0141	0.0141	0.0141	0.0141	0.19
	Little Cabin Creek	OK121600-06-0080C	20	0	0.03469	0.00708	0.03165	0.01414	0.01414	0.01414	0.0575	0.11
	Little Caney River	OK121400-02-0140H	20	0	0.02717	0.00492	0.02199	0.01414	0.01414	0.01414	0.04634	0.08
	Little Horse Creek	OK121600-03-0190A	18	0	0.02767	0.00627	0.02659	0.01414	0.01414	0.01414	0.02561	0.09
	Lone Creek	OK520620-03-0020C	17	0	0.02307	0.00663	0.02733	0.01414	0.01414	0.01414	0.01414	0.12
	Mission Creek	OK121400-02-0190B	20	0	0.01594	0.00179	0.00802	0.01414	0.01414	0.01414	0.01414	0.05
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	0.0259	0.00558	0.02433	0.01414	0.01414	0.01414	0.01414	0.09
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	0.03389	0.00713	0.03108	0.01414	0.01414	0.01414	0.06	0.1
	Ranger Creek	OK121600-01-0060D	20	0	0.01823	0.00302	0.01348	0.01414	0.01414	0.01414	0.01414	0.07
	Saline Creek	OK121600-02-0030D	20	0	0.02023	0.00456	0.02041	0.01414	0.01414	0.01414	0.01414	0.1
	Sand Creek	OK121400-04-0010F	20	0	0.02023	0.0042	0.0188	0.01414	0.01414	0.01414	0.01414	0.08
	Sycamore Creek	OK121600-03-0510D	20	0	0.01594	0.00179	0.00802	0.01414	0.01414	0.01414	0.01414	0.05
	Tar Creek	OK121600-04-0060D	19	0	0.02086	0.00384	0.01673	0.01414	0.01414	0.01414	0.01414	0.07
	Trail Creek	OK520620-02-0090G	19	0	0.01813	0.00399	0.0174	0.01414	0.01414	0.01414	0.01414	0.09
	Walnut Creek	OK520610-03-0010F	19	0	0.0631	0.0267	0.1163	0.0141	0.0141	0.0141	0.08	0.52
<b>Sulfate (mg/L)</b>	Big Cabin Creek	OK121600-06-0220I	20	0	193.3	26.7	119.4	55.2	110.5	191.1	233.4	589
	Big Creek	OK121510-03-0010D	19	0	25.07	1.89	8.26	10.7	20	24.1	27.9	42
	Bird Creek	OK121300-02-0010C	20	0	15.76	1.24	5.54	6	13.03	14.5	20.9	27
	Buck Creek	OK121400-03-0170C	20	0	17.85	1.68	7.5	4.2	13.23	16.75	22.65	33.9
	Buggy Creek	OK520610-02-0120C	19	0	301.2	24	104.6	108	237.9	286.5	370.4	545.9
	Bull Creek	OK121500-02-0090D	19	0	54.1	8.02	34.94	19.8	31.1	43.3	75.4	167.7
	California Creek	OK121510-02-0050C	19	0	35.81	5.17	22.53	4.7	21.4	30.9	41.4	100.8
	Chouteau Creek	OK121600-01-0430M	19	0	25.29	3.06	13.35	4.9	13.7	22.9	37.7	51
	Commission Creek	OK520620-05-0160C	19	0	54.2	10.8	47.3	24	26	29.8	55.8	181.8
	Curl Creek	OK121400-01-0270C	20	0	25.34	3.79	16.96	5.7	10.88	20.25	35.15	63.3
	Deer Creek	OK520620-06-0010F	19	0	480.4	41.4	180.3	126.2	376.5	436.2	609.3	834.7
	Delaware Creek	OK121300-01-0150H	19	0	57.5	12.7	55.5	5.1	19.2	27.2	100.8	185.9
	Dog Creek	OK121500-02-0360D	19	0	42.14	2.84	12.37	16.3	31.7	42.7	52.6	60.7
	Fivemile Creek	OK121600-05-0110G	20	0	42.3	8.58	38.39	4.1	8.08	34.3	69.15	128.7
	Fourteenmile Creek	OK121600-01-0100G	20	0	9.82	0.614	2.744	6.2	7.4	9.65	11.975	14.9
	Hackberry Creek	OK520620-04-0050D	13	0	983.2	91.4	329.7	394	795.8	932.1	1264.4	1525.5
	Hogshooter Creek	OK121400-01-0300D	20	0	24.21	3.12	13.98	11.2	13.33	21.7	27.38	67.2
	Hominy Creek: Downstrm	OK121300-04-0010C	20	0	16.19	1.04	4.64	7.2	12.9	14.9	19.05	25.7
	Hominy Creek: Upstrm	OK121300-04-0280G	20	0	28.53	4.66	20.85	6.6	17.58	22.7	31.85	107.5
	Little Cabin Creek	OK121600-06-0080C	20	0	75.2	10.6	47.4	17.7	44.1	65.8	95.2	187.8
	Little Caney River	OK121400-02-0140H	20	0	10.24	0.832	3.719	4.3	6.325	11.15	12.975	16.8
	Little Horse Creek	OK121600-03-0190A	18	0	23.73	4.15	17.59	4.4	14.5	21.6	24.95	84.6
	Lone Creek	OK520620-03-0020C	17	0	1454.7	30.9	127.6	1286.8	1362.1	1416.6	1574.3	1751.9
	Mission Creek	OK121400-02-0190B	20	0	14.46	1.46	6.55	3.6	10.6	15	16.33	29.5
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	31.25	2.56	11.16	15.5	20.9	29	40.5	55.3

## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	32.74	2.64	11.49	12.6	26.5	28.7	44.9	57.7
	Ranger Creek	OK121600-01-0060D	20	0	17.55	1.25	5.61	5.6	14.33	17.4	22.75	28.2
	Saline Creek	OK121600-02-0030D	20	0	6.475	0.406	1.816	3.5	5.8	6.05	6.675	12.1
	Sand Creek	OK121400-04-0010F	20	0	27.91	4.66	20.83	5.3	15.43	20.4	28.83	82.2
	Sycamore Creek	OK121600-03-0510D	20	0	6.202	0.503	2.251	0.141	5.275	6.4	7.275	11.9
	Tar Creek	OK121600-04-0060D	19	0	567.1	72.1	314.4	70.1	295.1	500.2	887.6	1055.9
	Trail Creek	OK520620-02-0090G	19	0	1411.4	47.8	208.5	817.7	1315.7	1435.9	1558.7	1689.1
	Walnut Creek	OK520610-03-0010F	19	0	50.83	6.12	26.68	17.6	30.2	46.4	59.1	111.5
TKN (mg/L)	Big Cabin Creek	OK121600-06-0220I	20	0	0.578	0.104	0.467	0.078	0.141	0.405	0.805	1.49
	Big Creek	OK121510-03-0010D	19	0	0.354	0.0614	0.2675	0.0778	0.0778	0.25	0.7	0.78
	Bird Creek	OK121300-02-0010C	20	0	0.419	0.124	0.555	0.078	0.145	0.29	0.438	2.66
	Buck Creek	OK121400-03-0170C	20	0	0.353	0.136	0.607	0.078	0.078	0.13	0.225	2.12
	Buggy Creek	OK520610-02-0120C	19	0	1.064	0.337	1.47	0.078	0.23	0.59	1.13	5.89
	Bull Creek	OK121500-02-0090D	19	0	0.6329	0.0799	0.3481	0.0778	0.37	0.64	0.9	1.26
	California Creek	OK121510-02-0050C	19	0	0.4181	0.0661	0.2882	0.0778	0.14	0.39	0.54	1.09
	Chouteau Creek	OK121600-01-0430M	19	0	0.5948	0.0831	0.3624	0.0778	0.25	0.64	0.89	1.2
	Commission Creek	OK520620-05-0160C	19	0	0.291	0.0522	0.2274	0.0778	0.0778	0.26	0.36	0.85
	Curl Creek	OK121400-01-0270C	20	0	0.5132	0.0642	0.2869	0.0778	0.365	0.48	0.69	0.98
	Deer Creek	OK520620-06-0010F	19	0	0.519	0.161	0.703	0.07	0.22	0.32	0.5	3.22
	Delaware Creek	OK121300-01-0150H	19	0	0.4548	0.0627	0.2731	0.0778	0.26	0.43	0.71	0.97
	Dog Creek	OK121500-02-0360D	19	0	0.767	0.148	0.646	0.078	0.39	0.7	1.03	3.06
	Fivemile Creek	OK121600-05-0110G	20	0	0.215	0.127	0.569	0.078	0.078	0.078	0.078	2.63
	Fourteenmile Creek	OK121600-01-0100G	20	0	0.1151	0.0246	0.1099	0.0778	0.0778	0.0778	0.0778	0.54
	Hackberry Creek	OK520620-04-0050D	13	0	0.355	0.0448	0.1617	0.0778	0.265	0.39	0.45	0.65
	Hogshooter Creek	OK121400-01-0300D	20	0	0.3559	0.0528	0.236	0.0778	0.1008	0.35	0.5325	0.93
	Hominy Creek: Downstrm	OK121300-04-0010C	20	0	0.4364	0.0777	0.3473	0.0778	0.0908	0.38	0.69	1.21
	Hominy Creek: Upstrm	OK121300-04-0280G	20	0	0.3239	0.0434	0.1939	0.0778	0.161	0.26	0.54	0.62
	Little Cabin Creek	OK121600-06-0080C	20	0	0.666	0.112	0.5	0.078	0.238	0.585	0.963	1.6
	Little Caney River	OK121400-02-0140H	20	0	0.3699	0.0593	0.265	0.0778	0.1083	0.36	0.4925	1.17
	Little Horse Creek	OK121600-03-0190A	18	0	0.854	0.169	0.718	0.078	0.177	0.735	1.263	2.86
	Lone Creek	OK520620-03-0020C	17	0	0.367	0.101	0.418	0.078	0.078	0.21	0.485	1.68
	Mission Creek	OK121400-02-0190B	20	0	0.4552	0.0571	0.2553	0.0778	0.2875	0.43	0.67	0.9
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	0.5437	0.0952	0.415	0.0778	0.27	0.53	0.79	1.79
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	0.4516	0.0593	0.2586	0.0778	0.22	0.5	0.63	0.91
	Ranger Creek	OK121600-01-0060D	20	0	0.1866	0.0335	0.1498	0.0778	0.0778	0.13	0.2375	0.55
	Saline Creek	OK121600-02-0030D	20	0	0.0956	0.0117	0.0525	0.0778	0.0778	0.0778	0.0778	0.29
	Sand Creek	OK121400-04-0010F	20	0	0.4424	0.0962	0.43	0.0778	0.1208	0.39	0.555	2.01
	Sycamore Creek	OK121600-03-0510D	20	0	0.1344	0.0394	0.1764	0.0778	0.0778	0.0778	0.125	0.87
	Tar Creek	OK121600-04-0060D	19	0	0.422	0.0815	0.3553	0.0778	0.0778	0.34	0.61	1.49
	Trail Creek	OK520620-02-0090G	19	0	0.449	0.134	0.582	0.078	0.078	0.3	0.53	2.6

## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
	Walnut Creek	OK520610-03-0010F	19	0	0.87	0.404	1.761	0.078	0.078	0.35	0.9	7.87
<b>TotDisSolids (mg/L)</b>	Big Cabin Creek	OK121600-06-0220I	20	0	449.9	38.1	170.2	277	348.3	432.5	482	1063
	Big Creek	OK121510-03-0010D	19	0	219.2	11.2	48.7	131	175	227	253	299
	Bird Creek	OK121300-02-0010C	20	0	189.5	7.14	31.92	125	168.75	192	204	257
	Buck Creek	OK121400-03-0170C	20	0	199.5	13.6	60.7	10	173	211	243	264
	Buggy Creek	OK520610-02-0120C	19	0	834.7	53.6	233.9	353	683	865	979	1272
	Bull Creek	OK121500-02-0090D	19	0	185.84	9.03	39.36	122	152	191	209	255
	California Creek	OK121510-02-0050C	19	0	245.9	15.5	67.8	117	202	236	279	421
	Chouteau Creek	OK121600-01-0430M	19	0	166.1	11.3	49.2	86	138	167	182	335
	Commission Creek	OK520620-05-0160C	19	0	495.53	4.77	20.78	449	482	497	507	549
	Curl Creek	OK121400-01-0270C	20	0	207.9	14.2	63.7	110	155.8	197	256.8	346
	Deer Creek	OK520620-06-0010F	19	0	988.9	71.7	312.4	302	817	979	1204	1441
	Delaware Creek	OK121300-01-0150H	19	0	307.5	33.9	148	151	194	254	351	677
	Dog Creek	OK121500-02-0360D	19	0	227.1	14.4	62.8	155	165	210	264	362
	Fivemile Creek	OK121600-05-0110G	20	0	150.85	4.3	19.23	111	136.5	155	161.75	190
	Fourteenmile Creek	OK121600-01-0100G	20	0	102.75	3.93	17.56	76	87.5	102	118.75	129
	Hackberry Creek	OK520620-04-0050D	13	0	1973	141	509	1022	1658	1981	2339	2815
	Hogshooter Creek	OK121400-01-0300D	20	0	270.9	12	53.5	170	235.5	289.5	299	399
	Hominy Creek: Downstrm	OK121300-04-0010C	20	0	197.9	13.9	62	135	159.8	185	215.8	408
	Hominy Creek: Upstrm	OK121300-04-0280G	20	0	702.7	86.5	386.9	251	362	587	1019.5	1340
	Little Cabin Creek	OK121600-06-0080C	20	0	258.2	34	151.8	118	180.3	205	274.5	775
	Little Caney River	OK121400-02-0140H	20	0	176.9	8.04	35.94	96	150	179.5	199.75	236
	Little Horse Creek	OK121600-03-0190A	18	0	202.2	10.9	46.4	110	168.8	205.5	240	277
	Lone Creek	OK520620-03-0020C	17	0	2638	50.2	207	2027	2530	2693	2765.5	2923
	Mission Creek	OK121400-02-0190B	20	0	165.8	9.47	42.36	92	142.75	156.5	208.5	242
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	175	10.3	44.7	106	145	165	190	278
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	173.53	9.67	42.16	120	147	159	187	292
	Ranger Creek	OK121600-01-0060D	20	0	165.15	6.43	28.76	133	144.25	158	195.5	237
	Saline Creek	OK121600-02-0030D	20	0	118.8	4.93	22.07	81	100.25	125	137.75	152
	Sand Creek	OK121400-04-0010F	20	0	303.4	29.8	133.1	148	197.8	256	407	550
	Sycamore Creek	OK121600-03-0510D	20	0	145.85	8.44	37.73	10	136.25	150	166.5	185
Tar Creek	OK121600-04-0060D	19	0	1096	121	529	247	585	1107	1631	1980	
Trail Creek	OK520620-02-0090G	19	0	2380.7	60.9	265.3	1680	2379	2461	2535	2661	
Walnut Creek	OK520610-03-0010F	19	0	451.8	24.3	106	215	416	484	527	602	
<b>TotHardness (mg/L)</b>	Big Cabin Creek	OK121600-06-0220I	20	0	298.2	33.4	149.4	161.1	193	272.7	345.2	830.5
	Big Creek	OK121510-03-0010D	19	0	175.11	9.98	43.5	88.6	133.7	181.7	216.8	226.6
	Bird Creek	OK121300-02-0010C	20	0	107.8	6.41	28.68	51	88.43	117.6	130.03	145
	Buck Creek	OK121400-03-0170C	20	0	164	13.1	58.7	48.1	117.1	187.4	208.2	239
	Buggy Creek	OK520610-02-0120C	19	0	515.7	34.4	150	197.3	431.9	534.1	634.1	713.3
	Bull Creek	OK121500-02-0090D	19	0	97.21	5.69	24.82	44.8	83.3	94.1	118	141.8

## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
	California Creek	OK121510-02-0050C	19	0	157.32	9.86	42.98	92.2	130.7	154.2	188.7	278.4
	Chouteau Creek	OK121600-01-0430M	19	0	79.88	4.63	20.18	35.5	74.3	75.4	93.6	107.9
	Commission Creek	OK520620-05-0160C	19	0	258.36	4.09	17.81	212.8	245.4	261.5	271.9	285.9
	Curl Creek	OK121400-01-0270C	20	0	114.2	10.8	48.2	26.8	83.4	124.4	146.6	205.1
	Deer Creek	OK520620-06-0010F	19	0	680.9	51.3	223.4	191.3	548.3	635.5	887.6	1016.7
	Delaware Creek	OK121300-01-0150H	19	0	132.8	11.8	51.2	72.7	102.1	125.2	146.8	254.3
	Dog Creek	OK121500-02-0360D	19	0	115.73	5.21	22.72	73	95.1	114.1	136	144.5
	Fivemile Creek	OK121600-05-0110G	20	0	135.87	6.35	28.39	58.3	114.48	149	153.88	162.3
	Fourteenmile Creek	OK121600-01-0100G	20	0	79.31	3.95	17.66	47.6	59.9	87.35	94.68	101.6
	Hackberry Creek	OK520620-04-0050D	13	0	1313.9	91.3	329.3	819.1	1016.9	1294.9	1639.8	1799.3
	Hogshooter Creek	OK121400-01-0300D	20	0	181.58	8.71	38.95	99.5	159.98	186.35	206.73	241
	Hominy Creek: Downstrm	OK121300-04-0010C	20	0	104.85	5.29	23.66	49	90.65	105	111.95	167.5
	Hominy Creek: Upstrm	OK121300-04-0280G	20	0	292	30.5	136.3	57.6	183.3	288.4	383.4	562.7
	Little Cabin Creek	OK121600-06-0080C	20	0	134.5	12.5	55.8	54.4	90.8	132.9	161.2	280.4
	Little Caney River	OK121400-02-0140H	20	0	98.89	6.55	29.31	19.1	86.45	104.05	123.45	133.8
	Little Horse Creek	OK121600-03-0190A	18	0	128.72	9.37	39.75	47.6	99.55	138.95	162.93	174.3
	Lone Creek	OK520620-03-0020C	17	0	1942	125	514	202	1872	2045	2121	2550
	Mission Creek	OK121400-02-0190B	20	0	103.98	9.29	41.56	26.1	72.5	109.75	133.13	174.2
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	82.74	4.11	17.9	55.7	71.8	85.8	94.4	115.4
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	80.12	4.86	21.19	39	59.4	79.6	95.2	115
	Ranger Creek	OK121600-01-0060D	20	0	140.92	5.21	23.28	109.1	120.2	135	167.2	177.6
	Saline Creek	OK121600-02-0030D	20	0	97.11	4.94	22.11	60.5	76.48	105.8	114.55	124.9
	Sand Creek	OK121400-04-0010F	20	0	161.9	15.5	69.3	39.8	100.7	170.2	230.7	272
	Sycamore Creek	OK121600-03-0510D	20	0	117.39	7.28	32.55	3.54	107.48	127.7	136.83	144
	Tar Creek	OK121600-04-0060D	19	0	756	87.1	379.6	152.9	397.4	784.7	1125.4	1352.1
	Trail Creek	OK520620-02-0090G	19	0	1917.8	66.7	290.7	1248.9	1764.4	1986.3	2071.3	2424.1
	Walnut Creek	OK520610-03-0010F	19	0	356.2	21	91.7	167.3	322.9	388.3	423.5	470.1
<b>TotOrthoPhos (mg/L)</b>	<b>Big Cabin Creek</b>	<b>OK121600-06-0220I</b>	<b>20</b>	<b>0</b>	<b>0.547</b>	<b>0.218</b>	<b>0.976</b>	<b>0.009</b>	<b>0.026</b>	<b>0.041</b>	<b>0.536</b>	<b>2.72</b>
	Big Creek	OK121510-03-0010D	19	0	0.02348	0.00564	0.02458	0.00354	0.007	0.014	0.032	0.099
	Bird Creek	OK121300-02-0010C	20	0	0.0281	0.01	0.0447	0.0035	0.0093	0.011	0.0353	0.209
	Buck Creek	OK121400-03-0170C	20	0	0.0304	0.0145	0.0649	0.0035	0.008	0.01	0.0138	0.264
	Buggy Creek	OK520610-02-0120C	19	0	0.2089	0.0644	0.2809	0.018	0.053	0.11	0.194	1.002
	Bull Creek	OK121500-02-0090D	19	0	0.0359	0.00741	0.03232	0.00354	0.011	0.023	0.046	0.116
	California Creek	OK121510-02-0050C	19	0	0.03263	0.00983	0.04285	0.005	0.009	0.021	0.031	0.183
	Chouteau Creek	OK121600-01-0430M	19	0	0.03826	0.00531	0.02314	0.012	0.02	0.03	0.046	0.094
	Commission Creek	OK520620-05-0160C	19	0	0.01879	0.00322	0.01404	0.007	0.01	0.015	0.018	0.056
	Curl Creek	OK121400-01-0270C	20	0	0.0885	0.037	0.1654	0.016	0.0188	0.0335	0.0755	0.733
	Deer Creek	OK520620-06-0010F	19	0	0.2236	0.0713	0.3108	0.087	0.11	0.151	0.183	1.49
	Delaware Creek	OK121300-01-0150H	19	0	0.02413	0.00319	0.01388	0.00354	0.015	0.021	0.028	0.056
	Dog Creek	OK121500-02-0360D	19	0	0.684	0.16	0.695	0.131	0.173	0.346	1.025	2.434
	Fivemile Creek	OK121600-05-0110G	20	0	0.02003	0.00734	0.03281	0.00354	0.0105	0.012	0.0155	0.158

## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
	Fourteenmile Creek	OK121600-01-0100G	20	0	0.03218	0.00449	0.02008	0.00354	0.021	0.0245	0.035	0.08
	Hackberry Creek	OK520620-04-0050D	13	0	0.02492	0.00588	0.0212	0.005	0.009	0.016	0.047	0.07
	Hogshooter Creek	OK121400-01-0300D	20	0	0.047	0.0131	0.0588	0.009	0.0168	0.025	0.055	0.257
	Hominy Creek: Downstrm	OK121300-04-0010C	20	0	0.071	0.0161	0.0719	0.007	0.0283	0.053	0.1045	0.324
	Hominy Creek: Upstrm	OK121300-04-0280G	20	0	0.0238	0.0104	0.0467	0.0035	0.0073	0.01	0.0185	0.218
	Little Cabin Creek	OK121600-06-0080C	20	0	0.0639	0.0105	0.0468	0.0035	0.026	0.052	0.0848	0.196
	Little Caney River	OK121400-02-0140H	20	0	0.0569	0.0108	0.0484	0.006	0.0308	0.045	0.0623	0.193
	Little Horse Creek	OK121600-03-0190A	18	0	0.2762	0.0586	0.2487	0.041	0.096	0.1725	0.3388	0.852
	Lone Creek	OK520620-03-0020C	17	0	0.02088	0.00742	0.03059	0.005	0.007	0.011	0.017	0.133
	Mission Creek	OK121400-02-0190B	20	0	0.02438	0.00251	0.01121	0.00354	0.01725	0.022	0.029	0.049
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	0.06116	0.00867	0.03778	0.03	0.034	0.056	0.075	0.194
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	0.05111	0.00642	0.02798	0.01	0.029	0.045	0.08	0.112
	Ranger Creek	OK121600-01-0060D	20	0	0.03435	0.00511	0.02284	0.005	0.02125	0.0255	0.047	0.109
	Saline Creek	OK121600-02-0030D	20	0	0.009854	0.000829	0.003707	0.003536	0.0065	0.01	0.012	0.017
	Sand Creek	OK121400-04-0010F	20	0	0.0261	0.00545	0.02437	0.009	0.0125	0.0185	0.027	0.118
	Sycamore Creek	OK121600-03-0510D	20	0	0.02598	0.00695	0.03107	0.00354	0.016	0.019	0.02775	0.154
	Tar Creek	OK121600-04-0060D	19	0	0.0556	0.0159	0.0691	0.018	0.025	0.036	0.07	0.33
	Trail Creek	OK520620-02-0090G	19	0	0.0682	0.0281	0.1227	0.01	0.02	0.023	0.068	0.557
	Walnut Creek	OK520610-03-0010F	19	0	0.2291	0.0943	0.4109	0.011	0.035	0.091	0.229	1.468
<b>TotPhosphorus (mg/L)</b>	Big Cabin Creek	OK121600-06-0220I	20	0	0.676	0.251	1.123	0.035	0.055	0.122	0.758	3.299
	Big Creek	OK121510-03-0010D	19	0	0.05921	0.00994	0.04332	0.013	0.027	0.047	0.072	0.16
	Bird Creek	OK121300-02-0010C	20	0	0.0986	0.0407	0.182	0.016	0.033	0.0525	0.094	0.86
	Buck Creek	OK121400-03-0170C	20	0	0.1033	0.0471	0.2107	0.013	0.0223	0.033	0.059	0.801
	Buggy Creek	OK520610-02-0120C	19	0	0.38	0.141	0.615	0.034	0.093	0.155	0.349	2.434
	Bull Creek	OK121500-02-0090D	19	0	0.0999	0.0123	0.0537	0.023	0.061	0.091	0.13	0.237
	California Creek	OK121510-02-0050C	19	0	0.0821	0.0158	0.069	0.024	0.039	0.062	0.084	0.293
	Chouteau Creek	OK121600-01-0430M	19	0	0.10658	0.0084	0.0366	0.063	0.079	0.098	0.13	0.188
	Commission Creek	OK520620-05-0160C	19	0	0.03679	0.00621	0.02705	0.012	0.022	0.028	0.042	0.113
	Curl Creek	OK121400-01-0270C	20	0	0.1599	0.0383	0.1712	0.038	0.064	0.095	0.177	0.744
	Deer Creek	OK520620-06-0010F	19	0	0.332	0.119	0.517	0.136	0.169	0.19	0.27	2.444
	Delaware Creek	OK121300-01-0150H	19	0	0.0726	0.0108	0.047	0.026	0.035	0.058	0.103	0.196
	Dog Creek	OK121500-02-0360D	19	0	0.749	0.162	0.706	0.199	0.293	0.427	0.882	2.759
	Fivemile Creek	OK121600-05-0110G	20	0	0.058	0.0336	0.1501	0.017	0.0193	0.023	0.0278	0.695
	Fourteenmile Creek	OK121600-01-0100G	20	0	0.05375	0.00875	0.03914	0.023	0.0285	0.0405	0.05675	0.167
	Hackberry Creek	OK520620-04-0050D	13	0	0.04262	0.00784	0.02827	0.006	0.025	0.03	0.075	0.093
	Hogshooter Creek	OK121400-01-0300D	20	0	0.0982	0.0229	0.1024	0.021	0.0403	0.0595	0.1095	0.419
	Hominy Creek: Downstrm	OK121300-04-0010C	20	0	0.118	0.0243	0.1088	0.022	0.0518	0.0805	0.1755	0.486
	Hominy Creek: Upstrm	OK121300-04-0280G	20	0	0.0728	0.0349	0.1561	0.01	0.0145	0.0285	0.067	0.725
	Little Cabin Creek	OK121600-06-0080C	20	0	0.145	0.0235	0.1049	0.017	0.0813	0.11	0.2315	0.367
	Little Caney River	OK121400-02-0140H	20	0	0.1274	0.0209	0.0935	0.054	0.08	0.0905	0.1433	0.423
	Little Horse Creek	OK121600-03-0190A	18	0	0.3553	0.0701	0.2973	0.058	0.1475	0.238	0.4648	1.068

## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
	Lone Creek	OK520620-03-0020C	17	0	0.0529	0.015	0.062	0.007	0.018	0.026	0.0665	0.208
	Mission Creek	OK121400-02-0190B	20	0	0.08255	0.00904	0.04044	0.027	0.0485	0.0815	0.09575	0.185
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	0.1294	0.016	0.0699	0.057	0.08	0.105	0.158	0.302
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	0.1095	0.0134	0.0583	0.023	0.067	0.084	0.158	0.219
	Ranger Creek	OK121600-01-0060D	20	0	0.06245	0.00735	0.03286	0.027	0.04325	0.0545	0.07375	0.172
	Saline Creek	OK121600-02-0030D	20	0	0.023	0.00237	0.01062	0.011	0.01475	0.0215	0.02475	0.05
	Sand Creek	OK121400-04-0010F	20	0	0.0841	0.0253	0.1133	0.019	0.0343	0.053	0.0803	0.534
	Sycamore Creek	OK121600-03-0510D	20	0	0.0445	0.0117	0.0522	0.0035	0.026	0.0345	0.0395	0.259
	Tar Creek	OK121600-04-0060D	19	0	0.0949	0.0258	0.1127	0.026	0.043	0.053	0.113	0.534
	Trail Creek	OK520620-02-0090G	19	0	0.1048	0.0319	0.1392	0.017	0.043	0.057	0.105	0.647
	Walnut Creek	OK520610-03-0010F	19	0	0.312	0.107	0.466	0.023	0.046	0.141	0.294	1.614
<b>TotSusSolids (mg/L)</b>	Big Cabin Creek	OK121600-06-0220I	20	0	63.6	38.3	171.5	7.1	7.1	12	41	783
	Big Creek	OK121510-03-0010D	19	0	15.51	3.26	14.2	7.07	7.07	7.07	16	54
	Bird Creek	OK121300-02-0010C	20	0	76.7	61.5	275.3	7.1	7.1	10	23.5	1245
	Buck Creek	OK121400-03-0170C	20	0	129.4	78.5	351.3	7.1	7.1	7.1	11.8	1378
	Buggy Creek	OK520610-02-0120C	19	0	443	237	1032	7	11	73	204	3930
	Bull Creek	OK121500-02-0090D	19	0	18.29	2.98	12.99	7.07	7.07	16	23	51
	California Creek	OK121510-02-0050C	19	0	17.39	2.63	11.48	7.07	7.07	15	27	50
	Chouteau Creek	OK121600-01-0430M	19	0	27.18	7.82	34.09	7.07	7.07	19	35	156
	Commission Creek	OK520620-05-0160C	19	0	27.86	8.33	36.33	7.07	7.07	16	31	158
	Curl Creek	OK121400-01-0270C	20	0	26.77	5.92	26.5	7.07	7.07	14	43	116
	Deer Creek	OK520620-06-0010F	19	0	313	208	907	7	12	40	270	4019
	Delaware Creek	OK121300-01-0150H	19	0	23.03	8.35	36.38	7.07	7.07	16	20	170
	Dog Creek	OK121500-02-0360D	19	0	14.53	4.68	20.4	7.07	7.07	7.07	14	93
	Fivemile Creek	OK121600-05-0110G	20	0	40.4	33.2	148.4	7.1	7.1	7.1	7.1	671
	Fourteenmile Creek	OK121600-01-0100G	20	0	9.31	1.95	8.74	7.07	7.07	7.07	7.07	46
	Hackberry Creek	OK520620-04-0050D	13	0	9.83	1.99	7.16	7.07	7.07	7.07	7.07	31
	Hogshooter Creek	OK121400-01-0300D	20	0	14.39	2.09	9.35	7.07	7.07	9.04	20.75	39
	Hominy Creek: Downstrm	OK121300-04-0010C	20	0	31.61	4.29	19.21	7.07	16.25	28	45.5	82
	Hominy Creek: Upstrm	OK121300-04-0280G	20	0	83.7	72.9	325.9	7.1	7.1	7.1	13.3	1468
	Little Cabin Creek	OK121600-06-0080C	20	0	42.5	14.2	63.6	7.1	7.1	16.5	43.3	248
	Little Caney River	OK121400-02-0140H	20	0	66.4	21	93.9	7.1	22.3	30.5	74.8	415
	Little Horse Creek	OK121600-03-0190A	18	0	48.3	26	110.2	7.1	7.1	7.1	15.5	401
	Lone Creek	OK520620-03-0020C	17	0	29.7	17.9	73.7	7.1	7.1	7.1	14	313
	Mission Creek	OK121400-02-0190B	20	0	24.88	7.6	34	7.07	7.07	14	21.5	138
	Pryor Creek: HWY 20	OK121610-00-0050D	19	0	41.2	13.5	58.8	7.1	12	20	46	262
	Pryor Creek: HWY 69	OK121610-00-0050M	19	0	27.39	7.33	31.94	7.07	7.07	18	40	144
	Ranger Creek	OK121600-01-0060D	20	0	8.81	1.2	5.39	7.07	7.07	7.07	7.07	26
	Saline Creek	OK121600-02-0030D	20	0	7.918	0.846	3.785	7.071	7.071	7.071	7.071	24
	Sand Creek	OK121400-04-0010F	20	0	70.4	49	219.1	7.1	7.1	20	27.5	997
	Sycamore Creek	OK121600-03-0510D	20	0	11.46	3.69	16.51	7.07	7.07	7.07	7.07	81

## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
	Tar Creek	OK121600-04-0060D	19	0	20.3	11.7	51	7.1	7.1	7.1	7.1	230
	Trail Creek	OK520620-02-0090G	19	0	135.1	78.6	342.7	7.1	7.1	36	90	1511
	Walnut Creek	OK520610-03-0010F	19	0	124.7	64.6	281.5	7.1	7.1	29	59	1058
<b>Flow (cfs)</b>	Big Cabin Creek	OK121600-06-0220I	10	10	8.27	5.07	16.04	0	0	1.19	11.33	51.53
	Big Creek	OK121510-03-0010D	15	4	34.5	11.1	42.9	0	0	13.4	58.9	147.5
	Bird Creek	OK121300-02-0010C	15	5	82.5	36.9	143	2.6	9	34.4	98.2	543
	Buck Creek	OK121400-03-0170C	17	3	22.33	8.42	34.71	0	0	0.97	44.28	121.27
	Buggy Creek	OK520610-02-0120C	17	2	33	15.2	62.6	0	1.3	13	36.1	261.5
	Bull Creek	OK121500-02-0090D	11	8	3.9	1.36	4.49	0	0	2.45	7.11	13.17
	California Creek	OK121510-02-0050C	17	2	6.46	2.23	9.18	0	0	0.56	16.3	28.68
	Chouteau Creek	OK121600-01-0430M	12	7	12.61	8.72	30.22	0	0	3.08	11.54	107.32
	Commission Creek	OK520620-05-0160C	17	2	6.78	1.05	4.34	1.61	4.16	5.88	7.24	20
	Curl Creek	OK121400-01-0270C	14	6	6.28	2.58	9.66	0	0	0.74	13.13	31.67
	Deer Creek	OK520620-06-0010F	15	4	63.8	18.4	71.3	4	28.4	33.9	62.9	263.3
	Delaware Creek	OK121300-01-0150H	17	2	7.93	2.94	12.11	0	0.09	1.23	13.25	46.54
	Dog Creek	OK121500-02-0360D	17	2	12.7	4.43	18.26	1.03	1.98	5.25	16.68	64.14
	Fivemile Creek	OK121600-05-0110G	18	2	10.58	3.04	12.89	0.31	1.82	6.53	13.27	47.37
	Fourteenmile Creek	OK121600-01-0100G	18	2	25.84	9.47	40.18	0.53	4.81	8.19	29.99	164.44
	Hackberry Creek	OK520620-04-0050D	11	2	3.21	0.812	2.693	0.5	1.206	2.741	5.2	8.458
	Hogshooter Creek	OK121400-01-0300D	15	5	7.53	3.24	12.56	0	0	1.94	5.8	37.53
	Hominy Creek: Downstrm	OK121300-04-0010C	15	5	90	18.9	73.2	7.1	34.7	66	154.4	267.5
	Hominy Creek: Upstrm	OK121300-04-0280G	18	2	12.68	4.66	19.75	0	0.45	2.33	20.27	67.26
	Little Cabin Creek	OK121600-06-0080C	12	8	2.53	1.37	4.73	0	0	0.32	3.33	14.47
	Little Caney River	OK121400-02-0140H	12	8	30.6	20	69.3	2.4	4.4	13	14.4	250
	Little Horse Creek	OK121600-03-0190A	14	4	7.45	2.28	8.51	0	0	4.71	15.48	24.42
	Lone Creek	OK520620-03-0020C	15	2	3.54	2.23	8.63	0.02	0.64	1.52	2.31	34.55
	Mission Creek	OK121400-02-0190B	15	5	8.23	4.19	16.24	0	0	0.08	6.65	56.31
	Pryor Creek: HWY 20	OK121610-00-0050D	15	4	21.69	8.71	33.74	0	0.45	5.28	22.89	106.17
	Pryor Creek: HWY 69	OK121610-00-0050M	14	5	23.7	9.19	34.39	0	0.28	7.08	33.64	103.83
	Ranger Creek	OK121600-01-0060D	16	4	18.83	7.36	29.44	0	0.88	7.63	26.15	116.39
	Saline Creek	OK121600-02-0030D	17	3	67.3	26.4	108.9	3.3	8	12.2	103.2	358.5
	Sand Creek	OK121400-04-0010F	15	5	57	22.6	87.5	0	2.3	9.1	89.2	268
	Sycamore Creek	OK121600-03-0510D	17	3	30	12.3	50.6	2.8	5.4	6.6	39.8	194.5
	Tar Creek	OK121600-04-0060D	13	6	7.54	2.69	9.7	0.25	0.6	4.33	8.84	32.66
	Trail Creek	OK520620-02-0090G	17	2	4.7	1.71	7.04	0	0.8	2.77	5.06	29.58
	Walnut Creek	OK520610-03-0010F	15	4	36.3	11	42.6	0.3	4.3	10.1	88.4	111
<b>Base Flow (cfs)</b>	Big Cabin Creek	OK121600-06-0220I	10	0	8.27	5.07	16.04	0	0	1.19	11.33	51.53
	Big Creek	OK121510-03-0010D	11	4	23.39	9.82	32.56	0	0	8.51	48.12	87.58
	Bird Creek	OK121300-02-0010C	12	1	26.2	7.99	27.69	2.62	8.22	12.01	40.52	98.15
	Buck Creek	OK121400-03-0170C	14	1	9.92	4.73	17.68	0	0	0.79	17.85	53.1



## Appendix A.3. Descriptive statistics by site for water quality parameters.

Variable	Site Name	WBID	N		Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
	Buggy Creek	OK520610-02-0120C	12	1	8.82	3.31	11.46	0	0.82	2.5	19.33	29.57
	Bull Creek	OK121500-02-0090D	9	7	3.03	1.22	3.66	0	0	1.45	5.96	9.89
	California Creek	OK121510-02-0050C	13	2	2.35	1.41	5.07	0	0	0.11	2.44	17.93
	Chouteau Creek	OK121600-01-0430M	10	7	3.12	1.39	4.41	0	0	1.53	4.8	12.09
	Commission Creek	OK520620-05-0160C	16	2	6.83	1.12	4.47	1.61	4.13	5.86	7.3	20
	Curl Creek	OK121400-01-0270C	13	6	4.33	1.82	6.58	0	0	0.29	9.63	16.79
	Deer Creek	OK520620-06-0010F	10	1	37.02	4.9	15.49	15.32	27.81	31.77	53.22	62.88
	Delaware Creek	OK121300-01-0150H	15	2	5.08	1.85	7.15	0	0.02	1.15	8.17	21.89
	Dog Creek	OK121500-02-0360D	16	2	10.18	3.88	15.51	1.03	1.76	5.21	14.29	64.14
	Fivemile Creek	OK121600-05-0110G	16	1	6.55	1.36	5.46	0.31	1.52	6.07	8.84	17.9
	Fourteenmile Creek	OK121600-01-0100G	15	1	11.25	2.7	10.45	0.53	3.02	7.25	16.32	30.47
	Hackberry Creek	OK520620-04-0050D	9	2	2.405	0.699	2.098	0.5	1.027	1.313	3.287	7.215
	Hogshooter Creek	OK121400-01-0300D	13	5	5.66	2.81	10.13	0	0	0.47	5.66	29.84
	Hominy Creek: Downstrm	OK121300-04-0010C	14	3	83	18.8	70.5	7.1	34	61.3	124.7	267.5
	Hominy Creek: Upstrm	OK121300-04-0280G	15	1	4.77	1.78	6.88	0	0.29	1.81	7.36	21.25
	Little Cabin Creek	OK121600-06-0080C	12	0	2.53	1.37	4.73	0	0	0.32	3.33	14.47
	Little Caney River	OK121400-02-0140H	11	5	10.7	1.87	6.22	2.39	4.12	12.77	14.42	22.9
	Little Horse Creek	OK121600-03-0190A	13	2	6.14	2.01	7.26	0	0	3.98	13.12	20.18
	Lone Creek	OK520620-03-0020C	13	2	1.249	0.27	0.974	0.015	0.551	0.844	1.804	3.077
	Mission Creek	OK121400-02-0190B	14	3	6.69	4.19	15.68	0	0	0.06	5.11	56.31
	Pryor Creek: HWY 20	OK121610-00-0050D	13	1	16.56	7.22	26.05	0	0.32	5.28	18.75	84.26
	Pryor Creek: HWY 69	OK121610-00-0050M	11	1	11.08	5.48	18.18	0	0	4.32	15.71	60.63
	Ranger Creek	OK121600-01-0060D	14	1	10.08	3.13	11.72	0	0.33	6.6	16.23	37.65
	Saline Creek	OK121600-02-0030D	12	1	10.72	1.54	5.35	3.26	6.62	9.53	15.5	19.99
	Sand Creek	OK121400-04-0010F	12	4	19.22	8.97	31.07	0.04	0.67	3.71	21.13	89.22
	Sycamore Creek	OK121600-03-0510D	14	1	11.77	3.59	13.43	2.82	4.94	6.35	10.41	43.25
	Tar Creek	OK121600-04-0060D	13	3	7.54	2.69	9.7	0.25	0.6	4.33	8.84	32.66
	Trail Creek	OK520620-02-0090G	14	2	2.387	0.506	1.894	0.003	0.137	2.575	3.654	5.47
	Walnut Creek	OK520610-03-0010F	11	2	13.78	6.07	20.12	0.26	0.74	6.03	16.81	68.23

## Appendix B. Fish collection data.

Site Name	WBID	SAMPLEID	Date	Number	Family	Species	Vern Name	Combined tolerance	Insectivore	Planktivore	Omnivore	Piscivore	Herbivore	Generalist	Lithophilic	Spawner
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	112	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	71	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	27	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X					X
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	21	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X			X
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	20	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	19	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	13	Atherinidae	Labidesthes sicculus	Brook silverside	interm	X							
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	7	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X				
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	7	Percidae	Etheostoma spectabile	Orangethroat darter	interm	X							X
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	6	Fundulidae	Fundulus notatus	Blackstripe topminnow	interm	X							
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	5	Centrarchidae	Micropterus punctulatus	Spotted bass	interm				X				X
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	4	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X		
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	3	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	3	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X							
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	3	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X		
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	1	Lepisosteidae	Lepisosteus osseus	Longnose gar	tol				X				
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	1	Percidae	Etheostoma flabellare	Fantail darter	intol	X							X
Big Cabin Creek	OK121600-06-0220I	35468	20-Jul-06	1	Percidae	Percina caprodes	Logperch	interm	X							
Big Creek	OK121510-03-0010D	35467	19-Jul-06	47	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Big Creek	OK121510-03-0010D	35467	19-Jul-06	44	Atherinidae	Labidesthes sicculus	Brook silverside	interm	X							
Big Creek	OK121510-03-0010D	35467	19-Jul-06	33	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X							
Big Creek	OK121510-03-0010D	35467	19-Jul-06	19	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Big Creek	OK121510-03-0010D	35467	19-Jul-06	15	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X					X
Big Creek	OK121510-03-0010D	35467	19-Jul-06	12	Centrarchidae	Unidentified Lepomis hybrid	Hybrid, green x bluegill sunfish	tol								
Big Creek	OK121510-03-0010D	35467	19-Jul-06	11	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Big Creek	OK121510-03-0010D	35467	19-Jul-06	10	Cyprinidae	Lythrurus umbratilis	Redfin shiner	interm	X							
Big Creek	OK121510-03-0010D	35467	19-Jul-06	9	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Big Creek	OK121510-03-0010D	35467	19-Jul-06	9	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X		
Big Creek	OK121510-03-0010D	35467	19-Jul-06	7	Cyprinidae	Cyprinella camura	Bluntnose shiner	intol	X							X
Big Creek	OK121510-03-0010D	35467	19-Jul-06	4	Fundulidae	Fundulus olivaceus	Blackspotted topminnow	interm	X							
Big Creek	OK121510-03-0010D	35467	19-Jul-06	4	Catostomidae	Moxostoma erythrurum	Golden redbhorse	interm	X							X
Big Creek	OK121510-03-0010D	35467	19-Jul-06	4	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Big Creek	OK121510-03-0010D	35467	19-Jul-06	3	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X				
Big Creek	OK121510-03-0010D	35467	19-Jul-06	2	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X			X
Big Creek	OK121510-03-0010D	35467	19-Jul-06	2	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X		
Big Creek	OK121510-03-0010D	35467	19-Jul-06	1	Percidae	Percina caprodes	Logperch	interm	X							
Big Creek	OK121510-03-0010D	35467	19-Jul-06	1	Lepisosteidae	Lepisosteus	Unidentified Lepisosteus sp. (gar)	tol				X				
Big Creek	OK121510-03-0010D	35467	19-Jul-06	1	Percidae	Percina copelandi	Channel darter	intol	X							X
Big Creek	OK121510-03-0010D	35467	19-Jul-06	1	Centrarchidae	Lepomis microlophus	Redear sunfish	interm	X							
Big Creek	OK121510-03-0010D	35467	19-Jul-06	1	Catostomidae	Minytrema melanops	Spotted sucker	intol	X							X
Big Creek	OK121510-03-0010D	35467	19-Jul-06	1	Centrarchidae	Pomoxis annularis	White crappie	tol				X				
Big Creek	OK121510-03-0010D	35467	19-Jul-06	1	Centrarchidae	Micropterus punctulatus	Spotted bass	interm				X				X
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	672	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X			X

## Appendix B. Fish collection data.

Site Name	WBID	SAMPLEID	Date	Number	Family	Species	Vern Name	Combined tolerance	Insectivor	Planktivore	Omnivore	Piscivore	Herbivore	Generalist	Lithophilic	Spawner
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	375	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	267	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	265	Cyprinidae	Camptostoma anomalum	Central stoneroller	interm					X		X	
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	83	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X		
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	32	Cyprinidae	Phenacobius mirabilis	Suckermouth minnow	intol	X							
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	29	Centrarchidae	Micropterus punctulatus	Spotted bass	interm				X			X	
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	26	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	21	Centrarchidae	Micropterus punctulatus	Spotted bass	interm				X			X	
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	18	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X					
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	16	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X		
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	14	Percidae	Percina phoxocephala	Slenderhead darter	intol	X						X	
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	14	Percidae	Etheostoma spectabile	Orangethroat darter	interm	X						X	
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	11	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X		
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	8	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	7	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X		
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	6	Fundulidae	Fundulus notatus	Blackstripe topminnow	interm	X							
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	5	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	5	Ictaluridae	Pylodictis olivaris	Flathead catfish	tol				X				
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	5	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	5	Fundulidae	Fundulus olivaceus	Blackspeckled topminnow	interm	X							
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	4	Percidae	Etheostoma spectabile	Orangethroat darter	interm	X						X	
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	3	Percidae	Percina phoxocephala	Slenderhead darter	intol	X						X	
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	2	Ictaluridae	Pylodictis olivaris	Flathead catfish	tol				X				
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	2	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	2	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X				X	
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	2	Ictaluridae	Noturus nocturnus	Freckled madtom	intol	X							
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	2	Cyprinidae	Phenacobius mirabilis	Suckermouth minnow	intol	X							
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	2	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	1	Lepisosteidae	Lepisosteus	Unidentified Lepisosteus sp. (gar)	tol				X				
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	1	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X				X	
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	1	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X							
Bird Creek	OK121300-02-0010C	35159	06-Jun-06	1	Centrarchidae	Micropterus dolomieu	Smallmouth bass	intol				X			X	
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	1	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	1	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X					
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	1	Percidae	Percina caprodes	Loggerhead	interm	X							
Bird Creek	OK121300-02-0010C	35610	10-Aug-06	1	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X							
Buggy Creek	OK520610-02-0120C	35153	17-May-06	65	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Buggy Creek	OK520610-02-0120C	35153	17-May-06	63	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Buggy Creek	OK520610-02-0120C	35153	17-May-06	41	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X		
Buggy Creek	OK520610-02-0120C	35153	17-May-06	21	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Buggy Creek	OK520610-02-0120C	35153	17-May-06	12	Cyprinidae	Cyprinus carpio	Common carp	tol			X					
Buggy Creek	OK520610-02-0120C	35153	17-May-06	10	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Buggy Creek	OK520610-02-0120C	35153	17-May-06	9	Cyprinidae	Notropis stramineus	Sand shiner	interm	X							

## Appendix B. Fish collection data.

Site Name	WBID	SAMPLEID	Date	Number	Family	Species	Vern Name	Combined tolerance	Insectivore	Planktivore	Omnivore	Piscivore	Herbivore	Generalist	Lithophilic	Spawner
Buggy Creek	OK520610-02-0120C	35153	17-May-06	6	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Buggy Creek	OK520610-02-0120C	35153	17-May-06	3	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X					
Buggy Creek	OK520610-02-0120C	35153	17-May-06	2	Ictaluridae	Ameiurus melas	Black bullhead	tol	X					X		
Buggy Creek	OK520610-02-0120C	35153	17-May-06	1	Fundulidae	Fundulus zebrinus	Plains killifish	tol	X							
Buggy Creek	OK520610-02-0120C	35153	17-May-06	1	Ictaluridae	Ameiurus natalis	Yellow bullhead	tol	X					X		
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	82	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	79	Clupeidae	Dorosoma petenense	Threadfin shad	interm			X					
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	78	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	32	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	21	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X					
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	19	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X				
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	14	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	11	Atherinidae	Labidesthes sicculus	Brook silverside	interm	X							
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	11	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X		
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	10	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	9	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X							
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	7	Centrarchidae	Lepomis microlophus	Redear sunfish	interm	X							
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	6	Centrarchidae	Pomoxis annularis	White crappie	tol				X				
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	3	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X		
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	2	Sciaenidae	Aplodinotus grunniens	Freshwater drum	tol	X					X		
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	2	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X				X	
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	2	Lepisosteidae	Lepisosteus platostomus	Shortnose gar	tol				X				
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	2	Catostomidae	Carpodes carpio	River carpsucker	tol			X					
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	1	Cyprinidae	Cyprinus carpio	Common carp	tol			X					
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	1	Centrarchidae	Pomoxis nigromaculatus	Black crappie	tol				X				
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	1	Cyprinidae	Notropis buchanani	Ghost shiner	interm	X							
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	1	Ictaluridae	Pylodictis olivaris	Flathead catfish	tol				X				
Bull Creek	OK121500-02-0090D	35162	27-Jun-06	1	Centrarchidae	Micropterus punctulatus	Spotted bass	interm				X			X	
California Creek	OK121510-02-0050C	35163	28-Jun-06	36	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
California Creek	OK121510-02-0050C	35163	28-Jun-06	17	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
California Creek	OK121510-02-0050C	35163	28-Jun-06	17	Clupeidae	Dorosoma cepedianum	Gizzard shad	tol			X					
California Creek	OK121510-02-0050C	35163	28-Jun-06	15	Cyprinidae	Camptostoma anomalum	Central stoneroller	interm					X		X	
California Creek	OK121510-02-0050C	35163	28-Jun-06	10	Cyprinidae	Lythrurus umbratilis	Redfin shiner	interm	X							
California Creek	OK121510-02-0050C	35163	28-Jun-06	10	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
California Creek	OK121510-02-0050C	35163	28-Jun-06	8	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
California Creek	OK121510-02-0050C	35163	28-Jun-06	7	Catostomidae	Moxostoma erythrurum	Golden redbhorse	interm	X							X
California Creek	OK121510-02-0050C	35163	28-Jun-06	7	Cyprinidae	Cyprinella camura	Bluntnose shiner	intol	X						X	
California Creek	OK121510-02-0050C	35163	28-Jun-06	6	Fundulidae	Fundulus olivaceus	Blackspotted topminnow	interm	X							
California Creek	OK121510-02-0050C	35163	28-Jun-06	4	Centrarchidae	Lepomis microlophus	Redear sunfish	interm	X							
California Creek	OK121510-02-0050C	35163	28-Jun-06	4	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X		
California Creek	OK121510-02-0050C	35163	28-Jun-06	4	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X					X
California Creek	OK121510-02-0050C	35163	28-Jun-06	3	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X							
California Creek	OK121510-02-0050C	35163	28-Jun-06	3	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X					

## Appendix B. Fish collection data.

Site Name	WBID	SAMPLEID	Date	Number	Family	Species	Vern Name	Combined tolerance	Insectivore	Planktivore	Omnivore	Piscivore	Herbivore	Generalist	Lithophilic	Spawner
California Creek	OK121510-02-0050C	35163	28-Jun-06	3	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X		
California Creek	OK121510-02-0050C	35163	28-Jun-06	2	Atherinidae	Labidesthes sicculus	Brook silverside	interm	X							
California Creek	OK121510-02-0050C	35163	28-Jun-06	2	Ictaluridae	Ameiurus melas	Black bullhead	tol	X					X		
California Creek	OK121510-02-0050C	35163	28-Jun-06	2	Catostomidae	Ictiobus bubalus	Smallmouth buffalo	tol	X							
California Creek	OK121510-02-0050C	35163	28-Jun-06	1	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
California Creek	OK121510-02-0050C	35163	28-Jun-06	1	Ictaluridae	Noturus nocturnus	Freckled madtom	intol	X							
California Creek	OK121510-02-0050C	35163	28-Jun-06	1	Cyprinidae	Cyprinus carpio	Common carp	tol			X					
California Creek	OK121510-02-0050C	35163	28-Jun-06	1	Percidae	Etheostoma spectabile	Orangethroat darter	interm	X							X
California Creek	OK121510-02-0050C	35163	28-Jun-06	1	Cyprinidae	Notemigonus crysoleucas	Golden shiner	tol			X					
California Creek	OK121510-02-0050C	35163	28-Jun-06	1	Centrarchidae	Pomoxis annularis	White crappie	tol				X				
California Creek	OK121510-02-0050C	35163	28-Jun-06	1	Ictaluridae	Pylodictis olivaris	Flathead catfish	tol				X				
California Creek	OK121510-02-0050C	35163	28-Jun-06	1	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X				
Chouteau Creek	OK121600-01-0430M	35469	24-Jul-06	71	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Chouteau Creek	OK121600-01-0430M	35469	24-Jul-06	51	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X				
Chouteau Creek	OK121600-01-0430M	35469	24-Jul-06	47	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Chouteau Creek	OK121600-01-0430M	35469	24-Jul-06	27	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Chouteau Creek	OK121600-01-0430M	35469	24-Jul-06	10	Atherinidae	Labidesthes sicculus	Brook silverside	interm	X							
Chouteau Creek	OK121600-01-0430M	35469	24-Jul-06	6	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Chouteau Creek	OK121600-01-0430M	35469	24-Jul-06	5	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X						X	
Chouteau Creek	OK121600-01-0430M	35469	24-Jul-06	4	Centrarchidae	Pomoxis annularis	White crappie	tol				X				
Chouteau Creek	OK121600-01-0430M	35469	24-Jul-06	3	Cyprinidae	Cyprinus carpio	Common carp	tol			X					
Chouteau Creek	OK121600-01-0430M	35469	24-Jul-06	3	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X					X
Chouteau Creek	OK121600-01-0430M	35469	24-Jul-06	2	Lepisosteidae	Lepisosteus oculatus	Spotted gar	tol				X				
Chouteau Creek	OK121600-01-0430M	35469	24-Jul-06	1	Catostomidae	Minytrema melanops	Spotted sucker	intol	X							X
Chouteau Creek	OK121600-01-0430M	35469	24-Jul-06	1	Centrarchidae	Lepomis microlophus	Redear sunfish	interm	X							
Chouteau Creek	OK121600-01-0430M	35469	24-Jul-06	1	Centrarchidae	Pomoxis nigromaculatus	Black crappie	tol				X				
Commission Creek	OK520620-05-0160C	35465	18-Jul-06	228	Cyprinidae	Phenacobius mirabilis	Suckermouth minnow	intol	X							
Commission Creek	OK520620-05-0160C	35465	18-Jul-06	41	Ictaluridae	Ameiurus natalis	Yellow bullhead	tol	X					X		
Commission Creek	OK520620-05-0160C	35465	18-Jul-06	20	Cyprinidae	Notropis stramineus	Sand shiner	interm	X							
Commission Creek	OK520620-05-0160C	35465	18-Jul-06	19	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Commission Creek	OK520620-05-0160C	35465	18-Jul-06	17	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Commission Creek	OK520620-05-0160C	35465	18-Jul-06	7	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X		
Commission Creek	OK520620-05-0160C	35465	18-Jul-06	7	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Curl Creek	OK121400-01-0270C	35164	29-Jun-06	238	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Curl Creek	OK121400-01-0270C	35164	29-Jun-06	24	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Curl Creek	OK121400-01-0270C	35164	29-Jun-06	23	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Curl Creek	OK121400-01-0270C	35164	29-Jun-06	22	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X					
Curl Creek	OK121400-01-0270C	35164	29-Jun-06	20	Centrarchidae	Pomoxis annularis	White crappie	tol				X				
Curl Creek	OK121400-01-0270C	35164	29-Jun-06	20	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Curl Creek	OK121400-01-0270C	35164	29-Jun-06	12	Clupeidae	Dorosoma cepedianum	Gizzard shad	tol			X					
Curl Creek	OK121400-01-0270C	35164	29-Jun-06	8	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Curl Creek	OK121400-01-0270C	35164	29-Jun-06	6	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X							
Curl Creek	OK121400-01-0270C	35164	29-Jun-06	4	Centrarchidae	Lepomis microlophus	Redear sunfish	interm	X							

## Appendix B. Fish collection data.

Site Name	WBID	SAMPLEID	Date	Number	Family	Species	Vern Name	Combined tolerance	Insectivor	Planktivore	Omnivore	Piscivore	Herbivore	Generalist	Lithophilic Spawner
Curl Creek	OK121400-01-0270C	35164	29-Jun-06	3	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X			
Curl Creek	OK121400-01-0270C	35164	29-Jun-06	1	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X	
Curl Creek	OK121400-01-0270C	35164	29-Jun-06	1	Percidae	Etheostoma spectabile	Orangethroat darter	interm	X						X
Curl Creek	OK121400-01-0270C	35164	29-Jun-06	1	Percidae	Percina caprodes	Logperch	interm	X						
Deer Creek	OK520620-06-0010F	35577	07-Aug-06	2121	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X				
Deer Creek	OK520620-06-0010F	35577	07-Aug-06	397	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X				
Deer Creek	OK520620-06-0010F	35577	07-Aug-06	349	Cyprinidae	Notropis stramineus	Sand shiner	interm	X						
Deer Creek	OK520620-06-0010F	35577	07-Aug-06	326	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X						
Deer Creek	OK520620-06-0010F	35577	07-Aug-06	142	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X	
Deer Creek	OK520620-06-0010F	35577	07-Aug-06	67	Cyprinidae	Phenacobius mirabilis	Suckermouth minnow	intol	X						
Deer Creek	OK520620-06-0010F	35577	07-Aug-06	63	Ictaluridae	Ameiurus natalis	Yellow bullhead	tol	X					X	
Deer Creek	OK520620-06-0010F	35577	07-Aug-06	53	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X						
Deer Creek	OK520620-06-0010F	35577	07-Aug-06	28	Ictaluridae	Pylodictis olivaris	Flathead catfish	tol				X			
Deer Creek	OK520620-06-0010F	35577	07-Aug-06	26	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X	
Deer Creek	OK520620-06-0010F	35577	07-Aug-06	20	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X			
Deer Creek	OK520620-06-0010F	35577	07-Aug-06	17	Cyprinidae	Pimephales promelas	Fathead minnow	tol			X				
Deer Creek	OK520620-06-0010F	35577	07-Aug-06	14	Cyprinidae	Notropis atherinoides	Emerald shiner	tol	X						
Deer Creek	OK520620-06-0010F	35577	07-Aug-06	8	Catostomidae	Cariodes carpio	River carpsucker	tol			X				
Deer Creek	OK520620-06-0010F	35577	07-Aug-06	1	Lepisosteidae	Lepisosteus osseus	Longnose gar	tol				X			
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	32	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X				
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	16	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X			
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	14	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X						
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	13	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X						
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	11	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X						
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	7	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X				
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	7	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X	
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	6	Cyprinidae	Lythrurus umbratilis	Redfin shiner	interm	X						
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	4	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X			
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	4	Percidae	Percina caprodes	Logperch	interm	X						
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	3	Centrarchidae	Pomoxis annularis	White crappie	tol				X			
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	3	Atherinidae	Labidesthes sicculus	Brook silverside	interm	X						
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	2	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X		X
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	1	Centrarchidae	Lepomis	Unidentified Lepomis sp. (sunfish)	interm	X						
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	1	Percidae	Etheostoma spectabile	Orangethroat darter	interm	X						X
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	1	Ictaluridae	Ameiurus natalis	Yellow bullhead	tol	X					X	
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	1	Lepisosteidae	Lepisosteus platostomus	Shortnose gar	tol				X			
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	1	Catostomidae	Minytrema melanops	Spotted sucker	intol	X						X
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	1	Percidae	Etheostoma whipplei	Redfin darter	intol	X						X
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	1	Ictaluridae	Noturus nocturnus	Freckled madtom	intol	X						
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	1	Centrarchidae	Micropterus punctulatus	Spotted bass	interm				X			X
Delaware Creek	OK121300-01-0150H	35161	22-Jun-06	1	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X						
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	85	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X						
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	68	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X				

## Appendix B. Fish collection data.

Site Name	WBID	SAMPLEID	Date	Number	Family	Species	Vern Name	Combined tolerance	Insectivore	Planktivore	Omnivore	Piscivore	Herbivore	Generalist	Lithophilic	Spawner
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	12	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X		
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	9	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	7	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	6	Atherinidae	Labidesthes sicculus	Brook silverside	interm	X							
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	5	Cyprinidae	Notemigonus crysoleucas	Golden shiner	tol			X					
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	4	Cyprinidae	Phenacobius mirabilis	Suckermouth minnow	intol	X							
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	4	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X		X	
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	4	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	4	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X				
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	2	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X					X
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	1	Centrarchidae	Lepomis microlophus	Redear sunfish	interm	X							
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	1	Percidae	Etheostoma spectabile	Orangethroat darter	interm	X							X
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	1	Ictaluridae	Ameiurus melas	Black bullhead	tol	X					X		
Dog Creek	OK121500-02-0360D	35477	26-Jul-06	1	Ictaluridae	Ameiurus natalis	Yellow bullhead	tol	X					X		
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	292	Cyprinidae	Luxilus cardinalis	Cardinal shiner	intol	X							X
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	158	Ictaluridae	Noturus exilis	Slender madtom	intol	X							X
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	103	Cottidae	Cottus carolinae	Banded sculpin	intol	X							X
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	62	Percidae	Etheostoma punctulatum	Stippled darter	intol	X							X
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	12	Centrarchidae	Micropterus dolomieu	Smallmouth bass	intol				X				X
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	12	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	10	Percidae	Etheostoma spectabile	Orangethroat darter	interm	X							X
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	7	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	7	Cyprinidae	Nocomis asper	Redspot chub	intol	X							X
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	7	Cyprinidae	Notropis rubellus	Rosyface shiner	intol	X							X
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	6	Centrarchidae	Ambloplites ariommus	Shadow bass	intol	X					X	X	
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	6	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X		
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	5	Fundulidae	Fundulus catenatus	Northern studfish	intol	X							X
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	4	Ictaluridae	Ameiurus natalis	Yellow bullhead	tol	X					X		
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	4	Catostomidae	Hypentelium nigricans	Northern hog sucker	intol	X							X
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	3	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	3	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X		X	
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	1	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	1	Percidae	Etheostoma flabellare	Fantail darter	intol	X							X
Fivemile Creek	OK121600-07-0110G	35576	01-Aug-06	1	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X		
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	296	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X		X	
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	287	Cyprinidae	Luxilus cardinalis	Cardinal shiner	intol	X							X
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	42	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	24	Ictaluridae	Noturus exilis	Slender madtom	intol	X							X
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	13	Cyprinidae	Notropis nubilus	Ozark minnow	intol					X		X	
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	13	Ictaluridae	Ameiurus natalis	Yellow bullhead	tol	X					X		
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	10	Centrarchidae	Micropterus dolomieu	Smallmouth bass	intol				X				X
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	8	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X		
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	5	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							

## Appendix B. Fish collection data.

Site Name	WBID	SAMPLEID	Date	Number	Family	Species	Vern Name	Combined tolerance	Insectivore	Planktivore	Omnivore	Piscivore	Herbivore	Generalist	Lithophilic	Spawner
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	5	Centrarchidae	Ambloplites ariommus	Shadow bass	intol	X					X	X	
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	5	Catostomidae	Hypentelium nigricans	Northern hog sucker	intol	X						X	
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	4	Cyprinidae	Notropis boops	Bigeye shiner	intol	X						X	
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	3	Percidae	Etheostoma blennioides	Greenside darter	intol	X						X	
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	3	Cyprinidae	Nocomis asper	Redspot chub	intol	X						X	
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	2	Percidae	Percina caprodes	Logperch	interm	X							
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	2	Percidae	Etheostoma punctulatum	Stippled darter	intol	X						X	
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	1	Centrarchidae	Micropterus punctulatus	Spotted bass	interm				X			X	
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	1	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	1	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X				
Fourteenmile Creek	OK121600-01-0100G	35442	14-Jul-06	1	Percidae	Etheostoma whipplei	Redfin darter	intol	X						X	
Hackberry Creek	OK520620-04-0050D	37347	21-Jun-07	188	Cyprinidae	Cyprinus carpio	Common carp	tol			X					
Hackberry Creek	OK520620-04-0050D	37347	21-Jun-07	47	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Hackberry Creek	OK520620-04-0050D	37347	21-Jun-07	29	Cyprinidae	Notropis stramineus	Sand shiner	interm	X							
Hackberry Creek	OK520620-04-0050D	37347	21-Jun-07	11	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Hackberry Creek	OK520620-04-0050D	37347	21-Jun-07	6	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Hackberry Creek	OK520620-04-0050D	37347	21-Jun-07	4	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Hackberry Creek	OK520620-04-0050D	37347	21-Jun-07	1	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X					
Hackberry Creek	OK520620-04-0050D	37347	21-Jun-07	1	Lepisosteidae	Lepisosteus oculatus	Spotted gar	tol				X				
Hackberry Creek	OK520620-04-0050D	37347	21-Jun-07	1	Cyprinidae	Pimephales promelas	Fathead minnow	tol			X					
Hogshooter Creek	OK121400-01-0300D	35165	29-Jun-06	224	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Hogshooter Creek	OK121400-01-0300D	35165	29-Jun-06	16	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Hogshooter Creek	OK121400-01-0300D	35165	29-Jun-06	15	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X					
Hogshooter Creek	OK121400-01-0300D	35165	29-Jun-06	15	Centrarchidae	Lepomis microlophus	Redear sunfish	interm	X							
Hogshooter Creek	OK121400-01-0300D	35165	29-Jun-06	7	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X		X	
Hogshooter Creek	OK121400-01-0300D	35165	29-Jun-06	4	Cyprinidae	Phenacobius mirabilis	Suckermouth minnow	intol	X							
Hogshooter Creek	OK121400-01-0300D	35165	29-Jun-06	4	Ictaluridae	Ameiurus natalis	Yellow bullhead	tol	X					X		
Hogshooter Creek	OK121400-01-0300D	35165	29-Jun-06	3	Percidae	Etheostoma spectabile	Orangethroat darter	interm	X						X	
Hogshooter Creek	OK121400-01-0300D	35165	29-Jun-06	1	Cyprinidae	Notropis stramineus	Sand shiner	interm	X							
Hogshooter Creek	OK121400-01-0300D	35165	29-Jun-06	1	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X				X	
Hogshooter Creek	OK121400-01-0300D	35165	29-Jun-06	1	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X		
Hogshooter Creek	OK121400-01-0300D	35165	29-Jun-06	1	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Hogshooter Creek	OK121400-01-0300D	35165	29-Jun-06	1	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X							
Hogshooter Creek	OK121400-01-0300D	35165	29-Jun-06	1	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	17	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X				X	
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	15	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X		
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	14	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	11	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	11	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X		X	
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	7	Ictaluridae	Noturus nocturnus	Freckled madtom	intol	X							
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	7	Centrarchidae	Micropterus punctulatus	Spotted bass	interm				X			X	
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	6	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X				
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	4	Percidae	Percina phoxocephala	Slenderhead darter	intol	X						X	



## Appendix B. Fish collection data.

Site Name	WBID	SAMPLEID	Date	Number	Family	Species	Vern Name	Combined tolerance	Insectivor	Planktivore	Omnivore	Piscivore	Herbivore	Generalist	Lithophilic	Spawner
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	4	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	4	Cyprinidae	Phenacobius mirabilis	Suckermouth minnow	intol	X							
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	4	Percidae	Etheostoma spectabile	Orangethroat darter	interm	X							X
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	3	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X							
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	2	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X					
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	2	Ictaluridae	Pylodictis olivaris	Flathead catfish	tol				X				
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	1	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X		
Hominy Creek: Downstream	OK121300-04-0010C	35476	25-Jul-06	1	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	122	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	42	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X			X
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	32	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	27	Cyprinidae	Phenacobius mirabilis	Suckermouth minnow	intol	X							
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	15	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X							
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	15	Percidae	Etheostoma spectabile	Orangethroat darter	interm	X							X
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	13	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X						X	
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	7	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	7	Catostomidae	Carpiodes carpio	River carpsucker	tol			X					
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	7	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X		
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	6	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	6	Percidae	Percina phoxocephala	Slenderhead darter	intol	X							X
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	5	Cyprinidae	Cyprinus carpio	Common carp	tol			X					
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	4	Catostomidae	Moxostoma erythrurum	Golden redbhorse	interm	X							X
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	3	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X					
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	1	Catostomidae	Ictiobus bubalus	Smallmouth buffalo	tol	X							
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	1	Ictaluridae	Pylodictis olivaris	Flathead catfish	tol				X				
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	1	Clupeidae	Dorosoma cepedianum	Gizzard shad	tol			X					
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	1	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X					X
Hominy Creek: Upstream	OK121300-04-0280G	35156	31-May-06	1	Sciaenidae	Aplodinotus grunniens	Freshwater drum	tol	X						X	
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	27	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	18	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	17	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X					X
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	17	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	15	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X				
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	13	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	12	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X							
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	12	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	11	Atherinidae	Labidesthes sicculus	Brook silverside	interm	X							
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	7	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X						X	
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	5	Cyprinidae	Phenacobius mirabilis	Suckermouth minnow	intol	X							
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	3	Cyprinidae	Lythrurus umbratilis	Redfin shiner	interm	X							
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	2	Percidae	Etheostoma whipplei	Redfin darter	intol	X							X
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	2	Fundulidae	Fundulus notatus	Blackstripe topminnow	interm	X							
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	1	Lepisosteidae	Lepisosteus osseus	Longnose gar	tol				X				

## Appendix B. Fish collection data.

Site Name	WBID	SAMPLEID	Date	Number	Family	Species	Vern Name	Combined tolerance	Insectivor	Planktivore	Omnivore	Piscivore	Herbivore	Generalist	Lithophilic Spawner
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	1	Ictaluridae	Ameiurus melas	Black bullhead	tol	X					X	
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	1	Centrarchidae	Pomoxis annularis	White crappie	tol				X			
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	1	Percidae	Percina copelandi	Channel darter	intol	X						X
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	1	Ictaluridae	Ameiurus natalis	Yellow bullhead	tol	X					X	
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	1	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X		X
Little Cabin Creek	OK121600-06-0080C	35478	27-Jul-06	0	Centrarchidae	Unidentified Lepomis hybrid	Hybrid, green x bluegill sunfish	tol							
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	363	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X				
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	23	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X				
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	13	Cyprinidae	Notropis buchanani	Ghost shiner	interm	X						
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	12	Cyprinidae	Phenacobius mirabilis	Suckermouth minnow	intol	X						
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	9	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X						
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	9	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X						
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	7	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X						
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	4	Clupeidae	Dorosoma cepedianum	Gizzard shad	tol			X				
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	4	Ictaluridae	Pygodictis olivaris	Flathead catfish	tol				X			
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	4	Percidae	Percina phoxocephala	Slenderhead darter	intol	X						X
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	3	Percidae	Percina caprodes	Logperch	interm	X						
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	2	Lepisosteidae	Lepisosteus platostomus	Shortnose gar	tol				X			
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	2	Ictaluridae	Noturus nocturnus	Freckeled madtom	intol	X						
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	2	Atherinidae	Labidesthes sicculus	Brook silverside	interm	X						
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	2	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X		X
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	1	Centrarchidae	Pomoxis annularis	White crappie	tol				X			
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	1	Sciaenidae	Aplodinotus grunniens	Freshwater drum	tol	X					X	
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	1	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X	
Little Caney River	OK121400-02-0140H	35440	10-Jul-06	1	Percichthyidae	Morone chrysops	White bass	tol				X			
Little Horse Creek	OK121600-03-0190A	35481	31-Jul-06	12	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X						
Little Horse Creek	OK121600-03-0190A	35481	31-Jul-06	6	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X						
Little Horse Creek	OK121600-03-0190A	35481	31-Jul-06	6	Ictaluridae	Ameiurus natalis	Yellow bullhead	tol	X					X	
Little Horse Creek	OK121600-03-0190A	35481	31-Jul-06	4	Centrarchidae	Lepomis microlophus	Redear sunfish	interm	X						
Little Horse Creek	OK121600-03-0190A	35481	31-Jul-06	4	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X	
Little Horse Creek	OK121600-03-0190A	35481	31-Jul-06	3	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X			
Little Horse Creek	OK121600-03-0190A	35481	31-Jul-06	2	Ictaluridae	Ameiurus melas	Black bullhead	tol	X					X	
Little Horse Creek	OK121600-03-0190A	35481	31-Jul-06	1	Centrarchidae	Pomoxis annularis	White crappie	tol				X			
Little Horse Creek	OK121600-03-0190A	35481	31-Jul-06	1	Percidae	Etheostoma whipplei	Redfin darter	intol	X						X
Little Horse Creek	OK121600-03-0190A	35481	31-Jul-06	1	Catostomidae	Minytrema melanops	Spotted sucker	intol	X						X
Lone Creek	OK520620-03-0020C	35155	08-Jun-06	217	Cyprinidae	Notropis stramineus	Sand shiner	interm	X						
Lone Creek	OK520620-03-0020C	35155	08-Jun-06	169	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X				
Lone Creek	OK520620-03-0020C	35155	08-Jun-06	147	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X						
Lone Creek	OK520620-03-0020C	35155	08-Jun-06	69	Fundulidae	Fundulus zebrinus	Plains killifish	tol	X						
Lone Creek	OK520620-03-0020C	35155	08-Jun-06	15	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X				
Lone Creek	OK520620-03-0020C	35155	08-Jun-06	5	Cyprinidae	Hybognathus placitus	Plains minnow	tol					X		
Lone Creek	OK520620-03-0020C	35155	08-Jun-06	2	Cyprinidae	Pimephales promelas	Fathead minnow	tol			X				
Lone Creek	OK520620-03-0020C	35155	08-Jun-06	1	Cyprinidae	Phenacobius mirabilis	Suckermouth minnow	intol	X						

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Site Name	WBID	SAMPLEID	Date	Number	Family	Species	Vern Name	Combined tolerance	Insectivore	Planktivore	Omnivore	Piscivore	Herbivore	Generalist	Lithophilic	Spawner
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	42	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	35	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	25	Cyprinidae	Lythrurus umbratilis	Redfin shiner	interm	X							
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	22	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	19	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X					X
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	11	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X						X	
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	9	Percidae	Percina caprodes	Logperch	interm	X							
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	9	Atherinidae	Labidesthes sicculus	Brook silverside	interm	X							
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	7	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X							
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	7	Lepisosteidae	Lepisosteus oculatus	Spotted gar	tol				X				
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	6	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X			X
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	6	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X					
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	5	Percidae	Percina phoxocephala	Slenderhead darter	intol	X							X
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	4	Sciaenidae	Aplodinotus grunniens	Freshwater drum	tol	X						X	
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	4	Centrarchidae	Micropterus punctulatus	Spotted bass	interm				X				X
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	3	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X			X	
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	2	Ictaluridae	Noturus nocturnus	Freckled madtom	intol	X							
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	2	Centrarchidae	Lepomis punctatus	Spotted sunfish	intol	X							
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	2	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X				
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	1	Ictaluridae	Pylodictis olivaris	Flathead catfish	tol				X				
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	1	Cyprinidae	Cyprinus carpio	Common carp	tol			X					
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	1	Percidae	Etheostoma spectabile	Orangethroat darter	interm	X							X
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	1	Catostomidae	Moxostoma erythrurum	Golden redbhorse	interm	X							X
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	1	Percidae	Etheostoma whipplei	Redfin darter	intol	X							X
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	1	Centrarchidae	Lepomis microlophus	Redear sunfish	interm	X							
Mission Creek	OK121400-02-0190B	35158	02-Jun-06	1	Clupeidae	Dorosoma cepedianum	Gizzard shad	tol			X					
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	97	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	58	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	35	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	27	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X				
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	22	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X					X
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	17	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	17	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X			X
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	8	Atherinidae	Labidesthes sicculus	Brook silverside	interm	X							
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	5	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	4	Cyprinidae	Phenacobius mirabilis	Suckermouth minnow	intol	X							
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	3	Percidae	Etheostoma whipplei	Redfin darter	intol	X							X
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	3	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X							
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	2	Centrarchidae	Lepomis microlophus	Redear sunfish	interm	X							
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	2	Centrarchidae	Pomoxis annularis	White crappie	tol				X				
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	2	Clupeidae	Dorosoma cepedianum	Gizzard shad	tol			X					
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	2	Cyprinidae	Lythrurus umbratilis	Redfin shiner	interm	X							
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	1	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X			X	

## Appendix B. Fish collection data.

Site Name	WBID	SAMPLEID	Date	Number	Family	Species	Vern Name	Combined tolerance	Insectivor	Planktivore	Omnivore	Piscivore	Herbivore	Generalist	Lithophilic	Spawner
Pryor Creek: HWY 20	OK121610-00-0050D	35480	28-Jul-06	1	Percidae	Percina caprodes	Logperch	interm	X							
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	77	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X				
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	37	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	35	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	22	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X					X
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	17	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	17	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X			X
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	12	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	8	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X						X	
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	8	Atherinidae	Labidesthes sicculus	Brook silverside	interm	X							
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	4	Cyprinidae	Phenacobius mirabilis	Suckermouth minnow	intol	X							
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	3	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X							
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	3	Percidae	Etheostoma whipplei	Redfin darter	intol	X							X
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	2	Centrarchidae	Pomoxis annularis	White crappie	tol				X				
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	2	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	2	Cyprinidae	Lythrurus umbratilis	Redfin shiner	interm	X							
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	2	Clupeidae	Dorosoma cepedianum	Gizzard shad	tol			X					
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	1	Percidae	Percina caprodes	Logperch	interm	X							
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	1	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X		
Pryor Creek: HWY 69	OK121610-00-0050M	35479	28-Jul-06	1	Centrarchidae	Lepomis microlophus	Redear sunfish	interm	X							
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	49	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X			X
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	47	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X						X	
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	26	Cyprinidae	Notropis boops	Bigeye shiner	intol	X							X
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	25	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	14	Cyprinidae	Luxilus cardinalis	Cardinal shiner	intol	X							X
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	8	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X				
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	8	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	6	Percidae	Etheostoma spectabile	Orangethroat darter	interm	X							X
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	5	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	4	Centrarchidae	Micropterus punctulatus	Spotted bass	interm				X				X
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	1	Percidae	Percina caprodes	Logperch	interm	X							
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	1	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	1	Ictaluridae	Noturus nocturnus	Freckled madtom	intol	X							
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	1	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X		
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	1	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X					X
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	1	Cyprinidae	Lythrurus umbratilis	Redfin shiner	interm	X							
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	1	Cyprinidae	Cyprinus carpio	Common carp	tol			X					
Ranger Creek	OK121600-01-0060D	35466	18-Jul-06	1	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	123	Cyprinidae	Campostoma anomalum	Central stoneroller	interm					X			X
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	70	Cyprinidae	Luxilus cardinalis	Cardinal shiner	intol	X							X
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	67	Cottidae	Cottus carolinae	Banded sculpin	intol	X							X
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	22	Percidae	Etheostoma spectabile	Orangethroat darter	interm	X							X
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	14	Cyprinidae	Nocomis asper	Redspot chub	intol	X							X

## Appendix B. Fish collection data.

Site Name	WBID	SAMPLEID	Date	Number	Family	Species	Vern Name	Combined tolerance	Insectivore	Planktivore	Omnivore	Piscivore	Herbivore	Generalist	Lithophilic Spawner
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	10	Cyprinidae	Notropis nubilus	Ozark minnow	intol					X		X
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	10	Percidae	Etheostoma punctulatum	Stippled darter	intol	X						X
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	8	Ictaluridae	Noturus exilis	Slender madtom	intol	X						X
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	6	Percidae	Etheostoma blennioides	Greenside darter	intol	X						X
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	6	Percidae	Percina caprodes	Logperch	interm	X						
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	5	Centrarchidae	Ambloplites ariommus	Shadow bass	intol	X					X	X
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	4	Catostomidae	Hypentelium nigricans	Northern hog sucker	intol	X						X
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	4	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X			
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	3	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X			
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	3	Centrarchidae	Micropterus dolomieu	Smallmouth bass	intol				X			X
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	2	Cyprinidae	Semotilus atromaculatus	Creek chub	interm						X	X
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	1	Percidae	Etheostoma flabellare	Fantail darter	intol	X						X
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	1	Catostomidae	Moxostoma	Redhorse sucker	intol	X						X
Saline Creek	OK121600-02-0030D	35441	13-Jul-06	1	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X	
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	370	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X				
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	87	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X						
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	30	Percidae	Percina phoxocephala	Slenderhead darter	intol	X						X
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	15	Centrarchidae	Micropterus punctulatus	Spotted bass	interm				X			X
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	12	Cyprinidae	Pimephales notatus	Bluntnose minnow	interm			X				X
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	11	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X				
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	10	Centrarchidae	Lepomis humilis	Orangespotted sunfish	tol	X						
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	9	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X	
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	8	Atherinidae	Labidesthes sicculus	Brook silverside	interm	X						
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	7	Percidae	Percina caprodes	Logperch	interm	X						
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	5	Cyprinidae	Lythrurus umbratilis	Redfin shiner	interm	X						
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	5	Catostomidae	Ictiobus bubalus	Smallmouth buffalo	tol	X						
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	4	Cyprinidae	Camptostoma anomalum	Central stoneroller	interm					X		X
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	4	Cyprinidae	Phenacobius mirabilis	Suckermouth minnow	intol	X						
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	3	Ictaluridae	Noturus nocturnus	Freckled madtom	intol	X						
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	3	Percidae	Percina copelandi	Channel darter	intol	X						X
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	3	Ictaluridae	Pylodictis olivaris	Flathead catfish	tol				X			
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	3	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X						
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	2	Lepisosteidae	Lepisosteus oculatus	Spotted gar	tol				X			
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	2	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X						
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	2	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X			
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	1	Cyprinidae	Notropis boops	Bigeye shiner	intol	X						X
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	1	Lepisosteidae	Lepisosteus osseus	Longnose gar	tol				X			
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	1	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X	
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	1	Fundulidae	Fundulus notatus	Blackstripe topminnow	interm	X						
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	1	Centrarchidae	Unidentified Lepomis hybrid	Hybrid, green x bluegill sunfish	tol							
Sand Creek	OK121400-04-0010F	35160	07-Jun-06	1	Centrarchidae	Lepomis microlophus	Redear sunfish	interm	X						
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	215	Cyprinidae	Camptostoma anomalum	Central stoneroller	interm					X		X
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	195	Cyprinidae	Luxilus cardinalis	Cardinal shiner	intol	X						X

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Site Name	WBID	SAMPLEID	Date	Number	Family	Species	Vern Name	Combined tolerance	Insectivore	Planktivore	Omnivore	Piscivore	Herbivore	Generalist	Lithophilic	Spawner
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	39	Cyprinidae	Nocomis asper	Redspot chub	intol	X							X
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	30	Cottidae	Cottus carolinae	Banded sculpin	intol	X							X
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	29	Centrarchidae	Lepomis gulosus	Warmouth sunfish	tol				X				
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	23	Cyprinidae	Notropis rubellus	Rosyface shiner	intol	X							X
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	22	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	20	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	16	Centrarchidae	Ambloplites ariommus	Shadow bass	intol	X					X	X	
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	12	Percidae	Etheostoma spectabile	Orangethroat darter	interm	X							X
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	11	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X		
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	10	Centrarchidae	Micropterus dolomieu	Smallmouth bass	intol				X				X
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	5	Percidae	Etheostoma punctulatum	Stippled darter	intol	X							X
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	5	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	4	Cyprinidae	Notropis nubilus	Ozark minnow	intol					X			X
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	3	Fundulidae	Fundulus notatus	Blackstripe topminnow	interm	X							
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	2	Percidae	Etheostoma flabellare	Fantail darter	intol	X							X
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	2	Catostomidae	Hypentelium nigricans	Northern hog sucker	intol	X							X
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	1	Ictaluridae	Ameiurus natalis	Yellow bullhead	tol	X					X		
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	1	Lepisosteidae	Lepisosteus oculatus	Spotted gar	tol				X				
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	1	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X		
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	1	Centrarchidae	Lepomis microlophus	Redear sunfish	interm	X							
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	1	Centrarchidae	Micropterus punctulatus	Spotted bass	interm				X				X
Sycamore Creek	OK121600-03-0510D	35482	31-Jul-06	1	Percidae	Percina caprodes	Logperch	interm	X							
Tar Creek	OK121600-04-0060D	35575	01-Aug-06	4	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				
Tar Creek	OK121600-04-0060D	35575	01-Aug-06	2	Cyprinidae	Camptostoma anomalum	Central stoneroller	interm					X			X
Tar Creek	OK121600-04-0060D	35575	01-Aug-06	1	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X		
Tar Creek	OK121600-04-0060D	35575	01-Aug-06	1	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Tar Creek	OK121600-04-0060D	35575	01-Aug-06	1	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Tar Creek	OK121600-04-0060D	35575	01-Aug-06	1	Ictaluridae	Pylodictis olivaris	Flathead catfish	tol				X				
Trail Creek	OK520620-02-0090G	35154	18-May-06	126	Cyprinidae	Notropis stramineus	Sand shiner	interm	X							
Trail Creek	OK520620-02-0090G	35154	18-May-06	103	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Trail Creek	OK520620-02-0090G	35154	18-May-06	23	Fundulidae	Fundulus zebrinus	Plains killifish	tol	X							
Trail Creek	OK520620-02-0090G	35154	18-May-06	7	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Trail Creek	OK520620-02-0090G	35154	18-May-06	5	Cyprinidae	Phenacobius mirabilis	Suckermouth minnow	intol	X							
Trail Creek	OK520620-02-0090G	35154	18-May-06	2	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Trail Creek	OK520620-02-0090G	35154	18-May-06	2	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X							
Trail Creek	OK520620-02-0090G	35154	18-May-06	1	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X					
Walnut Creek	OK520610-03-0010F	35166	29-Jun-06	586	Cyprinidae	Notropis stramineus	Sand shiner	interm	X							
Walnut Creek	OK520610-03-0010F	35166	29-Jun-06	494	Poeciliidae	Gambusia affinis	Mosquitofish	tol	X							
Walnut Creek	OK520610-03-0010F	35166	29-Jun-06	259	Cyprinidae	Cyprinella lutrensis	Red shiner	tol			X					
Walnut Creek	OK520610-03-0010F	35166	29-Jun-06	80	Fundulidae	Fundulus zebrinus	Plains killifish	tol	X							
Walnut Creek	OK520610-03-0010F	35166	29-Jun-06	41	Centrarchidae	Lepomis cyanellus	Green sunfish	tol	X					X		
Walnut Creek	OK520610-03-0010F	35166	29-Jun-06	23	Centrarchidae	Lepomis megalotis	Longear sunfish	tol	X							
Walnut Creek	OK520610-03-0010F	35166	29-Jun-06	7	Centrarchidae	Micropterus salmoides	Largemouth bass	tol				X				

## Appendix B. Fish collection data.

Site Name	WBID	SAMPLEID	Date	Number	Family	Species	Vern Name	Combined tolerance	Insectivor	Planktivore	Omnivore	Piscivore	Herbivore	Generalist	Lithophilic Spawner
Walnut Creek	OK520610-03-0010F	35166	29-Jun-06	2	Ictaluridae	Ictalurus punctatus	Channel catfish	tol				X		X	
Walnut Creek	OK520610-03-0010F	35166	29-Jun-06	2	Centrarchidae	Lepomis macrochirus	Bluegill sunfish	tol	X						
Walnut Creek	OK520610-03-0010F	35166	29-Jun-06	1	Cyprinidae	Pimephales promelas	Fathead minnow	tol			X				
Walnut Creek	OK520610-03-0010F	35166	29-Jun-06	1	Cyprinidae	Pimephales vigilax	Bullhead minnow	tol			X				

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	39	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	10	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	6	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	5	ARTHROPODA	Insecta	Ephemeroptera	Leptophlebiidae	Leptophlebia
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	5	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaudiinae
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	2	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	2	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Nigronia
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	1	PLATYHELMINTHES	Turbellaria	Tricladida	Planariidae	Dugesia
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	1	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	1	ARTHROPODA	Insecta	Coleoptera	Scirtidae	Scirtes
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	1	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	1	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Slavina
riffle	Ranger Creek	OK121600-01-0060D	35788	26-Jun-06	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Enochrus
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	39	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	17	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	16	MOLLUSCA	Gastropoda	Neotaenioglossa	Pleuroceridae	Goniobasis=Elimia
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	9	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	5	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	5	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Leucrocuta
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	4	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	2	ARTHROPODA	Insecta	Plecoptera	Perlidae	Neoperla
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	1	ARTHROPODA	Insecta	Trichoptera	Helicopsychidae	Helicopsyche
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	1	ARTHROPODA	Insecta	Trichoptera	Leptoceridae	Oecetis
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	1	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	1	ARTHROPODA	Insecta	Ephemeroptera	Leptophlebiidae	Leptophlebia
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	1	ARTHROPODA	Insecta	Odonata	Gomphidae	Lanthus
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini



## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Fourteenmile Creek	OK121600-01-0100G	35789	26-Jun-06	1	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Saline Creek	OK121600-02-0030D	35790	26-Jun-06	34	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Saline Creek	OK121600-02-0030D	35790	26-Jun-06	25	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Saline Creek	OK121600-02-0030D	35790	26-Jun-06	13	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Saline Creek	OK121600-02-0030D	35790	26-Jun-06	12	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Saline Creek	OK121600-02-0030D	35790	26-Jun-06	6	MOLLUSCA	Gastropoda	Neotaenioglossa	Pleuroceridae	Goniobasis=Elimia
riffle	Saline Creek	OK121600-02-0030D	35790	26-Jun-06	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Saline Creek	OK121600-02-0030D	35790	26-Jun-06	3	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Saline Creek	OK121600-02-0030D	35790	26-Jun-06	3	PLATYHELMINTHES	Turbellaria	Tricladida	Planariidae	Dugesia
riffle	Saline Creek	OK121600-02-0030D	35790	26-Jun-06	2	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
riffle	Saline Creek	OK121600-02-0030D	35790	26-Jun-06	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Saline Creek	OK121600-02-0030D	35790	26-Jun-06	2	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Saline Creek	OK121600-02-0030D	35790	26-Jun-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Saline Creek	OK121600-02-0030D	35790	26-Jun-06	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Saline Creek	OK121600-02-0030D	35790	26-Jun-06	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	54	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	20	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	19	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	17	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	15	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	6	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	2	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
riffle	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
riffle	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Nigronia
riffle	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	1	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
riffle	Sand Creek	OK121400-04-0010F	35798	03-Jul-06	71	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Sand Creek	OK121400-04-0010F	35798	03-Jul-06	10	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
riffle	Sand Creek	OK121400-04-0010F	35798	03-Jul-06	8	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Sand Creek	OK121400-04-0010F	35798	03-Jul-06	8	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Sand Creek	OK121400-04-0010F	35798	03-Jul-06	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Sand Creek	OK121400-04-0010F	35798	03-Jul-06	2	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Sand Creek	OK121400-04-0010F	35798	03-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Dryopidae	Helichus
riffle	Sand Creek	OK121400-04-0010F	35798	03-Jul-06	1	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Sand Creek	OK121400-04-0010F	35798	03-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Leucrocota

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Sand Creek	OK121400-04-0010F	35798	03-Jul-06	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalus
riffle	Sand Creek	OK121400-04-0010F	35798	03-Jul-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopinae
riffle	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	62	ARTHROPODA	Insecta	Odonata	Gomphidae	Erpetogomphus
riffle	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	20	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	10	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	4	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
riffle	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Smicridea
riffle	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	1	ARTHROPODA	Insecta	Odonata	Gomphidae	Progomphus
riffle	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	1	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
riffle	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	1	ARTHROPODA	Crustacea	Isopoda		
riffle	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	1	ARTHROPODA	Insecta	Odonata	Calopterygidae	Hetaerina
riffle	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	1	ARTHROPODA	Insecta	Hemiptera	Velidae	Rhagovelia
riffle	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	21	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	16	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
riffle	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	16	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	15	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	13	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Paracloeodes
riffle	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopinae
riffle	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	7	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladinae
riffle	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	1	ARTHROPODA	Insecta	Diptera	Ephydriidae	Ephydra
riffle	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Leptophlebiidae	Neochoroterpes
riffle	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	31	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	18	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	8	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	7	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	5	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	5	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenacron
riffle	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
riffle	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Proclaeon
riffle	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalus
riffle	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis

## Appendix C. Macroinvertebrate collection data.

Sample type	SiteName	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	ARTHROPODA	Insecta	Trichoptera	Helicopsychidae	Helicopsyche
riffle	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	46	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	17	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	17	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	15	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	3	ARTHROPODA	Insecta	Coleoptera	Gyrinidae	Dineutus
riffle	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	2	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Leucrocuta
riffle	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
riffle	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Potamyia
riffle	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
riffle	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	24	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella
riffle	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	18	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	17	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
riffle	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	13	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	8	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	8	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	6	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	6	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaudiinae
riffle	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	1	ANNELIDA	Hirudinea	Rhynchobdellida	Glossiphoniidae	Placobdella
riffle	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	15	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	12	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	9	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	9	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	8	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	5	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	4	ARTHROPODA	Insecta	Coleoptera	Elmidae	Optioservus
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	4	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	3	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	2	PLATYHELMINTHES	Turbellaria	Tricladida	Planariidae	Dugesia
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Nigronia
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Leucrocuta

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	ANNELIDA	Hirudinea	Rhynchobdellida	Glossiphoniidae	Helobdella
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Microcylloepus
riffle	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	MOLLUSCA	Gastropoda	Neotaenioglossa	Pleuroceridae	Goniobasis=Elimia
riffle	Tar Creek	OK121600-04-0060D	35795	10-Jul-06	74	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Tar Creek	OK121600-04-0060D	35795	10-Jul-06	8	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Tar Creek	OK121600-04-0060D	35795	10-Jul-06	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Tar Creek	OK121600-04-0060D	35795	10-Jul-06	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Tar Creek	OK121600-04-0060D	35795	10-Jul-06	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Slavina
riffle	Tar Creek	OK121600-04-0060D	35795	10-Jul-06	1	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
riffle	Tar Creek	OK121600-04-0060D	35795	10-Jul-06	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Nigronia
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	27	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	16	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	16	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	10	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	10	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	9	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	4	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Microcylloepus
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	1	MOLLUSCA	Gastropoda	Neotaenioglossa	Pleuroceridae	Goniobasis=Elimia
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Leucrocuta
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Fivemile Creek	OK121600-07-0110G	35796	10-Jul-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	30	ARTHROPODA	Insecta	Plecoptera	Taeniopterygidae	Taeniopteryx
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	18	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	15	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	12	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	8	ARTHROPODA	Insecta	Plecoptera	Perlodidae	Hydroperla
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	7	ARTHROPODA	Insecta	Odonata	Gomphidae	Erpetogomphus
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	5	ARTHROPODA	Insecta	Coleoptera	Elmidae	Microcylloepus
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	4	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Smicridea

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	3	ARTHROPODA	Insecta	Diptera	Tabanidae	Tabanus
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	3	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Agabus
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	2	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	2	ARTHROPODA	Insecta	Trichoptera	Limnephilidae	Limnephilus
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	2	ARTHROPODA	Insecta	Odonata	Libellulidae	Brechmorhoga
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Insecta	Diptera	Tipulidae	Pedicia
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Insecta	Odonata	Gomphidae	Progomphus
riffle	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Insecta	Plecoptera	Perlidae	Perlesta
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	37	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	25	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Sphaerium
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	5	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	4	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	4	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	4	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Eupera
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaidiinae
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Enallagma
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	26	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaidiinae
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	19	ARTHROPODA	Insecta	Ephemeroptera	Leptophlebiidae	Neochoroterpes
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	10	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	9	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	8	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	7	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	7	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	4	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	4	ARTHROPODA	Insecta	Odonata	Gomphidae	Erpetogomphus
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	2	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	2	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Agabus
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	2	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	2	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Tabanidae	Tabanus
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Tipulidae	Tipula
riffle	Hominy Creek: Upstream	OK121300-04-0280G	36590	11-Jan-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	21	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	11	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	10	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	9	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	9	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Sphaerium
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	8	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	8	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	6	ARTHROPODA	Insecta	Plecoptera	Taeniopterygidae	Taeniopteryx
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	3	ARTHROPODA	Insecta	Coleoptera	Dryopidae	Helichus
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	3	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	3	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	2	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	2	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	2	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	2	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	2	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chaoboridae	Chaoborus
riffle	Sand Creek	OK121400-04-0010F	36591	11-Jan-07	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	35	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	17	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	12	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	9	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	8	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	5	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	3	ARTHROPODA	Insecta	Plecoptera	Perlidae	Neoperla
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Optioservus
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	2	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Leucrocuta
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	2	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ARTHROPODA	Crustacea	Decapoda	Astacidae	
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ARTHROPODA	Insecta	Plecoptera	Capniidae	Allocapnia
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalus
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ARTHROPODA	Insecta	Odonata	Gomphidae	Gomphus
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ARTHROPODA	Insecta	Plecoptera	Perlidae	Acroneuria
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
riffle	Little Cabin Creek	OK121600-06-0080C	36586	11-Jan-07	245	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Little Cabin Creek	OK121600-06-0080C	36586	11-Jan-07	58	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Little Cabin Creek	OK121600-06-0080C	36586	11-Jan-07	8	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila
riffle	Little Cabin Creek	OK121600-06-0080C	36586	11-Jan-07	6	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Little Cabin Creek	OK121600-06-0080C	36586	11-Jan-07	5	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Little Cabin Creek	OK121600-06-0080C	36586	11-Jan-07	3	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
riffle	Little Cabin Creek	OK121600-06-0080C	36586	11-Jan-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Little Cabin Creek	OK121600-06-0080C	36586	11-Jan-07	2	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Slavina
riffle	Little Cabin Creek	OK121600-06-0080C	36586	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Tipulidae	Tipula
riffle	Little Cabin Creek	OK121600-06-0080C	36586	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Little Cabin Creek	OK121600-06-0080C	36586	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Little Cabin Creek	OK121600-06-0080C	36586	11-Jan-07	1	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Sphaerium
riffle	Little Cabin Creek	OK121600-06-0080C	36586	11-Jan-07	1	ARTHROPODA	Insecta	Plecoptera	Perlodidae	
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	24	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	21	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	12	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	9	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	9	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	8	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Dero
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	4	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Nais
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	3	ARTHROPODA	Insecta	Plecoptera	Capniidae	Allocapnia
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	3	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Sphaerium

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	2	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	2	PLATYHELMINTHES	Turbellaria	Tricladida	Planariidae	Dugesia
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Tipulidae	Hexatoma
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	1	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	1	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila
riffle	Big Cabin Creek	OK121600-06-0220I	36585	11-Jan-07	1	MOLLUSCA	Gastropoda	Basommatophora	Lymnaeidae	Fossaria
riffle	Fivemile Creek	OK121600-07-0110G	36589	11-Jan-07	52	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
riffle	Fivemile Creek	OK121600-07-0110G	36589	11-Jan-07	24	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Fivemile Creek	OK121600-07-0110G	36589	11-Jan-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Fivemile Creek	OK121600-07-0110G	36589	11-Jan-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
riffle	Fivemile Creek	OK121600-07-0110G	36589	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Fivemile Creek	OK121600-07-0110G	36589	11-Jan-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Fivemile Creek	OK121600-07-0110G	36589	11-Jan-07	1	ARTHROPODA	Insecta	Plecoptera	Perlidae	Neoperla
riffle	Fivemile Creek	OK121600-07-0110G	36589	11-Jan-07	1	MOLLUSCA	Gastropoda	Neotaenioglossa	Pleuroceridae	Goniobasis=Elimia
riffle	Fivemile Creek	OK121600-07-0110G	36589	11-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Fivemile Creek	OK121600-07-0110G	36589	11-Jan-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Buck Creek	OK121400-03-0170C	36774	05-Feb-07	20	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Buck Creek	OK121400-03-0170C	36774	05-Feb-07	17	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Buck Creek	OK121400-03-0170C	36774	05-Feb-07	8	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Buck Creek	OK121400-03-0170C	36774	05-Feb-07	4	ARTHROPODA	Insecta	Diptera	Tabanidae	Tabanus
riffle	Buck Creek	OK121400-03-0170C	36774	05-Feb-07	3	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Buck Creek	OK121400-03-0170C	36774	05-Feb-07	2	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Buck Creek	OK121400-03-0170C	36774	05-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Carabidae	
riffle	Buck Creek	OK121400-03-0170C	36774	05-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
riffle	Buck Creek	OK121400-03-0170C	36774	05-Feb-07	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Buck Creek	OK121400-03-0170C	36774	05-Feb-07	1	ARTHROPODA	Insecta	Plecoptera		
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	65	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	17	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	11	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	6	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	5	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	4	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	4	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	3	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	3	ARTHROPODA	Insecta	Coleoptera	Elmidae	Macronychus
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	2	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes



## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	1	ARTHROPODA	Acari	Arcarina	Lebertiidae	Lebertia
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Pseudochironomini
riffle	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Curl Creek	OK121400-01-0270C	36776	06-Feb-07	116	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Curl Creek	OK121400-01-0270C	36776	06-Feb-07	2	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Curl Creek	OK121400-01-0270C	36776	06-Feb-07	2	ARTHROPODA	Insecta	Plecoptera	Capniidae	Allocapnia
riffle	Hogshooter Creek	OK121400-01-0300D	36777	06-Feb-07	45	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Hogshooter Creek	OK121400-01-0300D	36777	06-Feb-07	13	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Hogshooter Creek	OK121400-01-0300D	36777	06-Feb-07	11	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
riffle	Hogshooter Creek	OK121400-01-0300D	36777	06-Feb-07	4	ARTHROPODA	Insecta	Lepidoptera	Pyralidae	
riffle	Hogshooter Creek	OK121400-01-0300D	36777	06-Feb-07	3	ARTHROPODA	Insecta	Diptera	Dolichopodidae	Hydrophorus
riffle	Hogshooter Creek	OK121400-01-0300D	36777	06-Feb-07	2	ARTHROPODA	Insecta	Diptera	Tipulidae	Limnophila
riffle	Hogshooter Creek	OK121400-01-0300D	36777	06-Feb-07	2	ARTHROPODA	Insecta	Diptera	Tabanidae	Tabanus
riffle	Hogshooter Creek	OK121400-01-0300D	36777	06-Feb-07	2	ARTHROPODA	Insecta	Diptera	Ephydriidae	Hydrellia
riffle	Hogshooter Creek	OK121400-01-0300D	36777	06-Feb-07	1	ARTHROPODA	Insecta	Plecoptera	Capniidae	Allocapnia
riffle	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	70	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	21	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	10	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	5	ARTHROPODA	Insecta	Coleoptera	Elmidae	Macronychus
riffle	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	3	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	3	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	3	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	2	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	2	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	2	ARTHROPODA	Insecta	Odonata	Gomphidae	Erpetogomphus
riffle	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	1	ARTHROPODA	Insecta	Ephemeroptera	Potamanthidae	Anthopotamus
riffle	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	1	ARTHROPODA	Insecta	Plecoptera	Perlidae	Neoperla
riffle	Ranger Creek	OK121600-01-0060D	36757	06-Feb-07	100	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Ranger Creek	OK121600-01-0060D	36757	06-Feb-07	10	ARTHROPODA	Insecta	Plecoptera	Perlidae	Perlesta
riffle	Ranger Creek	OK121600-01-0060D	36757	06-Feb-07	9	ARTHROPODA	Insecta	Diptera	Simuliidae	Prosimulium
riffle	Ranger Creek	OK121600-01-0060D	36757	06-Feb-07	9	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Ranger Creek	OK121600-01-0060D	36757	06-Feb-07	6	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Ranger Creek	OK121600-01-0060D	36757	06-Feb-07	2	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Ranger Creek	OK121600-01-0060D	36757	06-Feb-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Ranger Creek	OK121600-01-0060D	36757	06-Feb-07	2	ARTHROPODA	Insecta	Plecoptera	Capniidae	Allocapnia
riffle	Ranger Creek	OK121600-01-0060D	36757	06-Feb-07	1	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Ranger Creek	OK121600-01-0060D	36757	06-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
riffle	Ranger Creek	OK121600-01-0060D	36757	06-Feb-07	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Bezzia
riffle	Ranger Creek	OK121600-01-0060D	36757	06-Feb-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Ranger Creek	OK121600-01-0060D	36757	06-Feb-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Ranger Creek	OK121600-01-0060D	36757	06-Feb-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Ranger Creek	OK121600-01-0060D	36757	06-Feb-07	1	ARTHROPODA	Insecta	Diptera	Tipulidae	Tipula
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	30	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	11	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	9	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	8	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	8	ARTHROPODA	Insecta	Plecoptera	Taeniopterygidae	Oemopteryx
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	7	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	6	ARTHROPODA	Insecta	Ephemeroptera	Ephemerellidae	Ephemerella
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	2	ARTHROPODA	Insecta	Ephemeroptera	Leptophlebiidae	Paraleptophlebia
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	2	ARTHROPODA	Insecta	Odonata	Gomphidae	Lanthus
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	2	ARTHROPODA	Insecta	Plecoptera	Perlodidae	Isoperla
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	2	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	2	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	2	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acentrella
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	1	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Leucrocuta
riffle	Fourteenmile Creek	OK121600-01-0100G	36758	06-Feb-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	68	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	5	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	4	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	3	ARTHROPODA	Insecta	Trichoptera	Helicopsychidae	Helicopsyche
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	3	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	3	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenacron
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	2	ARTHROPODA	Insecta	Diptera	Stratiomyidae	Nemotelus
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	2	PLATYHELMINTHES	Turbellaria	Tricladida	Planariidae	Dugesia
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	2	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	1	MOLLUSCA	Gastropoda	Neotaenioglossa	Pleuroceridae	Goniobasis=Elimia
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	1	ARTHROPODA	Insecta	Trichoptera	Polycentropodidae	Polycentropus

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	1	ARTHROPODA	Insecta	Ephemeroptera	Ephemerellidae	Ephemerella
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acentrella
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	1	ARTHROPODA	Crustacea	Decapoda	Astacidae	
riffle	Saline Creek	OK121600-02-0030D	36759	06-Feb-07	1	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Little Horse Creek	OK121600-03-0190A	36760	06-Feb-07	60	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Little Horse Creek	OK121600-03-0190A	36760	06-Feb-07	44	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Little Horse Creek	OK121600-03-0190A	36760	06-Feb-07	28	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
riffle	Little Horse Creek	OK121600-03-0190A	36760	06-Feb-07	6	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Little Horse Creek	OK121600-03-0190A	36760	06-Feb-07	3	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila
riffle	Little Horse Creek	OK121600-03-0190A	36760	06-Feb-07	2	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Little Horse Creek	OK121600-03-0190A	36760	06-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Little Horse Creek	OK121600-03-0190A	36760	06-Feb-07	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Little Horse Creek	OK121600-03-0190A	36760	06-Feb-07	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Bull Creek	OK121500-02-0090D	36779	08-Feb-07	51	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Bull Creek	OK121500-02-0090D	36779	08-Feb-07	11	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Bull Creek	OK121500-02-0090D	36779	08-Feb-07	10	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Bezzia
riffle	Bull Creek	OK121500-02-0090D	36779	08-Feb-07	10	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila
riffle	Bull Creek	OK121500-02-0090D	36779	08-Feb-07	9	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Bull Creek	OK121500-02-0090D	36779	08-Feb-07	2	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Bull Creek	OK121500-02-0090D	36779	08-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
riffle	Bull Creek	OK121500-02-0090D	36779	08-Feb-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Bull Creek	OK121500-02-0090D	36779	08-Feb-07	1	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
riffle	Bull Creek	OK121500-02-0090D	36779	08-Feb-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Pseudochironomini
riffle	Bull Creek	OK121500-02-0090D	36779	08-Feb-07	1	ANNELIDA	Hirudinea	Rhynchobdellida	Glossiphoniidae	Helobdella
riffle	Bull Creek	OK121500-02-0090D	36779	08-Feb-07	1	ARTHROPODA	Insecta	Lepidoptera	Pyalidae	
riffle	Chouteau Creek	OK121600-01-0430M	36780	08-Feb-07	58	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Chouteau Creek	OK121600-01-0430M	36780	08-Feb-07	29	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Chouteau Creek	OK121600-01-0430M	36780	08-Feb-07	13	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Chouteau Creek	OK121600-01-0430M	36780	08-Feb-07	4	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Chouteau Creek	OK121600-01-0430M	36780	08-Feb-07	3	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila
riffle	Chouteau Creek	OK121600-01-0430M	36780	08-Feb-07	3	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Chouteau Creek	OK121600-01-0430M	36780	08-Feb-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Chouteau Creek	OK121600-01-0430M	36780	08-Feb-07	1	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
riffle	Chouteau Creek	OK121600-01-0430M	36780	08-Feb-07	1	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Dina
riffle	Chouteau Creek	OK121600-01-0430M	36780	08-Feb-07	1	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Sphaerium

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Delaware Creek	OK121300-01-0150H	36783	12-Feb-07	100	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Delaware Creek	OK121300-01-0150H	36783	12-Feb-07	8	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	Delaware Creek	OK121300-01-0150H	36783	12-Feb-07	3	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella
riffle	Delaware Creek	OK121300-01-0150H	36783	12-Feb-07	2	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
riffle	Delaware Creek	OK121300-01-0150H	36783	12-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Delaware Creek	OK121300-01-0150H	36783	12-Feb-07	1	ARTHROPODA	Insecta	Diptera	Tabanidae	Chrysops
riffle	Delaware Creek	OK121300-01-0150H	36783	12-Feb-07	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Chauliodes
riffle	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	29	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
riffle	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	27	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	19	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella
riffle	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	8	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	8	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	5	ARTHROPODA	Insecta	Chironomidae	Chironomidae	Orthocladiinae
riffle	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	4	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	4	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Sphaerium
riffle	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	2	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	California Creek	OK121510-02-0050C	36782	12-Feb-07	53	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	California Creek	OK121510-02-0050C	36782	12-Feb-07	32	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	California Creek	OK121510-02-0050C	36782	12-Feb-07	12	ARTHROPODA	Insecta	Plecoptera	Capniidae	Allocapnia
riffle	California Creek	OK121510-02-0050C	36782	12-Feb-07	3	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	California Creek	OK121510-02-0050C	36782	12-Feb-07	1	ARTHROPODA	Insecta	Diptera	Tabanidae	Chrysops
riffle	California Creek	OK121510-02-0050C	36782	12-Feb-07	1	ARTHROPODA	Insecta	Diptera	Tipulidae	Hexatoma
riffle	California Creek	OK121510-02-0050C	36782	12-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Dubiraphia
riffle	Big Creek	OK121510-03-0010D	36781	12-Feb-07	104	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Big Creek	OK121510-03-0010D	36781	12-Feb-07	104	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Big Creek	OK121510-03-0010D	36781	12-Feb-07	9	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	Big Creek	OK121510-03-0010D	36781	12-Feb-07	9	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	Big Creek	OK121510-03-0010D	36781	12-Feb-07	4	ARTHROPODA	Insecta	Plecoptera	Capniidae	Allocapnia
riffle	Big Creek	OK121510-03-0010D	36781	12-Feb-07	4	ARTHROPODA	Insecta	Plecoptera	Capniidae	Allocapnia
riffle	Big Creek	OK121510-03-0010D	36781	12-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Big Creek	OK121510-03-0010D	36781	12-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	36	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	36	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	28	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	28	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	9	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	9	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	8	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	8	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	7	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	7	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	6	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	6	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	6	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	6	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	2	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	2	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	2	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	2	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ARTHROPODA	Crustacea	Decapoda	Astacidae	
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ARTHROPODA	Crustacea	Decapoda	Astacidae	
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ARTHROPODA	Insecta	Diptera	Tipulidae	Hexatoma
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ARTHROPODA	Insecta	Diptera	Tipulidae	Hexatoma
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	36785	20-Feb-07	80	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	36785	20-Feb-07	19	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	36785	20-Feb-07	6	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	36785	20-Feb-07	2	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	36785	20-Feb-07	2	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	36785	20-Feb-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Dero
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	36785	20-Feb-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	36785	20-Feb-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	36785	20-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	36785	20-Feb-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Mission Creek	OK121400-02-0190B	36883	01-Mar-07	78	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	Mission Creek	OK121400-02-0190B	36883	01-Mar-07	21	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Mission Creek	OK121400-02-0190B	36883	01-Mar-07	16	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella
riffle	Mission Creek	OK121400-02-0190B	36883	01-Mar-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Mission Creek	OK121400-02-0190B	36883	01-Mar-07	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Mission Creek	OK121400-02-0190B	36883	01-Mar-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Mission Creek	OK121400-02-0190B	36883	01-Mar-07	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Agabus
riffle	Mission Creek	OK121400-02-0190B	36883	01-Mar-07	1	ARTHROPODA	Insecta	Diptera	Tabanidae	Chrysops
riffle	Mission Creek	OK121400-02-0190B	36883	01-Mar-07	1	ARTHROPODA	Insecta	Plecoptera	Capniidae	Allocapnia
riffle	Mission Creek	OK121400-02-0190B	36883	01-Mar-07	1	NEMATODA				

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	54	ARTHROPODA	Insecta	Odonata	Gomphidae	Erpetogomphus
riffle	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	30	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	4	ARTHROPODA	Insecta	Odonata	Gomphidae	Progomphus
riffle	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	4	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	1	ARTHROPODA	Insecta	Odonata	Calopterygidae	Hetaerina
riffle	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	1	ARTHROPODA	Insecta	Trichoptera	Leptoceridae	Nectopsyche
riffle	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	39	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	21	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	15	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	13	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	12	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	8	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	8	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	7	ARTHROPODA	Insecta	Ephemeroptera	Leptophlebiidae	Leptophlebia
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	5	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	5	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	5	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenacron
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	5	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	5	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	4	ARTHROPODA	Insecta	Plecoptera	Perlidae	Neoperla
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	2	ARTHROPODA	Crustacea	Decapoda	Cambaridae	Cambarus
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	1	ARTHROPODA	Insecta	Megaloptera	Sialidae	Sialis
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Nigronia
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	1	ARTHROPODA	Insecta	Hemiptera	Mesoveliidae	Mesovelia
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	1	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Ranger Creek	OK121600-01-0060D	38123	02-Aug-07	1	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	21	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	15	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	15	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	13	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	13	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	12	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	12	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	9	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	8	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	7	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	7	MOLLUSCA	Gastropoda	Neotaenioglossa	Pleuroceridae	Goniobasis=Elimia
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	3	ARTHROPODA	Insecta	Diptera	Tabanidae	Tabanus
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	3	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	3	ARTHROPODA	Insecta	Plecoptera	Perlidae	Neoperla
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	2	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	1	ARTHROPODA	Insecta	Diptera	Tipulidae	Pseudolimnophila
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Ephemeridae	Ephemera
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	1	PLATYHELMINTHES	Turbellaria	Tricladida	Planariidae	Dugesia
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	1	ARTHROPODA	Insecta	Odonata	Calopterygidae	Hetaerina
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Leptophlebiidae	Leptophlebia
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	1	MOLLUSCA	Gastropoda	Basommatophora	Ancylidae	Ferrissia
riffle	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Glossoscolecidae	Sparganophilus
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	103	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	23	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	16	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	8	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	3	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	1	PLATYHELMINTHES	Turbellaria	Tricladida	Planariidae	Dugesia
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	1	MOLLUSCA	Gastropoda	Neotaenioglossa	Pleuroceridae	Goniobasis=Elimia
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	1	MOLLUSCA	Gastropoda	Basommatophora	Ancylidae	Ferrissia
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	1	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	1	ARTHROPODA	Insecta	Plecoptera	Perlidae	Acroneuria
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	1	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenacron
riffle	Saline Creek	OK121600-02-0030D	38121	02-Aug-07	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	37	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	21	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	14	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	8	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	7	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	6	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	5	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	3	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Falceon
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	2	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Paracloeodes
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenacron
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	1	ARTHROPODA	Insecta	Odonata	Gomphidae	Erpetogomphus
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Nigronia
riffle	Hominy Creek: Upstream	OK121300-04-0280G	38141	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Leptophlebiidae	Neochoroterpes
riffle	Buck Creek	OK121400-03-0170C	38138	09-Aug-07	40	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Buck Creek	OK121400-03-0170C	38138	09-Aug-07	22	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Buck Creek	OK121400-03-0170C	38138	09-Aug-07	17	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Buck Creek	OK121400-03-0170C	38138	09-Aug-07	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Buck Creek	OK121400-03-0170C	38138	09-Aug-07	5	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Buck Creek	OK121400-03-0170C	38138	09-Aug-07	4	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Buck Creek	OK121400-03-0170C	38138	09-Aug-07	3	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
riffle	Buck Creek	OK121400-03-0170C	38138	09-Aug-07	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
riffle	Buck Creek	OK121400-03-0170C	38138	09-Aug-07	2	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Buck Creek	OK121400-03-0170C	38138	09-Aug-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Buck Creek	OK121400-03-0170C	38138	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Leptophlebiidae	
riffle	Buck Creek	OK121400-03-0170C	38138	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Buck Creek	OK121400-03-0170C	38138	09-Aug-07	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Nigronia
riffle	Buck Creek	OK121400-03-0170C	38138	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
riffle	Buck Creek	OK121400-03-0170C	38138	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	59	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	15	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
riffle	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	10	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	4	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
riffle	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	4	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Leucrocota
riffle	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	1	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	95	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	41	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini



## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	19	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	3	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	2	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaudiinae
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	1	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Little Horse Creek	OK121600-03-0190A	38126	09-Aug-07	1	ANNELIDA	Hirudinea	Rhynchobdellida	Glossiphoniidae	Placobdella
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	49	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	16	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaudiinae
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	13	MOLLUSCA	Gastropoda	Neotaenioglossa	Pleuroceridae	Goniobasis=Elimia
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	9	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	5	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	4	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Pseudochironomini
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	3	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	3	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	3	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	3	ANNELIDA	Oligochaeta	Haplotaxida	Glossoscolecidae	Sparganophilus
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	3	ARTHROPODA	Insecta	Ephemeroptera	Ephemeridae	Ephemer
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	2	ARTHROPODA	Insecta	Plecoptera	Perlidae	Neoperla
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	1	ARTHROPODA	Insecta	Trichoptera	Odontoceridae	Marilia
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Leptophlebiidae	
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	1	ARTHROPODA	Insecta	Diptera	Tabanidae	Tabanus
riffle	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Tar Creek	OK121600-04-0060D	38129	09-Aug-07	60	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Tar Creek	OK121600-04-0060D	38129	09-Aug-07	29	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Tar Creek	OK121600-04-0060D	38129	09-Aug-07	18	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Tar Creek	OK121600-04-0060D	38129	09-Aug-07	8	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Tar Creek	OK121600-04-0060D	38129	09-Aug-07	7	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Tar Creek	OK121600-04-0060D	38129	09-Aug-07	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Tar Creek	OK121600-04-0060D	38129	09-Aug-07	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	Tar Creek	OK121600-04-0060D	38129	09-Aug-07	4	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalus
riffle	Tar Creek	OK121600-04-0060D	38129	09-Aug-07	3	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Tar Creek	OK121600-04-0060D	38129	09-Aug-07	3	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Tar Creek	OK121600-04-0060D	38129	09-Aug-07	2	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Probezzia
riffle	Tar Creek	OK121600-04-0060D	38129	09-Aug-07	2	ARTHROPODA	Insecta	Megaloptera	Sialidae	Sialis
riffle	Tar Creek	OK121600-04-0060D	38129	09-Aug-07	1	ARTHROPODA	Insecta	Plecoptera	Perlidae	Acroneuria
riffle	Tar Creek	OK121600-04-0060D	38129	09-Aug-07	1	ARTHROPODA	Insecta	Diptera	Tabanidae	Tabanus
riffle	Tar Creek	OK121600-04-0060D	38129	09-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Little Cabin Creek	OK121600-06-0080C	38125	09-Aug-07	109	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Little Cabin Creek	OK121600-06-0080C	38125	09-Aug-07	20	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Little Cabin Creek	OK121600-06-0080C	38125	09-Aug-07	16	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Little Cabin Creek	OK121600-06-0080C	38125	09-Aug-07	11	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Little Cabin Creek	OK121600-06-0080C	38125	09-Aug-07	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Little Cabin Creek	OK121600-06-0080C	38125	09-Aug-07	4	ARTHROPODA	Insecta	Coleoptera	Gyrinidae	Dineutus
riffle	Little Cabin Creek	OK121600-06-0080C	38125	09-Aug-07	4	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Little Cabin Creek	OK121600-06-0080C	38125	09-Aug-07	3	ARTHROPODA	Insecta	Diptera	Tipulidae	Hexatoma
riffle	Little Cabin Creek	OK121600-06-0080C	38125	09-Aug-07	3	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenacron
riffle	Little Cabin Creek	OK121600-06-0080C	38125	09-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Little Cabin Creek	OK121600-06-0080C	38125	09-Aug-07	1	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella
riffle	Little Cabin Creek	OK121600-06-0080C	38125	09-Aug-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Little Cabin Creek	OK121600-06-0080C	38125	09-Aug-07	1	MOLLUSCA	Gastropoda	Basommatophora	Ancyliidae	Ferrissia
riffle	Little Cabin Creek	OK121600-06-0080C	38125	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	58	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	50	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	21	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	16	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	14	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	12	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	9	ARTHROPODA	Insecta	Coleoptera	Gyrinidae	Dineutus
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	3	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	3	ARTHROPODA	Insecta	Diptera	Tipulidae	Hexatoma
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	3	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	2	ARTHROPODA	Insecta	Trichoptera	Polycentropodidae	Cymellus
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenacron
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	1	ANNELIDA	Hirudinea	Rhynchobdellida	Glossiphoniidae	Placobdella

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Leptophlebiidae	
riffle	Big Cabin Creek	OK121600-06-0220I	38124	09-Aug-07	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Fivemile Creek	OK121600-07-0110G	38128	09-Aug-07	13	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Fivemile Creek	OK121600-07-0110G	38128	09-Aug-07	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Fivemile Creek	OK121600-07-0110G	38128	09-Aug-07	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Fivemile Creek	OK121600-07-0110G	38128	09-Aug-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	Fivemile Creek	OK121600-07-0110G	38128	09-Aug-07	1	ARTHROPODA	Insecta	Odonata	Aeshnidae	Basiaeschna
riffle	Fivemile Creek	OK121600-07-0110G	38128	09-Aug-07	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Delaware Creek	OK121300-01-0150H	38142	10-Aug-07	32	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Delaware Creek	OK121300-01-0150H	38142	10-Aug-07	31	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Delaware Creek	OK121300-01-0150H	38142	10-Aug-07	18	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Delaware Creek	OK121300-01-0150H	38142	10-Aug-07	10	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Delaware Creek	OK121300-01-0150H	38142	10-Aug-07	4	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Delaware Creek	OK121300-01-0150H	38142	10-Aug-07	4	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella
riffle	Delaware Creek	OK121300-01-0150H	38142	10-Aug-07	3	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Delaware Creek	OK121300-01-0150H	38142	10-Aug-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Delaware Creek	OK121300-01-0150H	38142	10-Aug-07	3	ARTHROPODA	Insecta	Coleoptera	Gyrinidae	Dineutus
riffle	Delaware Creek	OK121300-01-0150H	38142	10-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Delaware Creek	OK121300-01-0150H	38142	10-Aug-07	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
riffle	Delaware Creek	OK121300-01-0150H	38142	10-Aug-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Delaware Creek	OK121300-01-0150H	38142	10-Aug-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	Delaware Creek	OK121300-01-0150H	38142	10-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
riffle	Delaware Creek	OK121300-01-0150H	38142	10-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Dog Creek	OK121500-02-0360D	38145	10-Aug-07	50	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Dog Creek	OK121500-02-0360D	38145	10-Aug-07	21	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Dog Creek	OK121500-02-0360D	38145	10-Aug-07	10	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Dog Creek	OK121500-02-0360D	38145	10-Aug-07	10	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Dog Creek	OK121500-02-0360D	38145	10-Aug-07	10	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Dog Creek	OK121500-02-0360D	38145	10-Aug-07	9	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella
riffle	Dog Creek	OK121500-02-0360D	38145	10-Aug-07	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	Dog Creek	OK121500-02-0360D	38145	10-Aug-07	3	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Dog Creek	OK121500-02-0360D	38145	10-Aug-07	2	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
riffle	Dog Creek	OK121500-02-0360D	38145	10-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
riffle	Dog Creek	OK121500-02-0360D	38145	10-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Gyrinidae	Dineutus
riffle	Dog Creek	OK121500-02-0360D	38145	10-Aug-07	1	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
riffle	Dog Creek	OK121500-02-0360D	38145	10-Aug-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	43	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	34	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	15	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	8	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	6	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	5	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	5	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Leucrocuta
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	1	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Gyrinidae	Dineutus
riffle	California Creek	OK121510-02-0050C	38143	10-Aug-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Big Creek	OK121510-03-0010D	38144	10-Aug-07	69	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Big Creek	OK121510-03-0010D	38144	10-Aug-07	23	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Big Creek	OK121510-03-0010D	38144	10-Aug-07	17	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Big Creek	OK121510-03-0010D	38144	10-Aug-07	8	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Big Creek	OK121510-03-0010D	38144	10-Aug-07	8	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Big Creek	OK121510-03-0010D	38144	10-Aug-07	3	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Big Creek	OK121510-03-0010D	38144	10-Aug-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Big Creek	OK121510-03-0010D	38144	10-Aug-07	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Big Creek	OK121510-03-0010D	38144	10-Aug-07	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
riffle	Big Creek	OK121510-03-0010D	38144	10-Aug-07	1	ARTHROPODA	Insecta	Trichoptera	Polycentropodidae	Cyrnellus
riffle	Big Creek	OK121510-03-0010D	38144	10-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Leptophlebiidae	Choroterpes
riffle	Big Creek	OK121510-03-0010D	38144	10-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Big Creek	OK121510-03-0010D	38144	10-Aug-07	1	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
riffle	Big Creek	OK121510-03-0010D	38144	10-Aug-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Pristina
riffle	Big Creek	OK121510-03-0010D	38144	10-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	88	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	10	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	8	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	4	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	3	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	3	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Slavina
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	2	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Bezzia
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Enochrus
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	1	ARTHROPODA	Insecta	Diptera	Chaoboridae	Chaoborus

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	1	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Sphaerium
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	1	ANNELIDA	Hirudinea	Rhynchobdellida	Glossiphoniidae	Helobdella
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	48	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	48	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	29	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	29	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	11	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	11	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	5	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	5	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	4	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	4	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	4	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	4	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	2	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	2	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	1	MOLLUSCA	Pelecypoda	Unionoida	Unionidae	
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	1	MOLLUSCA	Pelecypoda	Unionoida	Unionidae	
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	40	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	22	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	21	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	13	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	7	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	5	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Gyrinidae	Dineutus
riffle	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Leucrocota
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	32	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	29	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	17	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	12	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	8	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	4	ARTHROPODA	Insecta	Odonata	Gomphidae	Gomphus
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	4	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Potamyia
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	2	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	2	ARTHROPODA	Insecta	Odonata	Gomphidae	Erpetogomphus
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Enochrus
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	1	ARTHROPODA	Crustacea	Ostracoda		
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Nigronia
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	1	ARTHROPODA	Insecta	Trichoptera	Polycentropodidae	Cynellus
riffle	Little Caney River	OK121400-02-0140H	38150	23-Aug-07	1	ARTHROPODA	Insecta	Trichoptera	Polycentropodidae	Polycentropus
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	38154	24-Aug-07	60	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	38154	24-Aug-07	23	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	38154	24-Aug-07	15	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	38154	24-Aug-07	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	38154	24-Aug-07	6	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	38154	24-Aug-07	3	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	38154	24-Aug-07	2	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	38153	24-Aug-07	53	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	38153	24-Aug-07	19	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	38153	24-Aug-07	15	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	38153	24-Aug-07	7	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	38153	24-Aug-07	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	38153	24-Aug-07	2	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	38153	24-Aug-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	38153	24-Aug-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	38153	24-Aug-07	2	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	38153	24-Aug-07	1	ARTHROPODA	Crustacea	Decapoda	Astacidae	
riffle	Ranger Creek	OK121600-01-0060D	39376	03-Jan-08	25	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Ranger Creek	OK121600-01-0060D	39376	03-Jan-08	20	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Ranger Creek	OK121600-01-0060D	39376	03-Jan-08	10	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Ranger Creek	OK121600-01-0060D	39376	03-Jan-08	10	ARTHROPODA	Insecta	Plecoptera	Perlidae	Neoperla
riffle	Ranger Creek	OK121600-01-0060D	39376	03-Jan-08	8	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Ranger Creek	OK121600-01-0060D	39376	03-Jan-08	6	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Ranger Creek	OK121600-01-0060D	39376	03-Jan-08	5	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Ranger Creek	OK121600-01-0060D	39376	03-Jan-08	4	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Ranger Creek	OK121600-01-0060D	39376	03-Jan-08	4	ARTHROPODA	Insecta	Plecoptera	Capniidae	Allocapnia
riffle	Ranger Creek	OK121600-01-0060D	39376	03-Jan-08	3	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Ranger Creek	OK121600-01-0060D	39376	03-Jan-08	2	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Ranger Creek	OK121600-01-0060D	39376	03-Jan-08	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Ranger Creek	OK121600-01-0060D	39376	03-Jan-08	1	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
riffle	Ranger Creek	OK121600-01-0060D	39376	03-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Ranger Creek	OK121600-01-0060D	39376	03-Jan-08	1	ARTHROPODA	Insecta	Plecoptera	Perlodidae	Hydroperla
riffle	Fourteenmile Creek	OK121600-01-0100G	39375	03-Jan-08	19	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Fourteenmile Creek	OK121600-01-0100G	39375	03-Jan-08	18	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Fourteenmile Creek	OK121600-01-0100G	39375	03-Jan-08	13	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Fourteenmile Creek	OK121600-01-0100G	39375	03-Jan-08	12	ARTHROPODA	Insecta	Plecoptera	Perlidae	Neoperla
riffle	Fourteenmile Creek	OK121600-01-0100G	39375	03-Jan-08	10	MOLLUSCA	Gastropoda	Neotaenioglossa	Pleuroceridae	Goniobasis=Elimia
riffle	Fourteenmile Creek	OK121600-01-0100G	39375	03-Jan-08	7	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Fourteenmile Creek	OK121600-01-0100G	39375	03-Jan-08	6	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Fourteenmile Creek	OK121600-01-0100G	39375	03-Jan-08	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Fourteenmile Creek	OK121600-01-0100G	39375	03-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Fourteenmile Creek	OK121600-01-0100G	39375	03-Jan-08	1	ARTHROPODA	Insecta	Plecoptera	Taeniopterygidae	Strophopteryx
riffle	Fourteenmile Creek	OK121600-01-0100G	39375	03-Jan-08	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
riffle	Fourteenmile Creek	OK121600-01-0100G	39375	03-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acentrella
riffle	Fourteenmile Creek	OK121600-01-0100G	39375	03-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Fourteenmile Creek	OK121600-01-0100G	39375	03-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Fourteenmile Creek	OK121600-01-0100G	39375	03-Jan-08	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Little Horse Creek	OK121600-03-0190A	39380	07-Jan-08	51	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
riffle	Little Horse Creek	OK121600-03-0190A	39380	07-Jan-08	37	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Little Horse Creek	OK121600-03-0190A	39380	07-Jan-08	23	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Little Horse Creek	OK121600-03-0190A	39380	07-Jan-08	5	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila
riffle	Little Horse Creek	OK121600-03-0190A	39380	07-Jan-08	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Little Horse Creek	OK121600-03-0190A	39380	07-Jan-08	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Little Horse Creek	OK121600-03-0190A	39380	07-Jan-08	1	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Erpobdella
riffle	Little Horse Creek	OK121600-03-0190A	39380	07-Jan-08	1	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
riffle	Little Horse Creek	OK121600-03-0190A	39380	07-Jan-08	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	26	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	24	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
riffle	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	23	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	14	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	8	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acentrella
riffle	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	8	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	5	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
riffle	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	1	PLATYHELMINTHES	Turbellaria	Tricladida	Planariidae	Dugesia
riffle	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	1	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Ephemerellidae	Ephemerella
riffle	Tar Creek	OK121600-04-0060D	39383	07-Jan-08	22	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Tar Creek	OK121600-04-0060D	39383	07-Jan-08	21	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Tar Creek	OK121600-04-0060D	39383	07-Jan-08	19	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Tar Creek	OK121600-04-0060D	39383	07-Jan-08	9	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Tar Creek	OK121600-04-0060D	39383	07-Jan-08	4	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Tar Creek	OK121600-04-0060D	39383	07-Jan-08	3	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
riffle	Tar Creek	OK121600-04-0060D	39383	07-Jan-08	2	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Tar Creek	OK121600-04-0060D	39383	07-Jan-08	2	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
riffle	Tar Creek	OK121600-04-0060D	39383	07-Jan-08	2	ARTHROPODA	Insecta	Diptera	Tipulidae	Tipula
riffle	Tar Creek	OK121600-04-0060D	39383	07-Jan-08	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Tar Creek	OK121600-04-0060D	39383	07-Jan-08	1	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
riffle	Tar Creek	OK121600-04-0060D	39383	07-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Tar Creek	OK121600-04-0060D	39383	07-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	12	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	12	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	10	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	10	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	9	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	7	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	3	ARTHROPODA	Insecta	Diptera	Tipulidae	Tipula
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	3	ARTHROPODA	Insecta	Diptera	Tipulidae	Hexatoma
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	2	ARTHROPODA	Insecta	Diptera	Dolichopodidae	Hydrophorus
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	2	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	2	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	2	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	2	ARTHROPODA	Insecta	Plecoptera	Capniidae	Allocapnia
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	2	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	1	PLATYHELMINTHES	Turbellaria	Tricladida	Planariidae	Dugesia
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna



## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Pseudochironomini
riffle	Little Cabin Creek	OK121600-06-0080C	39379	07-Jan-08	1	ARTHROPODA	Insecta	Diptera	Tipulidae	Limnophila
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	25	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	17	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	10	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaudiinae
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	6	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	5	ARTHROPODA	Insecta	Diptera	Tipulidae	Hexatoma
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	5	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	3	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	2	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenacron
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	1	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Nais
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	1	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	1	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Erpobdella
riffle	Big Cabin Creek	OK121600-06-0220I	39378	07-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	56	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	15	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	9	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaudiinae
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	4	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	4	ARTHROPODA	Insecta	Plecoptera	Perlidae	Acroneuria
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	4	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	3	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acentrella
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	2	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	1	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Ectopria
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	1	PLATYHELMINTHES	Turbellaria	Tricladida	Planariidae	Dugesia
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	1	MOLLUSCA	Gastropoda	Neotaenioglossa	Pleuroceridae	Goniobasis=Elimia
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	1	ARTHROPODA	Crustacea	Decapoda	Cambaridae	Orconectes
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	1	ARTHROPODA	Insecta	Plecoptera	Perlidae	Neoperla
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Fivemile Creek	OK121600-07-0110G	39382	07-Jan-08	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	103	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaudiinae
riffle	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	10	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Nais
riffle	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	6	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	4	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Dero

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	3	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	2	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	2	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	1	TARDIGRADA				
riffle	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Curly Creek	OK121400-01-0270C	39404	10-Jan-08	60	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Curly Creek	OK121400-01-0270C	39404	10-Jan-08	53	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Curly Creek	OK121400-01-0270C	39404	10-Jan-08	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Curly Creek	OK121400-01-0270C	39404	10-Jan-08	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Curly Creek	OK121400-01-0270C	39404	10-Jan-08	3	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Curly Creek	OK121400-01-0270C	39404	10-Jan-08	2	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Curly Creek	OK121400-01-0270C	39404	10-Jan-08	2	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Bezzia
riffle	Curly Creek	OK121400-01-0270C	39404	10-Jan-08	2	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Curly Creek	OK121400-01-0270C	39404	10-Jan-08	1	NEMATODA				
riffle	Curly Creek	OK121400-01-0270C	39404	10-Jan-08	1	ARTHROPODA	Insecta	Diptera	Dolichopodidae	Hydrophorus
riffle	Curly Creek	OK121400-01-0270C	39404	10-Jan-08	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Curly Creek	OK121400-01-0270C	39404	10-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Curly Creek	OK121400-01-0270C	39404	10-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	29	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	25	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	21	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	21	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	17	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Sphaerium
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	12	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	8	ARTHROPODA	Insecta	Diptera	Chaoboridae	Chaoborus
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	7	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	7	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	4	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	3	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	2	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	1	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	1	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Hogshooter Creek	OK121400-01-0300D	39405	10-Jan-08	1	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Pisidium

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	40	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	30	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	23	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Nais
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	19	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	15	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Slavina
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	15	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	12	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	11	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	9	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	3	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	2	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	2	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Chaetogaster
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	1	ARTHROPODA	Crustacea	Cladocera		
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	1	ANNELIDA	Hirudinea	Rhynchobdellida	Glossiphoniidae	Placobdella
riffle	California Creek	OK121510-02-0050C	39406	11-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	76	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	32	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	26	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	16	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	13	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	13	ANNELIDA	Hirudinea	Rhynchobdellida	Glossiphoniidae	Placobdella
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	8	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	7	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	6	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	6	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	4	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	4	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	3	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Bezzia
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	2	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Dubiraphia
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	2	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Nais
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalus
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	1	NEMATODA				
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	1	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
riffle	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	1	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Sphaerium
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	80	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	80	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	21	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	21	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	15	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	15	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	7	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	7	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	4	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	4	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	3	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	3	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Nais
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	3	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	3	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Nais
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	1	ARTHROPODA	Crustacea	Copepoda		
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	1	ARTHROPODA	Crustacea	Copepoda		
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	1	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
riffle	Hominy Creek: Downstream	OK121300-04-0010C	39410	14-Jan-08	1	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	88	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	19	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Nais
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	10	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	9	ARTHROPODA	Insecta	Diptera	Tabanidae	Tabanus
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	4	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	3	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	3	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	3	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	2	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	2	ARTHROPODA	Insecta	Ephemeroptera	Leptophlebiidae	Neochoroterpes
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Prosimulium
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Pseudochironomini

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	1	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Leucrocota
riffle	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	1	ARTHROPODA	Insecta	Diptera	Tipulidae	Limnophila
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	67	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	29	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	25	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	23	ARTHROPODA	Insecta	Diptera	Simuliidae	Prosimulium
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	14	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	12	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	8	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Nais
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	6	ARTHROPODA	Insecta	Diptera	Tabanidae	Tabanus
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	4	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	4	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	4	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	3	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	2	ANNELIDA	Hirudinea	Rhynchobdellida	Glossiphoniidae	Placobdella
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	2	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Slavina
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	1	ARTHROPODA	Insecta	Plecoptera	Perlodidae	Hydroperla
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	1	ARTHROPODA	Insecta	Diptera	Tipulidae	Tipula
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	1	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Agabus
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Dubiraphia
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Bezzia
riffle	Mission Creek	OK121400-02-0190B	39413	04-Feb-08	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Stilobezzia
riffle	Buck Creek	OK121400-03-0170C	39412	04-Feb-08	107	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
riffle	Buck Creek	OK121400-03-0170C	39412	04-Feb-08	4	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Nais
riffle	Buck Creek	OK121400-03-0170C	39412	04-Feb-08	3	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Buck Creek	OK121400-03-0170C	39412	04-Feb-08	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Buck Creek	OK121400-03-0170C	39412	04-Feb-08	2	ARTHROPODA	Insecta	Diptera	Tipulidae	Tipula
riffle	Buck Creek	OK121400-03-0170C	39412	04-Feb-08	2	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Buck Creek	OK121400-03-0170C	39412	04-Feb-08	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Probezzia
riffle	Buck Creek	OK121400-03-0170C	39412	04-Feb-08	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Chaetogaster
riffle	Buck Creek	OK121400-03-0170C	39412	04-Feb-08	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Pristina
riffle	Buck Creek	OK121400-03-0170C	39412	04-Feb-08	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
riffle	Buck Creek	OK121400-03-0170C	39412	04-Feb-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
riffle	Buck Creek	OK121400-03-0170C	39412	04-Feb-08	1	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	60	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	18	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	13	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	10	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	10	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	9	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	3	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
riffle	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	3	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
riffle	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	2	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Dero
riffle	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	1	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
riffle	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	1	ARTHROPODA	Insecta	Plecoptera	Perlodidae	Hydroperla
riffle	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	12	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	8	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
riffle	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	7	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	4	ARTHROPODA	Crustacea	Cladocera		
riffle	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	4	ANNELIDA	Hirudinea	Rhynchobdellida	Glossiphoniidae	Placobdella
riffle	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	2	ARTHROPODA	Crustacea	Copepoda		
riffle	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	2	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Dero
riffle	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	2	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Chaetogaster
riffle	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	1	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	57	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	57	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	23	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	23	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	13	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	13	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	11	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	11	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Sphaerium
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	11	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	11	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Sphaerium
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	9	ANNELIDA	Hirudinea	Rhynchobdellida	Glossiphoniidae	Placobdella
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	9	ANNELIDA	Hirudinea	Rhynchobdellida	Glossiphoniidae	Placobdella
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	8	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	8	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	3	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	3	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	3	ARTHROPODA	Crustacea	Cladocera		
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	3	ARTHROPODA	Crustacea	Cladocera		
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanyopodinae
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanyopodinae
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	1	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Pisidium
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	1	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Pisidium
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
riffle	Pryor Creek: HWY 20	OK121610-00-0050D	39425	13-Mar-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	34	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladinae
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	22	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	20	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	17	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanyopodinae
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	17	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Nais
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	14	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	9	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	9	ARTHROPODA	Insecta	Diptera	Tipulidae	Hexatoma
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	8	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Branchiura
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	3	ANNELIDA	Hirudinea	Rhynchobdellida	Glossiphoniidae	Placobdella
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	2	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Bezzia
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	1	ARTHROPODA	Insecta	Plecoptera	Perlodidae	Hydroperla
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Chaetogaster
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	1	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	1	ARTHROPODA	Crustacea	Cladocera		
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	1	ARTHROPODA	Acari	Arcarina	Hygrobatidae	Atractides
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
riffle	Pryor Creek: HWY 69	OK121610-00-0050M	39424	13-Mar-08	1	ARTHROPODA	Insecta	Plecoptera	Perlodidae	Isoperla
veg	Trail Creek	OK520620-02-0090G	35446	03-Jul-06	84	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Trail Creek	OK520620-02-0090G	35446	03-Jul-06	14	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyaella

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
veg	Trail Creek	OK520620-02-0090G	35446	03-Jul-06	8	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
veg	Trail Creek	OK520620-02-0090G	35446	03-Jul-06	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Trail Creek	OK520620-02-0090G	35446	03-Jul-06	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Trail Creek	OK520620-02-0090G	35446	03-Jul-06	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
veg	Trail Creek	OK520620-02-0090G	35446	03-Jul-06	2	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
veg	Trail Creek	OK520620-02-0090G	35446	03-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Dubiraphia
veg	Trail Creek	OK520620-02-0090G	35446	03-Jul-06	1	ARTHROPODA	Crustacea	Ostracoda		
veg	Trail Creek	OK520620-02-0090G	35446	03-Jul-06	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	
veg	Trail Creek	OK520620-02-0090G	35446	03-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	18	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	15	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	14	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Smicridea
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	10	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	9	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	7	ARTHROPODA	Insecta	Odonata	Gomphidae	Erpetogomphus
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	5	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	3	ARTHROPODA	Insecta	Trichoptera	Leptoceridae	Nectopsyche
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	3	ARTHROPODA	Insecta	Coleoptera	Dryopidae	Helichus
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	3	ARTHROPODA	Insecta	Coleoptera	Elmidae	Microcylloepus
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	2	ARTHROPODA	Insecta	Odonata	Calopterygidae	Hetaerina
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	2	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Stolobezzia
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Paracymus
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Heterelmis
veg	Commission Creek	OK520620-05-0160C	35448	03-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Heptagenia
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	70	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Paracloeodes
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	70	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Paracloeodes
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	7	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	7	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	5	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	5	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	3	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Enochrus
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	3	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	3	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	3	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Enochrus
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini



## Appendix C. Macroinvertebrate collection data.

Sample type	SiteName	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Callibaetis
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Callibaetis
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Enallagma
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	1	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	1	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Hydroporus
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Hydroporus
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Enallagma
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
veg	Walnut Creek	OK520610-03-0010F	35452	05-Jul-06	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	15	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	12	ARTHROPODA	Insecta	Coleoptera	Elmidae	Macronychus
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	11	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	11	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	10	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Eupera
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	6	ARTHROPODA	Insecta	Trichoptera	Leptoceridae	Oecetis
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	5	ARTHROPODA	Insecta	Odonata	Calopterygidae	Hetaerina
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	4	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	4	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	4	ARTHROPODA	Insecta	Odonata	Macromiinae	Macromia
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	3	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Dubiraphia
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	2	ARTHROPODA	Insecta	Odonata	Aeshnidae	Boyeria
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	2	ARTHROPODA	Insecta	Trichoptera	Polycentropodidae	Neureclipsis
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Staphylinidae	
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Probezzia
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	ARTHROPODA	Insecta	Odonata	Aeshnidae	Basiaeschna
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	MOLLUSCA	Gastropoda	Basommatophora	Lymnaeidae	Fossaria
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	ARTHROPODA	Insecta	Hemiptera	Veliidae	Rhagovelia
veg	Hominy Creek: Downstream	OK121300-04-0010C	35805	06-Jul-06	1	MOLLUSCA	Pelecypoda	Veneroidea	Sphaeriidae	Sphaerium
veg	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	41	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	33	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	14	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
veg	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	12	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
veg	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	1	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella
veg	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
veg	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Callibaetis
veg	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Hydaticus
veg	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Stylaria
veg	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
veg	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	1	MOLLUSCA	Gastropoda	Basommatophora	Planorbidae	Helisoma
veg	Dog Creek	OK121500-02-0360D	35802	06-Jul-06	1	MOLLUSCA	Pelecypoda	Veneroidea	Sphaeriidae	Sphaerium
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	23	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	11	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	6	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Palpomyia
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	6	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Slavina
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	3	ARTHROPODA	Insecta	Coleoptera	Elmidae	Dubiraphia
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	2	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	2	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Pseudochironomini
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Probezzia
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Enallagma
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	ARTHROPODA	Insecta	Plecoptera		
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	ARTHROPODA	Insecta	Odonata	Gomphidae	Erpetogomphus
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	MOLLUSCA	Gastropoda	Basommatophora	Planorbidae	Gyraulus
veg	Sycamore Creek	OK121600-03-0510D	35794	10-Jul-06	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
veg	Buggy Creek	OK520610-02-0120C	36578	08-Jan-07	90	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Buggy Creek	OK520610-02-0120C	36578	08-Jan-07	19	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
veg	Buggy Creek	OK520610-02-0120C	36578	08-Jan-07	5	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
veg	Buggy Creek	OK520610-02-0120C	36578	08-Jan-07	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
veg	Buggy Creek	OK520610-02-0120C	36578	08-Jan-07	2	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Buggy Creek	OK520610-02-0120C	36578	08-Jan-07	1	ARTHROPODA	Insecta	Collembola	Poduridae	Podura
veg	Buggy Creek	OK520610-02-0120C	36578	08-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Agabus
veg	Buggy Creek	OK520610-02-0120C	36578	08-Jan-07	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Dasyhelea
veg	Buggy Creek	OK520610-02-0120C	36578	08-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
veg	Buggy Creek	OK520610-02-0120C	36578	08-Jan-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Dero
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	62	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	62	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	18	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	18	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	9	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	9	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	6	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Ischnura
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	6	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Ischnura
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	4	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Agabus
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	4	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Agabus
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	3	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	3	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	2	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	2	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	2	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	2	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Oreodytes
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Insecta	Hemiptera	Corixidae	Trichocorixa
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalabella
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalabella
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Dryopidae	Helichus
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Ilyodrilus
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Oreodytes
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Ilyodrilus
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Dryopidae	Helichus
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Dasyhelea
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Insecta	Hemiptera	Corixidae	Trichocorixa
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Dasyhelea
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Stilobezzia
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Stilobezzia
veg	Walnut Creek	OK520610-03-0010F	36579	08-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	30	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	10	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	10	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	10	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	8	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	8	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	3	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Dero
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	3	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Stilobezzia
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	3	ARTHROPODA	Insecta	Coleoptera	Elmidae	Dubiraphia
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	3	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Enallagma
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	1	ARTHROPODA	Insecta	Odonata	Calopterygidae	Hetaerina
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	1	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Bezzia
veg	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
veg	Lone Creek	OK520620-03-0020C	36584	09-Jan-07	71	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Lone Creek	OK520620-03-0020C	36584	09-Jan-07	10	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
veg	Lone Creek	OK520620-03-0020C	36584	09-Jan-07	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Lone Creek	OK520620-03-0020C	36584	09-Jan-07	6	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Dasyhelea
veg	Lone Creek	OK520620-03-0020C	36584	09-Jan-07	4	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
veg	Lone Creek	OK520620-03-0020C	36584	09-Jan-07	3	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Callibaetis
veg	Lone Creek	OK520620-03-0020C	36584	09-Jan-07	3	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Agabus
veg	Lone Creek	OK520620-03-0020C	36584	09-Jan-07	2	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Stilobezzia
veg	Lone Creek	OK520620-03-0020C	36584	09-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
veg	Lone Creek	OK520620-03-0020C	36584	09-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Oreodytes
veg	Lone Creek	OK520620-03-0020C	36584	09-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Laccophilus
veg	Lone Creek	OK520620-03-0020C	36584	09-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Hydroporus
veg	Lone Creek	OK520620-03-0020C	36584	09-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Lone Creek	OK520620-03-0020C	36584	09-Jan-07	1	MOLLUSCA	Gastropoda	Basommatophora	Lymnaeidae	Fossaria
veg	Hackberry Creek	OK520620-04-0050D	36582	09-Jan-07	7	ARTHROPODA	Crustacea	Isopoda		
veg	Hackberry Creek	OK520620-04-0050D	36582	09-Jan-07	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Hackberry Creek	OK520620-04-0050D	36582	09-Jan-07	2	ARTHROPODA	Insecta	Hemiptera	Cicadellidae	
veg	Hackberry Creek	OK520620-04-0050D	36582	09-Jan-07	2	ARTHROPODA	Crustacea	Decapoda	Astacidae	
veg	Hackberry Creek	OK520620-04-0050D	36582	09-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Curculionidae	
veg	Hackberry Creek	OK520620-04-0050D	36582	09-Jan-07	1	ARTHROPODA	Insecta	Diptera	Culicidae	Culiseta
veg	Hackberry Creek	OK520620-04-0050D	36582	09-Jan-07	1	ARTHROPODA	Insecta	Diptera	Tabanidae	Chrysops
veg	Hackberry Creek	OK520620-04-0050D	36582	09-Jan-07	1	ARTHROPODA	Insecta	Diptera	Tipulidae	
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	20	ARTHROPODA	Insecta	Plecoptera	Taeniopterygidae	Taeniopteryx

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	19	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	17	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	15	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	11	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	8	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	8	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	5	ARTHROPODA	Insecta	Odonata	Calopterygidae	Hetaerina
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	5	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	4	ARTHROPODA	Insecta	Coleoptera	Elmidae	Microcylloepus
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	3	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Callibaetis
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	2	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	2	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Insecta	Odonata	Gomphidae	Erpetogomphus
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Agabus
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Insecta	Trichoptera	Leptoceridae	Nectopsyche
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Oreodytes
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Heptagenia
veg	Commission Creek	OK520620-05-0160C	36583	09-Jan-07	1	ARTHROPODA	Insecta	Ephemeroptera	Leptophlebiidae	Leptophlebia
veg	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	35	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
veg	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	35	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
veg	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	12	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	7	ARTHROPODA	Insecta	Collembola	Isotomidae	Isotomurus
veg	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	5	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
veg	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
veg	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	3	MOLLUSCA	Gastropoda	Neotaenioglossa	Pleuroceridae	Goniobasis=Elimia
veg	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	3	PLATYHELMINTHES	Turbellaria	Tricladida	Planariidae	Dugesia
veg	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	2	ARTHROPODA	Insecta	Trichoptera	Limnephilidae	Pycnopsyche
veg	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
veg	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Stylaria
veg	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
veg	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	MOLLUSCA	Gastropoda	Basommatophora	Planorbidae	Gyraulus
veg	Sycamore Creek	OK121600-03-0510D	36587	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Ephydriidae	Hydrellia
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	37	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	36	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	35	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	5	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	5	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	4	ARTHROPODA	Insecta	Diptera	Tipulidae	Limnophila

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	2	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	2	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Probezzia
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	2	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Agabus
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Callibaetis
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	2	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyaella
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Laccophilus
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Oreodytes
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Scirtidae	Scirtes
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	1	ARTHROPODA	Insecta	Diptera	Chaoboridae	Chaoborus
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Tropisternus
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	1	ARTHROPODA	Insecta	Hemiptera	Corixidae	Trichocorixa
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Hydroporus
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	1	ARTHROPODA	Insecta	Trichoptera	Limnephilidae	Limnephilus
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
veg	Trail Creek	OK520620-02-0090G	36581	11-Jan-07	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
veg	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	67	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	14	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	12	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
veg	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	7	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Slavina
veg	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	3	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
veg	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	3	ARTHROPODA	Insecta	Coleoptera	Elmidae	Macronychus
veg	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	2	ARTHROPODA	Insecta	Trichoptera	Polycentropodidae	Polycentropus
veg	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	2	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
veg	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	1	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
veg	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
veg	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	1	ARTHROPODA	Insecta	Trichoptera	Leptoceridae	Oecetis
veg	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	1	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
veg	Hominy Creek: Downstream	OK121300-04-0010C	36775	06-Feb-07	1	ARTHROPODA	Insecta	Odonata	Calopterygidae	Hetaerina
veg	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	31	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	27	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella
veg	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	9	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
veg	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	8	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
veg	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	5	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
veg	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
veg	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	2	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Slavina
veg	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	2	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
veg	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
veg	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	1	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Sphaerium
veg	Dog Creek	OK121500-02-0360D	36784	12-Feb-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Trail Creek	OK520620-02-0090G	37752	24-Jul-07	30	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
veg	Trail Creek	OK520620-02-0090G	37752	24-Jul-07	22	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Trail Creek	OK520620-02-0090G	37752	24-Jul-07	12	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Trail Creek	OK520620-02-0090G	37752	24-Jul-07	9	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
veg	Trail Creek	OK520620-02-0090G	37752	24-Jul-07	9	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
veg	Trail Creek	OK520620-02-0090G	37752	24-Jul-07	6	ARTHROPODA	Insecta	Odonata	Calopterygidae	Hetaerina
veg	Trail Creek	OK520620-02-0090G	37752	24-Jul-07	4	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
veg	Trail Creek	OK520620-02-0090G	37752	24-Jul-07	3	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Hydroporus
veg	Trail Creek	OK520620-02-0090G	37752	24-Jul-07	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
veg	Trail Creek	OK520620-02-0090G	37752	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Dubiraphia
veg	Trail Creek	OK520620-02-0090G	37752	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Dryopidae	Helichus
veg	Trail Creek	OK520620-02-0090G	37752	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Halipilidae	Pelodytes
veg	Trail Creek	OK520620-02-0090G	37752	24-Jul-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Trail Creek	OK520620-02-0090G	37752	24-Jul-07	1	ARTHROPODA	Insecta	Odonata	Libellulidae	Perithemis
veg	Trail Creek	OK520620-02-0090G	37752	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	23	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	17	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	17	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	15	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	13	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	4	ARTHROPODA	Insecta	Odonata	Calopterygidae	Hetaerina
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	2	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Helophoridae	Helophorus
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Tropisternus
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Hydroporus
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Laccophilus
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Enallagma
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
veg	Lone Creek	OK520620-03-0020C	37751	24-Jul-07	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	20	ARTHROPODA	Insecta	Odonata	Calopterygidae	Hetaerina
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	19	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	7	ARTHROPODA	Insecta	Trichoptera	Leptoceridae	Nectopsyche
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	5	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	5	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Smicridea
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	4	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	4	ARTHROPODA	Insecta	Hemiptera	Velidae	Rhagovelia
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaudiinae
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	3	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	3	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Heptagenia
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	2	ARTHROPODA	Insecta	Odonata	Gomphidae	Erpetogomphus
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	2	ARTHROPODA	Crustacea	Decapoda	Astacidae	
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Copelatus
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Microcyloepus
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Heterelmis
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Tropisternus
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Helophoridae	Helophorus
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
veg	Commission Creek	OK520620-05-0160C	37750	24-Jul-07	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	28	ARTHROPODA	Insecta	Coleoptera	Psephenidae	Psephenus
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	26	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	15	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	13	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	13	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	10	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	8	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	6	ARTHROPODA	Insecta	Ephemeroptera	Ephemeridae	Ephemera
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	5	MOLLUSCA	Gastropoda	Neotaenioglossa	Pleuroceridae	Goniobasis=Elimia
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	5	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	3	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	3	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	3	ARTHROPODA	Insecta	Diptera	Tabanidae	Tabanus
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	3	ANNELIDA	Oligochaeta	Haplotaxida	Glossoscolecidae	Sparganophilus
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	3	ARTHROPODA	Insecta	Diptera	Tipulidae	Hexatoma
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	2	ARTHROPODA	Insecta	Plecoptera	Perlidae	Neoperla
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalus
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaudiinae
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia



## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	1	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	1	ARTHROPODA	Insecta	Diptera	Tipulidae	Pseudolimnophila
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Leucrocota
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	1	ARTHROPODA	Insecta	Trichoptera	Leptoceridae	Oecetis
veg	Fourteenmile Creek	OK121600-01-0100G	38122	02-Aug-07	1	ARTHROPODA	Insecta	Trichoptera	Odontoceridae	Marilia
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	57	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Sphaerium
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	16	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	10	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	9	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	3	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	3	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	3	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	2	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Eupera
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	2	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Nigronia
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
veg	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	1	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
veg	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
veg	Sycamore Creek	OK121600-03-0510D	38127	09-Aug-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	49	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	44	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	34	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
veg	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	34	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallecon
veg	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	18	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
veg	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	14	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Potamyia
veg	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	12	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
veg	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	11	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
veg	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
veg	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
veg	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
veg	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
veg	Little Horse Creek	OK121600-03-0190A	39380	07-Jan-08	90	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
veg	Little Horse Creek	OK121600-03-0190A	39380	07-Jan-08	4	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
veg	Little Horse Creek	OK121600-03-0190A	39380	07-Jan-08	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Little Horse Creek	OK121600-03-0190A	39380	07-Jan-08	3	ARTHROPODA	Insecta	Collembola	Poduridae	Podura
veg	Little Horse Creek	OK121600-03-0190A	39380	07-Jan-08	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
veg	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	64	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
veg	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	13	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	9	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	4	ARTHROPODA	Insecta	Collembola	Isotomidae	Isotomurus
veg	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	3	ARTHROPODA	Insecta	Odonata	Calopterygidae	Hetaerina
veg	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	2	ARTHROPODA	Insecta	Coleoptera	Scirtidae	Scirtes
veg	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	1	ARTHROPODA	Insecta	Diptera	Anthomyiidae	Limnophora
veg	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Microcylloepus
veg	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Dubiraphia
veg	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	1	ARTHROPODA	Insecta	Trichoptera	Limnephilidae	Limnephilus
veg	Sycamore Creek	OK121600-03-0510D	39381	07-Jan-08	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Prosimulium
veg	Trail Creek	OK520620-02-0090G	39327	14-Jan-08	15	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
veg	Trail Creek	OK520620-02-0090G	39327	14-Jan-08	13	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Trail Creek	OK520620-02-0090G	39327	14-Jan-08	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Trail Creek	OK520620-02-0090G	39327	14-Jan-08	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
veg	Trail Creek	OK520620-02-0090G	39327	14-Jan-08	2	ARTHROPODA	Crustacea	Copepoda		
veg	Trail Creek	OK520620-02-0090G	39327	14-Jan-08	2	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
veg	Trail Creek	OK520620-02-0090G	39327	14-Jan-08	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
veg	Trail Creek	OK520620-02-0090G	39327	14-Jan-08	1	ARTHROPODA	Insecta	Odonata	Coenagrionidae	Argia
veg	Trail Creek	OK520620-02-0090G	39327	14-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	90	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	90	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	4	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	4	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	4	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	4	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	2	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Agabus
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	2	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Agabus
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	1	ARTHROPODA	Insecta	Odonata	Gomphidae	Progomphus
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	1	ARTHROPODA	Insecta	Odonata	Gomphidae	Erpetogomphus

## Appendix C. Macroinvertebrate collection data.

Sample type	SiteName	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	1	ARTHROPODA	Insecta	Odonata	Gomphidae	Progomphus
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	1	ARTHROPODA	Insecta	Odonata	Gomphidae	Erpetogomphus
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Stilobezzia
veg	Lone Creek	OK520620-03-0020C	39326	14-Jan-08	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Stilobezzia
veg	Hackberry Creek	OK520620-04-0050D	39324	14-Jan-08	37	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Hackberry Creek	OK520620-04-0050D	39324	14-Jan-08	8	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Hackberry Creek	OK520620-04-0050D	39324	14-Jan-08	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Chaetogaster
veg	Hackberry Creek	OK520620-04-0050D	39324	14-Jan-08	1	ARTHROPODA	Insecta	Coleoptera	Gyrinidae	Dineutus
veg	Hackberry Creek	OK520620-04-0050D	39324	14-Jan-08	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Tropisternus
veg	Hackberry Creek	OK520620-04-0050D	39324	14-Jan-08	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
veg	Hackberry Creek	OK520620-04-0050D	39324	14-Jan-08	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
veg	Hackberry Creek	OK520620-04-0050D	39324	14-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
veg	Commission Creek	OK520620-05-0160C	39325	14-Jan-08	15	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Commission Creek	OK520620-05-0160C	39325	14-Jan-08	8	ARTHROPODA	Insecta	Plecoptera	Taeniopterygidae	Taeniopteryx
veg	Commission Creek	OK520620-05-0160C	39325	14-Jan-08	3	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
veg	Commission Creek	OK520620-05-0160C	39325	14-Jan-08	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Smicridea
veg	Commission Creek	OK520620-05-0160C	39325	14-Jan-08	2	ARTHROPODA	Insecta	Plecoptera	Perlodidae	Hydroperla
veg	Commission Creek	OK520620-05-0160C	39325	14-Jan-08	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Microcylloepus
veg	Commission Creek	OK520620-05-0160C	39325	14-Jan-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Commission Creek	OK520620-05-0160C	39325	14-Jan-08	1	ARTHROPODA	Insecta	Trichoptera	Limnephilidae	Limnephilus
veg	Commission Creek	OK520620-05-0160C	39325	14-Jan-08	1	NEMATODA				
veg	Commission Creek	OK520620-05-0160C	39325	14-Jan-08	1	NEMERTEA	Enopla	Hoplonemertea	Tetrastemmatidae	Prostoma
veg	Commission Creek	OK520620-05-0160C	39325	14-Jan-08	1	ARTHROPODA	Insecta	Odonata	Gomphidae	Gomphus
veg	Commission Creek	OK520620-05-0160C	39325	14-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
veg	Commission Creek	OK520620-05-0160C	39325	14-Jan-08	1	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	69	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	13	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	10	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	10	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	10	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Microcylloepus
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	2	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	1	ARTHROPODA	Crustacea	Ostracoda		
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	1	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	1	ARTHROPODA	Insecta	Diptera	Tipulidae	Tipula

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	1	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Sphaerium
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	1	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	1	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Potamyia
veg	Bird Creek	OK121300-02-0010C	39415	04-Feb-08	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
veg	Big Creek	OK121510-03-0010D	39420	12-Mar-08	87	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladinae
veg	Big Creek	OK121510-03-0010D	39420	12-Mar-08	11	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
veg	Big Creek	OK121510-03-0010D	39420	12-Mar-08	6	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila
veg	Big Creek	OK121510-03-0010D	39420	12-Mar-08	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
veg	Big Creek	OK121510-03-0010D	39420	12-Mar-08	2	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
veg	Big Creek	OK121510-03-0010D	39420	12-Mar-08	2	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
veg	Big Creek	OK121510-03-0010D	39420	12-Mar-08	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
veg	Big Creek	OK121510-03-0010D	39420	12-Mar-08	2	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
veg	Big Creek	OK121510-03-0010D	39420	12-Mar-08	1	NEMATODA				
veg	Big Creek	OK121510-03-0010D	39420	12-Mar-08	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
veg	Big Creek	OK121510-03-0010D	39420	12-Mar-08	1	ARTHROPODA	Insecta	Diptera	Syrphidae	Eristalis
veg	Big Creek	OK121510-03-0010D	39420	12-Mar-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
veg	Big Creek	OK121510-03-0010D	39420	12-Mar-08	1	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
veg	Big Creek	OK121510-03-0010D	39420	12-Mar-08	1	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Nais
wood	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	49	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	27	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	23	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	3	ARTHROPODA	Insecta	Coleoptera	Elmidae	Microcylloepus
wood	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
wood	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
wood	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalus
wood	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Bird Creek	OK121300-02-0010C	35797	03-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Staphylinidae	
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	36	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	16	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	13	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	11	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	3	ARTHROPODA	Insecta	Coleoptera	Dryopidae	Helichus
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	3	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Probezzia
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	2	ARTHROPODA	Crustacea	Isopoda		
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	2	ARTHROPODA	Insecta	Coleoptera	Haliplidae	Peltodytes
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	2	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Hydraenidae	Oethebius

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Bezzia
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	1	ARTHROPODA	Insecta	Hemiptera	Corixidae	
wood	Lone Creek	OK520620-03-0020C	35447	03-Jul-06	1	ARTHROPODA	Insecta	Megaloptera	Sialidae	Sialis
wood	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	59	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	25	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	10	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
wood	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	8	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
wood	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
wood	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
wood	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
wood	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
wood	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Potamyia
wood	Deer Creek	OK520620-06-0010F	35450	05-Jul-06	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Probezzia
wood	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	26	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	21	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	15	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
wood	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	11	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	6	ARTHROPODA	Insecta	Coleoptera	Elmidae	Macronychus
wood	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	5	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
wood	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	4	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
wood	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	4	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
wood	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	3	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
wood	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
wood	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	3	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalus
wood	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
wood	Little Caney River	OK121400-02-0140H	35804	06-Jul-06	1	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
wood	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	74	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
wood	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	13	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	6	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	3	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
wood	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Pseudochironomini
wood	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	1	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
wood	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	1	ARTHROPODA	Insecta	Hemiptera	Hebridae	Hebrus
wood	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	
wood	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Scirtidae	Scirtes

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
wood	Deer Creek	OK520620-06-0010F	36580	08-Jan-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
wood	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	46	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	40	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	27	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	10	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
wood	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladinae
wood	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	2	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
wood	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	2	ARTHROPODA	Insecta	Lepidoptera	Pyralidae	Petrophila
wood	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
wood	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Microcylloepus
wood	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	1	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
wood	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
wood	Bird Creek	OK121300-02-0010C	36592	11-Jan-07	1	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
wood	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	31	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	25	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladinae
wood	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	16	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
wood	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	4	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
wood	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	4	ARTHROPODA	Insecta	Coleoptera	Elmidae	Macronychus
wood	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	4	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	3	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
wood	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	2	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
wood	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
wood	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
wood	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Pseudochironomini
wood	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Little Caney River	OK121400-02-0140H	36778	06-Feb-07	1	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
wood	Big Creek	OK121510-03-0010D	36781	12-Feb-07	64	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladinae
wood	Big Creek	OK121510-03-0010D	36781	12-Feb-07	64	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladinae
wood	Big Creek	OK121510-03-0010D	36781	12-Feb-07	45	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Big Creek	OK121510-03-0010D	36781	12-Feb-07	45	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Big Creek	OK121510-03-0010D	36781	12-Feb-07	2	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
wood	Big Creek	OK121510-03-0010D	36781	12-Feb-07	2	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
wood	Big Creek	OK121510-03-0010D	36781	12-Feb-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Big Creek	OK121510-03-0010D	36781	12-Feb-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	81	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladinae
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	81	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladinae
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	13	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	13	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	3	ARTHROPODA	Crustacea	Amphipoda	Gammaridae	Gammarus
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	3	ARTHROPODA	Crustacea	Amphipoda	Gammaridae	Gammarus
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Lumbricidae	
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ANNELIDA	Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ARTHROPODA	Insecta	Diptera	Chaoboridae	Chaoborus
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Carabidae	
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ARTHROPODA	Insecta	Coleoptera	Carabidae	
wood	Pryor Creek: HWY 20	OK121610-00-0050D	36786	20-Feb-07	1	ARTHROPODA	Insecta	Diptera	Chaoboridae	Chaoborus
wood	Hackberry Creek	OK520620-04-0050D	37749	24-Jul-07	28	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Hackberry Creek	OK520620-04-0050D	37749	24-Jul-07	18	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
wood	Hackberry Creek	OK520620-04-0050D	37749	24-Jul-07	12	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
wood	Hackberry Creek	OK520620-04-0050D	37749	24-Jul-07	12	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Hackberry Creek	OK520620-04-0050D	37749	24-Jul-07	12	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
wood	Hackberry Creek	OK520620-04-0050D	37749	24-Jul-07	8	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
wood	Hackberry Creek	OK520620-04-0050D	37749	24-Jul-07	6	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Hackberry Creek	OK520620-04-0050D	37749	24-Jul-07	2	ARTHROPODA	Insecta	Hemiptera	Velidae	Microvelia
wood	Hackberry Creek	OK520620-04-0050D	37749	24-Jul-07	2	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Cercobrachys
wood	Hackberry Creek	OK520620-04-0050D	37749	24-Jul-07	2	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Cymbiodyta
wood	Hackberry Creek	OK520620-04-0050D	37749	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Gyrinidae	Dineutus
wood	Hackberry Creek	OK520620-04-0050D	37749	24-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Scirtidae	Scirtes
wood	Hackberry Creek	OK520620-04-0050D	37749	24-Jul-07	1	ARTHROPODA	Insecta	Diptera	Ceratopogonidae	Probezzia
wood	Buggy Creek	OK520610-02-0120C	37883	30-Jul-07	91	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Buggy Creek	OK520610-02-0120C	37883	30-Jul-07	8	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
wood	Buggy Creek	OK520610-02-0120C	37883	30-Jul-07	6	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Buggy Creek	OK520610-02-0120C	37883	30-Jul-07	2	ARTHROPODA	Insecta	Coleoptera	Helophoridae	Helophorus
wood	Buggy Creek	OK520610-02-0120C	37883	30-Jul-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
wood	Buggy Creek	OK520610-02-0120C	37883	30-Jul-07	1	ARTHROPODA	Insecta	Hemiptera	Velidae	Microvelia
wood	Buggy Creek	OK520610-02-0120C	37883	30-Jul-07	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Buggy Creek	OK520610-02-0120C	37883	30-Jul-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Heterelmis
wood	Buggy Creek	OK520610-02-0120C	37883	30-Jul-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
wood	Buggy Creek	OK520610-02-0120C	37883	30-Jul-07	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Buggy Creek	OK520610-02-0120C	37883	30-Jul-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Deer Creek	OK520620-06-0010F	37882	30-Jul-07	40	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
wood	Deer Creek	OK520620-06-0010F	37882	30-Jul-07	27	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
wood	Deer Creek	OK520620-06-0010F	37882	30-Jul-07	17	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Deer Creek	OK520620-06-0010F	37882	30-Jul-07	8	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Deer Creek	OK520620-06-0010F	37882	30-Jul-07	4	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Deer Creek	OK520620-06-0010F	37882	30-Jul-07	3	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
wood	Deer Creek	OK520620-06-0010F	37882	30-Jul-07	3	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
wood	Deer Creek	OK520620-06-0010F	37882	30-Jul-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
wood	Deer Creek	OK520620-06-0010F	37882	30-Jul-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Deer Creek	OK520620-06-0010F	37882	30-Jul-07	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Potamyia
wood	Deer Creek	OK520620-06-0010F	37882	30-Jul-07	2	ARTHROPODA	Insecta	Coleoptera	Helophoridae	Helophorus
wood	Deer Creek	OK520620-06-0010F	37882	30-Jul-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
wood	Deer Creek	OK520620-06-0010F	37882	30-Jul-07	1	ARTHROPODA	Insecta	Odonata	Calopterygidae	Hetaerina
wood	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	66	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	32	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	15	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	11	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	10	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	5	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Corydalis
wood	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	3	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
wood	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
wood	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	1	ARTHROPODA	Insecta	Megaloptera	Corydalidae	Nigronia
wood	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Camelobaetidius
wood	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
wood	Bird Creek	OK121300-02-0010C	38140	09-Aug-07	1	ARTHROPODA	Insecta	Lepidoptera	Pyralidae	Petrophila
wood	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	36	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	31	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	13	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	13	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
wood	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	2	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Labiobaetis
wood	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
wood	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
wood	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Tricorythidae	Tricorythodes
wood	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Macronychus
wood	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna
wood	Sand Creek	OK121400-04-0010F	38139	09-Aug-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
wood	Big Creek	OK121510-03-0010D	38144	10-Aug-07	28	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Big Creek	OK121510-03-0010D	38144	10-Aug-07	27	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Big Creek	OK121510-03-0010D	38144	10-Aug-07	27	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae



## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
wood	Big Creek	OK121510-03-0010D	38144	10-Aug-07	10	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
wood	Big Creek	OK121510-03-0010D	38144	10-Aug-07	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Big Creek	OK121510-03-0010D	38144	10-Aug-07	3	ARTHROPODA	Insecta	Coleoptera	Gyrinidae	Dineutus
wood	Big Creek	OK121510-03-0010D	38144	10-Aug-07	2	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
wood	Big Creek	OK121510-03-0010D	38144	10-Aug-07	2	MOLLUSCA	Pelecypoda	Veneroida	Sphaeriidae	Sphaerium
wood	Big Creek	OK121510-03-0010D	38144	10-Aug-07	1	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
wood	Big Creek	OK121510-03-0010D	38144	10-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
wood	Big Creek	OK121510-03-0010D	38144	10-Aug-07	1	ARTHROPODA	Crustacea	Isopoda	Asellidae	Lirceus
wood	Big Creek	OK121510-03-0010D	38144	10-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Gyrinidae	Gyretes
wood	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	65	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	32	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	17	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	10	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon
wood	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
wood	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	4	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Potamyia
wood	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	2	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
wood	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
wood	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
wood	Walnut Creek	OK520610-03-0010F	38099	13-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
wood	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	110	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladinae
wood	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
wood	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	1	ANNELIDA	Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella
wood	Mission Creek	OK121400-02-0190B	38146	15-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	73	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	73	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	11	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	11	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	10	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	10	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	9	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	9	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	3	ARTHROPODA	Insecta	Coleoptera	Elmidae	Macronychus
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	3	ARTHROPODA	Insecta	Coleoptera	Elmidae	Macronychus
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	2	ARTHROPODA	Insecta	Trichoptera	Polycentropodidae	Polycentropus
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	2	ARTHROPODA	Insecta	Trichoptera	Polycentropodidae	Polycentropus
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	1	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
wood	Hominy Creek: Downstream	OK121300-04-0010C	38147	23-Aug-07	1	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
wood	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	52	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	42	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	15	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
wood	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	4	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	4	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	3	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
wood	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
wood	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	1	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
wood	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Gyrinidae	Dineutus
wood	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaudiinae
wood	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Macronychus
wood	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Hogshooter Creek	OK121400-01-0300D	38149	23-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
wood	Pryor Creek: HWY 20	OK121610-00-0050D	38154	24-Aug-07	66	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Pryor Creek: HWY 20	OK121610-00-0050D	38154	24-Aug-07	27	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Pryor Creek: HWY 20	OK121610-00-0050D	38154	24-Aug-07	16	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Pryor Creek: HWY 20	OK121610-00-0050D	38154	24-Aug-07	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
wood	Pryor Creek: HWY 20	OK121610-00-0050D	38154	24-Aug-07	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Baetis
wood	Pryor Creek: HWY 20	OK121610-00-0050D	38154	24-Aug-07	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Dubiraphia
wood	Pryor Creek: HWY 20	OK121610-00-0050D	38154	24-Aug-07	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	72	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaudiinae
wood	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	14	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
wood	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	2	ARTHROPODA	Insecta	Diptera	Empididae	Hemerodromia
wood	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	2	ARTHROPODA	Insecta	Trichoptera	Polycentropodidae	Polycentropus
wood	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Copelatus
wood	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	1	ARTHROPODA	Insecta	Trichoptera	Polycentropodidae	Cynellus
wood	Little Caney River	OK121400-02-0140H	39400	09-Jan-08	1	ARTHROPODA	Crustacea	Copepoda		
wood	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	8	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaudiinae
wood	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
wood	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	1	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
wood	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
wood	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	1	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra

## Appendix C. Macroinvertebrate collection data.

Sample type	SiteName	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
wood	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	1	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
wood	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	1	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
wood	Delaware Creek	OK121300-01-0150H	39409	14-Jan-08	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
wood	Hackberry Creek	OK520620-04-0050D	39324	14-Jan-08	18	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
wood	Hackberry Creek	OK520620-04-0050D	39324	14-Jan-08	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Hackberry Creek	OK520620-04-0050D	39324	14-Jan-08	1	ARTHROPODA	Insecta	Coleoptera	Dytiscidae	Agabus
wood	Hackberry Creek	OK520620-04-0050D	39324	14-Jan-08	1	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Tropisternus
wood	Hackberry Creek	OK520620-04-0050D	39324	14-Jan-08	1	ARTHROPODA	Insecta	Ephemeroptera	Caenidae	Caenis
wood	Hackberry Creek	OK520620-04-0050D	39324	14-Jan-08	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Buggy Creek	OK520610-02-0120C	39332	15-Jan-08	63	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
wood	Buggy Creek	OK520610-02-0120C	39332	15-Jan-08	18	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Buggy Creek	OK520610-02-0120C	39332	15-Jan-08	6	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Buggy Creek	OK520610-02-0120C	39332	15-Jan-08	4	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Buggy Creek	OK520610-02-0120C	39332	15-Jan-08	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
wood	Buggy Creek	OK520610-02-0120C	39332	15-Jan-08	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Buggy Creek	OK520610-02-0120C	39332	15-Jan-08	2	ARTHROPODA	Crustacea	Amphipoda	Talitridae	Hyalella
wood	Buggy Creek	OK520610-02-0120C	39332	15-Jan-08	1	ARTHROPODA	Insecta	Trichoptera	Hydroptilidae	Hydroptila
wood	Buggy Creek	OK520610-02-0120C	39332	15-Jan-08	1	ARTHROPODA	Insecta	Diptera	Dolichopodidae	Hydrophorus
wood	Buggy Creek	OK520610-02-0120C	39332	15-Jan-08	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Buggy Creek	OK520610-02-0120C	39332	15-Jan-08	1	ARTHROPODA	Insecta	Coleoptera	Gyrinidae	Dineutus
wood	Walnut Creek	OK520610-03-0010F	39333	15-Jan-08	89	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
wood	Walnut Creek	OK520610-03-0010F	39333	15-Jan-08	8	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Hydropsyche
wood	Walnut Creek	OK520610-03-0010F	39333	15-Jan-08	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
wood	Walnut Creek	OK520610-03-0010F	39333	15-Jan-08	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Walnut Creek	OK520610-03-0010F	39333	15-Jan-08	3	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Potamyia
wood	Walnut Creek	OK520610-03-0010F	39333	15-Jan-08	2	ARTHROPODA	Insecta	Coleoptera	Elmidae	Stenelmis
wood	Walnut Creek	OK520610-03-0010F	39333	15-Jan-08	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	105	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
wood	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	5	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytopodinae
wood	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	2	ANNELIDA	Oligochaeta	Haplotaxida	Naididae	Nais
wood	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	1	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Hominy Creek: Upstream	OK121300-04-0280G	39411	04-Feb-08	1	NEMATODA				
wood	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	71	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthocladiinae
wood	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	11	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	5	ARTHROPODA	Insecta	Ephemeroptera	Isonychiidae	Isonychia
wood	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	4	ARTHROPODA	Insecta	Diptera	Simuliidae	Simulium
wood	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	3	ARTHROPODA	Insecta	Plecoptera	Taeniopterygidae	Taeniopteryx
wood	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	2	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Acerpenna

## Appendix C. Macroinvertebrate collection data.

Sample type	Site name	W/bid	SAMPLEID	Date	Number	BugPhylum	BugClass	BugOrder	BugFamily	BugGenus
wood	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	1	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
wood	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	1	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	1	ARTHROPODA	Insecta	Trichoptera	Philopotamidae	Chimarra
wood	Sand Creek	OK121400-04-0010F	39414	04-Feb-08	1	MOLLUSCA	Gastropoda	Basommatophora	Physidae	Physella
wood	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	20	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	12	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
wood	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	7	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
wood	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	7	ANNELIDA	Hirudinea	Rhynchobdellida	Glossiphoniidae	Placobdella
wood	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	3	MOLLUSCA	Pelecypoda	Veneroida	Corbiculidae	Corbicula
wood	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	2	ARTHROPODA	Insecta	Coleoptera	Hydrophilidae	Berosus
wood	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	1	MOLLUSCA	Gastropoda	Basommatophora	Planorbidae	Gyraulus
wood	Dog Creek	OK121500-02-0360D	39421	12-Mar-08	1	MOLLUSCA	Gastropoda	Basommatophora	Lymnaeidae	Fossaria
wood	Big Creek	OK121510-03-0010D	39420	12-Mar-08	3	ARTHROPODA	Insecta	Trichoptera	Rhyacophilidae	Rhyacophila
wood	Big Creek	OK121510-03-0010D	39420	12-Mar-08	3	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
wood	Big Creek	OK121510-03-0010D	39420	12-Mar-08	2	ARTHROPODA	Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche
wood	Big Creek	OK121510-03-0010D	39420	12-Mar-08	1	ARTHROPODA	Insecta	Ephemeroptera	Heptageniidae	Stenonema
wood	Deer Creek	OK520620-06-0010F	39740	13-Mar-08	96	ARTHROPODA	Insecta	Diptera	Chironomidae	Orthoclaadiinae
wood	Deer Creek	OK520620-06-0010F	39740	13-Mar-08	12	ARTHROPODA	Insecta	Diptera	Chironomidae	Chironomini
wood	Deer Creek	OK520620-06-0010F	39740	13-Mar-08	4	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanypodinae
wood	Deer Creek	OK520620-06-0010F	39740	13-Mar-08	2	ARTHROPODA	Insecta	Diptera	Chironomidae	Tanytarsini
wood	Deer Creek	OK520620-06-0010F	39740	13-Mar-08	1	ARTHROPODA	Insecta	Ephemeroptera	Baetidae	Fallceon

## Appendix D.1. OCC assessment results for beneficial use support (2008 submittal).

OKWBID	Name	Use	Attainment	Impairment	Potential Source
OK121300010150_00	Delaware Creek	Aesthetics	Fully supporting		
OK121300010150_00	Delaware Creek	Agriculture	Not Supporting	138	49
OK121300010150_00	Delaware Creek	Agriculture	Not Supporting	138	140
OK121300010150_00	Delaware Creek	Agriculture	Not Supporting	138	102
OK121300010150_00	Delaware Creek	Agriculture	Not Supporting	385	49
OK121300010150_00	Delaware Creek	Agriculture	Not Supporting	385	140
OK121300010150_00	Delaware Creek	Agriculture	Not Supporting	385	102
OK121300010150_00	Delaware Creek	Agriculture	Not Supporting	399	49
OK121300010150_00	Delaware Creek	Agriculture	Not Supporting	399	140
OK121300010150_00	Delaware Creek	Agriculture	Not Supporting	399	102
OK121300010150_00	Delaware Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	46
OK121300010150_00	Delaware Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	59
OK121300010150_00	Delaware Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	87
OK121300010150_00	Delaware Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	92
OK121300010150_00	Delaware Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	108
OK121300010150_00	Delaware Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	111
OK121300010150_00	Delaware Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	133
OK121300010150_00	Delaware Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	136
OK121300010150_00	Delaware Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	140
OK121300010150_00	Delaware Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	46
OK121300010150_00	Delaware Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	49
OK121300010150_00	Delaware Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	87
OK121300010150_00	Delaware Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	108
OK121300010150_00	Delaware Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	140
OK121300010150_00	Delaware Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	102
OK121300010150_00	Delaware Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121300010150_00	Delaware Creek	Primary Body Contact Recreation	Not supporting	215	92
OK121300010150_00	Delaware Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121300010150_00	Delaware Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121300010150_00	Delaware Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121300010150_00	Delaware Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121300010150_00	Delaware Creek	Primary Body Contact Recreation	Not supporting	215	59
OK121300010150_00	Delaware Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121300020010_10	Bird Creek	Aesthetics	Fully supporting		
OK121300020010_10	Bird Creek	Agriculture	Fully Supporting		
OK121300020010_10	Bird Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Fully Supporting		
OK121300020010_10	Bird Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121300020010_10	Bird Creek	Primary Body Contact Recreation	Not supporting	215	92
OK121300020010_10	Bird Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121300020010_10	Bird Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121300020010_10	Bird Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121300020010_10	Bird Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121300020010_10	Bird Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121300020010_10	Bird Creek	Primary Body Contact Recreation	Not supporting	215	85
OK121300040010_00	Hominy Creek	Aesthetics	Fully supporting		
OK121300040010_00	Hominy Creek	Agriculture	Fully Supporting		
OK121300040010_00	Hominy Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Fully Supporting		
OK121300040010_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121300040010_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	92
OK121300040010_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121300040010_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121300040010_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121300040010_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121300040010_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121300040010_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	59
OK121300040010_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	85
OK121300040280_00	Hominy Creek	Aesthetics	Insufficient information		
OK121300040280_00	Hominy Creek	Agriculture	Not Supporting	138	49
OK121300040280_00	Hominy Creek	Agriculture	Not Supporting	138	140

## Appendix D.1. OCC assessment results for beneficial use support (2008 submittal).

OKWBID	Name	Use	Attainment	Impairment	Potential Source
OK121300040280_00	Hominy Creek	Agriculture	Not Supporting	138	102
OK121300040280_00	Hominy Creek	Agriculture	Not Supporting	399	49
OK121300040280_00	Hominy Creek	Agriculture	Not Supporting	399	140
OK121300040280_00	Hominy Creek	Agriculture	Not Supporting	399	102
OK121300040280_00	Hominy Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Fully Supporting		
OK121300040280_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121300040280_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	92
OK121300040280_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121300040280_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121300040280_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121300040280_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121300040280_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121300040280_00	Hominy Creek	Primary Body Contact Recreation	Not supporting	215	85
OK121400010270_00	Curl Creek	Aesthetics	Fully supporting		
OK121400010270_00	Curl Creek	Agriculture	Fully Supporting		
OK121400010270_00	Curl Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	46
OK121400010270_00	Curl Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	87
OK121400010270_00	Curl Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	92
OK121400010270_00	Curl Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	108
OK121400010270_00	Curl Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	111
OK121400010270_00	Curl Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	133
OK121400010270_00	Curl Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	136
OK121400010270_00	Curl Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	140
OK121400010270_00	Curl Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	46
OK121400010270_00	Curl Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	49
OK121400010270_00	Curl Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	87
OK121400010270_00	Curl Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	108
OK121400010270_00	Curl Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	140
OK121400010270_00	Curl Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	102
OK121400010270_00	Curl Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121400010270_00	Curl Creek	Primary Body Contact Recreation	Not supporting	215	92
OK121400010270_00	Curl Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121400010270_00	Curl Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121400010270_00	Curl Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121400010270_00	Curl Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121400010270_00	Curl Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121400010300_00	Hogshooter Creek	Aesthetics	Fully supporting		
OK121400010300_00	Hogshooter Creek	Agriculture	Fully Supporting		
OK121400010300_00	Hogshooter Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Not Supporting	230	
OK121400010300_00	Hogshooter Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Not Supporting	322	46
OK121400010300_00	Hogshooter Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Not Supporting	322	87
OK121400010300_00	Hogshooter Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Not Supporting	322	92
OK121400010300_00	Hogshooter Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Not Supporting	322	108
OK121400010300_00	Hogshooter Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Not Supporting	322	111
OK121400010300_00	Hogshooter Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Not Supporting	322	133
OK121400010300_00	Hogshooter Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Not Supporting	322	136
OK121400010300_00	Hogshooter Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Not Supporting	322	140
OK121400010300_00	Hogshooter Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Not Supporting	413	46
OK121400010300_00	Hogshooter Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Not Supporting	413	49
OK121400010300_00	Hogshooter Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Not Supporting	413	87
OK121400010300_00	Hogshooter Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Not Supporting	413	108
OK121400010300_00	Hogshooter Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Not Supporting	413	140
OK121400010300_00	Hogshooter Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Not Supporting	413	102
OK121400010300_00	Hogshooter Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121400010300_00	Hogshooter Creek	Primary Body Contact Recreation	Not supporting	215	92
OK121400010300_00	Hogshooter Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121400010300_00	Hogshooter Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121400010300_00	Hogshooter Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121400010300_00	Hogshooter Creek	Primary Body Contact Recreation	Not supporting	215	136

## Appendix D.1. OCC assessment results for beneficial use support (2008 submittal).

OKWBID	Name	Use	Attainment	Impairment	Potential Source
OK121400010300_00	Hogshooter Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121400010300_00	Hogshooter Creek	Primary Body Contact Recreation	Not supporting	217	46
OK121400010300_00	Hogshooter Creek	Primary Body Contact Recreation	Not supporting	217	92
OK121400010300_00	Hogshooter Creek	Primary Body Contact Recreation	Not supporting	217	108
OK121400010300_00	Hogshooter Creek	Primary Body Contact Recreation	Not supporting	217	111
OK121400010300_00	Hogshooter Creek	Primary Body Contact Recreation	Not supporting	217	133
OK121400010300_00	Hogshooter Creek	Primary Body Contact Recreation	Not supporting	217	136
OK121400010300_00	Hogshooter Creek	Primary Body Contact Recreation	Not supporting	217	140
OK121400020140_00	Little Caney River	Aesthetics	Fully supporting		
OK121400020140_00	Little Caney River	Agriculture	Fully Supporting		
OK121400020140_00	Little Caney River	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	46
OK121400020140_00	Little Caney River	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	49
OK121400020140_00	Little Caney River	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	87
OK121400020140_00	Little Caney River	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	108
OK121400020140_00	Little Caney River	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	140
OK121400020140_00	Little Caney River	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	102
OK121400020140_00	Little Caney River	Primary Body Contact Recreation	Fully supporting		
OK121400020190_00	Mission Creek	Aesthetics	Fully supporting		
OK121400020190_00	Mission Creek	Agriculture	Fully Supporting		
OK121400020190_00	Mission Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	46
OK121400020190_00	Mission Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	87
OK121400020190_00	Mission Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	92
OK121400020190_00	Mission Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	108
OK121400020190_00	Mission Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	111
OK121400020190_00	Mission Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	133
OK121400020190_00	Mission Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	136
OK121400020190_00	Mission Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	140
OK121400020190_00	Mission Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	46
OK121400020190_00	Mission Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	49
OK121400020190_00	Mission Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	87
OK121400020190_00	Mission Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	108
OK121400020190_00	Mission Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	140
OK121400020190_00	Mission Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	102
OK121400020190_00	Mission Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121400020190_00	Mission Creek	Primary Body Contact Recreation	Not supporting	215	92
OK121400020190_00	Mission Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121400020190_00	Mission Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121400020190_00	Mission Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121400020190_00	Mission Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121400020190_00	Mission Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121400030170_00	Buck Creek	Aesthetics	Insufficient information		
OK121400030170_00	Buck Creek	Agriculture	Fully Supporting		
OK121400030170_00	Buck Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Fully Supporting		
OK121400030170_00	Buck Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121400030170_00	Buck Creek	Primary Body Contact Recreation	Not supporting	215	92
OK121400030170_00	Buck Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121400030170_00	Buck Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121400030170_00	Buck Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121400030170_00	Buck Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121400030170_00	Buck Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121400040010_00	Sand Creek	Aesthetics	Insufficient information		
OK121400040010_00	Sand Creek	Agriculture	Fully Supporting		
OK121400040010_00	Sand Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Fully Supporting		
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	215	92
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	215	136

## Appendix D.1. OCC assessment results for beneficial use support (2008 submittal).

OKWBID	Name	Use	Attainment	Impairment	Potential Source
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	215	69
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	217	46
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	217	92
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	217	108
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	217	111
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	217	133
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	217	136
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	217	140
OK121400040010_00	Sand Creek	Primary Body Contact Recreation	Not supporting	217	69
OK121500020090_00	Bull Creek	Aesthetics	Fully supporting		
OK121500020090_00	Bull Creek	Agriculture	Fully Supporting		
OK121500020090_00	Bull Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	46
OK121500020090_00	Bull Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	87
OK121500020090_00	Bull Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	92
OK121500020090_00	Bull Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	108
OK121500020090_00	Bull Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	111
OK121500020090_00	Bull Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	133
OK121500020090_00	Bull Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	136
OK121500020090_00	Bull Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	140
OK121500020090_00	Bull Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	46
OK121500020090_00	Bull Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	49
OK121500020090_00	Bull Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	87
OK121500020090_00	Bull Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	108
OK121500020090_00	Bull Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	140
OK121500020090_00	Bull Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	413	102
OK121500020090_00	Bull Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121500020090_00	Bull Creek	Primary Body Contact Recreation	Not supporting	215	92
OK121500020090_00	Bull Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121500020090_00	Bull Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121500020090_00	Bull Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121500020090_00	Bull Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121500020090_00	Bull Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121500020090_00	Bull Creek	Primary Body Contact Recreation	Not supporting	217	46
OK121500020090_00	Bull Creek	Primary Body Contact Recreation	Not supporting	217	92
OK121500020090_00	Bull Creek	Primary Body Contact Recreation	Not supporting	217	108
OK121500020090_00	Bull Creek	Primary Body Contact Recreation	Not supporting	217	111
OK121500020090_00	Bull Creek	Primary Body Contact Recreation	Not supporting	217	133
OK121500020090_00	Bull Creek	Primary Body Contact Recreation	Not supporting	217	136
OK121500020090_00	Bull Creek	Primary Body Contact Recreation	Not supporting	217	140
OK121500020360_00	Dog Creek	Aesthetics	Fully supporting		
OK121500020360_00	Dog Creek	Agriculture	Fully Supporting		
OK121500020360_00	Dog Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	91	46
OK121500020360_00	Dog Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	91	85
OK121500020360_00	Dog Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	91	92
OK121500020360_00	Dog Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	91	128
OK121500020360_00	Dog Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	91	140
OK121500020360_00	Dog Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	46
OK121500020360_00	Dog Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	85
OK121500020360_00	Dog Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	87
OK121500020360_00	Dog Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	92
OK121500020360_00	Dog Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	108
OK121500020360_00	Dog Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	111
OK121500020360_00	Dog Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	128
OK121500020360_00	Dog Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	133
OK121500020360_00	Dog Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	136
OK121500020360_00	Dog Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	140
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	215	92



## Appendix D.1. OCC assessment results for beneficial use support (2008 submittal).

OKWBID	Name	Use	Attainment	Impairment	Potential Source
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	215	128
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	215	85
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	217	46
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	217	92
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	217	108
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	217	111
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	217	133
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	217	136
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	217	140
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	217	128
OK121500020360_00	Dog Creek	Primary Body Contact Recreation	Not supporting	217	85
OK121510020050_00	California Creek	Aesthetics	Fully supporting		
OK121510020050_00	California Creek	Agriculture	Not Supporting	385	49
OK121510020050_00	California Creek	Agriculture	Not Supporting	385	140
OK121510020050_00	California Creek	Agriculture	Not Supporting	385	102
OK121510020050_00	California Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	46
OK121510020050_00	California Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	87
OK121510020050_00	California Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	92
OK121510020050_00	California Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	108
OK121510020050_00	California Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	111
OK121510020050_00	California Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	133
OK121510020050_00	California Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	136
OK121510020050_00	California Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	140
OK121510020050_00	California Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121510020050_00	California Creek	Primary Body Contact Recreation	Not supporting	215	92
OK121510020050_00	California Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121510020050_00	California Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121510020050_00	California Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121510020050_00	California Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121510020050_00	California Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121510030010_00	Big Creek	Aesthetics	Fully supporting		
OK121510030010_00	Big Creek	Agriculture	Not Supporting	385	49
OK121510030010_00	Big Creek	Agriculture	Not Supporting	385	140
OK121510030010_00	Big Creek	Agriculture	Not Supporting	385	102
OK121510030010_00	Big Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	46
OK121510030010_00	Big Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	87
OK121510030010_00	Big Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	92
OK121510030010_00	Big Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	108
OK121510030010_00	Big Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	111
OK121510030010_00	Big Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	133
OK121510030010_00	Big Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	136
OK121510030010_00	Big Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	140
OK121510030010_00	Big Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121510030010_00	Big Creek	Primary Body Contact Recreation	Not supporting	215	92
OK121510030010_00	Big Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121510030010_00	Big Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121510030010_00	Big Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121510030010_00	Big Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121510030010_00	Big Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121600010060_00	Ranger Creek	Aesthetics	Fully supporting		
OK121600010060_00	Ranger Creek	Agriculture	Fully Supporting		
OK121600010060_00	Ranger Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Fully Supporting		
OK121600010060_00	Ranger Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121600010060_00	Ranger Creek	Primary Body Contact Recreation	Not supporting	215	92

Appendix D.1. OCC assessment results for beneficial use support (2008 submittal).

OKWBID	Name	Use	Attainment	Impairment	Potential Source
OK121600010060_00	Ranger Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121600010060_00	Ranger Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121600010060_00	Ranger Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121600010060_00	Ranger Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121600010060_00	Ranger Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121600010100_00	Fourteenmile Creek	Aesthetics	Fully supporting		
OK121600010100_00	Fourteenmile Creek	Agriculture	Fully Supporting		
OK121600010100_00	Fourteenmile Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Fully Supporting		
OK121600010100_00	Fourteenmile Creek	Primary Body Contact Recreation	Fully supporting		
OK121600010430_00	Chouteau Creek	Aesthetics	Insufficient Information		
OK121600010430_00	Chouteau Creek	Agriculture	Fully Supporting		
OK121600010430_00	Chouteau Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	46
OK121600010430_00	Chouteau Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	87
OK121600010430_00	Chouteau Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	92
OK121600010430_00	Chouteau Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	108
OK121600010430_00	Chouteau Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	111
OK121600010430_00	Chouteau Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	133
OK121600010430_00	Chouteau Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	136
OK121600010430_00	Chouteau Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	140
OK121600010430_00	Chouteau Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121600010430_00	Chouteau Creek	Primary Body Contact Recreation	Not supporting	215	92
OK121600010430_00	Chouteau Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121600010430_00	Chouteau Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121600010430_00	Chouteau Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121600010430_00	Chouteau Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121600010430_00	Chouteau Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121600010430_00	Chouteau Creek	Primary Body Contact Recreation	Not supporting	217	46
OK121600010430_00	Chouteau Creek	Primary Body Contact Recreation	Not supporting	217	92
OK121600010430_00	Chouteau Creek	Primary Body Contact Recreation	Not supporting	217	108
OK121600010430_00	Chouteau Creek	Primary Body Contact Recreation	Not supporting	217	111
OK121600010430_00	Chouteau Creek	Primary Body Contact Recreation	Not supporting	217	133
OK121600010430_00	Chouteau Creek	Primary Body Contact Recreation	Not supporting	217	136
OK121600010430_00	Chouteau Creek	Primary Body Contact Recreation	Not supporting	217	140
OK121600020030_10	Saline Creek	Aesthetics	Fully supporting		
OK121600020030_10	Saline Creek	Agriculture	Fully Supporting		
OK121600020030_10	Saline Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Fully Supporting		
OK121600020030_10	Saline Creek	Primary Body Contact Recreation	Fully supporting		
OK121600030190_00	Little Horse Creek	Aesthetics	Insufficient Information		
OK121600030190_00	Little Horse Creek	Agriculture	Fully Supporting		
OK121600030190_00	Little Horse Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	46
OK121600030190_00	Little Horse Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	87
OK121600030190_00	Little Horse Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	92
OK121600030190_00	Little Horse Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	108
OK121600030190_00	Little Horse Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	111
OK121600030190_00	Little Horse Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	133
OK121600030190_00	Little Horse Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	136
OK121600030190_00	Little Horse Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	140
OK121600030190_00	Little Horse Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121600030190_00	Little Horse Creek	Primary Body Contact Recreation	Not supporting	215	92
OK121600030190_00	Little Horse Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121600030190_00	Little Horse Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121600030190_00	Little Horse Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121600030190_00	Little Horse Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121600030190_00	Little Horse Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121600030510_00	Sycamore Creek	Aesthetics	Insufficient Information		
OK121600030510_00	Sycamore Creek	Agriculture	Fully Supporting		
OK121600030510_00	Sycamore Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Fully Supporting		
OK121600030510_00	Sycamore Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121600030510_00	Sycamore Creek	Primary Body Contact Recreation	Not supporting	215	92

Appendix D.1. OCC assessment results for beneficial use support (2008 submittal).

OKWBID	Name	Use	Attainment	Impairment	Potential Source
OK121600030510_00	Sycamore Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121600030510_00	Sycamore Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121600030510_00	Sycamore Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121600030510_00	Sycamore Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121600030510_00	Sycamore Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121600040060_00	Tar Creek	Aesthetics	Insufficient information		
OK121600040060_00	Tar Creek	Agriculture	Not Supporting	385	49
OK121600040060_00	Tar Creek	Agriculture	Not Supporting	385	140
OK121600040060_00	Tar Creek	Agriculture	Not Supporting	385	102
OK121600040060_00	Tar Creek	Agriculture	Not Supporting	399	49
OK121600040060_00	Tar Creek	Agriculture	Not Supporting	399	140
OK121600040060_00	Tar Creek	Agriculture	Not Supporting	399	102
OK121600040060_00	Tar Creek	Fish and Wildlife Propagation--Habitat Limited Aquatic Community	Fully Supporting		
OK121600040060_00	Tar Creek	Secondary Body Contact Recreation	Fully supporting		
OK121600060080_00	Little Cabin Creek	Aesthetics	Insufficient information		
OK121600060080_00	Little Cabin Creek	Agriculture	Not Supporting	385	49
OK121600060080_00	Little Cabin Creek	Agriculture	Not Supporting	385	140
OK121600060080_00	Little Cabin Creek	Agriculture	Not Supporting	385	102
OK121600060080_00	Little Cabin Creek	Agriculture	Not Supporting	399	49
OK121600060080_00	Little Cabin Creek	Agriculture	Not Supporting	399	140
OK121600060080_00	Little Cabin Creek	Agriculture	Not Supporting	399	102
OK121600060080_00	Little Cabin Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	46
OK121600060080_00	Little Cabin Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	87
OK121600060080_00	Little Cabin Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	92
OK121600060080_00	Little Cabin Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	108
OK121600060080_00	Little Cabin Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	111
OK121600060080_00	Little Cabin Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	133
OK121600060080_00	Little Cabin Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	136
OK121600060080_00	Little Cabin Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	140
OK121600060080_00	Little Cabin Creek	Primary Body Contact Recreation	Not supporting	215	46
OK121600060080_00	Little Cabin Creek	Primary Body Contact Recreation	Not supporting	215	92
OK121600060080_00	Little Cabin Creek	Primary Body Contact Recreation	Not supporting	215	108
OK121600060080_00	Little Cabin Creek	Primary Body Contact Recreation	Not supporting	215	111
OK121600060080_00	Little Cabin Creek	Primary Body Contact Recreation	Not supporting	215	133
OK121600060080_00	Little Cabin Creek	Primary Body Contact Recreation	Not supporting	215	136
OK121600060080_00	Little Cabin Creek	Primary Body Contact Recreation	Not supporting	215	140
OK121600060080_00	Little Cabin Creek	Primary Body Contact Recreation	Not supporting	217	46
OK121600060080_00	Little Cabin Creek	Primary Body Contact Recreation	Not supporting	217	92
OK121600060080_00	Little Cabin Creek	Primary Body Contact Recreation	Not supporting	217	108
OK121600060080_00	Little Cabin Creek	Primary Body Contact Recreation	Not supporting	217	111
OK121600060080_00	Little Cabin Creek	Primary Body Contact Recreation	Not supporting	217	133
OK121600060080_00	Little Cabin Creek	Primary Body Contact Recreation	Not supporting	217	136
OK121600060080_00	Little Cabin Creek	Primary Body Contact Recreation	Not supporting	217	140
OK121600060220_00	Big Cabin Creek	Aesthetics	Insufficient Information		
OK121600060220_00	Big Cabin Creek	Agriculture	Not Supporting	138	49
OK121600060220_00	Big Cabin Creek	Agriculture	Not Supporting	138	140
OK121600060220_00	Big Cabin Creek	Agriculture	Not Supporting	138	102
OK121600060220_00	Big Cabin Creek	Agriculture	Not Supporting	385	49
OK121600060220_00	Big Cabin Creek	Agriculture	Not Supporting	385	140
OK121600060220_00	Big Cabin Creek	Agriculture	Not Supporting	385	102
OK121600060220_00	Big Cabin Creek	Agriculture	Not Supporting	399	49
OK121600060220_00	Big Cabin Creek	Agriculture	Not Supporting	399	140
OK121600060220_00	Big Cabin Creek	Agriculture	Not Supporting	399	102
OK121600060220_00	Big Cabin Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Fully Supporting		
OK121600060220_00	Big Cabin Creek	Secondary Body Contact Recreation	Fully supporting		
OK121600070110_00	Fivemile Creek	Aesthetics	Fully supporting		
OK121600070110_00	Fivemile Creek	Agriculture	Fully Supporting		
OK121600070110_00	Fivemile Creek	Fish and Wildlife Propagation--Cool Water Aquatic Community	Fully Supporting		
OK121600070110_00	Fivemile Creek	Primary Body Contact Recreation	Fully supporting		

Appendix D.1. OCC assessment results for beneficial use support (2008 submittal).

OKWBID	Name	Use	Attainment	Impairment	Potential Source
OK12161000050_10	Pryor Creek	Aesthetics	Insufficient information		
OK12161000050_10	Pryor Creek	Agriculture	Not Supporting	399	49
OK12161000050_10	Pryor Creek	Agriculture	Not Supporting	399	140
OK12161000050_10	Pryor Creek	Agriculture	Not Supporting	399	102
OK12161000050_10	Pryor Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	46
OK12161000050_10	Pryor Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	87
OK12161000050_10	Pryor Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	92
OK12161000050_10	Pryor Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	108
OK12161000050_10	Pryor Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	111
OK12161000050_10	Pryor Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	128
OK12161000050_10	Pryor Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	133
OK12161000050_10	Pryor Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	136
OK12161000050_10	Pryor Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Not Supporting	322	140
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	215	46
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	215	92
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	215	108
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	215	111
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	215	133
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	215	136
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	215	140
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	215	128
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	217	46
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	217	92
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	217	108
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	217	111
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	217	133
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	217	136
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	217	140
OK12161000050_10	Pryor Creek	Primary Body Contact Recreation	Not supporting	217	128
OK520610020120_00	Buggy Creek	Aesthetics	Insufficient information		
OK520610020120_00	Buggy Creek	Agriculture	Fully Supporting		
OK520610020120_00	Buggy Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Fully Supporting		
OK520610020120_00	Buggy Creek	Primary Body Contact Recreation	Not supporting	217	46
OK520610020120_00	Buggy Creek	Primary Body Contact Recreation	Not supporting	217	92
OK520610020120_00	Buggy Creek	Primary Body Contact Recreation	Not supporting	217	108
OK520610020120_00	Buggy Creek	Primary Body Contact Recreation	Not supporting	217	111
OK520610020120_00	Buggy Creek	Primary Body Contact Recreation	Not supporting	217	133
OK520610020120_00	Buggy Creek	Primary Body Contact Recreation	Not supporting	217	136
OK520610020120_00	Buggy Creek	Primary Body Contact Recreation	Not supporting	217	140
OK520610020120_00	Buggy Creek	Primary Body Contact Recreation	Not supporting	217	100
OK520610020120_00	Buggy Creek	Primary Body Contact Recreation	Not supporting	217	85
OK520610030010_00	Walnut Creek	Aesthetics	Fully supporting		
OK520610030010_00	Walnut Creek	Agriculture	Fully Supporting		
OK520610030010_00	Walnut Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Fully Supporting		
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	215	46
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	215	92
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	215	108
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	215	111
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	215	133
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	215	100
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	215	85
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	215	136
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	215	140
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	217	46
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	217	92
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	217	108
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	217	111
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	217	133
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	217	136

Appendix D.1. OCC assessment results for beneficial use support (2008 submittal).

OKWBID	Name	Use	Attainment	Impairment	Potential Source
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	217	140
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	217	100
OK520610030010_00	Walnut Creek	Primary Body Contact Recreation	Not supporting	217	85
OK520620020090_00	Trail Creek	Aesthetics	Fully supporting		
OK520620020090_00	Trail Creek	Agriculture	Not Supporting	385	49
OK520620020090_00	Trail Creek	Agriculture	Not Supporting	385	140
OK520620020090_00	Trail Creek	Agriculture	Not Supporting	385	102
OK520620020090_00	Trail Creek	Agriculture	Not Supporting	399	49
OK520620020090_00	Trail Creek	Agriculture	Not Supporting	399	140
OK520620020090_00	Trail Creek	Agriculture	Not Supporting	399	102
OK520620020090_00	Trail Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Fully Supporting		
OK520620020090_00	Trail Creek	Primary Body Contact Recreation	Not supporting	215	46
OK520620020090_00	Trail Creek	Primary Body Contact Recreation	Not supporting	215	92
OK520620020090_00	Trail Creek	Primary Body Contact Recreation	Not supporting	215	108
OK520620020090_00	Trail Creek	Primary Body Contact Recreation	Not supporting	215	111
OK520620020090_00	Trail Creek	Primary Body Contact Recreation	Not supporting	215	133
OK520620020090_00	Trail Creek	Primary Body Contact Recreation	Not supporting	215	136
OK520620020090_00	Trail Creek	Primary Body Contact Recreation	Not supporting	215	140
OK520620020090_00	Trail Creek	Primary Body Contact Recreation	Not supporting	217	46
OK520620020090_00	Trail Creek	Primary Body Contact Recreation	Not supporting	217	92
OK520620020090_00	Trail Creek	Primary Body Contact Recreation	Not supporting	217	108
OK520620020090_00	Trail Creek	Primary Body Contact Recreation	Not supporting	217	111
OK520620020090_00	Trail Creek	Primary Body Contact Recreation	Not supporting	217	133
OK520620020090_00	Trail Creek	Primary Body Contact Recreation	Not supporting	217	136
OK520620020090_00	Trail Creek	Primary Body Contact Recreation	Not supporting	217	140
OK520620030020_00	Lone Creek	Aesthetics	Fully supporting		
OK520620030020_00	Lone Creek	Agriculture	Not Supporting	385	49
OK520620030020_00	Lone Creek	Agriculture	Not Supporting	385	140
OK520620030020_00	Lone Creek	Agriculture	Not Supporting	385	102
OK520620030020_00	Lone Creek	Agriculture	Not Supporting	399	49
OK520620030020_00	Lone Creek	Agriculture	Not Supporting	399	140
OK520620030020_00	Lone Creek	Agriculture	Not Supporting	399	102
OK520620030020_00	Lone Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Fully Supporting		
OK520620030020_00	Lone Creek	Primary Body Contact Recreation	Not supporting	215	46
OK520620030020_00	Lone Creek	Primary Body Contact Recreation	Not supporting	215	92
OK520620030020_00	Lone Creek	Primary Body Contact Recreation	Not supporting	215	108
OK520620030020_00	Lone Creek	Primary Body Contact Recreation	Not supporting	215	111
OK520620030020_00	Lone Creek	Primary Body Contact Recreation	Not supporting	215	133
OK520620030020_00	Lone Creek	Primary Body Contact Recreation	Not supporting	215	136
OK520620030020_00	Lone Creek	Primary Body Contact Recreation	Not supporting	215	140
OK520620030020_00	Lone Creek	Primary Body Contact Recreation	Not supporting	215	140
OK520620030020_00	Lone Creek	Primary Body Contact Recreation	Not supporting	217	46
OK520620030020_00	Lone Creek	Primary Body Contact Recreation	Not supporting	217	92
OK520620030020_00	Lone Creek	Primary Body Contact Recreation	Not supporting	217	108
OK520620030020_00	Lone Creek	Primary Body Contact Recreation	Not supporting	217	111
OK520620030020_00	Lone Creek	Primary Body Contact Recreation	Not supporting	217	133
OK520620030020_00	Lone Creek	Primary Body Contact Recreation	Not supporting	217	136
OK520620030020_00	Lone Creek	Primary Body Contact Recreation	Not supporting	217	140
OK520620040050_00	Hackberry Creek	Aesthetics	Insufficient information		
OK520620040050_00	Hackberry Creek	Agriculture	Not Supporting	385	49
OK520620040050_00	Hackberry Creek	Agriculture	Not Supporting	385	140
OK520620040050_00	Hackberry Creek	Agriculture	Not Supporting	385	102
OK520620040050_00	Hackberry Creek	Agriculture	Not Supporting	399	49
OK520620040050_00	Hackberry Creek	Agriculture	Not Supporting	399	140
OK520620040050_00	Hackberry Creek	Agriculture	Not Supporting	399	102
OK520620040050_00	Hackberry Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Fully Supporting		
OK520620040050_00	Hackberry Creek	Primary Body Contact Recreation	Insufficient information		
OK520620050160_00	Commission Creek	Aesthetics	Insufficient information		
OK520620050160_00	Commission Creek	Agriculture	Fully Supporting		
OK520620050160_00	Commission Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Fully Supporting		

## Appendix D.1. OCC assessment results for beneficial use support (2008 submittal).

OKWBID	Name	Use	Attainment	Impairment	Potential Source
OK520620050160_00	Commission Creek	Primary Body Contact Recreation	Not supporting	215	46
OK520620050160_00	Commission Creek	Primary Body Contact Recreation	Not supporting	215	92
OK520620050160_00	Commission Creek	Primary Body Contact Recreation	Not supporting	215	108
OK520620050160_00	Commission Creek	Primary Body Contact Recreation	Not supporting	215	111
OK520620050160_00	Commission Creek	Primary Body Contact Recreation	Not supporting	215	133
OK520620050160_00	Commission Creek	Primary Body Contact Recreation	Not supporting	215	136
OK520620050160_00	Commission Creek	Primary Body Contact Recreation	Not supporting	215	140
OK520620060010_00	Deer Creek	Aesthetics	Fully supporting		
OK520620060010_00	Deer Creek	Agriculture	Fully Supporting		
OK520620060010_00	Deer Creek	Fish and Wildlife Propagation--Warm Water Aquatic Community	Fully Supporting		
OK520620060010_00	Deer Creek	Primary Body Contact Recreation	Not supporting	215	46
OK520620060010_00	Deer Creek	Primary Body Contact Recreation	Not supporting	215	92
OK520620060010_00	Deer Creek	Primary Body Contact Recreation	Not supporting	215	108
OK520620060010_00	Deer Creek	Primary Body Contact Recreation	Not supporting	215	111
OK520620060010_00	Deer Creek	Primary Body Contact Recreation	Not supporting	215	133
OK520620060010_00	Deer Creek	Primary Body Contact Recreation	Not supporting	215	136
OK520620060010_00	Deer Creek	Primary Body Contact Recreation	Not supporting	215	140
OK520620060010_00	Deer Creek	Primary Body Contact Recreation	Not supporting	215	59
OK520620060010_00	Deer Creek	Primary Body Contact Recreation	Not supporting	215	128
OK520620060010_00	Deer Creek	Primary Body Contact Recreation	Not supporting	215	85

## Appendix D.2. Key for beneficial use support codes and cause and source codes.

<b>IMPAIRMENT ID</b>	<b>Description</b>
91	Ammonia (unionized)--toxin
138	Chloride
153	Chlorpyrifos
215	Enterococcus
217	Escherichia coli
230	Fishes bioassessments (streams)
302	Nitrates
317	Oil and grease
322	Oxygen, dissolved
385	Sulfates
398	Total coliform
399	Total dissolved solids
400	Total fecal coliform
413	Turbidity
441	pH
462	Total phosphorous
<b>SOURCE ID</b>	<b>Description</b>
46	Grazing in riparian or shoreline zones
49	Highway/road/bridge runoff (non-construction related)
59	Impacts from land application of wastes
69	Landfills
85	Municipal point source discharges
87	Non-irrigated crop production
92	On-site treatment systems (septic systems and similar decentralized systems)
100	Permitted runoff from confined animal feeding operations (CAFOs)
102	Petroleum / natural gas activities (Legacy)
108	Rangeland (unmanaged pasture) grazing
111	Residential districts
128	Total retention domestic sewage lagoons
133	Wastes from pets
136	Wildlife other than waterfowl
140	Source unknown