PRIDE Water Quality Assessment Report: **III.** Monitoring Networks

By

The Kentucky Water Resources Research Institute University of Kentucky

For

PRIDE

ABSTRACT

This document provides details of sampling sites in support of the general water quality assessment of the 40 county PRIDE region. A general assessment of the associated environmental problems and programs in the region can be found in the companion report: PRIDE Water Quality Assessment Report I: Problems and Programs while the report PRIDE Water Quality Assessment Report II: Chemical, Biological and Habitat Assessments provides a 10 year baseline assessment of environmental conditions in the region as measured by indicators `of pH, fecal coliforms, habitat assessment, and macroinvertebrate assessment.

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INTRODUCTION

The PRIDE (Personal Responsibility in a Desirable Environment) initiative was first announced by U.S. Congressman Harold "Hal" Rogers and Natural Resources and Environmental Protection Cabinet Secretary James Bickford in 1997. PRIDE is the first comprehensive, region-wide, local/state/federal cooperative effort designed to address the serious challenge of cleaning up the region's rivers and streams. The initiative is focusing on 40 separate counties located in the southeastern part of Kentucky that form the headwaters for the Big Sandy, Licking, Kentucky, Green and Cumberland river basins. Also included in the region are small segments of the Salt and Little Sandy river basins (see Figure 1)

The efficient utilization of federal funds in improving the water quality and aquatic habitat of the region requires a mechanism for assessing and evaluating the impacts of the proposed and ongoing projects as well as some mechanism for prioritizing the allocation of additional funds. In order to evaluate the effectiveness of these projects it is important to provide a formal monitoring and assessment program based on sound scientific principles. This report provides a recommendation for monitoring sites needed to support a continuing assessment of water quality conditions in the PRIDE region and provides a priority list of stations for consideration in support of ongoing PRIDE grants to the Kentucky Watershed Watch program.

1.1 Geographical Assessment Units

Because of the spatial and cumulative impacts of multiple projects within a region, it is best that project impacts be evaluated on a county or watershed basis. In using such an approach, it is important that an appropriate assessment scale be selected to maintain a balance between the ability to quantify the impacts of local projects and the ability to effectively monitor a larger number of sites. In consideration of both issues, the various projects within the PRIDE counties have been evaluated both on a county basis and on a watershed basis. In evaluating the projects on a watershed basis, the 8-digit HUC watersheds will be used as identified using the U.S. Geological Survey Hydrologic Unit Code (HUC) system. The HUC code is a multi-digit integer that is used to identify a particular watershed. A map of the various watershed assessment units that encompass the PRIDE region along with the associated county boundaries is shown in Figure 2.

In future years, additional refined assessments will be performed at the 11-digit HUC level. A map of the 11-digit HUC watersheds that encompass the PRIDE region is shown in Figure 3. It should be emphasized that use of the 11-digit watershed assessment scale is consistent with the Kentucky Watershed Management Framework Initiative and will provide a strong synergism between the two programs. Previous and ongoing monitoring results from the Watershed Management Framework will be used to help support an assessment of the PRIDE projects. Use of a 11-digit HUC scale will provide the basis for the development of detailed watershed models that can be used to evaluate proposed and ongoing PRIDE projects more accurately as well as be used in the formulation of detailed watershed management plans as envisioned as part of the overall Watershed Management Framework Initiative.

1.2 Assessment Strategy

In using monitoring, chemical, biological and habitat parameters of a watershed are measured in an attempt to assess the existing baseline conditions of a stream or to assess or predict the impacts of subsequent remediation efforts or projects. As a result of the topography and terrain of eastern Kentucky, stream water quantity and quality can change dramatically over short periods of time. These changes can be due to weather effects (such as rapid changes in precipitation) or to human activities like water removals, water inputs, or intermittent pollutant inputs. As a result, wherever possible, it is best to monitor water quality and flow continuously. Unfortunately, implementation of a continuous water quality and flow monitoring program for the over 200 11-digit HUC watersheds within the PRIDE region would be cost-prohibitive. However, by using a general region-wide monitoring effort coupled with a detailed watershed monitoring and modeling effort, calibrated models of selected watersheds may be developed which can then be extrapolated to the remaining basins on the basis of similarity of topography, land use, soils, and the density of straight pipes and other pollutant sources. Such models can then be used to predict the impacts of aggregate projects and guide in the targeting of more detailed sampling efforts and associated remediation projects.

As a result, the impacts of the PRIDE projects will be evaluated using both a geopolitical basis (i.e. by counties) as well as a geo-hydrologic basis (i.e. by watersheds). The watershed assessment will involve a two-tier approach: 1) a general region-wide assessment at the 8-digit HUC level, and 2) a more targeted river watershed assessment at the 11 digit HUC level. The general region-wide assessment will be performed every year, while the targeted watershed assessment will be rotated through each major river basin in the region over a five year rotating cycle. As indicated previously, this approach is consistent with the National EPA watershed management approach and thus will directly support the goals and objectives of that program as well.

1.3 Assessment Data

The annual general region-wide water quality assessment of the PRIDE region will be based on the use of data obtained from both the Division of Water (DOW) ambient network, Division of Water TMDL sampling stations, the Kentucky Watershed Watch network, and additional targeted sampling. Information on each of these sets of monitoring sites is provided in the following sections.

1.3.1 DOW Ambient Monitoring Network

Monitoring stations associated with the DOW ambient network are sampled every other month with the exception of those stations that are in the basin of focus as part of the watershed management framework. These stations are sampled once a month during the particular year that the basin is in the monitoring phase of the management cycle. Information on the DOW ambient stations as identified by river basin is provided in Figures 47 and Tables 1-4. Each of the stations are sampled for dissolved oxygen, temperature, pH, ammonia, metals, and fecal coliform.

1.3.2 DOW TMDL Monitoring Network

In addition to bi-monthly ambient data, the DOW has been conducting intensive TMDL sampling in both the North Fork of the Kentucky River and the Upper Cumberland River. Each of the stations are being sampled for temperature, pH and fecal coliform. Information on these sites is shown in Figures 8-10 and Tables 5 and 6.

1.3.3 Kentucky Watershed Watch Monitoring Network

PRIDE has awarded several educational grants to support volunteer sampling efforts across the PRIDE area. These grants have been awarded to five separate volunteer groups associated with the Kentucky Watershed Watch Program. The volunteer groups have been organized around 6-digit river basins and include: The Kentucky River Watershed Watch Group, The Licking River Watershed Watch Group, The Big Sandy Watershed Watch Group, The Upper Cumberland Watershed Watch Group, and the Upper Green Watershed Watch Group. Maps of the monitoring stations in each of the major basins are shown in Figures 11-15. Information on each of the stations is provided in Tables 7-10.

Sampling is performed for basic physiochemical data such as flow, pH, temperature, conductivity, herbecides/pesticides, fecal coliforms, and nutrients and metals. In addition, several groups are sampling for habitat and macroinvertebrates. Each group performs sampling at multiple sites across the regions for multiple events.

Although all of the monitored stations are important from an overall assessment standpoint, some of the stations are of particular importance with regard to the PRIDE assessment process. These stations are listed as follows for each major river basin: Kentucky [K6, K7, K14,K20, K21, K22, K23, K36, K37, K40, K41, K42, K49, K56, K69, K81, K82, K90], Licking [L10, L11, L12, L13, L14, L15, L51, L52], Big Sandy [B3, B4, B6, B7, B8, B11, B15, B20], Upper Cumberland [U5, U7, U8, U20, U23, U27, U48, U57, U61, U71], and Upper Green [G05, G08, G09, G10, G11, G18, G14, G64].

1.3.4 Targeted Monitoring Network

An evaluation of the existing sampling locations in light of existing problems and proposed PRIDE projects reveals a need for additional stations in each of the major river basins. In September 2000, Kentucky Water Resources Research Institute, University of Kentucky, through its final project report (Pride Water Quality Assessment Report III) recommended additional monitoring stations to be set up. New monitoring stations were proposed and the sampling that was initially started in spring of 2001 was completed for year 2001. The location of the monitoring stations in 2001 are shown in tables 12-14. The additional sites will provide important information for use in evaluating the impact of ongoing PRIDE projects as well as for use in constructing mathematical watershed models which can then be used in making more detailed 11-digit HUC assessments as well used in prioritizing the locations of new projects. As a continuing effort to improve the monitoring network a new set of sampling locations are identified for sampling effort in the year 2002. Sampling for year 2002 started in May 2002 and is completed in November 2002. The location of monitoring stations in the PRIDE region for the year 2002 is given in tables 15-18.

1.4 Recommendations

In addition to satisfying an important educational and community awareness need, the PRIDE funded Kentucky Watershed Watch program has provided valuable data for use in establishing baseline environmental conditions in the region. In the event that PRIDE continues to provide additional funding to the Kentucky Watershed Watch program, it is highly recommended that the regional programs consider adding the proposed targeted sites to their existing sampling network. Where possible the following data should be collected: flow, temperature, pH, conductivity, dissolved oxygen, fecal coliform, total phosphorus, total nitrogen, ammonia, habitat assessment, and macroinvertebrate assessment. The additional sites will provide important information for use in evaluating the impact of ongoing PRIDE projects as well as for use in constructing mathematical watershed models which can then be used in making more detailed 11-digit HUC assessments as well used in prioritizing the locations of new projects.



Figure 1 Counties and Major River Basins Located Within the PRIDE Region

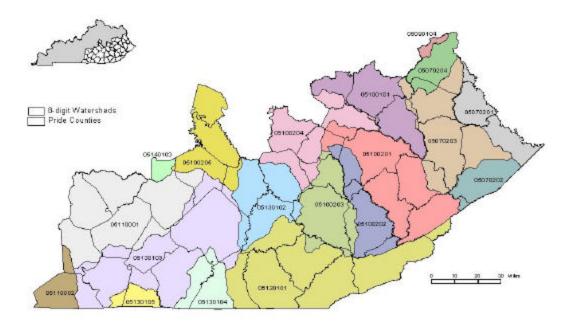


Figure 2 8-Digit Watersheds Located Within the PRIDE Region (with County Lines)

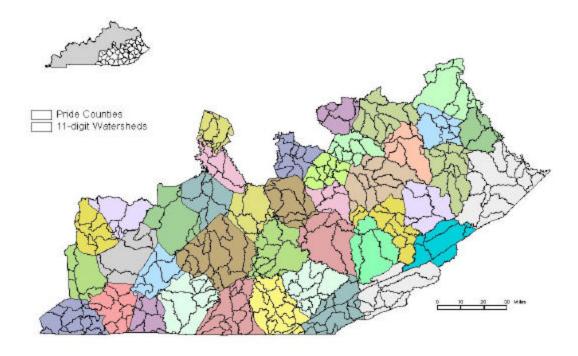


Figure 3 11-Digit Watersheds Within the PRIDE Region (with Counties in Color)

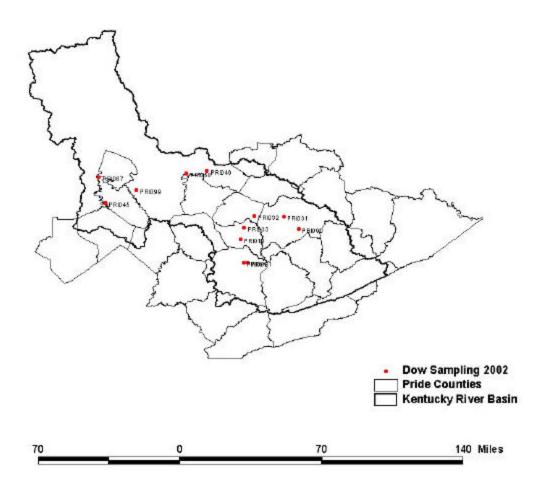


Figure 4. Kentucky River Basin Dow Monitoring Sites

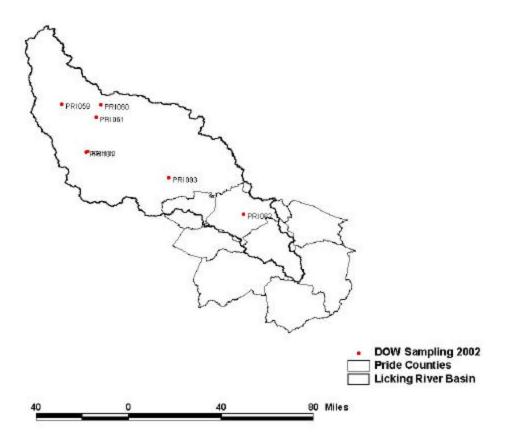


Figure 5. Licking River Basin DOW Sites

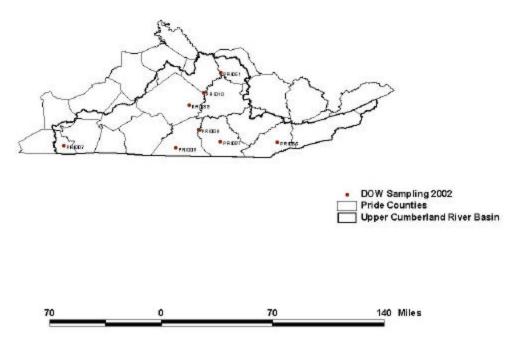


Figure 6. Upper Cumberland River Basin DOW Sites

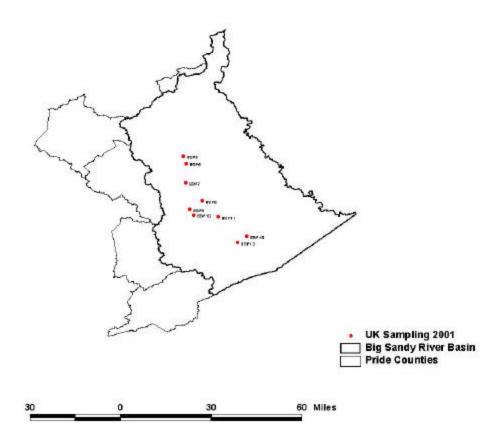


Figure 7. Big Sandy River Basin DOW Sites

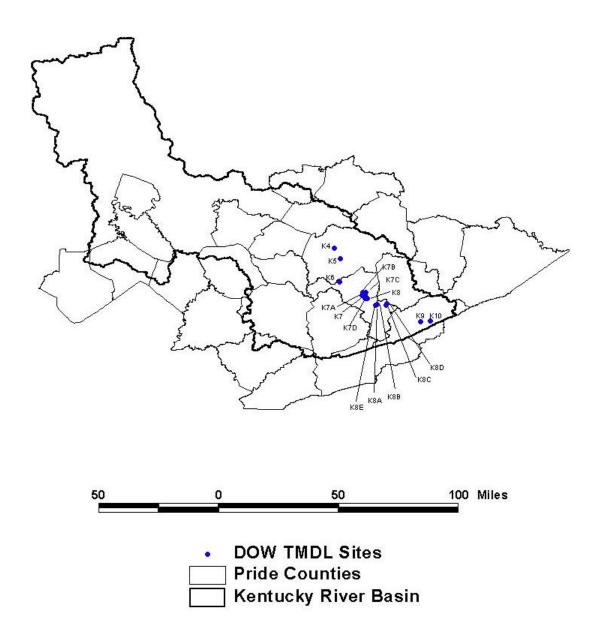


Figure 8. Kentucky River Basin DOW TMDL Sites

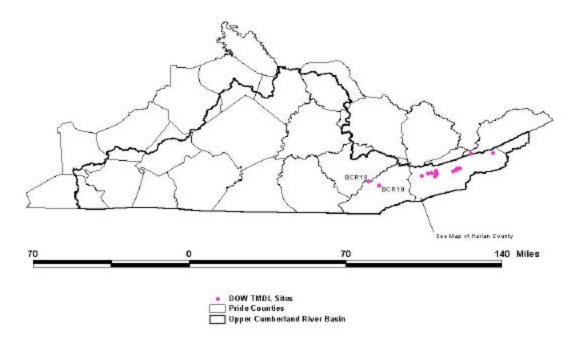


Figure 9. Upper Cumberland River Basin DOW TMDL Sites

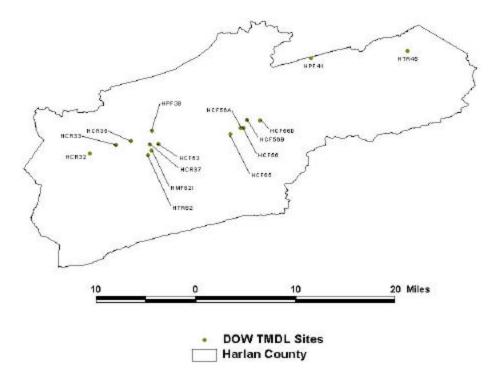


Figure 10. Upper Cumberland River Basin DOW TMDL Sites in Harlan County

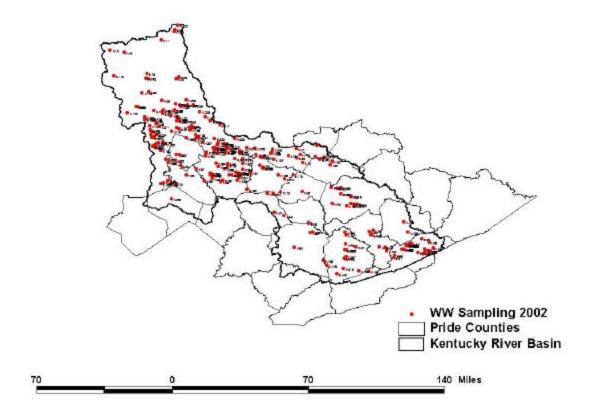


Figure 11. Kentucky River Basin Watershed Watch Sites

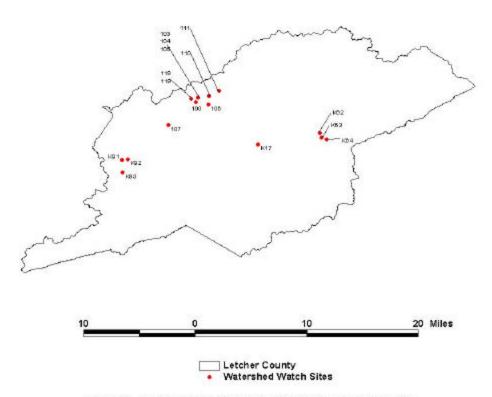


Figure 12. Kentucky River Basin Watershed Watch Sites in Letcher County

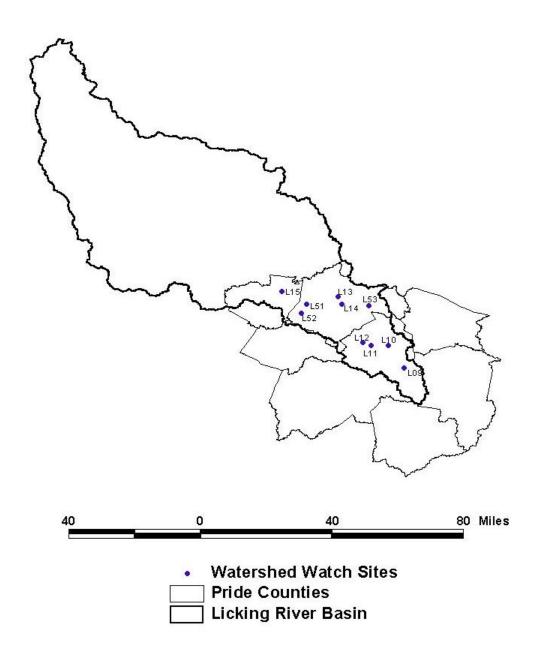


Figure 13. Licking River Watershed Watch Sites

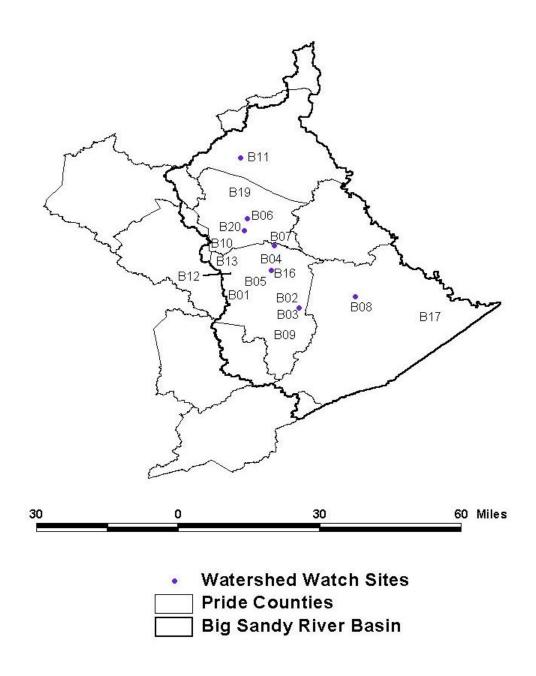


Figure 14. Big Sandy River Watershed Watch Sites

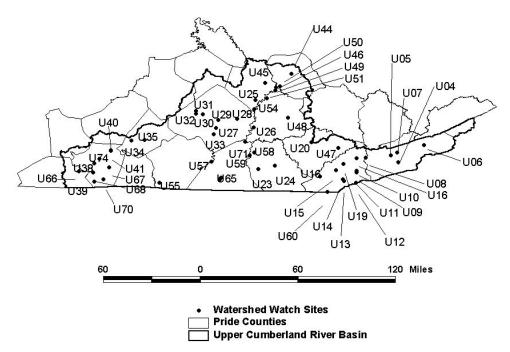


Figure 15. Upper Cumberland River Basin Watershed Watch Sites

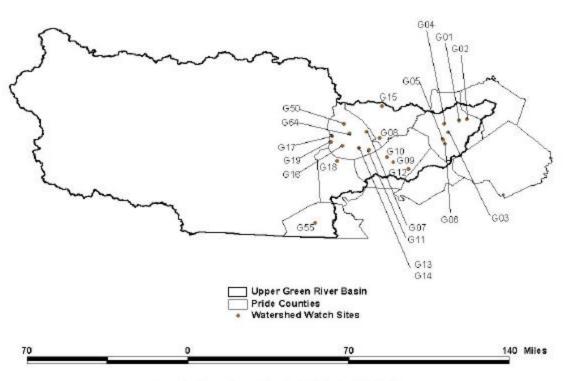


Figure 16. Upper Green River Basin Watershed Watch Sites

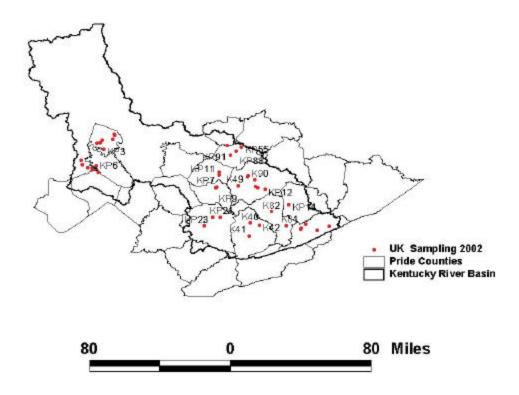


Figure 17. Kentucky River Basin UK Sampling stations 2002

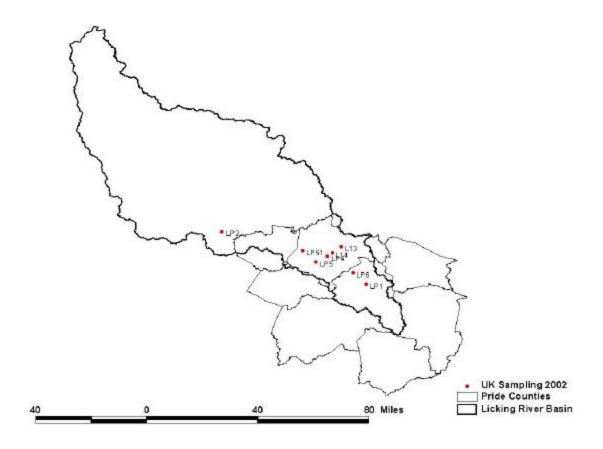


Figure 18. Licking River Basin UK Sampling stations 2002

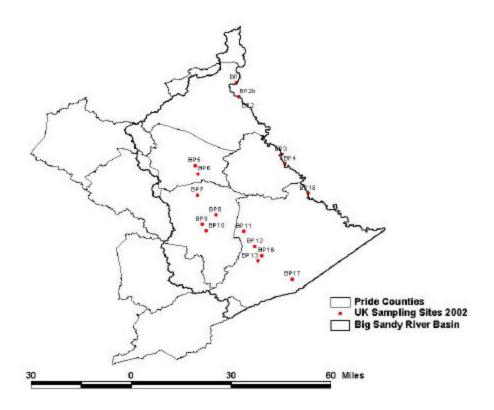


Figure 19. Big Sandy River Basin UK Sampling stations 2002

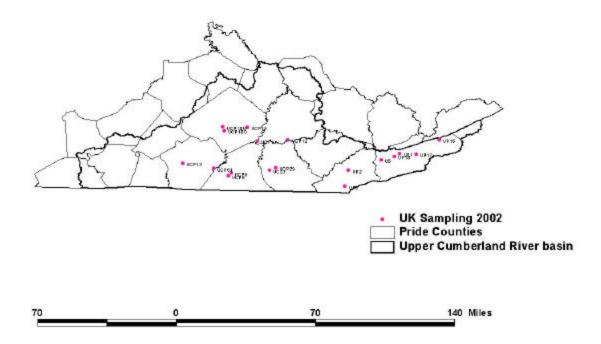


Figure 20. Upper Cumberland River Basin UK Sampling stations 2002

Table 1. Kentucky River Basin DOW Monitoring Sites

Station	Stream	Location	Mile Point	County	Latitude	Longitude	Huc11	Huc8
					-	_		
PRI031	North Fork Kentucky River	Jackson		Breathitt	83.38464	37.55114	5100201150	5100201
PRI032	Middle Fork Kentucky River	Ky 708 bridge at Tallega	8.3	Lee	-83.5939	37.555	5100202040	5100202
PRI033	South Fork Kentucky River	Ky 30 bridge at Boonesville	11.5	Owsley	-83.6706	37.475	5100203060	5100203
					-			
PRI067	Kentucky River	High Bridge		Garrard	84.61519	37.76817	5100205420	5100205
PRI045	Dix River	At SR 52 bridge at Danville	34.7	Garrard	-84.6608	37.6417	5100205170	5100205

Table 2. Licking River Basin DOW Site

Station	Stream	Location	County	Latitude	Longitude	Huc11	Huc8
PRI062	Licking River	West Liberty at US 460	Morgan	37.91465	-83.26172	5100101040	5100101

Table 3. Upper Cumberland River Basin DOW Monitoring Sites

Station	Stream	Location	County	Latitude	Longitude	HUC11	HUC8
38	Cumberland River	At Turkey Neck	Monroe	36.70104	-85.57362	05130103200	05130103
39	South Fork Cumberland River	At Blue Heron	McCreary	36.64489	-84.54137	05130104250	05130104
40	Rock Creek	Near Bell Farm	McCreary	36.61466	-84.62343	05130104220	05130104
41	Little South Fork Cumberland River	Near Ritner Ford	McCreary	36.73559	-84.55864	05130104250	05130104
42	Rockcastle River	At Billows	Laurel	37.1459	-84.29086	05130102070	05130102
43	Horse Lick Creek	Near Lamero	Jackson	37.3273	-84.13969	05130102050	05130102
44	Cumberland River	At Cumberland Falls	McCreary	36.82629	-84.34269	05130101370	05130101
45	Cumberland River	At Pineville	Bell	36.74855	-83.68619	05130101090	05130101
46	Martins Fork	Near Cumberland Gap National Park	Harlan	36.6924	-83.37954	05130101020	05130101

Table 4. Big Sandy River Basin DOW Sites

Station	Location	Stream	Latitude	Longitude	County	HUC8	HUC 11
V1	Near Elkhorn City	Russell Fork	37.29551	-82.3345	Pike	05070202	05070202030
V2	At Ky/Va state line near Toonerville	Levisa Fork	37.35731	-82.23406	Pike	05070202	05070202020
V3	At Paw Paw	Paw Paw Creek	37.43628	-82.1147	Pike	05070201	05070201080
3	At Pikeville	Levisa Fork	37.47702	-82.52313	Pike	05070203	05070203010
1	At Greyeagle	Tug Fork	37.84546	-82.42282	Martin	05070201	05070201200
05	Near Hewlet at SR 52	Levisa Fork	38.17899	-82.61909	Lawrence	05070204	05070204010
W1	Near Louisa	Levisa Fork	38.12562	-82.63251	Lawrence	05070204	05070204010
2	Near Holt	Levisa Fork	38.09532	-82.59165	Lawrence	05070203	05070203170

Table 5. Kentucky River Basin DOW TMDL Sites

Station	Stream	Location	Mile Point	County	Latitude	Longitude	Huc11	Huc8
K4	North Fork Kentucky River	Above Jackson	304.5	Breathitt	37.55138889	-83.38472222	5100201150	5100201
K5	North Fork Kentucky River	Haddix	313.6	Breathitt	37.48727778	-83.34513889	5100201150	5100201
K6	North Fork Kentucky River	North Fork Kentucky River at Chavies	335.5	Perry	37.34744444	-83.35319444	5100201100	5100201
K7	North Fork Kentucky River	North Fork Kentucky River below Hazard	353.6	Perry	37.26613889	-83.21677778	5100201030	5100201
K7A	North Fork Kentucky River	Perrry Central Bridge	355.8	Perry	37.28202778	-83.21169444	5100201030	5100201
K7B	North Fork Kentucky River	Lotts Creek Bridge	357	Perry	37.28277778	-83.19191667	5100201085	5100201
K7C	North Fork Kentucky River	Wabaco Bridge	358.5	Perry	37.266	-83.19519444	5100201030	5100201
K7D	North Fork Kentucky River	Home Lumber Bridge	360.3	Perry	37.24636111	-83.19519444	5100201030	5100201
K8	North Fork Kentucky River	North Fork Kentucky River above Hazard	361	Perry	37.24622222	-83.18219444	5100201030	5100201
K8A	North Fork Kentucky River	Below Carr Fork	367.7	Perry	37.20636111	-83.13166667	5100201030	5100201
K8B	Carr Fork	Mouth of Carr Fork	1.3	Perry	37.21138889	-83.12277778	5100201070	5100201
K8C	Carr Fork	Below Vicco	5.3	Perry	37.20630556	-83.07186111	5100201070	5100201
K8D	Carr Fork	Above Vicco	6.2	Perry	37.21475	-83.06552778	5100201070	5100201
K8E	North Fork Kentucky River	Above Carr Fork	367.9	Perry	37.20544444	-83.13261111	5100201030	5100201
K9	North Fork Kentucky River	North Fork Kentucky River below Whitesburg	402.6	Letcher	37.10763889	-82.86063889	5100201010	5100201
K10	North Fork Kentucky River	North Fork Kentucky River above Whitesburg	408.9	Letcher	37.10994444	-82.80325	5100201010	5100201

Table 6. Upper Cumberland River Basin DOW TMDL Sites

Station	Stream	Location	County	Latitude	Longitude	HUC11	HUC8
BCR18	Cumberland River	Fourmile	Bell	-83.75958333	36.79213889	05130101160	05130101
BCR19	Cumberland River	Ky 66 at Cumberland River	Bell	-83.69302778	36.76411111	05130101160	05130101
BCR19A	Cumberland River	West Pineville	Bell	-83.69302778	36.76411111	05130101160	05130101
BTR20	Straight Creek	Straight Creek	Bell	-83.68963889	36.76575	05130101150	05130101
HCR32	Cumberland River	Ky 219 near Wallins	Harlan	-83.41597222	36.82830556	05130101060	05130101
HCR33	Cumberland River	Ky 3451 near Wilhoit	Harlan	-83.3777778	36.84138889	05130101060	05130101
HCR35	Cumberland River	Ky 840 near Loyall	Harlan	-83.35605556	36.84688889	05130101060	05130101
HCR37	Cumberland River	Railroad bridge	Harlan	-83.32922222	36.84194444	05130101040	05130101
HPF38	Poor Fork	Ky 413 at Poor Fork	Harlan	-83.32580556	36.86191667	05130101010	05130101
HPF41	Poor Fork	US 119 at Poor Fork	Letcher	-83.09908333	36.97272222	05100201040	05100201
HTR45	Looney Creek	Looney Creek mouth	Harlan	-82.95544444	36.97788889	05130101010	05130101
HWP48	Poor Fork	Cumberland WPI	Harlan	-82.95544444	36.97788889	05130101010	05130101
HCF53	Clover Fork	Ky 38 bridge	Harlan	-83.31666667	36.84230556	05130101055	05130101
HCF56	Clover Fork	Ky 38 and Ky 215	Harlan	-83.19338889	36.86575	05130101055	05130101
HCF56A	Yocum Creek	Ky38 near Yocum Creek	Harlan	-83.19755556	36.86575	05130101055	05130101
HCF56B	Baily Creek	Baily Creek	Harlan	-83.18788889	36.87777778	05130101055	05130101
HCF56D	Clover Fork	Tom Coal Creek	Harlan	-83.16905556	36.87647222	05130101055	05130101
HTR62	Catron Creek	Ky 72 Bridge	Harlan	-83.33105556	36.82636111	05130101050	05130101
HMF62I	Martins Fork	Sunshine Bridge	Harlan	-83.32647222	36.83269444	05130101040	05130101
HCF65	Clover Fork	Kildav Bridge	Harlan	-83.21255556	36.85677778	05130101055	05130101

Table 7. Kentucky River Basin Watershed Watch Sites

Station	Ctucom	Lacation				Huadd	110
	Stream	Location	County	Latitude	Longitude	Huc11	Huc8
K06	Red River	Mouth of Big Branch	Wolfe	37.80204	-83.4842	05100204120	05100204
K07	Stillwater Creek	SR 746 Bridge	Wolfe	37.77515	-83.49858	05100204130	05100204
K14	Clarks Run	Mouth of Clarks Run	Garrard	37.65786	-84.70554	05100205190	05100205
	Hanging Fork						
K15	Creek	Mouth of Dix River	Lincoln	37.63387	-84.65876	05100205180	05100205
	North Fork						
K17	Kentucky River	Whitesburg at KY 931/15	Letcher	37.12016	-82.84696	05100201010	05100201
****	****	Between unamed tributary and mouth		25.500.5	0.1.510.50	0.7.1.0.0.0.7.1.0.0	0.5100.505
K20	Hickman Creek	of Hickman Creek	Jessamine	37.76886	-84.61263	05100205120	05100205
		Just below new Nicholasville					
K21	Town Branch	WWTP	Jessamine	37.85299	-84.62239	05100205130	05100205
K22	Jessamine Creek	At SR 29 Bridge	Jessamine	37.81054	-84.64875	05100205420	05100205
	Wilmore Tn	Just above mouth at Jessamine					
K23	Branch	Creek	Jessamine	37.85055	-84.64642	05100205130	05100205
		Three Forks, 200 yards below					
K35	Sugar Creek	SR 1355 bridge	Garrard	37.69972	-84.571	05100205110	05100205
K36	Paint Lick Creek	SR 52 bridge on Paint Lick,	Garrard	37.65488	-84.43648	05100205100	05100205
K37	Paint Lick Creek	Bradshaw Mill	Garrard	37.7466	-84.49661	05100205100	05100205
K40	Middle Fork	Below mouth of Asher Branch	Leslie	37.18252	-83.38252	05100202010	05100202
K41	Middle Fork	Below mouth of Greasy Creek	Leslie	37.07819	-83.39265	05100202010	05100202
K42	Cutshin Creek	At gaging station at Wooton	Leslie	37.16488	-83.30801	05100202020	05100202
		SR 30 bridge over Sturgeon					
K43	Sturgeon Creek	Creek	Jackson	37.395	-83.84233	05100204020	05100204
	Station Camp						
K44	Creek	SR 89 bridge	Estill	37.56082	-83.92341	05100204050	05100204
	Station Camp						
K45	Creek	SR 1209 bridge	Jackson	37.56083	-83.96619	05100204050	05100204
	North Fork	Martha Lane Collins Bridge					
K48	Kentucky River	(KY 541)	Breathitt	37.60086	-83.43162	05100201150	05100201
	Middle Fork	` ′					
K49	Kentucky River	Under KY 30 bridge	Breathitt	37.48774	-83.48359	05100202040	05100202
K56	Dix River	0.25 miles north of Dix Dam	Garrard	37.79246	-84.70655	05100205170	05100205
		100 yards upstream of SR 52					
K61	Drowning Creek	bridge	Estill	37.71704	-84.09609	05100204100	05100204

	North Fork	At Mayking Regular Baptist					
K62	Kentucky River	Church	Letcher	37.13512	-82.76715	05100201010	05100201
K63	Pine Creek	At Mayking Baptist Church	Letcher	37.12901	-82.76511	05100201010	05100201
		Mouth of Creekam Creek and					
K64	Creekam Creek	Pert Fork	Letcher	37.12697	-82.75797	05100201010	05100201
		At mouth of Little Bullshin					
K67	Bullskin Creek	Creek	Clay	37.27257	-83.62553	05100203030	05100203
K68	Goose Creek	At mouth of Sutton Branch	Clay	37.15973	-83.76523	05100203040	05100203
K69	Goose Creek	Below mouth of Jacks Branch	Clay	37.26858	-83.6461	05100203040	05100203
K70	Bishops Branch	At mouth	Clay	37.33676	-83.65597	05100203020	05100203
K74	Swift Camp Creek	At Swift Creek Camp	Wolfe	37.81748	-83.57722	05100204120	05100204
	North Fork						
K81	Kentucky River	Fusonia below Fort Branch	Perry	37.1603	-83.08705	05100201150	05100201
	North Fork						
K82	Kentucky River	Perry County Park	Perry	37.27592	-83.2078	05100201150	05100201
K83	Lotts Creek	SR 550 bridge	Perry	37.28781	-83.17841	05100201080	05100201
K87	War Fork Creek	Mouth of Jacks Branch	Jackson	37.42106	-83.9167	05100204050	05100204
K88	Crystal Creek	In Beattyville	Lee	37.57303	-83.70777	05100204010	05100204
K90	Quicksand Creek	KY 15 at junction with KY 30	Breathitt	37.53823	-83.34614	05100201140	05100201
K91	Line Fork	At mouth of Saltlick Branch	Letcher	37.10024	-83.02377	05100201040	05100201
K92	Line Fork	At mouth of Turkey Creek	Letcher	37.10074	-83.01641	05100201040	05100201
K93	Turkey Creek	Near Banks	Letcher	37.08357	-83.02307	05100201040	05100201
K94	Lower Red River	Red River at Twin Creek	Estill	37.83296	-84.01583	05100204160	05100204
K100	Rockhouse Creek	Below Doty Creek	Letcher	37.175	-82.928	05100201020	05100201
K101	Rockhouse Creek	Above Doty Creek	Letcher	37.175	-82.928	05100201020	05100201
K102	Doty Creek	Mouth of Doty	Letcher	37.175	-82.928	05100201020	05100201
K103	Rockhouse Creek	Below Blair Branch	Letcher	37.18066667	-82.92516667	05100201020	05100201
K104	Rockhouse Creek	Above Blaire Branch	Letcher	37.18066667	-82.92516667	05100201020	05100201
K105	Blair Branch	Mouth of Blair Branch	Letcher	37.18066667	-82.92516667	05100201020	05100201
K106	Blair Branch	Mouth of Tooter Branch	Letcher	37.1715	-82.91133333	05100201020	05100201
K107	Rockhouse Creek	Below Crases Branch	Letcher	37.14483333	-82.9635	05100201020	05100201
K108	Rockhouse Creek	Above Crases Branch	Letcher	37.14483333	-82.9635	05100201020	05100201
K109	Rockhouse Creek	Mouth of Crases Branch	Letcher	37.14483333	-82.9635	05100201020	05100201
K110	Rockhouse Creek	Below Ison	Letcher	37.18266667	-82.91083333	05100201020	05100201
K111	Rockhouse Creek	Above Ison	Letcher	37.18933333	-82.89733333	05100201020	05100201
K116	Blair Branch	Above Tooter Branch	Letcher	37.1715	-82.91133333	05100201020	05100201

Monitoring Network

K117	Blair Branch	Below Ison Branch	Letcher	37.1715	-82.91133333	05100201020	05100201
K118	Doty Creek	Left Fork	Letcher	37.17916667	-82.934	05100201020	05100201
K119	Doty Creek	Right Fork	Letcher	37.17916667	-82.934	05100201020	05100201

Table 8. Licking River Basin Watershed Watch Sites

	Station	Stream	Location	County	Longitude	Latitude	Huc11	Huc8
	L09	Puncheon Creek	Off SR 1766 at Allen Farm	Magoffin	-82.9876	37.64569	05100101010	05100101
	L10	Four Mile Creek	Parkway Drive	Magoffin	-83.05565	37.743	05100101010	05100101
	L11	Dry Creek	20 feet upstream of Paddlefoot Branch	Magoffin	-83.13286	37.74563	05100101020	05100101
	L12	Johnson Fork	150 yards below Cow Creek Bridge	Magoffin	-83.1676	37.75724	05100101030	05100101
	L13	Elk Creek	SR 1161 0.25 miles east of SR 6	Morgan	-83.27918	37.95827	05100101060	05100101
	L14	Licking River	Old Mill Park in West Liberty	Morgan	-83.26072	37.9245	05100101040	05100101
	L15	Beaver Creek	Off SR 1273	Menifee	-83.52504	37.98323	05100101110	05100101
	L51	Blackwater Creek	KY 1950 bridge	Morgan	-83.41579	37.92524	05100101090	05100101
	L52	Blackwater Creek	SR 772 and SR 460 bridge	Morgan	-83.43909	37.8874	05100101090	05100101
Ī	L53	Willians Creek	Bolin Branch bridge	Morgan	-83.14351	37.9191	05100101060	05100101

Table 9. Upper Cumberland River Basin Watershed Watch Sites									
Station	Stream	Location	County	Latitude	Longitude	Huc11	Huc8		
U01	Poor Fork	Above SR 421 bridge at Baxter	Harlan	36.86515	-83.32376	05130101010	05130101		
U04	Martins Fork Below Dam	Below dam	Harlan	36.7963	-83.26662	05130101040	05130101		
U05	Catrons Creek	SR 72 and US 421 at CSX bridge	Harlan	36.84385	-83.3198	05130101055	05130101		
U06	Clover Fork Upper	Under bridge connecting KY 38 and Jones Street	Harlan	36.9197	-83.08238	05130101055	05130101		
U07	Clover Fork Lower	First RR crossing on KY 38 northeast of Harlan	Harlan	36.8669	-83.27454	05130101055	05130101		
U08	Cumberland River	Harlan/ Bell County line at SR 119	Harlan	36.82635	-83.49612	05130101060	05130101		
U09	Pittmans Creek	Mouth of Hances Creek	Bell	36.72085	-83.5625	05130101080	05130101		
U10	Brownies Creek	At Flat Shoals	Bell	36.73505	-83.5625	05130101080	05130101		
U11	Hances Creek	At Frog Pond	Bell	36.73485	-83.5625	05130101080	05130101		
U12	Clear Fork	SR 217 - across from Piney Grove Church	Bell	36.64939	-83.5647	05130101110	05130101		
U13	Cranes Creek	0.5 miles above state maintanance line on Jct 188	Bell	36.6628	-83.65132	05130101110	05130101		
U14	Yellow Creek Main	Colmar - behind the store	Bell	36.67155	-83.66056	05130101110	05130101		
U15	Little Clear Creek	Junction of Clear Creek and Little Clear Creek Road	Bell	36.73785	-83.70874	05130101140	05130101		
U16	Clear Creek	Creek bed behind Pine Mountain Park Estates on SR 190	Bell	36.69285	-83.825	05130101140	05130101		
U18	Straight Creek Left Fork	About 4 miles from fork at SR 66 bridge	Bell	36.82285	-83.5625	05130101150	05130101		
U19	Straight Creek Right Fork	0.5 milea upstream from confluence with Left Fork	Bell	36.78405	-83.6566	05130101150	05130101		
U20	Richland Creek	Behind Knox Central field	Knox	36.9372	-83.88572	05130101210	05130101		
U23	Jellico Creek	100 meters upsteam of SR 478 bridge	Whitley	36.7473	-84.26514	05130101400	05130101		
U24	Watts Creek	SR 25N to Buck's Auto - 200 yards south of closed bridge	Whitley	36.77268	-84.1436	05130101380	05130101		
U25	Middle Rockcastle River	Billows - old KY 80 (1260) bridge over river	Rockcastle	37.17485	-84.29022	05130102070	05130102		
U26	Lower Rockcastle River	First rapid above Bee Rock 0.5 miles above Cane Creek	Laurel	37.04445	-84.29682	05130102070	05130102		
U27	Cumberland River	Above Burnside	Pulaski	36.9972	-84.58176	05130103010	05130103		
U28	Buck Creek	At 1003 bridge	Pulaski	37.10455	-84.41468	05130103040	05130103		
U29	Pittman Creek	At SR 192 turn-off to Blaze Valley	Pulaski	37.09818	-84.5464	05130103050	05130103		
U30	Clifty Creek	0.25 miles downstream of Clifty Road Bridge	Pulaski	37.1378	-84.66002	05130103090	05130103		
U31	Fishing Creek Upper	Near Hogue	Pulaski	37.16347	-84.7066	05130103060	05130103		
U32	Fishing Creek Lower	Above Wesley Bend	Pulaski	37.14372	-84.70753	05130103080	05130103		
U33	Alligator Creek	Alligator Creek - Floyd Ridge	Pulaski	37.0392	-84.56392	05130103050	05130103		
U34	Mud Creek	At confluence with Mud Lick Creek, west of KY 55	Russell	36.95007	-85.16786	05130103180	05130103		
U35	Bethel Creek	At Corbin Road	Russell	36.95365	-85.07224	05130103120	05130103		
U38	Marrowbone Creek	At SR 691 bridge	Cumberland	36.7861	-85.43432	05130103230	05130103		
U39	Lower Cumberland	Kettle Creek at 214 bridge	Cumberland	36.6593	-85.43432	05130103290	05130103		
U40	Big Renox Creek	SR 61 north off Marshall Jones Hollow Road	Cumberland	36.8809	-85.3125	05130103180	05130103		
U41	Crocus Creek	At Eden Sprouls Road	Cumberland	36.87565	-85.3125	05130103180	05130103		
U44	Indian Creek	SR 89 south - 1.5 miles from SR 421	Jackson	37.42795	-84.0264	05130102030	05130102		
U45	Roundstone Creek	At low-water bridge in Livingston.	Rockcastle	37.36115	-84.21526	05130102060	05130102		
U46	Horse Lick Creek	200 feet upstream from confluence with Rockcastle River	Jackson	37.32817	-84.13752	05130102050	05130102		
U47	Stinking Creek	Off Warrior Path Road near SR 223	Knox	36.8984	-83.69422	05130101190	05130101		
U48	Little Laurel River	Riverbend Subdivision off Lily Road - 4 miles south of London	Laurel	37.11155	-84.0528	05130101450	05130101		
U49 U50	Rockcastle River Laurel Fork	Downstream of KY 89 and SR 490 bridge	Rockcastle Jackson	37.3101 37.33747	-84.14294 -84.10819	05130102040 05130102030	05130102 05130102		
U51	Skegg Creek	Near Cruise SR 1329 crossing	Rockcastle	37.2398	-84.28494	05130102030	05130102		
U54	Rockcastle River	SR 1329 crossing SR 1329, Front gate entry ASPI	Laurel	37.2503	-84.28494 -84.2014	05130102080	05130102		
U55 U57	Wolf Creek Little South Fork	Mouth of Caney - Pleasant Hill Boat Dock 80 yards from Freedom Church on Freedom Road	Wayne Wayne	36.65 36.7993	-84.96778 -84.59675	05130103150 05130104310	05130103 05130104		
U57 U58	Dogslaughter Creek	·	Wayne Whitley	36.86515	-84.39675 -84.29154	05130104310	05130104		
U58 U59	Cumberland River	At 2.7 miles above 90 Beach at Eagle Creek shoals	Whitley	36.86515	-84.29154 -84.32322	05130101370	05130101		
U60	Stoney Fork. of Yellow Creek	SR 74, Stoney Fork at double RR bridge near Edgewood	Bell	36.58409	-83.77044	05130101370	05130101		
U61	Big South Fork Cumberland River	At Mine 18 - Blue Heron, 75 feet upstream from ramp	McCreary	36.67538	-84.53496	05130101120	05130104		
U65	Roaring Paunch Creek	At Barthell Mine Camp 38	McCreary	36.68771	-84.52743	05130104270	05130104		
U66	Meshack Creek	0.1 mile upstream of SR 100 bridge	Monroe	36.73209	-85.54398	05130103250	05130104		
U67	Bear Creek	Low water ford just off SR 90	Cumberland	36.75714	-85.32777	05130103230	05130103		
201	Dom Crook	20 " " and Total just off bit 70	, Jamourana	20.,2/11		00100100220	. 00100100		

Table 10. Big Sandy River Basin Watershed Watch Sites

Station	Stream	Location	County	Latitude	Longitude	HUC11	HUC8
B01	Lick Fork	Mouth of Rough and Tough Creek	Floyd	37.603	-82.8631	05070203070	05070203
B02	Arkansas Creek	Near mouth of Beaver Creek	Floyd	37.579	-82.7312	05070203065	05070203
B03	Mud Creek	Intersection of SR 1426 and Mud Creek	Floyd	37.5248	-82.6446	05070203020	05070203
B04	Bull Creek	St Martha's Catholic Church	Floyd	37.6529	-82.7397	05070203030	05070203
B05	Left Fork Middle Creek	Near intersection of SR 114 and SR 404	Floyd	37.6491	-82.8152	05070203070	05070203
B06	Teay's Branch	Behind Herald Oil	Johnson	37.8265	-82.819	05070203140	05070203
B07	Johns Creek	At base of Dewey Lake Dam	Floyd	37.7356	-82.7295	05070203120	05070203
B08	Johns Creek	Behind Johns Creek Elementary	Pike	37.5635	-82.4549	05070203100	05070203
B09	Beaver Creek	Behind McDowell School	Floyd	37.4517	-82.7388	05070203050	05070203
B10	Middle Fork Jenny's Creek	SR 3459, Middle Fork Hager Hill	Johnson	37.7409	-82.8557	05070203140	05070203
B11	Blaine Creek	Intersection of SR 32 and SR 201, Blaine Elementary	Lawrence	38.0312	-82.8419	05070204020	05070204
B12	Right Fork Middle Creek	Mouth of Granny Fitz Branch	Floyd	37.6458	-82.8617	05070203070	05070203
B13	Left Fork Abbot Creek	0.5 miles upstream of confluence	Floyd	37.6778	-82.8327	05070203080	05070203
B16	Levisa Fork	Below Prestonsburg CC	Floyd	37.6854	-82.7836	05070203030	05070203
B17	Left Fork Peter Creek	In front of Phelps Elementary	Pike	37.5155	-82.1526	05070201090	05070201
B19	Tom's Creek	Sitka, 3 miles from SR 23 intersection	Johnson	37.886	-82.8327	05070203160	05070203
B20	Jenny's Creek	SR 625 and exit on US 23	Johnson	37.7859	-82.8293	05070203140	05070203

Table 11. Upper Green River Basin Watershed Watch Sites

Station	Stream	Location	County	Latitude	Longitude	HUC8	HUC11
G01	Green River	North of SR 1552 bridge	Casey	37.353637	-84.868165	05110001	05110001010
G02	Carpenter's Creek	Jeffries Landing, 0.5 miles north of mouth of Green River	Casey	37.3617	-84.81796	05110001	05110001010
G03	Mason Creek	Mason Creek Road at Sugar Hill Road, (2nd bridge)	Casey	37.281621	-84.934817	05110001	05110001010
G04	Brush Creek	Bill Brown Road Ford	Casey	37.332387	-84.957842	05110001	05110001010
G05	Green River	Below Liberty, just above Rhubarts Ford	Casey	37.235188	-84.967001	05110001	05110001010
G06	South Fork of Green River	Between SR 127 and SR 910, above confluence with Green River	Casey	37.208039	-84.95648	05110001	05110001010
G07	Meadow Creek	Mouth at Green River	Green	37.28309	-85.44891	05110001	05110001060
G08	Green River	Tubbs Bend Iron Bridge, Romine Loop Road	Taylor	37.245322	-85.364817	05110001	05110001050
G09	Russell Creek	1 mile above Columbia WWTP	Adair	37.090545	-85.280053	05110001	05110001070
G10	Russell Creek	2 miles downstream of Columbia WWTP	Adair	37.122382	-85.317778	05110001	05110001070
G11	Russell Creek	The slab at mouth of Caney Fork	Green	37.169625	-85.435172	05110001	05110001070
G12	Russell Creek	White Oak and Providence Road	Adair	37.047305	-85.182277	05110001	05110001070
G13	South Fork Russell Creek	50 yards upstream of South Fork mouth	Green	37.18099	-85.496366	05110001	05110001070
G14	Russell Creek	At mouth of South Fork of Russell Creek	Green	37.181307	-85.496366	05110001	05110001070
G15	Sanders Creek	SR 289 Clay Hill property	Taylor	37.443854	-85.351991	05110001	05110001090
G16	South Fork Trammell Creek	At New Salem Road	Green	37.196071	-85.602135	05110001	05110001110
G17	New Salem Creek	0.25 miles upstream of Little Barren, Donansburg	Green	37.254964	-85.663552	05110001	05110001110
G18	Little Barren River	Park at Sulfur Well	Metcalfe	37.100446	-85.63461	05110001	05110001110
G19	Little Barren River	2 miles downstream of KY 218 bridge	Green	37.220785	-85.671024	05110001	05110001110
G50	Little Brush Creek	Doc Ward Road, 3 miles upstream of mouth to Big Brush	Green	37.334002	-85.591458	05110001	05110001100
G55	East Fork Barren River	At bridge on County House Road	Monroe	36.7091	-85.770759	05110002	05110002040
G64	Pittman Creek	Montgomery Mill Road Ford	Green	37.272776	-85.553675	05110001	05110001090

Table 12. Kentucky River Basin Sites 2001

01-11	04	Landing	0	Latituda	1	1111044	111100	Мар	0-11
Station	Stream	Location	County	Latitude	Longitude	HUC11	HUC8	page	Cell
KP1	Boone Ck	Boone Creek at B.C. Road	Garrard	37.6434	-84.62515	05100205170	05100205	51	E8
KP3	Hickman Creek	Hickman Creek at SR 169	Jessamine	37.90017	-84.50241	05100205120	05100205	51	A10
KP4	Hickman Creek	Hickman Creek at Beaumont Road	Jessamine	37.91374	-84.4997	05100205120	05100205	37	I10
KP5	Hickman Creek	Hickman Creek at Mackey Road	Jessamine	37.90695	-84.49019	05100205120	05100205	37	I10
KP7	Meadow Creek	Meadow Creek near confluence	Owsley	37.48166	-83.67022	05100203060	05100203	53	Н9
KP8	Laurel Creek	Laurel Creek on SR 11 at Collins Fork	Clay	37.23272	-83.74835	05100203040	05100203	70	D3
KP9	Kentucky River	Kentucky River at Booneville at SR 28	Owsley	37.47946	-83.67565	05100203060	05100203	53	Н9
	Middle Fork Kentucky	·							
KP10	River	Middle Fork at St. Helens at SR 52	Lee	37.58505	-83.65664	05100203040	05100203	53	F9
	North Fork Kentucky								
KP11	River	North Fork at Airedale	Lee	37.60279	-83.64275	05100201150	05100201	53	F10
KP12	Caney Creek	Caney Creek at Hardshesll	Breathitt	37.45865	-83.26269	05100201120	05100201	54	I4
		On SR 15 at confluence with Troublesome							
KP13	Lost Creek	Creek	Breathitt	37.47392	-83.32312	05100201120	05100201	54	Н3
KP14	Troublesome Creek	Troublesome Creek at SR 1102	Knott	37.33587	-83.06802	05100201120	05100201	72	B1
		Troublesome Creek at confluence with North							
KP15	Troublesome Creek	Fork	Breathitt	37.48283	-83.34221	05100201120	05100201	54	Н3
KP16	Cane Creek	Cane Creek at SR 3193	Breathitt	37.56553	-83.40519	05100201160	05100201	54	G2
	North Fork Kentucky								
KP17	River	North Fork at Wolverine	Breathitt	37.57444	-83.40392	05100201150	05100201	54	F2
KP18	Boone Fork	Boone Fork at Kona	Letcher	37.15902	-82.73594	05100201010	05100201	73	E5
KP19	Sandlick Creek	Sandlick Creek at Whitesburg	Letcher	37.1253	-82.83645	05100201010	05100201	72	F4
KP20	Unamed Tributary	Unamed tributary at Doty Creek Road	Letcher	37.17556	-82.93061	05100201020	05100201	72	E3
	North Fork Kentucky								
KP21	River	North Fork Kentucky River on SR 7 at Letcher	Letcher	37.14121	-82.96814	05100201020	05100201	72	F2
	North Fork Kentucky								
KP22	River	North Fork Kentucky River on SR 588	Letcher	37.13357	-82.97259	05100201010	05100201	72	F2
KP23	Red River	Red River at boat ramp at SR 3644	Wolfe	37.81983	-83.57399	05100204120	05100204	53	B10

Table 13. Upper Cumberland River Basin Sites 2001

Station	Stream	Location	County	Latitude	Longitude	HUC11	HUC8	Map Page	Cell
		Below SR 421 at intersection with	,						
UCP01	Poor Creek	SR 119	Harlan	36.86425	-83.32138	05130101010	05130101	88	B31
	Cumberland								
UCP02	River	Below SR 25E south of Pineville	Bell	36.75018	-83.69228	05130101090	05130101	87	D9
UCP03	Barren Fork	Taylor Road	McCreary	36.76645	-84.45912	05130101430	05130101	85	D10
UCP05	Rock Creek	At SR 1363	McCreary	36.71427	-84.54708	05130104290	05130104	85	E9
LICDOC	Cumberland	CD 700 (A1 E 1	M.C.	26 77010	04.5250	05120104250	05120104	05	DO
UCP06	River	SR 700 at Alum Ford	McCreary	36.77018	-84.5359	05130104250	05130104	85	D9
UCP07	Jenney Branch	At SR 3253	McCreary	36.74185	-84.45688	05130101420	05130101	85	D10
UCP08	Little Yellow Creek	At SR 3486	Bell	36.63961	-83.70462	05130101110	05130101	87	F9
	Cumberland								
UCP09	River	At Redbird	Whitley	36.76439	-84.21745	05130101370	05130101	86	D3
UCP10	Pitman Creek	At SR 914	Pulaski	37.04077	-84.59554	05130103050	05130103	68	H4
	Robinson								
UCP11	Creek	At SR 25 near Lily	Laurel	37.01009	-84.08005	05130101450	05130101	69	H10
UCP12	Laurel River	At boat ramp at SR 312	Laurel	36.96858	-84.13158	05130101450	05130101	69	I 9
	Cumberland								
UCP13	River	Neeleys Ferry at 61	Cumberland					83	D10
UCP14	Rockcastle	Highway 192	Pulaski					69	H7
UCP15	Buck Creek	Highway 192	Pulaski					69	G6

Table 14. Big Sandy River Basin Sites 2001

Station	Stream	Location	County	Latitude	Longitude	HU11	HUC8	Map page	Code
BSP5	Levisa Fork	Paintsville Boat Dock	Johnson	37.8164	-82.79181	05070203090	05070203	55	В9
BSP6	Levisa Fork	At SR 302	Johnson	37.78096	-82.77888	05070203090	05070203	55	C9
BSP7	Levisa Fork	Prestonsburg CC	Floyd	37.68901	-82.78127	05070203090	05070203	55	D9
BSP8	Levisa Fork	At SR 1426	Floyd	37.60281	-82.70225	05070203030	05070203	55	F10
BSP9	Right Fork Beaver	At SR 122	Floyd	37.56211	-82.7602	05070203060	05070203	55	G10
BSP10	Left Fork Beaver	At SR 2030	Floyd	37.53529	-82.74296	05070203050	05070203	55	G10
BSP11	Levisa Fork	At SR 1384	Floyd	37.52667	-82.62419	05070203091	05070203	55	G1
BSP13	Shelby Creek	At Collins	Pike	37.40311	-82.53224	05070203080	05070203	73	A7
BSP16	Russell Fork	At SR 122	Pike	37.43312	-82.48936	05070202070	05070202	56	I3

TABLE 15 Kentucky River Basin Sites 2002

Station	Location	County	Longitude	Latitude
KP55	Red River on 3356 just south of junction with 1010	Wolfe	-83.456988	37.809320
KP88	Stillwater Creek on 746 just before junction 3357	Wolfe	-83.498368	37.775584
KP91	Red River in the Gorge on 715 North on County Line	Wolfe	-83.574785	37.819740
KP56	Swift Camp Creek located North of Campton on Ky. 2491, right under the Mt. Parkway	Wolfe	-83.549164	37.743727
KP6	Dix River located on 1150 West by Cathole Bend Rd	Wolfe	-84.634838	37.602649
KP15	Hanging Fork Creek located on route 950	Boyle	-84.680041	37.623307
KP1	Boone Creek located on Paper Mill Rd.	Garrad	-84.646915	37.652867
KP14	Clarks Run located on 1805 North	Boyle	-84.721155	37.639296
KP60	Spears Creek located on Route 33 North	Boyle	-84.767762	37.663964
KP61	Mocks Branch located on Buster Pike midway between routes 33 and 1896	Boyle	-84.776439	37.697895
KP3	Hickman Creek located on 1268 South	Jessamine	-84.585872	37.787155
KP22B	Jessamine Tributary located off of 1268 south of a stone bridge on Figg Lane	Jessamine	-84.645637	37.840831
KP22	Jessamine Creek located on 1268 North on a one lane bridge	Jessamine	-84.645637	37.840831
KP21	Town Fork located on Shun Rd.	Jessamine	-84.613866	37.845776
KP21B	Jessamine Creek located on Short Shun Rd.	Jessamine	-84.602220	37.864328
KP20	Hickman Creek located on Route 169 just before Stinnett Lane	Jessamine	-84.514425	37.872054
KP4	West Hickman Creek located on Beaumont Rd.	Jessamine	-84.504393	37.914884
KP5	East Hickman Creek located on Macky Rd. just before Smith Lane on the James R. Davis Bridge	Jessamine	-84.498854	37.905639
K40	Middle Fork Kentucky River Hwy 257 at Asher Branch, county low water bridge	Leslie	-83.38252000	37.18252000
K41	Middle Fork Kentucky River Just downstream from 2009 bridge	Leslie	-83.39265000	37.07819000
K42	Cutshin Creek Just downstream US 80 at Wooton, USGS gauging station	Leslie	-83.30801000	37.16488000
K49	Middle Fork Kentucky River Hwy 30 bridge	Breathitt	-83.48359000	37.48774000
K81	North Fork of Kentucky River At Fort Branch, 3/4 mile upstream SR 2447 bridge	Perry	-83.08705000	37.16030000
K82	North Fork of Kentucky River Boat ramp in Perry Co park, just downstream new bridge at High School	Perry	-83.20780000	37.27592000
K90	Quicksand Creek Beneath Hwy 15 bridge	Breathitt	-83.34614000	37.53823000

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KP7	Meadow Creek Beneath county bridge Shepard Lane off Hwy 30	Owsley	-83.66078000	37.48099000
KP9	South Fork of Kentucky River US 28 bridge in Booneville	Owsley	-83.67115000	37.47565000
KP10	Middle Fork Kentucky River SR 52 bridge down-stream	Lee	-83.63893000	37.57710000
KP11	North Fork of Kentucky River Just upstream from SR 2016 bridge	Lee	-83.64144000	37.60101000
KP12	Caney Creek Beneath 476 bridge at Hardshell	Breathitt	-83.26269000	37.45865000
KP13	Lost Creek Behind post office on Hwy 15	Breathitt	-83.32312000	37.47392000
KP14	Troublesome Creek Hwy 550	Knot	-83.06802000	37.33587000
KP15	Troulbesome Creek behind Chevron on Hwy 15	Breathitt	-83.34221000	37.48283000
KP16	Cane Creek On SR 3193	Breathitt	-83.40519000	37.56553000
KP17	North Fork of Kentucky River On SR 3193	Breathitt	-83.40392000	37.57444000
KP18	Boone Forkof North Fork Hwy 15 at Kona	Letcher	-82.73835000	37.15800000
KP19	Sandlick Creek Whitesburg below Caudill Town Rd	Letcher	-82.83683000	37.12350000
KP20	Dotty Creek At Hwy 7	Letcher	-82.92978000	37.17582000
KP21	Rockhouse Creek Hwy 7at Woodrock RD.	Letcher	-82.96568000	37.14258000
KP22	North Fork of Kentucky River SR 588 above Blackey	Letcher	-82.97259000	37.13335700
KP23	Goose Creek City Park in Manchester	Clay	-83.76465000	37.15982000
KP24	Goose Creek Hwy 11 at Laurel Branch Rd	Clay	-83.69103000	37.23281000
KP25	Redbird River Hwy 66 at Bar Creek Rd.	Clay	-83.63205000	37.22886000

 TABLE 16. Upper Cumberland River Basin Sites 2002

Station	Location	County	Longitude	Latitude
UCP29	Cumberland River on Route 204 Bridge	Whitley	-84.22046100	36.76299600
UC23	Jellico Creek on Route 478	Whitley	-84.26564500	36.74537900
UC71	Rockastle River on Boat Dock at end of Route 3497	Laurel	-84.35455700	36.96030300
UCP15	Buck Creek on Route 192	Pulaski	-84.42623300	37.06014500
UCP12	Laurel River on Route 770	Laurel	-84.13011600	36.96853100
UCP6	South Fork of Cumberland River	Mccreary	-84.54370300	36.72548900
UCP13	Beaver Creek	Wayne	-84.89645000	36.79675100
UCP10U	Sinking Creek	Pulaski	-84.60512000	37.06169700
UCP10D	Pitman Creek	Pulaski	-84.59476200	37.03336200
UCP51	Little South Fork	Wayne	-84.67240600	36.75844000
UCP5	Rock Creek	Mccreary	-84.56419500	36.70358200
U8	Cumberland River Just downstream new 2007 bridge in Coldiron	Harlan	-83.45162000	36.82385000
UP1	Poor Fork of Cumberland River beneath 421 at 119 jct	Harlan	-83.31604000	36.86815000
UP16	Poor Fork of Cumberland River 119 bridge at Cumberland city limits	Harlan	-83.02793000	36.96679000
UP17	Clover Fork of Cumberland River at 38 bridge in Evarts	Harlan	-83.19713000	36.86442000
UP18	Cumberland River At Loyall	Harlan	-83.35597000	36.84615000
UP2	Cumberland River Just up stream of 119 bridge, John Asher Cawood Bridge	Bell	-83.69064000	36.74586000
UP8	Yellow Creek Bypass Hwy 441 bridge	Bell	-83.71572000	36.62865000

Table 17. Big Sandy River Basin Sites 2002

Station	Location	County	Longitude	Latitude
BP1	Blaine Creek on Route 23 (Country Music Highway) just North of Louisa	Lawrence	-82.61160700	38.17769700
BP2	Levisa Fork in Louisa on Route 3 crossing into West Virginia where the Big Sandy splits	Lawrence	-82.60026900	38.11598100
BP2B	Tug Fork in Louisa on Route 3 crossing into West Virginia where the Big Sandy splits	Lawrence	-82.59931600	38.11665000
BP3	Tug Fork on Route 52 in W.V. just North of welcome sign on south side of Stepptown. Site is a gravel pulloff and elevation is off T-post	Martin	-82.41801700	37.86469300
BP4	Wolf Creek in Lovely Kentucky just before the Railroad bridge on Route 292	Martin	-82.40125900	37.82523300
BP18	Tug Fork on Route 52/119 approx 200 yards North of Chattaroy Rd (Route 14). State Bridge crossing from KY to WV	Pike	-82.30025500	37.69772400
BP10	Left Fork of Beaver Near SR 2030	Floyd	-82.74375000	37.53395000
BP11	Levisa Fork of Big Sandy Near bridge on New Mossy Bottom Rd., Creed Mullins Bridge	Pike	-82.57819000	37.53056000
BP12	Right Fork of Beaver 550 bridge just above confluence with Jones Branch	Pike	-82.53060000	37.46585000
BP13	Shelby Creek County bridge at Buckfield Rd., off US 23	Pike	-82.51788000	37.40348000
BP16	Levisa Fork of Big Sandy Just downstream from 122 bridge, across Dot Atkins' yard	Pike	-82.50122000	37.42527000
BP17	Russel Fork of Big Sandy At pull over on Hwy 80, take path to river access	Pike	-82.36703000	37.32358000
BP5	Levisa Fork of Big Sandy Paintsville boat ramp, USGS gauging station	Johnson	-82.79060000	37.81702000
BP6	Levisa Fork of Big Sandy Pullover on 1107, bridge just downstream, SR 302	Johnson	-82.77725000	37.78144000
BP7	Levisa Fork of Big Sandy Behind PCC, new bridge just upstream on 1428	Floyd	-82.77991000	37.68852000
BP8	Levisa Fork of Big Sandy Permission from owner to cross yard, new bridge just downstream, 1426	Floyd	-82.70037000	37.60166000
BP9	Left Fork of Beaver Permission from owner to cross yard, new bridge just downstream, 1426	Floyd	-82.75964000	37.56247000

Table 18. Licking River Basin Sites 2002

Station	Location	County	Longitude	Latitude
LP1	Licking River on Route 30 just South of junction 460 and 30	Magoffin	-83.084334	37.751147
LP6	Licking River on Route 460 just North of junction 1081 and 460	Magoffin	-83.154612	37.811741
L13	Elk Fork Creek on Route 172 500 feet south of junction 1161 and 172	Morgan	-83.215837	37.947683
L14	Licking River on Route 460 just east of junction 2498 and 460	Morgan	-83.261772	37.914647
LP4	Caney Creek on Route 460 just West of junction 2498/191 and 460	Morgan	-83.286306	37.896612
LP5	Grassy Creek onRoute 460 at intersection with 705	Morgan	-83.346277	37.866958
LP51	Blackwater Creek	Morgan	-83.416413	37.926157
LP3	Slate Creek	Menifee	-83.835574	38.025635