

Floyds Fork Watershed Update

November 6, 2013

Monitoring

From April-October 2013, biologists from the Kentucky Division of Water (KDOW) Water Quality Branch collected:

- macroinvertebrate samples at 10 sites,
 - benthic algae at 5 sites,
 - visual algae surveys at 9 sites,
- monthly chemistry sampling at 4 sites, and
 - fish at one site.

(Refer to Figure 1, Table 1)

Biologists are currently identifying the biological samples and analyzing water chemistry data. This process will likely continue through spring 2014.

These data will be used for the Floyds Fork TMDL and 305(b) assessment purposes.

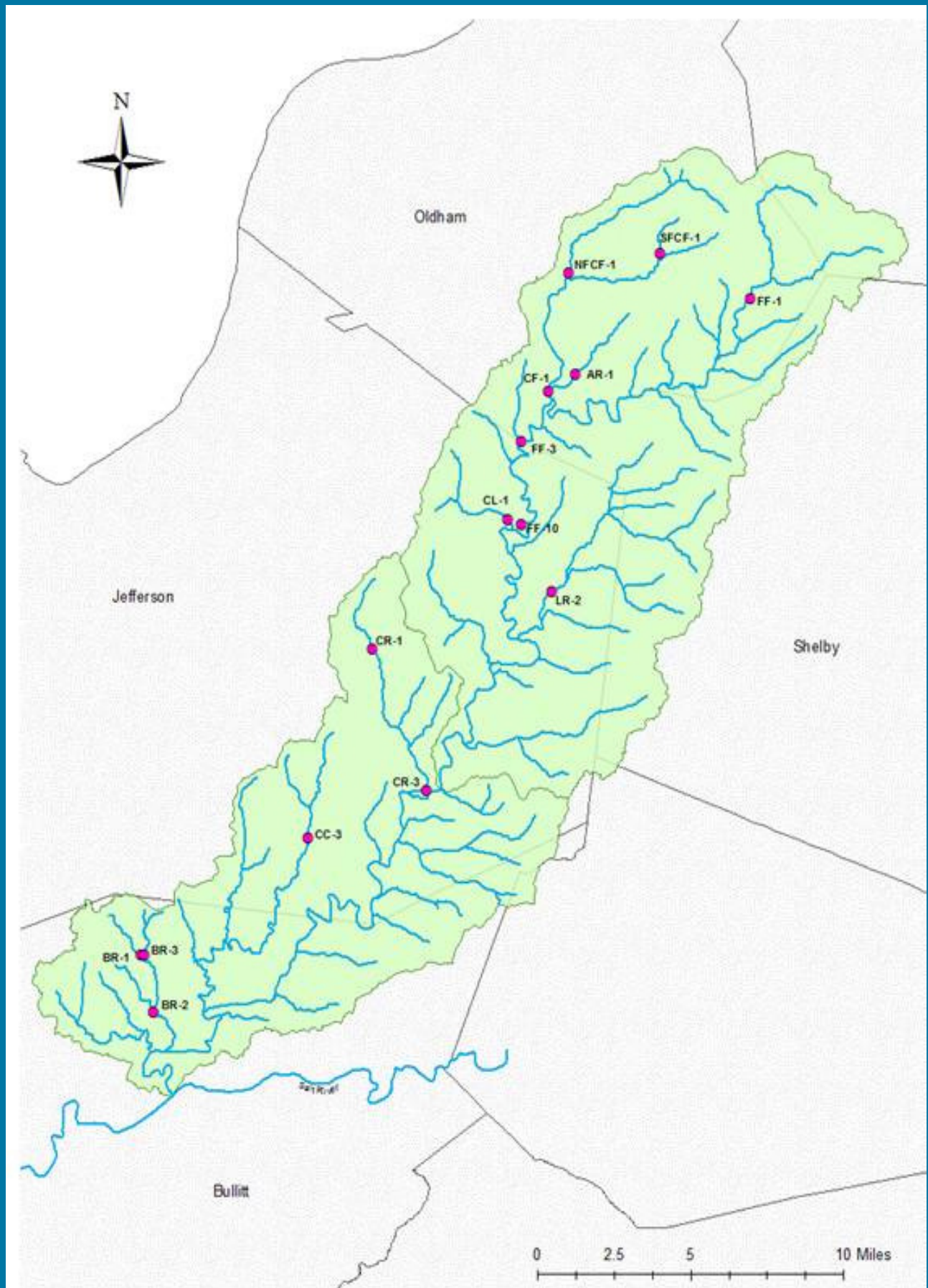


Figure 1. Floyd Fork Monitoring Sites

Project Station ID	Stream Name	Size	Macroinvertebrates	Benthic Algae	Fish	Monthly Water (Apr – Oct)	Visual algae surveys (Apr – Jul)
AR-1	ASHERS RUN	h					x
BR-1	BROOKS RUN	h	x				
BR-2	BROOKS RUN	w	X			x	x
BR-3	UT BROOKS RUN	h	X				
CC-3	CEDAR CREEK	w	X	x		x	x
CF-1	CURRYS FORK	w	X				
CL-1	CHENOWETH RUN	w	X	x		x	x
CR-1	CHENOWETH RUN	w/h	X				x
CR-3	CHENOWETH RUN	w	X				
FF-3	FLOYDS FORK	w	X	x			x
FF-10	FLOYDS FORK	w	x	x	x	x	x
NFCF-1	NORTH FORK CURRYS FORK	w					x
SFCF-1	SOUTH FORK CURRYS FORK UT	h		x			x

Table 1. List of stations with monitoring activities; w=wadeable, h=headwater, w/h= wadeable/headwater

Monitoring, continued

In addition to the biological sampling, 26 KPDES facility outfalls (Figure 2) were monitored in order to better characterize the total phosphorous (TP) and total nitrogen (TN) pollutant loading contributions by facilities and speciation of the TP or TN (Table 2).

These data will be used to confirm or adjust model assumptions.

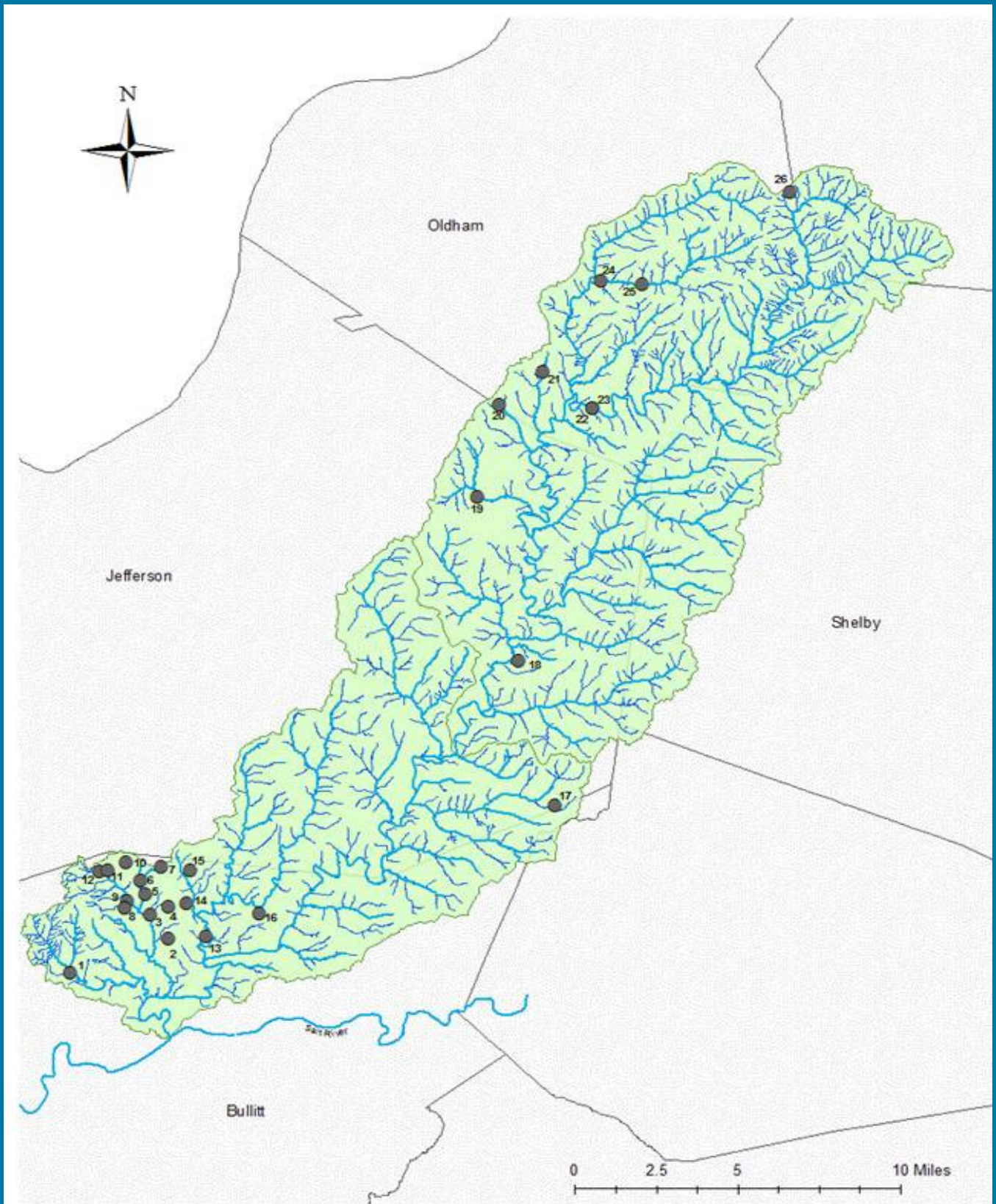


Figure 2. KPDES Outfall Monitoring Sites

Site	KPDES Permit #	Facility	Description	Design Flow (mgd)	Outfall Latitude	Outfall Longitude
1	KY007216 8	BIG VALLEY MHP	REC VEHICLE PARKS & CAMPSITES	0.0700	38.02944	-85.73417
2	KY004018 5	HEBRON MIDDLE SCHOOL	ELEMENTARY & SECONDARY SCHOOLS	0.0310	38.04560	-85.67861
3	KY003418 5	PIONEER VILLAGE (MARYVILLE #4)	LAND SUBDIVIDERS & DEV, EX CEM	0.3100	38.05694	-85.68917
4	KY003415 1	HILLVIEW #1 (MARYVILLE #1) (BULLITT)	LAND SUBDIVIDERS & DEV, EX CEM	0.2310	38.06083	-85.67889
5	KY003417 7	BCSD HILLVIEW #3 (MARYVILLE #3)	LAND SUBDIVIDERS & DEV, EX CEM	0.1480	38.06667	-85.69194
6	KY003861 0	HUNTERS HOLLOW	LAND SUBDIVIDERS & DEV, EX CEM	0.2400	38.07306	-85.69444
7	KY003416 9	BCSD HILLVIEW #2 (MARYVILLE #2)	LAND SUBDIVIDERS & DEV, EX CEM	0.3170	38.07972	-85.68306
8	KY010390 0	PROLOGIS-HILLVIEW WWTP	SEWERAGE SYSTEMS	0.1500	38.06028	-85.70333
9	KY009430 7	BCSD WILLABROOK SANITATION	LAND SUBDIVIDERS & DEV, EX CEM	0.5250	38.06361	-85.70222
10	KY002307 8	WHISPERING OAKS MHP	OPER OF RES MOBILE HOME SITES	0.1250	38.08194	-85.70278
11	KY010287 3	COUNTRY LIVING MHP	OPER OF RES MOBILE HOME SITES	0.0150	38.07778	-85.71333
12	KY007766 6	CROSSINGS GOLF COURSE	PHYSICAL FITNESS FACILITIES	0.0050	38.07750	-85.71778
13	KY007305 9	CAMP SHANTITUCK GIRL SCOUT (BULLITT)	SPORTING & RECREATIONAL CAMPS	0.0100	38.04667	-85.65750

Table 2. List of KPDES outfall sampling locations (1 of 2)

Site	KPDES Permit #	Facility	Description	Design Flow (mgd)	Outfall Latitude	Outfall Longitude
14	KY0101885	RIEDLING BUILDING	OPER OF NON-RESIDENTIAL BLDGS	0.0005	38.06250	-85.66889
15	KY0034801	BCSD BULLITT HILLS SUBDIVISION	LAND SUBDIVIDERS & DEV, EX CEM	0.3500	38.07778	-85.66667
16	KY0077674	LAKE COLUMBIA SUBDIVISION	LAND SUBDIVIDERS & DEV, EX CEM	0.0120	38.05750	-85.62778
17	KY0101419	KINGSWOOD SUBD	LAND SUBDIVIDERS & DEV, EX CEM	0.1000	38.10861	-85.46028
18	KY0042153	CEDAR RIDGE CAMP	SPORTING & RECREATIONAL CAMPS	0.0050	38.17722	-85.48111
19	KY0086843	MIDDLETOWN INDUSTRIAL PARK	OPER OF NON-RESIDENTIAL BLDGS	0.1600	38.25500	-85.50389
20	KY0069485	FRIENDSHIP MANOR	SKILLED NURSING CARE FACILITIES	0.0170	38.29889	-85.49167
21	KY0076741	CHERRYTREE APARTMENTS	OPERATORS OF APART BUILDINGS	0.0075	38.31417	-85.46694
22	KY0090956	PERSIMMON RIDGE OUTFALL 1	LAND SUBDIVIDERS & DEV, EX CEM	0.1420	38.29694	-85.43833
23	KY0090956	PERSIMMON RIDGE OUTFALL 2	LAND SUBDIVIDERS & DEV, EX CEM	0.1420	38.29694	-85.43833
24	KY0054674	LOCKWOOD ESTATES SUBDIVISION	LAND SUBDIVIDERS & DEV, EX CEM	0.0450	38.35778	-85.43361
25	KY0076732	CENTERFIELD ELEMENTARY	ELEMENTARY & SECONDARY SCHOOLS	0.0100	38.35583	-85.41000
26	KY0031798	CEDAR LAKE LODGE	ELEMENTARY & SECONDARY SCHOOLS	0.0200	38.39944	-85.32638

Table 2. List of KPDES outfall sampling locations (2 of 2)

Modeling

KDOW staff attended a Region 4 EPA weeklong training on the WASP model in Atlanta, GA, in July.

KDOW staff continues to learn how to use the models and the linkage between the models.

KDOW is evaluating alternative methodologies to the Tetra Tech models as a comparison.

KDOW recently signed a contract with the University of Kentucky to develop a simplified model .

Floyd Forks Watershed Stakeholder Engagement

Between October 2012 and April 2013, a series of focus group meetings offered stakeholders an opportunity to provide qualitative & quantitative feedback.

The meetings' forty-five participants were asked to provide their perspectives on their vision and values associated with the watershed as well as potential data needs and credible sources of information.

Participants were also asked to provide feedback on a given set of nutrient management strategies.

More details can be found at

<http://www.uky.edu/WaterResources/FF/>
under "Management Strategies."

Floyd Forks Watershed Stakeholder Engagement, continued

An online survey will be available soon
on <http://www.uky.edu/WaterResources/FF/>
to provide stakeholders
an additional means for
providing feedback.