Appendices:

Appendix A:

List of Advisory Board and Committee Members

Clinton County SWCD Board of Supervisors
Devin Bell, Chairman
Jerry Batts, Vice-Chairman
Larry Mennen
Matt Kelley
Chuck Calvert

Staff
Cindy Baker, Resource Conservation Specialist
Leah Harden, District Administrator

Steering Committee Members
Alan Ostler – Landowner
Mike Emens – Landowner
Glen Hart – Landowner
Steve Yeary – Health Department
Gail Fusaro – Clinton Prairie Teacher
Dawn Boston – Wildcat Creek Solid Waste District

Appendix B:

List of Partners

- Purdue Cooperative Extension of Clinton County
- Purdue University Forestry and Natural Resources Department
- Frankfort Waste Water Treatment Plant
- Clinton County Health Department
- Clinton County Commissioners
- Clinton County Council
- Clinton County Surveyor
- Clinton County Highway Department
- Clinton County Area Plan Commission
- Farm Bureau Inc. of Clinton County
- Clinton County Foundation for Youth (Camp Cullom)
- Wildcat Creek Solid Waste District
- Clinton Prairie High School
- Indiana Department of Environmental Management
- Indiana Department of Natural Resources (Project Wet and Indiana Master Naturalist)
- Indiana State Department of Agriculture, Division of Soil Conservation
- USDA Natural Resources Conservation Service
- USDA Farm Service Agency
- Commonwealth Biomonitoring, Inc.
- Boy Scouts of America Troop 338
- Girl Scouts of America
- Greater Wabash River Resource, Conservation, and Development
- Wildcat Creek Watershed Alliance

List of Sponsors

- Agri Drain
- Frito Lay
- Marsh Supermarket
- Wal-Mart of Frankfort
- Zachary Confections
- Rain Barrel USA
- Douglas Sewer & Septic Tank Pumping
- L. Edwards Sewer & Septic Tank Pumping

Appendix C:

Summary from Watershed Stakeholder Meetings

Date of Stakeholder Meeting	Description of Meeting	Information Received/Provided
March 21st, 2006	Meeting held at the Frankfort Public Library to Introduce the Community to the grant	▪ Perceived Areas and Issues of Concern ▪ Methods of Addressing Issues
September 22nd, 2006	Meeting held at the Frankfort Courthouse to involve the local government in the grant	▪ County agency concerns ▪ Individual concerns ▪ Goals and Methods of Addressing Issues ▪ Need to Act as a Partnership
October 26th, 2006	Meeting held at the Frankfort Neighborhood Center to Involve the Community in the TMDL process and update them on grant information	▪ Inform stakeholders and public about the TMDL process ▪ Gather information from attendees on possible pollutant sources and critical areas
February 27th, 2007	Meeting held at the Frankfort Neighborhood Center with guest speak Jennifer Sobecki (IDNR)	▪ Watershed conservation through forestry ▪ Trees impact on water quality ▪ Information on forestry programs for landowners
March 17th, 2007	Farm & Home Workshop held at the Frankfort Library	▪ Information on Tree & Woodland Care, Septic System Maintenance, Drainage Water Management, and Backyard Conservation
July 19th, 2007	Long Term Hydrologic Impact Assessment training for local governments and organizations	▪ Hydrologic impacts of development and urbanization on water quality ▪ Delineating watersheds using the on-line delineation tool
September 22nd, 2007	Make a Splash Festival	▪ Educational event with

		Project Wet activities, live demonstrations, and booths
November 13th, 2007	Clinton County Commissioners and County Council Meeting	▪ Provided information about the grant; reviewed the draft goals and objectives ▪ Discussed a possible ordinance for Rule 5

Appendix D:

Problem Statements

1) The fish population is declining in both quantity and quality of fish species; we believe this is due to the excess sedimentation and nutrients reaching the streams because of a lack of riparian buffers.
    a. What we want: a fish population healthy enough to allow for recreational fishing and safe fish consumption.
    b. Information we need: current fish population, cause of decline (lack of habitat for breeding, lack of food, etc), desired fish population.
    c. Location: based on the baseline water quality study conducted, the South Fork Wildcat Creek is more impaired for habitat and macroinvertebrates than Kilmore Creek.

2) Excess nutrients in the streams are causing algal blooms and lower dissolved oxygen levels; we believe this is due to over application of pesticides and fertilizers entering water through field runoff and abandoned wells.
    a. What we want: farmers to implement Pest and Nutrient Management Plans and utilize precision agriculture to limit over application, abandoned well capping.
    b. Information we need: current cause of excess nutrients, best methods of preventing over application, where is the most affected area
    c. Location: watershed wide

3) Undercutting stream bank erosion is increasing sedimentation in our creeks and occurs through-out the watersheds; we believe this is due to soil type, changes in hydrology, and land use.
    a. What we want: streams with stable banks, a decrease in the mass wasting that is occurring, and overall decrease of in-stream sedimentation by reducing the flashiness of the streams.
    b. Information we need: where are the worst cases, cause of stream bank erosion and mass wasting, desired amount of stabilized stream banks, adjacent land use and soil types.
    c. Location: Based on the baseline water quality study, sediment tolerant midges are more prevalent in the South Fork Wildcat Creek.

4) There is a small proportion of 100% no-till farmers and farmers practicing conservation tillage in the watersheds; we believe this is due to the cost of low-till equipment, possibility of a decrease in yield, and resistance to change.
    a. What we want: an increase in the percentage of no-till farmers in the watershed.
    b. Information we need: current percent of no-till farmers in the watershed, cause of resistance to low-till, and the target percentage of low-till farmers.
    c. Location: all farm fields within the watersheds not currently being low-tilled

5) There are a large amount of junk cars stored in the flood plains that can cause oil and gasoline to runoff to our streams after large storm events; we believe this is due to the

lack of proactive enforcement of the zoning ordinance preventing the storage of junk cars in flood plains.

a. What we want: a decrease in the number of junk cars and appliances in the flood plain and proactive enforcement of the county zoning ordinances to prevent future flood plain accumulation.
b. Information we need: current number of vehicles/appliances in the floodplain, locations of junk vehicles/appliances, current zoning ordinances dealing with flood plains.
c. Specific Locations: Compressed Steal and Kilmore and downstream

6) Storm drains in the City of Frankfort drain street runoff, garbage, and more directly to our ditches and streams; we believe that the cause is the lack of awareness of the community.
    a. What we want: decreased storm drain runoff through the use of urban best management practices such as rain gardens, rain barrels, washing cars in the lawn, recycling, picking up pet waste, following fertilizer directions, etc.
    b. Information we need: current number of people aware of storm drain runoff issues, locations of storm drains in the watershed, types of best management practices that make the most impact, educational materials explaining the practices.
    c. Location: City of Frankfort city limits

7) High *E. coli* levels are present in our streams and ditches causing them to be listed on Indiana's 303(d) List of Impaired Waterbodies. We believe this is due to failing septic systems, straight pipes, wildlife waste, pet waste, and livestock access to streams.
    a. What we want: decreased *E. coli* levels to meet the state standards of <235 colonies per 100 mL, ordinances requiring the replacement of old and failing septic systems.
    b. Information we need: current estimate of the number of failing septic systems, current estimate of the number of livestock with stream access, ordinances addressing septic systems, and current *E. coli* levels.
    c. Location: All sampling sites through out the watershed exceed the state standards. Consistently high sites include: 3,4, and 9-16 (sites 3 &4 are located on Kilmore Creek while 9-16 are in the South Fork Wildcat Creek)
    d. Location: all non-sewered businesses and residences, all waterways where livestock have stream access, all pet owners.

8) Garbage, trash, appliances, and debris is accumulating in the streams and on the stream banks potentially causing toxins and bacteria to enter the stream as well as cause habitat degradation; we believe this is due to the expensive disposal costs, lack of awareness of the impacts, and unsecured garbage, trash, and debris being blown out during transport.
    a. What we want: decreased amounts of garbage, trash, appliances, and debris in our streams, stronger ordinances and consequences for illegally dumping
    b. Information we need: current ordinances and consequences, locations of the most severely impacted stream segments, and the cause of the increased amount of dumping

c. Location: bridge sites with accumulated garbage, trash, appliances, tires, and debris; construction sites (with a 30 foot buffer around site)

9) Construction sites located adjacent to water bodies or water ways can contribute sediment, trash, debris, oil, gas, and other toxins to our waters when proper storm water pollution prevention measures are not followed; we believe the lack of storm water pollution prevention measures are due to cost, lack of regulation, and lack of awareness.
    a. What we want: increased protection of construction sites using storm water pollution prevention measures and stronger over sight
    b. Information we need: location of current and future construction sites
    c. Location: all construction sites

10) Recreational opportunities in the watersheds are lacking in quantity and quality causing a disconnect between the community and our State Scenic River, and current ATV and horse recreation is causing stream bank deterioration; we believe this is due to the cost of recreational facilities, current land use in the watersheds, and the majority of the land is privately owned
    a. What we want: increased recreational opportunities (both in quality and quantity); enhancement, restoration, and protection of the riparian corridor from misuse.
    b. Information we need: current recreational areas, needed recreational facilities, estimated costs.
    c. Location: watershed wide

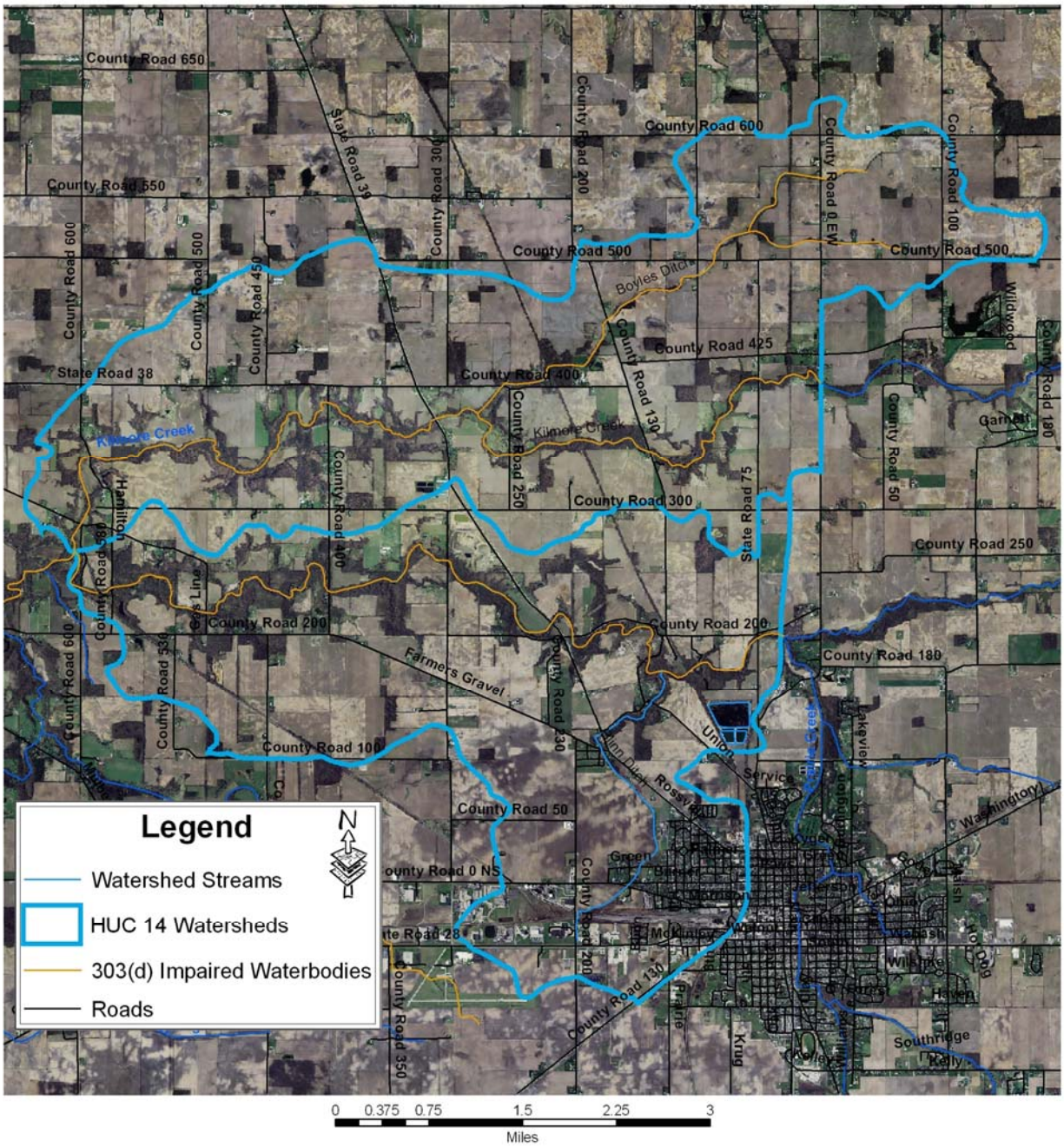
Appendix E:

Table 4.3: ISDH Definitions for FCA Groups

FCA Group	Description
Group 1	Unrestricted Consumption One meal per week for women who are pregnant or breast-feeding, women who plan to have children, and children under the age of 15.
Group 2	Limit to one meal per week for adult males and females. One meal per month for women who are pregnant or breast-feeding, women who plan to have children, and children under 15.
Group 3	Limit to one meal per month for adult males and females. Women who are pregnant, breast-feeding, may become pregnant, and children under 15 do not eat.
Group 4	Limit one meal every 2 months for adult males and females. Women who are pregnant, breast-feeding, may become pregnant, and children under 15 do not eat.
Group 5	No consumption (Do Not Eat).

Appendix F:

303(d) Impaired Streams in the Watersheds



Appendix G:

Water Chemistry Data

Kilmore Creek / South Fork of Wildcat Creek Watershed Sampling
Date: June 6, 2006
Base Flow Sample

	D.O. mg/l	pH SU	Cond. uS	Temp. deg. C	Flow cfs	Time
Site 1. Kilmore Creek @ CR 600 W	12.5	7.6	640	21	47	1300
Site 2. Kilmore Creek @ CR 400 W	11.5	7.7	650	21	45	1400
Site 3. Kilmore Creek @ Highway 421	9.1	7.7	640	19	42	1100
Site 4. Boyles Ditch @ CR 400 N	8.2	7.6	610	19	2	1115
Site 5. Boyles Ditch @ CR 500 N	14.8	8.0	650	19	1	1130
Site 6. Kilmore Creek @ CR 130 W	10.1	7.6	650	20	40	1145
Site 7. Kilmore Creek @ Highway 75	8.2	7.4	650	18	38	940
Site 8. Kilmore Creek @ CR 0	8.1	7.4	620	18	37	920
Site 9. South Fork of Wildcat Creek @ CR 600 W	12.0	8.1	790	20	50	1320
Site 10. South Fork of Wildcat Creek @ CR 500 W	12.2	8.1	800	21	48	1340
Site 11. South Fork of Wildcat Creek @ CR 400 W	12.1	7.7	810	22	47	1415
Site 12. South Fork of Wildcat Creek @ CR 300 W	10.5	7.6	830	21	46	1430
Site 13. South Fork of Wildcat Creek @ Highway 421	7.5	7.4	800	19	45	1045
Site 14. South Fork of Wildcat Creek @ CR 130 W	7.1	7.3	810	18	44	1025
Site 15. Blinn Ditch @ CR 130 W	8.0	7.4	710	15	4	1010
Site 16. South Fork of Wildcat Creek @ Highway 75	7.2	7.3	810	18	40	955

Laboratory Chemistry

	TSS mg/l	T-P mg/l	NO_2+NO_3-N mg/l
Site 1. Kilmore Creek @ CR 600 W	6.0	0.14	6.5
Site 2. Kilmore Creek @ CR 400 W	16.0	0.08	7.0
Site 3. Kilmore Creek @ Highway 421	8.4	0.11	7.5
Site 4. Boyles Ditch @ CR 400 N	2.0	0.32	6.5
Site 5. Boyles Ditch @ CR 500 N	7.6	0.12	7.0
Site 6. Kilmore Creek @ CR 130 W	14.0	0.09	9.0
Site 7. Kilmore Creek @ Highway 75	15.2	0.07	9.0
Site 8. Kilmore Creek @ CR 0	13.6	0.08	9.0
Site 9. South Fork of Wildcat Creek @ CR 600 W	10.8	0.34	7.0
Site 10. South Fork of Wildcat Creek @ CR 500 W	9.6	0.28	7.5
Site 11. South Fork of Wildcat Creek @ CR 400 W	14.4	0.30	8.3
Site 12. South Fork of Wildcat Creek @ CR 300 W	9.2	0.38	8.3
Site 13. South Fork of Wildcat Creek @ Highway 421	10.4	0.39	6.5
Site 14. South Fork of Wildcat Creek @ CR 130 W	16.0	0.48	5.6
Site 15. Blinn Ditch @ CR 130 W	2.8	0.06	4.1
Site 16. South Fork of Wildcat Creek @ Highway 75	17.2	0.38	4.6
Site 12 - quality assurance duplicate	10.4	0.36	8.3

Kilmore Creek / South Fork of Wildcat Creek Watershed Sampling
Date: July 12, 2006
Wet Weather Sample

	D.O. mg/l	pH SU	Cond. uS	Temp. deg. C	Flow cfs	Time
Site 1. Kilmore Creek @ CR 600 W	7.1	7.7	440	26	154	1400
Site 2. Kilmore Creek @ CR 400 W	7.8	7.7	425	24	152	1510
Site 3. Kilmore Creek @ Highway 421	7.5	7.6	420	24	150	1300
Site 4. Boyles Ditch @ CR 400 N	8.3	7.6	415	23	20	1310
Site 5. Boyles Ditch @ CR 500 N	6.9	7.3	510	23	14	1325
Site 6. Kilmore Creek @ CR 130 W	7.5	7.6	430	25	130	1345
Site 7. Kilmore Creek @ Highway 75	7.6	7.5	460	22	128	1020
Site 8. Kilmore Creek @ CR 0	8.0	7.3	435	21	125	1000
Site 9. South Fork of Wildcat Creek @ CR 600 W	7.5	7.7	500	26	165	1420
Site 10. South Fork of Wildcat Creek @ CR 500 W	7.5	7.7	510	25	163	1440
Site 11. South Fork of Wildcat Creek @ CR 400 W	8.0	7.7	500	24	161	1455
Site 12. South Fork of Wildcat Creek @ CR 300 W	7.8	7.6	420	24	159	1520
Site 13. South Fork of Wildcat Creek @ Highway 421	7.3	7.6	505	25	157	1245
Site 14. South Fork of Wildcat Creek @ CR 130 W	7.7	7.5	490	21	155	1130
Site 15. Blinn Ditch @ CR 130 W	7.6	7.6	490	22	24	1055
Site 16. South Fork of Wildcat Creek @ Highway 75	7.7	7.5	495	21	139	1040

Laboratory Chemistry

	TSS mg/l	T-P mg/l	NO_2+NO_3-N mg/l
Site 1. Kilmore Creek @ CR 600 W	205	0.52	11
Site 2. Kilmore Creek @ CR 400 W	181	0.45	11
Site 3. Kilmore Creek @ Highway 421	172	0.52	11
Site 4. Boyles Ditch @ CR 400 N	88	0.50	8
Site 5. Boyles Ditch @ CR 500 N	4	0.44	12
Site 6. Kilmore Creek @ CR 130 W	197	0.26	9
Site 7. Kilmore Creek @ Highway 75	167	0.55	11
Site 8. Kilmore Creek @ CR 0	123	0.40	13
Site 9. South Fork of Wildcat Creek @ CR 600 W	159	0.32	11
Site 10. South Fork of Wildcat Creek @ CR 500 W	179	0.52	11
Site 11. South Fork of Wildcat Creek @ CR 400 W	169	0.60	12
Site 12. South Fork of Wildcat Creek @ CR 300 W	250	0.40	11
Site 13. South Fork of Wildcat Creek @ Highway 421	110	0.40	13
Site 14. South Fork of Wildcat Creek @ CR 130 W	120	0.65	13
Site 15. Blinn Ditch @ CR 130 W	108	0.12	3.4
Site 16. South Fork of Wildcat Creek @ Highway 75	129	0.65	9
Site 12 - quality assurance duplicate	212	0.30	11

Kilmore Creek / South Fork of Wildcat Creek Watershed Sampling
Date: September 6, 2006
Base Flow Sample

	D.O. mg/l	pH SU	Cond. uS	Temp. deg. C	Flow cfs	Time
Site 1. Kilmore Creek @ CR 600 W	8.0	7.4	470	17	26	845
Site 2. Kilmore Creek @ CR 400 W	8.6	7.3	520	16	26	950
Site 3. Kilmore Creek @ Highway 421	8.0	7.4	480	17	24	1005
Site 4. Boyles Ditch @ CR 400 N	8.2	7.4	500	18	2	1030
Site 5. Boyles Ditch @ CR 500 N	4.3	7.3	480	18	0	1045
Site 6. Kilmore Creek @ CR 130 W	8.5	7.7	420	21	22	1130
Site 7. Kilmore Creek @ Highway 75	8.3	7.6	420	20	21	1110
Site 8. Kilmore Creek @ CR 0	8.2	7.6	410	19	20	1100
Site 9. South Fork of Wildcat Creek @ CR 600 W	8.5	7.3	580	16	34	905
Site 10. South Fork of Wildcat Creek @ CR 500 W	8.6	7.4	680	16	33	915
Site 11. South Fork of Wildcat Creek @ CR 400 W	8.3	7.4	710	17	32	940
Site 12. South Fork of Wildcat Creek @ CR 300 W	8.5	7.6	720	18	31	1015
Site 13. South Fork of Wildcat Creek @ Highway 421	9.4	7.7	580	22	30	1240
Site 14. South Fork of Wildcat Creek @ CR 130 W	9.3	7.6	580	25	29	1220
Site 15. Blinn Ditch @ CR 130 W	8.0	7.6	490	19	7	1200
Site 16. South Fork of Wildcat Creek @ Highway 75	7.7	7.6	660	21	22	1145

Laboratory Chemistry

	TSS mg/l	T-P mg/l	NO_2+NO_3-N mg/l
Site 1. Kilmore Creek @ CR 600 W	8	0.15	4.0
Site 2. Kilmore Creek @ CR 400 W	3	0.20	6.0
Site 3. Kilmore Creek @ Highway 421	3	0.26	2.0
Site 4. Boyles Ditch @ CR 400 N	1	0.16	1.0
Site 5. Boyles Ditch @ CR 500 N	14	0.18	1.0
Site 6. Kilmore Creek @ CR 130 W	1	0.20	1.0
Site 7. Kilmore Creek @ Highway 75	1	0.24	1.0
Site 8. Kilmore Creek @ CR 0	12	0.18	1.0
Site 9. South Fork of Wildcat Creek @ CR 600 W	15	0.85	1.0
Site 10. South Fork of Wildcat Creek @ CR 500 W	14	1.10	2.0
Site 11. South Fork of Wildcat Creek @ CR 400 W	13	1.10	5.0
Site 12. South Fork of Wildcat Creek @ CR 300 W	6	1.70	5.0
Site 13. South Fork of Wildcat Creek @ Highway 421	2	0.80	8.0
Site 14. South Fork of Wildcat Creek @ CR 130 W	2	0.48	1.0
Site 15. Blinn Ditch @ CR 130 W	2	0.17	1.0
Site 16. South Fork of Wildcat Creek @ Highway 75	4	0.85	16.0
Site 1 - quality assurance duplicate	9	0.14	4.0

Kilmore Creek / South Fork of Wildcat Creek Watershed Sampling
Date: October 25, 2006
Base Flow Sample

	D.O. mg/l	pH SU	Cond. uS	Temp. deg. C	Flow cfs	Time
Site 1. Kilmore Creek @ CR 600 W	12.0	7.9	410	8	32	1330
Site 2. Kilmore Creek @ CR 400 W	11.2	7.9	480	9	31	1320
Site 3. Kilmore Creek @ Highway 421	10.2	7.7	480	10	30	1205
Site 4. Boyles Ditch @ CR 400 N	10.8	7.6	490	8	4	1215
Site 5. Boyles Ditch @ CR 500 N	9.7	7.4	490	10	3	1230
Site 6. Kilmore Creek @ CR 130 W	10.9	7.8	500	9	27	1245
Site 7. Kilmore Creek @ Highway 75	10.0	7.3	510	6	26	1035
Site 8. Kilmore Creek @ CR 0	10.1	7.2	510	10	25	1025
Site 9. South Fork of Wildcat Creek @ CR 600 W	12.2	7.9	580	9	35	1345
Site 10. South Fork of Wildcat Creek @ CR 500 W	11.7	8.0	600	10	34	1400
Site 11. South Fork of Wildcat Creek @ CR 400 W	11.7	7.8	580	9	33	1310
Site 12. South Fork of Wildcat Creek @ CR 300 W	11.4	7.8	590	9	34	1255
Site 13. South Fork of Wildcat Creek @ Highway 421	9.9	7.5	590	9	31	1120
Site 14. South Fork of Wildcat Creek @ CR 130 W	10.3	7.5	590	9	30	1120
Site 15. Blinn Ditch @ CR 130 W	9.9	7.3	530	9	5	1105
Site 16. South Fork of Wildcat Creek @ Highway 75	11.4	7.4	600	8	28	1050

Laboratory Chemistry

	TSS mg/l	T-P mg/l	NO_2+NO_3-N mg/l
Site 1. Kilmore Creek @ CR 600 W	1.3	0.11	8.5
Site 2. Kilmore Creek @ CR 400 W	0.7	0.12	3.4
Site 3. Kilmore Creek @ Highway 421	2.0	0.15	7.0
Site 4. Boyles Ditch @ CR 400 N	2.0	0.07	2.2
Site 5. Boyles Ditch @ CR 500 N	63.0	0.13	3.5
Site 6. Kilmore Creek @ CR 130 W	3.3	0.13	8.0
Site 7. Kilmore Creek @ Highway 75	1.3	0.15	1.5
Site 8. Kilmore Creek @ CR 0	0.7	0.08	1.8
Site 9. South Fork of Wildcat Creek @ CR 600 W	1.3	0.22	3.4
Site 10. South Fork of Wildcat Creek @ CR 500 W	0.7	0.16	6.0
Site 11. South Fork of Wildcat Creek @ CR 400 W	2.6	0.30	3.9
Site 12. South Fork of Wildcat Creek @ CR 300 W	5.3	0.28	4.8
Site 13. South Fork of Wildcat Creek @ Highway 421	4.7	0.32	6.5
Site 14. South Fork of Wildcat Creek @ CR 130 W	2.0	0.24	8.5
Site 15. Blinn Ditch @ CR 130 W	4.0	0.08	0.4
Site 16. South Fork of Wildcat Creek @ Highway 75	4.7	0.40	12.0
Site 1 - quality assurance duplicate	2	0.12	11.0

Kilmore Creek / South Fork of Wildcat Creek Watershed Sampling
Date: April 16, 2007
Base Flow Sample

Field Chemistry	D.O. mg/l	pH SU	Cond. uS	Temp. deg. C	Flow cfs	Time
Site 1. Kilmore Creek @ CR 600 W	12.4	7.8	400	10	157	1315
Site 2. Kilmore Creek @ CR 400 W	12.3	7.8	400	10	154	1300
Site 3. Kilmore Creek @ Highway 421	11.5	7.7	400	12	147	1130
Site 4. Boyles Ditch @ CR 400 N	11.3	7.6	390	7	10	1200
Site 5. Boyles Ditch @ CR 500 N	11.3	7.4	390	11	10	1215
Site 6. Kilmore Creek @ CR 130 W	11.9	7.7	380	12	140	1230
Site 7. Kilmore Creek @ Highway 75	10.7	7.4	410	9	133	1030
Site 8. Kilmore Creek @ CR 0	10.6	7.4	420	9	126	1010
Site 9. South Fork of Wildcat Creek @ CR 600 W	12.6	7.9	440	10	166	1335
Site 10. South Fork of Wildcat Creek @ CR 500 W	12.6	8.0	440	11	162	1400
Site 11. South Fork of Wildcat Creek @ CR 400 W	12.6	8.0	450	11	156	1345
Site 12. South Fork of Wildcat Creek @ CR 300 W	12.7	7.6	440	10	152	1245
Site 13. South Fork of Wildcat Creek @ Highway 421	11.4	7.6	450	10	148	1135
Site 14. South Fork of Wildcat Creek @ CR 130 W	10.8	7.5	450	10	144	1115
Site 15. Blinn Ditch @ CR 130 W	11.4	7.5	480	9	15	1055
Site 16. South Fork of Wildcat Creek @ Highway 75	10.5	7.5	430	8	141	1040

Laboratory Chemistry

	TSS mg/l	T-P mg/l	NO_2+NO_3-N mg/l
Site 1. Kilmore Creek @ CR 600 W	7.0	0.10	8.0
Site 2. Kilmore Creek @ CR 400 W	22.0	0.05	8.0
Site 3. Kilmore Creek @ Highway 421	11.5	0.08	7.0
Site 4. Boyles Ditch @ CR 400 N	3.0	0.56	4.4
Site 5. Boyles Ditch @ CR 500 N	6.5	0.08	6.5
Site 6. Kilmore Creek @ CR 130 W	6.0	0.08	7.0
Site 7. Kilmore Creek @ Highway 75	7.5	0.05	9.0
Site 8. Kilmore Creek @ CR 0	7.5	0.08	9.0
Site 9. South Fork of Wildcat Creek @ CR 600 W	4.0	0.11	8.0
Site 10. South Fork of Wildcat Creek @ CR 500 W	3.5	0.12	6.5
Site 11. South Fork of Wildcat Creek @ CR 400 W	2.5	0.70	5.8
Site 12. South Fork of Wildcat Creek @ CR 300 W	3.0	0.18	7.0
Site 13. South Fork of Wildcat Creek @ Highway 421	4.5	0.16	7.5
Site 14. South Fork of Wildcat Creek @ CR 130 W	4.5	0.12	6.0
Site 15. Blinn Ditch @ CR 130 W	1.0	0.09	3.2
Site 16. South Fork of Wildcat Creek @ Highway 75	1.0	0.09	7.5
Site 1 - quality assurance duplicate	6	0.10	8.5

Kilmore Creek / South Fork of Wildcat Creek Watershed Sampling
Date: June 4, 2007
Base Flow Sample

Field Chemistry	D.O. mg/l	pH SU	Cond. uS	Temp. deg. C	Flow cfs	Time
Site 1. Kilmore Creek @ CR 600 W	8.6	7.9	641	21	34	1340
Site 2. Kilmore Creek @ CR 400 W	7.9	7.8	628	20	33	1250
Site 3. Kilmore Creek @ Highway 421	7.6	7.6	714	20	31	1135
Site 4. Boyles Ditch @ CR 400 N	7.7	7.6	591	19	5	1145
Site 5. Boyles Ditch @ CR 500 N	10.5	8.2	576	21	1	1200
Site 6. Kilmore Creek @ CR 130 W	8.6	7.7	603	20	30	1215
Site 7. Kilmore Creek @ Highway 75	7.0	7.5	602	21	29	1045
Site 8. Kilmore Creek @ CR 0	6.8	7.5	601	21	27	1025
Site 9. South Fork of Wildcat Creek @ CR 600 W	8.3	7.9	736	21	36	1400
Site 10. South Fork of Wildcat Creek @ CR 500 W	7.9	7.8	771	21	35	1320
Site 11. South Fork of Wildcat Creek @ CR 400 W	7.7	7.8	787	20	34	1305
Site 12. South Fork of Wildcat Creek @ CR 300 W	7.1	7.7	815	21	33	1235
Site 13. South Fork of Wildcat Creek @ Highway 421	7.2	7.6	793	20	32	1130
Site 14. South Fork of Wildcat Creek @ CR 130 W	7.2	7.6	791	20	31	1120
Site 15. Blinn Ditch @ CR 130 W	7.3	7.5	734	18	7	1110
Site 16. South Fork of Wildcat Creek @ Highway 75	7.0	7.6	818	20	30	1055

Laboratory Chemistry

	TSS mg/l	T-P mg/l	NO_2+NO_3-N mg/l
Site 1. Kilmore Creek @ CR 600 W	4.5	0.15	2.2
Site 2. Kilmore Creek @ CR 400 W	5.0	0.15	2.2
Site 3. Kilmore Creek @ Highway 421	5.0	0.17	2.0
Site 4. Boyles Ditch @ CR 400 N	5.0	0.24	1.2
Site 5. Boyles Ditch @ CR 500 N	5.0	0.03	2.2
Site 6. Kilmore Creek @ CR 130 W	4.0	0.16	1.9
Site 7. Kilmore Creek @ Highway 75	6.5	0.21	1.7
Site 8. Kilmore Creek @ CR 0	9.0	0.20	1.8
Site 9. South Fork of Wildcat Creek @ CR 600 W	13.0	0.70	2.4
Site 10. South Fork of Wildcat Creek @ CR 500 W	22.5	0.75	3.5
Site 11. South Fork of Wildcat Creek @ CR 400 W	14.0	0.80	4.0
Site 12. South Fork of Wildcat Creek @ CR 300 W	14.5	0.75	4.4
Site 13. South Fork of Wildcat Creek @ Highway 421	15.5	0.70	5.5
Site 14. South Fork of Wildcat Creek @ CR 130 W	13.0	0.85	4.8
Site 15. Blinn Ditch @ CR 130 W	5.5	0.14	0.9
Site 16. South Fork of Wildcat Creek @ Highway 75	9.0	0.58	4.8
Site 5 - quality assurance duplicate	6	0.03	2.3

Kilmore Creek / South Fork of Wildcat Creek Watershed Sampling
Date: August 21, 2007
Wet Weather Sample

Field Chemistry	D.O. mg/l	pH SU	Cond. uS	Temp. deg. C	Flow cfs	Time
Site 1. Kilmore Creek @ CR 600 W	8.0	7.7	624	25	40	1320
Site 2. Kilmore Creek @ CR 400 W	7.6	7.5	530	23	38	1245
Site 3. Kilmore Creek @ Highway 421	6.9	7.4	478	24	37	1135
Site 4. Boyles Ditch @ CR 400 N	4.6	7.1	505	22	5	1140
Site 5. Boyles Ditch @ CR 500 N	4.5	7.1	767	24	1	1200
Site 6. Kilmore Creek @ CR 130 W	6.6	7.4	467	24	35	1215
Site 7. Kilmore Creek @ Highway 75	6.0	7.3	432	23	34	1015
Site 8. Kilmore Creek @ CR 0	6.3	7.3	410	23	33	1000
Site 9. South Fork of Wildcat Creek @ CR 600 W	7.0	7.5	454	25	43	1335
Site 10. South Fork of Wildcat Creek @ CR 500 W	7.0	7.5	503	25	42	1310
Site 11. South Fork of Wildcat Creek @ CR 400 W	6.8	7.5	574	24	41	1250
Site 12. South Fork of Wildcat Creek @ CR 300 W	6.8	7.4	614	25	40	1230
Site 13. South Fork of Wildcat Creek @ Highway 421	6.6	7.3	603	24	39	1120
Site 14. South Fork of Wildcat Creek @ CR 130 W	6.1	7.3	661	25	38	1105
Site 15. Blinn Ditch @ CR 130 W	6.6	7.3	561	22	10	1040
Site 16. South Fork of Wildcat Creek @ Highway 75	6.5	7.3	700	23	36	1030

Laboratory Chemistry

	TSS mg/l	T-P mg/l	NO_2+NO_3-N mg/l
Site 1. Kilmore Creek @ CR 600 W	12.0	0.11	2.4
Site 2. Kilmore Creek @ CR 400 W	6.5	0.07	2.1
Site 3. Kilmore Creek @ Highway 421	10.5	0.18	0.9
Site 4. Boyles Ditch @ CR 400 N	16.0	0.08	0.7
Site 5. Boyles Ditch @ CR 500 N	42.5	0.32	1.5
Site 6. Kilmore Creek @ CR 130 W	11.5	0.18	0.8
Site 7. Kilmore Creek @ Highway 75	23.5	0.12	0.5
Site 8. Kilmore Creek @ CR 0	20.0	0.24	0.5
Site 9. South Fork of Wildcat Creek @ CR 600 W	23.0	0.26	1.7
Site 10. South Fork of Wildcat Creek @ CR 500 W	36.0	0.65	1.7
Site 11. South Fork of Wildcat Creek @ CR 400 W	25.5	0.18	2.3
Site 12. South Fork of Wildcat Creek @ CR 300 W	23.0	0.65	2.6
Site 13. South Fork of Wildcat Creek @ Highway 421	23.0	0.30	2.1
Site 14. South Fork of Wildcat Creek @ CR 130 W	16.5	0.48	2.3
Site 15. Blinn Ditch @ CR 130 W	8.0	0.06	1.0
Site 16. South Fork of Wildcat Creek @ Highway 75	15.0	0.26	2.6
Site 1 - quality assurance duplicate	13	0.09	2.4

Kilmore Creek / South Fork of Wildcat Creek Watershed Sampling
Date: October 2, 2007
Base Flow Sample

Field Chemistry	D.O. mg/l	pH SU	Cond. uS	Temp. deg. C	Flow cfs	Time
Site 1. Kilmore Creek @ CR 600 W	9.6	7.7	725	21	10	1330
Site 2. Kilmore Creek @ CR 400 W	8.0	7.5	820	20	10	1300
Site 3. Kilmore Creek @ Highway 421	7.4	7.4	665	20	9	1155
Site 4. Boyles Ditch @ CR 400 N	3.6	7.2	715	18	0	1200
Site 5. Boyles Ditch @ CR 500 N (site dry except 1 pool)	3.6	7.4	638	21	0	1215
Site 6. Kilmore Creek @ CR 130 W	8.9	7.5	635	23	9	1230
Site 7. Kilmore Creek @ Highway 75	7.2	7.4	574	18	8	1030
Site 8. Kilmore Creek @ CR 0	8.0	7.4	611	18	8	1015
Site 9. South Fork of Wildcat Creek @ CR 600 W	10.7	8.0	1094	20	11	1350
Site 10. South Fork of Wildcat Creek @ CR 500 W	8.3	7.7	1145	20	11	1320
Site 11. South Fork of Wildcat Creek @ CR 400 W	7.8	7.7	1200	20	10	1310
Site 12. South Fork of Wildcat Creek @ CR 300 W	8.7	7.6	1276	21	10	1245
Site 13. South Fork of Wildcat Creek @ Highway 421	8.9	7.5	1330	20	10	1125
Site 14. South Fork of Wildcat Creek @ CR 130 W	8.7	7.3	1150	21	9	1115
Site 15. Blinn Ditch @ CR 130 W	7.9	7.4	750	16	5	1050
Site 16. South Fork of Wildcat Creek @ Highway 75	6.6	7.4	1500	18	9	1040

Laboratory Chemistry

	TSS mg/l	T-P mg/l	NO_2+NO_3-N mg/l
Site 1. Kilmore Creek @ CR 600 W	0.5	0.12	5.3
Site 2. Kilmore Creek @ CR 400 W	2.5	0.11	18.0
Site 3. Kilmore Creek @ Highway 421	5.0	0.11	4.8
Site 4. Boyles Ditch @ CR 400 N	4.5	0.17	1.0
Site 5. Boyles Ditch @ CR 500 N	7.5	0.23	2.0
Site 6. Kilmore Creek @ CR 130 W	2.5	0.13	1.0
Site 7. Kilmore Creek @ Highway 75	5.0	0.13	1.0
Site 8. Kilmore Creek @ CR 0	6.5	0.11	1.0
Site 9. South Fork of Wildcat Creek @ CR 600 W	3.0	0.75	3.4
Site 10. South Fork of Wildcat Creek @ CR 500 W	5.0	0.95	4.4
Site 11. South Fork of Wildcat Creek @ CR 400 W	3.5	1.30	4.4
Site 12. South Fork of Wildcat Creek @ CR 300 W	2.0	1.40	4.4
Site 13. South Fork of Wildcat Creek @ Highway 421	3.0	2.00	4.4
Site 14. South Fork of Wildcat Creek @ CR 130 W	3.0	1.10	2.0
Site 15. Blinn Ditch @ CR 130 W	1.5	0.17	1.4
Site 16. South Fork of Wildcat Creek @ Highway 75	3.5	1.70	7.5
Site 1 - quality assurance duplicate	0.5	0.11	5.3

Atrazine Analysis

Kilmore Creek / South Fork of Wildcat Creek
18-Apr-06

Site #	Site Description	Atrazine (ug/l)
1	Kilmore Creek @ CR 600 W	No Sample
4	Boyles Ditch @ CR 400 N	5.12
6	Kilmore Creek @ CR 130 W	0.19
8	Kilmore Creek @ CR 0	0.64
9	South Fork @ CR 600 W	0.9
12	South Fork @ CR 300 W	No Sample
15	Blinn Ditch @ CR 130 W	0.37
16	South Fork @ Hwy 75	1.39

Kilmore Creek / South Fork of Wildcat Creek
16-Apr-07

Site #	Site Description	Atrazine (ppb)
1	Kilmore Creek @ CR 600 W	0.32
3	Kilmore @ SR39 N	0.42
5	Boyles Ditch @ CR 100 W	0.3
8	Kilmore Creek @ CR 0	0.43
9	South Fork @ CR 600 W	1.25
12	South Fork @ CR 300 W	0.36
15	Blinn Ditch @ CR 130 W	0.28
16	South Fork @ Hwy 75	0.34

Kilmore Creek / South Fork of Wildcat Creek
15-May-06

Site #	Site Description	Atrazine (ug/l)
1	Kilmore Creek @ CR 600 W	17.49
4	Boyles Ditch @ CR 400 N	15.37
6	Kilmore Creek @ CR 130 W	22.92
8	Kilmore Creek @ CR 0	24.09
9	South Fork @ CR 600 W	22.8
12	South Fork @ CR 300 W	8.16
15	Blinn Ditch @ CR 130 W	46.59
16	South Fork @ Hwy 75	12.47

Kilmore Creek / South Fork of Wildcat Creek
1-May-07

Site #	Site Description	Atrazine (ppb)
3	Kilmore @ SR39 N	0.54
4	Boyles Ditch @ CR 400 N	1.89
6	Kilmore Creek @ CR 130 W	0.98
7	Kilmore Creek @ SR 75	0.52
10	South Fork @ Gas Line Rd	0.66
12	South Fork @ CR 300 W	0.45
15	Blinn Ditch @ CR 130 W	0
16	South Fork @ Hwy 75	0.49

Kilmore Creek/South Fork Wildcat Creek
16-Jun-06

Site #	Site Description	Atrazine (ug/l)
1	Kilmore Creek @ CR 600 W	4.75
4	Boyles Ditch @ CR 400 N	1.42
6	Kilmore Creek @ CR 130 W	1.68
8	Kilmore Creek @ CR 0	1.63
9	South Fork @ CR 600 W	1.21
12	South Fork @ CR 300 W	3.48
15	Blinn Ditch @ CR 130 W	3.66
16	South Fork @ Hwy 75	1.07

Kilmore Creek/South Fork Wildcat Creek
4-Jun-07

Site #	Site Description	Atrazine (ppb)
1	Kilmore Creek @ CR 600 W	0.63
3	Kilmore @ SR39 N	0.52
5	Boyles Ditch @ CR 100 W	0.38
8	Kilmore Creek @ CR 0	0.48
10	South Fork @ Gas Line Rd	11.08
11	South Fork @ CR 400 W	14.53
12	Blinn Ditch @ CR 300 W	14.08
16	South Fork @ Hwy 75	6.79

E. coli Sampling Results Summary 2006

Site	4/7 Count	4/12 Count	4/13 Count	4/19 Count	4/26 Count	5/3 Count	5/10 Count	5/17 Count	5/24 Count	5/31 Count	6/7 Count	6/14 Count	6/21 Count	6/28 Count	7/5 Count	7/12 Count
1	25			1733	172	291	179	249	121	144	228	435	649	517	435	2420
2				1414	276	276	155	365	201	172	291	349	921	866	488	2420
3	25		147	980	214	317	308	308	238	345	365	816	579	727	687	2420
4	<25		135	276	649	613	194	124	248	152	411	1553	770	770	816	2420
5	<25		384	387	236	204	219	142	161	344	1414	980	1046	579	613	2420
6		99		1046	210	411	93	276	155	104	289	291	657	461	461	2420
7		276		1300	261	387	133	248	166	199	127	236	488	866	411	2420
8	<25			1120	291	230	214	185	90	210	197	276	579	921	326	2420
9	25			411	387	435	381	613	80	82	179	411	1120	1300	1120	2420
10	78			866	649	225	162	548	160	185	326	326	1203	1733	1203	2420
11	25		63	770	613	308	236	687	101	205	166	308	1986	1986	1300	2420
12			76	687	435	517	166	548	172	161	291	411	1733	1733	1300	2420
13		137		613	345	687	157	687	248	345	1553	308	1046	1986	1203	2420
14			85	649	770	411	517	816	365	488	687	548	1553	1553	1300	2420
15		249		291	291	517	179	866	461	727	1414	1414	727	1300	1553	2420
16	25			579	613	579	206	579	488	770	2420	613	1553	2420	1553	2420

Site	7/20 Count	7/26 Count	8/2 Count	8/9 Count	8/17 Count	8/23 Count	8/30 Count	9/7 Count	9/13 Count	9/20 Count	9/27 Count	10/5 Count	10/11 Count	10/18 Count	10/25 Count	AVG
1	344	613	727	613	365	579	615	579	2420	649	649	276	770	1960	387	683
2	476	613	613	308	435	727	1095	326	1986	613	435	345	1203	3973	291	773
3	651	548	866	548	461	687	922	1553	2420	770	488	387	2420	3973	250	902
4		649	1553	1986	613	980	2240	1203	1203	2420	687	365	1414	3106	276	1026
5		770	816	1120	548	365	4840	326	649	579	579	214	2420	3973	214	969
6		548	649	365	272	387	651	248	1300	411	548	308	1986	2407	249	637
7		461	326	345	272	365	615	435	2420	488	387	326	1553	3466	435	709
8		980	816	261	579	770	4839	488	2420	488	272	461	517	3106	272	864
9	177	326	236	133	201	162	420	365	2420	308	517	238	326	1961	109	601
10	372	579	228	210	326	365	496	488	2420	387	228	276	548	1633	236	671
11	421	770	517	249	285	344	775	488	2420	219	228	299	866	2599	142	775
12	519	435	517	150	248	210	626	548	2420	326	687	308	613	2407	194	742
13	357	461	687	548	435	387	821	435	2420	326	326	461	517	1842	291	783
14		613	548	548	517	345	977	461	2420	-	461	488	866	3466	326	927
15	2240	613	770	548	727	613	1961	579	2420	488	649	613	816	2407	308	997
16		816	816	548	727	488	1454	579	2420	345	613	2420	2420	3106	488	1186

E. coli Sampling Results Summary 2007

Site	4/4 Count	4/12 Count	4/19 Count	4/25 Count	5/2 Count	5/9 Count	5/16 Count	5/24 Count	5/30 Count	6/6 Count	6/13 Count	6/20 Count	6/26 Count	7/5 Count	7/11 Count	7/24 Count
1	388	613	152	1414	162	311	2420	192	179	219	488	387	461	411	461	345
2	261	866	142	2420	148	237	582	140	261	517	517	613	345	461	276	173
3	411	921	119	2420	179	498	300	210	488	335	1986	1120	1120	816	980	687
4	488	435	250	2420	387	670	294	435	411	236	687	1553	613	866	488	5
5	345	488	111	2420	261	313	358	345	488	548	1414	727	461	33	291	613
6	135	548	118	2420	233	106	144	93	172	205	387	326	205	238	121	152
7	142	579	108	2420	28	106	210	75	185	199	687	435	387	365	150	206
8	201	308	118	2420	91	139	234	81	145	206	488	488	687	291	225	308
9	435	1203	96	1300	179	4830	370	186	228	291	248	291	248	613	411	326
10	649	1553	186	1300	276	4830	236	140	517	210	365	411	291	335	276	326
11	770	1046	219	1046	225	4830	226	179	276	16	411	461	248	488	236	276
12	727	1119	152	1300	194	4830	204	131	461	365	411	411	248	435	308	145
13	980	2420	186	2420	276	4830	344	248	548	387	649	727	291	866	345	488
14	1300		185	2420	365	4830	870	210	345	276	548	816	345	1203	299	435
15	980	1203	517	2420	613	429	870	326	222	411	365	1300	326	2420	770	411
16	613	1299	304	2420	326	3106	1034	335	345	727	866	866	579	2420	365	204

Site	8/1 Count	8/8 Count	8/15 Count	8/22 Count	8/30 Count	9/6 Count	9/13 Count	9/20 Count	9/27 Count	10/3 Count	10/10 Count	10/17 Count	10/25 Count	11/1 Count	AVG
1	225	387	185	921	517	155	214	185	291	649	548	194	225	185	449
2	140	291	248	411	687	214	360	461	150	1414	770	172	387	192	462
3	866	488	435	1046	1733	770	517	1986	435	649	727	387	461	308	780
4	22	105		1120	461								44	2420	655
5	326	187		214	57								1414	816	556
6	147	248	276	387	345	1120	204	345	102	1300	291	147	210	66	360
7	127	194	37	687	2420	261	308	111	19	70	435	55	238	48	376
8	228	260	46	727	2420	210	411	261	148	816	548	86	326	80	433
9	461	387	172	517	411	155	186	152	93	411	102	133	105	28	486
10	214	276	248	687	488	548	435	313	261	1414	192	155	68	111	577
11	152	345	365	579	488	649	0	326	326	1733	210	345	157	201	561
12	157	238	219	517	291	225	173	172	261	365	261	110	53	88	486
13	194	135	201	866	365	387	138	261	150	435	2420	118	75	181	731
14	308	219	155	921	1553	435	517	214	308	548	548	141	62	77	705
15	219	260	249	1203	770	1733	488	96	166	770	579	115	185	40	682
16	261	579	411	461	1203	816	461	261	1046	1300	727	387	125	192	801

Appendix H:

Initial Survey & Results Summary

The following short survey will assist us in understanding your knowledge of our watershed. Your answers will act as a guide through out the planning process for the South Fork Wildcat Creek and Kilmore Creek Watershed Management Plan. These surveys are anonymous, neither your name or address will be returned on this form. After completing the survey, please detach this half of the sheet and place it in the mail. Postage has been paid. Thank you for taking the time to complete this survey!

1) What watershed do you live in?
___ South Fork Wildcat Creek
___ Kilmore Creek
___ I do not know

2) How many acres of land do you own or farm within the watershed?
___ less than 10 ___10-20 ___ 20-50 ___50-100 ___More than 100

3) Do you own land connected to a stream, creek, pond, or wetland?
___ Yes
___ No

4) What, if any, projects within the watershed have you completed on your land in conjunction with the Soil and Water Conservation District?

EQIP ____	CRP ____
CWI ____	CSP ____
GRP ____	EWP ____
WHIP ____	Other _____

5) What category best describes the primary use of your property?
___ Residential
___ Cropland
___ Livestock Pasture
___ Forest
___ Wildlife habitat
___ Other_____

6) Please check any and all items listed below that are potential sources of nonpoint pollution in rivers/streams:
___ Residential lawn
___ Agricultural field
___ Industrial discharge
___ Sewage treatment plant
___ Roads/Driveway/Parking lot

7) Do you know how to properly dispose of household and/or agricultural chemicals and containers?
___ Yes
___ No

8) When was the last time you had your septic system checked?
___ 1-2 years ___ 2-5 years ___ More than 5 years ___ Unsure

9) I use South Fork Wildcat Creek and/or Kilmore Creek and their tributaries for:
___ Fishing
___ Swimming
___ Drinking Water
___ Watering Livestock
___ Other
_____

Please complete the survey on the other side of this sheet.

10) The South Fork Wildcat Creek and Kilmore Creek are polluted.
___ Agree ___ Somewhat Agree ___Disagree ___ Highly Disagree

13) I agree with question #10, and I feel the largest contributor of this pollution to the creeks and their tributaries is:

___ agriculture	___ septic systems
___ flooding	___ urban runoff
___ junk yards	___ residential lawns
___ industry	___ landfills

12) How important do you think overall water quality is for you and/or your family?
___ Very important
___ Somewhat important
___ Not very important
___ Not at all important

12) Please include any additional comments regarding the subject of water quality in your county below:

_____

_____

_____

_____

_____.

Clinton County SWCD
860 S. Prairie Ave, Suite 1
Frankfort, IN 46041

Clinton County Soil and Water
Conservation District
860 S. Prairie Ave, Suite 1
Frankfort, IN 46041

Appendix J:

2007 Tillage Transect Data

Field No	Pres Crp	Prev Crp	Tillage	Slope %	P Factor	Ephem?	T Level	K Factor	Residue
66L	N	C	N	1	1	N	5	d	3
66R	C	B	C	1	1	N	5	d	1
67L	C	B	C	1	1	N	5	d	1
67R	C	B	C	1	1	N	5	d	1
68L	D	C	N	1	1	N	5	e	4
68R	N	C	N	1	1	N	5	e	4
69L	C	B	C	1	1	N	4	b	1
69R	N	C	N	1	1	N	3	a	3
70L	C	B	C	1	1	N	3	a	1
70R	D	C	N	1	1	N	5	d	3
71L	C	B	C	1	1	N	5	b	1
71R	C	C	C	1	1	N	3	a	2
72L	C	B	C	1	1	N	?	?	1
72R	C	B	C	1	1	N	?	?	1
100L	N	C	N	2	1	N	5	d	3
102L	N	C	N	2	1	N	3	a	3
103R	C	B	C	2	1	N	3	a	1
104R	C	B	C	2	1	N	3	a	1
105L	N	C	N	2	1	N	4	b	3
105R	H	H	N	2	1	N	4	b	/
106L	C	B	C	2	1	N	4	b	1
107L	C	C	C	2	1	N	3	a	1
108L	N	C	N	2	1	N	4	b	3
108R	W	C	N	2	1	N	4	b	3
109L	C	B	C	2	1	N	3	a	1
109R	C	B	C	2	1	N	3	a	1
110L	D	C	E	2	1	N	3	a	2
110R	D	C	E	2	1	N	3	a	2
111L	D	C	N	2	1	N	3	a	3
111R	C	B	C	2	1	N	5	d	1
112L	C	B	C	2	1	N	3	a	1
112R	D	C	N	2	1	N	4	b	4
176R	C	B	C	2	1	N	5	b	1