

## Module 1: The Clean Water Act



### Section 4 Activity Option #1 Water Quality Conundrums

Activity Instructions: The following situations describe various water quality issues that watershed coordinators may confront. For this activity, you should work with a small group of 2-3 people to discuss the situation and determine the main pollutants that could arise, the regulations that may address the activity or pollutants of concern, and who should be contacted for assistance with addressing the problem.

#### **Situation #1: Dumping Disaster**

Susan is out for her morning walk along Shady Branch Creek when she notices that a local septic tank pumper is emptying his truck's sewage contents into the creek! Horrified, she calls a few members of the Friends of Shady Branch and requests an emergency meeting at the Local Drip coffee shop to figure out what they should do.

What are the main pollutants of concern?

What regulations might cover this situation?

Who should be contacted to help?

#### **Situation #2: Cow Concerns**

Doug is growing increasingly concerned about the impacts of Farmer Ted's cows in the creek. The farm is located just upstream of Doug's 10-acre property, where he planned to encourage his offspring to experience the wonders of the great outdoors. Now, these bovine bullies are really damaging the riparian vegetation and streambanks and causing some severe erosion. And, because they spend a lot of time loafing around and defecating in the creek, he is worried about his kids getting sick from playing in the creek. He doesn't want to upset his farming friend and neighbor, but what should he do?

What are the main pollutants of concern?

What regulations might cover this situation?

Who should be contacted to help?

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#### **Situation #3: Algae Anxiety**

Betsy has been sampling Rocky Creek for 5 years and has grown pretty attached to her scenic sampling locale. However, this year, she noticed a lot more algae than in past years, and her sampling results showed higher nitrogen levels. She knows that the city of Dunnville's treated sewage water is being discharged not too far upstream, but she thought they were complying with all the rules. The algae is really unsightly, and she is starting to worry that Rock Creek's fish populations might begin suffering untimely deaths. What should she do?

What are the main pollutants of concern?

What regulations might cover this situation?

Who should be contacted to help?

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### ANSWER KEY

#### **Situation #1: Dumping Disaster**

Susan is out for her morning walk along Shady Branch Creek when she notices that a local septic tank pumper is emptying his truck's sewage contents into the creek! Horrified, she calls a few members of the Friends of Shady Branch and requests an emergency meeting at the Local Drip coffee shop to figure out what they should do.

#### **What are the main pollutants of concern?**

Pathogens/bacteria  
Nutrients (nitrogen and phosphorus), ammonia  
Sediment

#### **What regulations might cover this situation?**

Clean Water Act

#### **Who should be contacted to help?**

City/county stormwater manager or city/county engineer  
Kentucky Division of Water field office  
County health department

#### **Situation #2: Cow Concerns**

Doug is growing increasingly concerned about the impacts of Farmer Ted's cows in the creek. The farm is located just upstream of Doug's 10-acre property, where he planned to encourage his offspring to experience the wonders of the great outdoors. Now, these bovine bullies are really damaging the riparian vegetation and streambanks and causing some severe erosion. And, because they spend a lot of time loafing around and defecating in the creek, he is worried about his kids getting sick from playing in the creek. He doesn't want to upset his farming friend and neighbor, but what should he do?

#### **What are the main pollutants of concern?**

Soil/sediment  
Bacteria/pathogens  
Nutrients (nitrogen and phosphorus)

#### **What regulations might cover this situation?**

Kentucky Agriculture Water Quality Act

#### **Who should be contacted to help?**

Local Conservation District or Natural Resources & Conservation District (NRCS) office

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Doug should also try to work directly with the neighbor to explain his concerns and partner on a solution. It will help if the agricultural agents can discuss potential solutions and cost-share options to help pay for the practices. It will also be helpful for them to explain how these practices will benefit the farmer, as well as downstream neighbors!

### **Situation #3: Algae Anxiety**

Betsy has been sampling Rocky Creek for 5 years and has grown pretty attached to her scenic sampling locale. However, this year, she noticed a lot more algae than in past years, and her sampling results showed higher nitrogen levels. She knows that the city of Dunnville's treated sewage water is being discharged not too far upstream, but she thought they were complying with all the rules. The algae is really unsightly, and she is starting to worry that Rock Creek's fish populations might begin suffering untimely deaths. What should she do?

#### **What are the main pollutants of concern?**

Primarily nutrients (nitrogen and phosphorus) --which could lead to overproduction of algae, which decomposes and produces low dissolved oxygen levels, making it difficult for aquatic organisms to survive

#### **What regulations might cover this situation?**

KPDES permit for the sewage treatment plant  
Narrative criteria 401 KAR 10:031

#### **Who should be contacted to help?**

Betsy should work with her sampling organization (i.e., Watershed Watch in Kentucky) and the Kentucky Division of Water to conduct additional sampling to verify high nitrogen concentrations. After determining that there is a nutrient problem, DOW may need to work with the sewage treatment plant owner to adjust KPDES-permit discharge restrictions to more stringent levels.

Betsy can also look at other land uses upstream of her Rocky Creek sampling site to see if there could be other contributors, such as septic systems, livestock, pet waste, or waterfowl or wildlife hangouts.

#### 401 KAR 5:002. Definitions for 401 KAR Chapter 5.

RELATES TO: KRS 224.01-010, 224.01-070, 224.01-400, 224.70-100, 224.70-120, 224.99-010, 40 C.F.R. 35, 116, 122, 130, 131, 133, 136, 141, 401-471, 15 U.S.C. 2601 - 2629, 33 U.S.C. 1251 - 1387, 42 U.S.C. 6901-6992k, 7401 - 7671q, 9601, 11023, EO 2008-507, 2008-531

STATUTORY AUTHORITY: KRS 224.10-100(5), 224.10-110, 224.16-050, 224.16-060, 224.70-110, 40 C.F.R. 116, 130, 131, 136, 401-471, 15 U.S.C. 2601 - 2629, 33 U.S.C. 1251 - 1387, EO 2008-507, 2008-531

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(5) authorizes the cabinet to promulgate administrative regulations for the prevention, abatement, and control of all water pollution. EO 2008-507 and 2008-531, effective June 16, 2008, abolish the Environmental and Public Protection Cabinet and establish the new Energy and Environment Cabinet. This administrative regulation establishes definitions for terms used in 401 KAR Chapter 5. These definitions are not more stringent than the federal counterparts.

Section 1. Definitions. (1) "Activity" means, in 401 KAR 5:050 through 401 KAR 5:080 and if used in conjunction with "facility", a KPDES point source, or other activity, including land or related appurtenances, that is subject to regulation under the KPDES program.

(2) "Administrator" is defined by 40 C.F.R. 122.2, effective July 1, 2008.

(3) "Agricultural wastes handling system" means a structure or equipment that conveys, stores, or treats manure from an animal feeding operation prior to land application.

(4) "Alternative effluent limitations" is defined by 40 C.F.R. 125.71(a), effective July 1, 2008.

(5) "Animal feeding operation" or "AFO" means a lot or facility, other than an aquatic animal production facility, that meets one (1) of the following descriptions:

(a)1. "Large animal feeding operation" as defined in subsection (71) of this section; or

2. "Medium animal feeding operation" as defined in subsection (83) of this section; and

(b) If:

1.a. Animals other than aquatic animals, have been, are, or will be stabled or confined and fed or maintained for a total of forty-five (45) days or more in a twelve (12) month period; and

b. Crops, vegetation forage growth, or postharvest residues are not sustained in the normal growing season over any portion of the lot or facility.

(c) Two (2) or more animal feeding operations under common ownership are considered to be a single animal feeding operation because they adjoin each other or if they use a common area or system for the disposal of wastes.

(6) "Applicable standards and limitations" means all standards and limitations to which a discharge or a related activity is subject pursuant to KRS Chapter 224 and 401 KAR Chapters 4 through 11, including effluent limitations, water quality standards, standards of performance, or toxic effluent standards.

(7) "Application" means the document submitted by an applicant to the cabinet that provides information used by the cabinet in the issuance of a permit or approval.

(8) "Approved POTW pretreatment program", "POTW pretreatment program", "pretreatment program", or "program" means a program administered by a POTW that meets the criteria established in 401 KAR 5:057 and that has been approved by the cabinet.

(9) "Aquaculture project" is defined by 40 C.F.R. 122.25(b)(1), effective July 1, 2008.

(10) "Available" means located within the planning area and:

(a) Located within one and zero-tenths (1.0) mile of a regional facility for a WWTP with an average daily design capacity larger than 1,000 gpd; or

(b) For new construction if the distance is one and zero-tenths (1.0) mile or more, where it is cost-effective to connect as determined by a twenty (20) year present worth cost analysis.

(11) "BAT" means best available technology economically achievable.

(12) "Best management practices" or "BMPs" means:

(a) For agriculture operations, as defined by KRS 224.71-100(3); or

(b) For all other purposes:

1. Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the commonwealth; and

2. Treatment requirements, operating procedures, practices to control site run-off, pollution of surface water and groundwater from nonpoint sources, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

(13) "Biochemical oxygen demand", "BOD", or "BOD<sub>5</sub>" is defined by 40 C.F.R. 133.101(d), effective July 1, 2008.

(14) "BPT" means best practicable technology currently available.

(15) "Building sewer" means that part of the drainage system that extends from the end of the building drain, beginning two (2) feet outside the building wall, and conveys its discharge to a downstream manhole, sewer line, pump station, or sewage disposal system.

(16) "Bypass" means the intentional diversion of sewage or waste-streams from a portion of a facility or industrial user's treatment facility.

(17) "Carbonaceous biochemical oxygen demand" or "CBOD" means BOD, not including the nitrogenous oxygen demand of the wastewater.

(18) "Certified operator" means an individual who holds an active certified operator's certificate issued in accordance with 401 KAR 11:050.

(19) "cfm" means cubic feet per minute.

(20) "Chronic toxicity" means lethality, reduced growth or reproduction or other harmful effect sustained by either indigenous aquatic organisms or representative indicator organisms used in toxicity tests due to long-term exposures, relative to the life span of the organisms or a significant portion of their life span, due to toxic substances or mixtures of toxic substances.

(21) "Combined sewer" or "combined sewer line" means a sewer or sewer line designed to carry storm water runoff as well as sanitary wastewater.

(22) "Combined sewer overflow" or "CSO" means the flow from a combined sewer in excess of the interceptor or regulator capacity that is discharged into a receiving water without going to a POTW.

(23) "Concentrated animal feeding operation" or "CAFO" means one (1) of the following:

(a) "Large concentrated animal feeding operation" as defined in subsection (72) of this section;

(b) "Medium concentrated animal feeding operation" as defined in subsection (84) of this section; or

(c) "Small concentrated animal feeding operation" as defined in subsection (150) of this section.

(24) "Consolidation sewer" means a conduit, without direct sanitary connections that intercepts and transports combined sewer storm overflows to a treatment facility or a single combined sewer overflow point.

(25) "Continuous facility discharge" means a discharge that occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

(26) "Conventional pollutant" means biochemical oxygen demand (BOD), chemical oxygen demand (COD), total organic carbon (TOC), total suspended solids (TSS), ammonia (as N), bromide, chlorine (total residual), color, fecal coliform, fluoride, nitrate, kjeldahl nitrogen, oil and grease, E. coli, or phosphorus.

#### 401 KAR 5:002. Definitions for 401 KAR Chapter 5.

(27) "Criteria" means specific concentrations or ranges of values, or narrative statements of water constituents that represent a quality of water expected to result in an aquatic ecosystem protective of designated uses of surface waters. Criteria are derived to protect legitimate uses such as aquatic life, domestic water supply, and recreation and to protect human health.

(28) "Date of program approval" means September 30, 1983, the effective date of the administrator's approval of Kentucky's KPDES regulatory program pursuant to 33 U.S.C. Section 1342.

(29) "Day" means a twenty-four (24) hour period.

(30) "Design flow" means the long-term daily average flow the wastewater treatment plant can treat and remain in compliance with the overall performance requirements during its design life.

(31) "Direct discharge" means the discharge of a pollutant into waters of the commonwealth if the discharge is not included under the definition of indirect discharger and does not include a discharge of animal waste onto land by land application if the discharge does not reach the waters of the commonwealth.

(32) "Disappearing stream" means an intermittent or perennial surface stream that terminates and drains underground through caves, fractures, or swallets in the stream bed.

(33) "Discharge" or "discharge of a pollutant" means the addition of a pollutant or combination of pollutants to waters of the commonwealth from a point source.

(34) "Discharge monitoring report" or "DMR" means the report including any subsequent additions, revisions, or modifications, for the reporting of self-monitoring results by KPDES permittees.

(35) "Division" means the Kentucky Division of Water, within the Department for Environmental Protection, Energy and Environment Cabinet.

(36) "Domestic" means relating to household wastes or other similar wastes. It is used to distinguish municipal, household, or commercial water or wastewater services from industrial water or wastewater services.

(37) "Domestic sewage" means sewage devoid of industrial or other wastes and that is typical of waste received from residential facilities. It may include wastes from commercial developments, schools, restaurants, and other similar developments.

(38) "Draft permit" means a document prepared pursuant to 401 KAR 5:075 indicating the cabinet's preliminary decision to issue or deny, modify, revoke and reissue, revoke, or reissue a permit. It includes a notice of intent to revoke a permit and a notice of intent to deny a permit as provided in 401 KAR 5:075. It does not include a proposed permit; a denial of a request for modification, revocation, and reissuance; or a denial of a request for revocation.

(39) "Effluent ditch" means that portion of a treatment system that is a discrete, person-made conveyance, either totally owned, leased or under valid easement by the discharger that transports a discharge to surface waters of the commonwealth.

(40) "Effluent limitation" is defined by KRS 224.01-010(12).

(41) "Effluent limitations guideline" is defined by 40 C.F.R. 122.2, effective July 1, 2008.

(42) "Environmental Protection Agency", "EPA", or "U.S.EPA" means the U.S. Environmental Protection Agency.

(43) "E. coli" or "Escherichia coli" means an aerobic and facultative anaerobic gram negative, nonspore forming, rod shaped bacterium that can grow at forty-four and five tenths (44.5) degrees Celsius, that is ortho-nitrophenyl-B-D-galactopyranoside (ONPG) positive, and Methylumbelliferyl glucuronide (MUG) positive. It is a member of the indigenous fecal flora of warm-blooded animals.

(44) "Exceptional water" means a surface water categorized as exceptional by the cabinet pursuant to 401 KAR 10:030.

(45) "Excessive infiltration" means a high groundwater period induced peak infiltration rate that:

(a) Results in an operational problem and permit violation at the WWTP or results in recurring overflows from the sewer system or the WWTP; and

(b) Does not include:

1. An overflow that results from blockages, power failures or other temporary mechanical failures, or flood waters entering the sewer system directly;

or

2. A resulting overflow if an overflow occurs at a KPDES permitted overflow point that is in compliance with its permit requirements.

(46) "Excessive inflow" means a rainfall induced peak inflow rate that:

(a) Results in operational problems and permit violations at the WWTP or results in recurring overflows from the sewer system or the WWTP; and

(b) Does not include:

1. A combined sewer system if an overflow occurs at a KPDES permitted overflow point that is in compliance with its permit requirements; or

2. An overflow that results from blockages, power failures or other temporary mechanical failures, or flood waters entering the sewer system directly.

(47) "Facility" means:

(a) In 401 KAR 5:005 or 401 KAR 5:006, a sewage system as defined in KRS 224.01-010 except for septic tanks, pretreatment facilities regulated by an approved pretreatment program or intermunicipal agreement, and disposal wells as used in 401 KAR 5:090; or

(b) In 401 KAR 5:050 through 401 KAR 5:080 and if used in conjunction with activity, any KPDES point source, or any other facility, including land or related appurtenances, that is subject to regulation under the KPDES program.

(48) "Fecal coliform" means the portion of the coliform group of bacteria that are present in the intestinal tract or the feces of warm-blooded animals. It includes organisms that are capable of producing gas from lactose broth in a suitable culture medium within twenty-four (24) hours at forty-four and five-tenths (44.5) degrees plus or minus two-tenths (0.2) degrees C.

(49) "Flood relief sewer" means a conduit, without direct sanitary connections, that is used to transport sewage if a flood control structure or overflow detention basin is in operation.

(50) "Force main" means a conduit used to transport sewage from a pump discharge to a sewer line, pump station, or WWTP.

(51) "General permit" means a KPDES permit authorizing a category of discharges under KRS Chapter 224 within a geographical area, issued pursuant to 401 KAR 5:055.

(52) "GPD" or "gpd" means gallons per day.

(53) "Groundwater" means the subsurface water occurring in the zone of saturation beneath the water table and perched water zones below the B soil horizon including water circulating through fractures, bedding planes, and solution conduits.

(54) "Industrial wastewater treatment plant" or "IWWTP" means a privately owned WWTP with more than ninety (90) percent of the influent flow from sources of industrial waste.

(55) "Infiltration" is defined by 40 C.F.R. 35.905, effective July 1, 2008.

(56) "Inflow" is defined by 40 C.F.R. 35.905, effective July 1, 2008.

(57) "Injection" means a type of land application in which the waste is placed directly beneath the land surface.

(58) "Interference" is defined by 40 C.F.R. 403.3(k), effective July 1, 2008.

(59) "Intermediate facility" means an intermediate WWTP or a sewer line of 2,500 feet to 5,000 feet in length including appurtenances.

(60) "Intermediate nonpublicly-owned treatment works" means a facility with a design flow rate of between 10,000 gpd and 49,999 gpd of wastewater containing only conventional pollutants and that is not a POTW.

(61) "Intermediate WWTP" means a WWTP with an average daily design capacity of 10,000 to 49,999 gpd.

#### 401 KAR 5:002. Definitions for 401 KAR Chapter 5.

(62) "Interstate agency" means an agency of which Kentucky and one (1) or more states is a member established by or under an agreement or compact, or any other agency, of which Kentucky and one (1) or more other states are members, having substantial powers or duties pertaining to the control of pollution as determined and approved by the secretary or administrator pursuant to 33 U.S.C. 1251 – 1387 or KRS Chapter 224.

(63) "Karst" means the type of geologic terrain underlain by carbonate rocks where significant solution of rock has occurred due to flowing groundwater.

(64) "Kentucky Intersystem Operational Permit" or "KISOP" means a permit issued pursuant to 401 KAR 5:005 for operating a sewer system that has more than 5,000 linear feet of sewer line that discharges to a sewer system, or a WWTP that is owned by another person.

(65) "Kentucky No Discharge Operational Permit" or "KNDOP" means a permit issued pursuant to 401 KAR 5:005 for operating a WWTP that does not have a discharge to a stream, including agricultural waste handling systems and spray irrigation systems.

(66) "Kentucky Pollutant Discharge Elimination System" or "KPDES" means the Kentucky program for issuing, modifying, revoking and reissuing, revoking, monitoring and enforcing permits to discharge, and imposing and enforcing pretreatment requirements.

(67) "KPDES permit" means a Kentucky Pollutant Discharge Elimination System permit issued to a facility, including a POTW, or activity pursuant to KRS Chapter 224 for the purpose of operating the facility or activity.

(68) "Land application" means the uniform placement of animal waste on or in the soil by spraying or spreading on the surface, incorporation into the soil, or injection directly beneath the surface.

(69) "Land application area" is defined by 40 C.F.R. 122.23(b)(3), effective July 1, 2008.

(70) "Land treatment" or "land disposal" means the application or incorporation of a pollutant onto or into the soil.

(71) "Large animal feeding operation" means an AFO that stables or confines as many as or more than the numbers of animals specified in any of the following categories:

(a) 700 mature dairy cows, whether milked or dry;

(b) 1,000 veal calves;

(c) 1,000 cattle other than mature dairy cows or veal calves. Cattle includes heifers, steers, bulls, or cow or calf pairs;

(d) 2,500 swine each weighing fifty-five (55) pounds or more;

(e) 10,000 swine each weighing less than fifty-five (55) pounds;

(f) 500 horses;

(g) 10,000 sheep or lambs;

(h) 55,000 turkeys;

(i) 30,000 laying hens or broilers, if the AFO uses a liquid manure handling system;

(j) 125,000 chickens other than laying hens, if the AFO uses other than a liquid manure handling system;

(k) 30,000 ducks, if the AFO uses other than a liquid manure handling system; or

(l) 5,000 ducks, if the AFO uses a liquid manure handling system.

(72) "Large concentrated animal feeding operation" is defined by 40 C.F.R. 122.23(b)(4), effective, July 1, 2008.

(73) "Large facility" means a WWTP with an average daily design capacity of 50,000 GPD or more, or a sewer line of more than 5,000 feet in length including appurtenances.

(74) "Large nonpublicly-owned treatment works" means a facility that has a design flow rate of greater than or equal to 50,000 gpd of wastewater containing only conventional pollutants and that is not a POTW.

(75) "Large WWTP" means a WWTP with an average daily design capacity of 50,000 GPD or more.

(76) "Long-term CSO control plan" means a control plan that complies with the Combined Sewer Overflow Control Policy issued by the U.S. EPA in the "Federal Register" on April 19, 1994 (59 FR 18688).

(77) "Manure" is defined by 40 C.F.R. 122.23(b)(5), effective, July 1, 2008.

(78) "Maintenance replacement" means replacement of:

(a) Existing component parts with component parts that have similar characteristics and capacity; or

(b) A section of sewer or force main with the same size, alignment, and slope;

(c) The term does not include replacement of an entire WWTP with a new WWTP.

(79) "Major facility" means a KPDES facility or activity classified as a KPDES facility by the cabinet in cooperation with the regional administrator. Designation as a major industry as used in KRS 224.70-120, does not indicate automatic classification as a major facility.

(80) "Major industry" means an industry that generates and discharges process-related wastewater while engaged in commercial activities including resource recovery, manufacturing, products distribution, or wholesale and retail trade. Each industry has a design flow rate of greater than or equal to 50,000 gpd of process wastewater containing conventional, nonconventional, or thermal pollutants. A major industry designation is not a criterion for classification as a major facility.

(81) "Major municipal separate storm sewer outfall" or "major outfall" is defined by 40 C.F.R. 122.26(b)(5), effective, July 1, 2008.

(82) "Measurement" means the ability of the analytical method or protocol to quantify as well as identify the presence of the substance in question.

(83) "Medium animal feeding operation means an AFO that stables or confines the type and number of animals within any of the following ranges:

(a) 200 to 699 mature dairy cows, whether milked or dry;

(b) 300 to 999 veal calves;

(c) 300 to 999 cattle other than mature dairy cows or veal calves. Cattle includes heifers, steers, bulls, or cow or calf pairs;

(d) 750 to 2,499 swine each weighing fifty-five (55) pounds or more;

(e) 3,000 to 9,999 swine each weighing less than fifty-five (55) pounds;

(f) 150 to 499 horses;

(g) 3,000 to 9,999 sheep or lambs;

(h) 16,500 to 54,999 turkeys;

(i) 9,000 to 29,999 laying hens or broilers, if the AFO uses a liquid manure handling system;

(j) 37,500 to 124,999 chickens, other than laying hens, if the AFO uses other than a liquid manure handling system;

(k) 25,000 to 81,999 laying hens, if the AFO uses other than a liquid manure handling system;

(l) 10,000 to 29,999 ducks, if the AFO uses other than a liquid manure handling system; or

(m) 1,500 to 4,999 ducks if the AFO uses a liquid manure handling system.

(84) "Medium concentrated animal feeding operation is defined by 40 C.F.R. 122.23(b)(6), effective, July 1, 2008.

(85) "µg/l" means micrograms per liter, same as ppb, assuming unit density.

(86) "mgd" or "MGD" means million gallons per day.

(87) "Milligrams per liter" or "mg/l" means the milligrams of substance per liter of solution and is equivalent to parts per million in water, assuming unit density.

#### 401 KAR 5:002. Definitions for 401 KAR Chapter 5.

- (88) "Minor industry" means an industry that generates and discharges process-related wastewater while engaged in commercial activities and has a design flow rate of less than 50,000 gpd of process wastewater containing conventional, nonconventional, or thermal pollutants.
- (89) "Minor modification to a WWTP" means, a modification that does not change the WWTP average daily design hydraulic or organic treatment capacity of the WWTP or discharge location.
- (90) "Mixing zone" means a domain of a water body contiguous to a treated or untreated wastewater discharge with quality characteristics different from those of the receiving water. The discharge is in transit and progressively diluted from the source to the receiving system. The mixing zone is the domain where wastewater and receiving water mix.
- (91) "Municipal separate storm sewer system" or "MS4" is defined by 40 C.F.R. 122.26(b)(8), effective, July 1, 2008.
- (92) "Municipality" means a city, district, or other public body created by or under the Kentucky Revised Statutes and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or a designated and approved management agency pursuant to 33 U.S.C. 1288.
- (93) "National Pollutant Discharge Elimination System" or "NPDES" is defined by 40 C.F.R. 122.2, effective, July 1, 2008.
- (94) "National pretreatment standard", "pretreatment standard", or "standard" is defined by 40 C.F.R. 403.3(l), effective July 1, 2008.
- (95) "Natural Resources Conservation Service" or "NRCS" means the organization created pursuant to 7 U.S.C. 6962 in the U.S. Department of Agriculture.
- (96) "New discharger" means, as used in 401 KAR 5:060 through 5:080, a building, structure, facility or installation:
- (a)1. From which there is or may be a discharge of pollutants;
  2. That did not commence the discharge of pollutants at a particular site prior to August 13, 1979;
  3. That has never received a finally effective NPDES or KPDES permit for discharges at that site; and
  4. That is not a new source.
- (b) This definition includes an indirect discharger that commences discharging into the waters of the commonwealth after August 13, 1979. It also includes any existing mobile point source that begins discharging at a site for which it does not have a permit.
- (97) "New source" means as used in 401 KAR 5:060 through 5:080, a building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
- (a) After promulgation of U.S. EPA's standards of performance pursuant to 33 U.S.C. 1316 that are applicable to the source; or
  - (b) After publication of U.S. EPA's standards of performance pursuant to 33 U.S.C. 1316 that are applicable to the source, but only if the federal standards are promulgated within 120 days of publication.
- (98) "Nonpoint" means any source of pollutants not defined by a point source.
- (99) "Nutrient management plan" means the plan for an individual operation developed for the purpose of recycling nutrients from animal waste onto cropland or pasture.
- (100) "Operator" means a person involved in the operation of a facility or activity.
- (101) "Other wastes" means sawdust, bark or other wood debris, garbage, refuse, ashes, offal, tar, oil, chemicals, acid drainage, wastes from agricultural enterprises, and other foreign substances not included within the definitions of industrial wastes and sewage that may cause or contribute to the pollution of waters of the commonwealth.
- (102) "Outfall" means, for municipal separate storm sewers, a point source at the point where a municipal separate storm sewer discharges to waters of the Commonwealth, but does not include open conveyances connecting two (2) municipal separate storm sewers, or pipes, tunnels, or other conveyances that connect segments of the same stream or other waters of the Commonwealth and are used to convey waters of the Commonwealth.
- (103) "Outstanding state resource water" means a surface water designated by the cabinet as an outstanding state resource water pursuant to 401 KAR 10:031.
- (104) "Overburden" means material of any nature, consolidated or unconsolidated, that overlies a mineral deposit, excluding topsoil or similar naturally-occurring surface materials that are not disturbed by mining operations.
- (105) "Overflow" means any intentional or unintentional diversion of flow from a facility.
- (106) "Owner" means a person who has legal ownership of a facility or activity regulated pursuant to 401 KAR Chapter 5.
- (107) "Package WWTP" means a factory-built WWTP that is transported to and assembled or set in place at the site.
- (108) "Permit" means:
- (a) As used in 401 KAR 5:005 or 401 KAR 5:006, a document issued by the cabinet that authorizes the permittee to construct, modify, or operate a facility; or
  - (b) As used in 401 KAR 5:050 through 5:080, a KPDES permit.
- (109) "Plan of study" means a report that contains the following information required for a regional facility plan by 401 KAR 5:006, Section 4:
- (a) Planning area maps;
  - (b) A discussion of the need for sewer service in the area;
  - (c) Population projections; and
  - (d) An estimation of the twenty (20) year cost by category.
- (110) "Planning area" means the geographic area proposed to be served by a regional planning agency in a projected twenty (20) year period.
- (111) "Point source" is defined by 33 U.S.C. 1362(14). The term does not include agricultural storm water run-off or return flows from irrigated agriculture.
- (112) "POTW" means publicly-owned treatment works as defined in KRS 224.01-010.
- (113) "POTW treatment plant" is defined by 40 C.F.R. 403.3(r), effective July 1, 2008.
- (114) "Pretreatment" is defined by 40 C.F.R. 403.3(s), effective July 1, 2008.
- (115) "Pretreatment requirement" is defined by 40 C.F.R. 403.3(r), effective July 1, 2008.
- (116) "Pretreatment standard" means a national pretreatment standard.
- (117) "Primary responsibility" means personal, first-hand responsibility to conduct or actively oversee and direct procedures and practices necessary to ensure that the wastewater treatment plant or wastewater collection system is operated in accordance with accepted practices and with KRS Chapter 224 and 401 KAR Chapters 5 and 11 having the authority to conduct the procedures and practices necessary to ensure that the wastewater system or any portion thereof is operated in accordance with accepted practices, laws, and administrative regulations of the commonwealth, or to supervise others in conducting these practices.
- (118) "Privately-owned treatment works" is defined by 40 C.F.R. 122.2, effective July 1, 2008.
- (119) "Production area" means, for animal feeding operations, the area defined by 40 C.F.R. 122.23(b)(8), effective July 1, 2008.
- (120) "Professional engineer" or "engineer" is defined by KRS 322.010(2).
- (121) "Project priority list" means the list developed by the cabinet pursuant to KRS Chapter 224A that includes a priority ranking of applicants for the construction of wastewater treatment works under 33 U.S.C. 1313(e)(3)(H).



#### 401 KAR 5:002. Definitions for 401 KAR Chapter 5.

- (122) "Proposed permit" means a KPDES permit prepared after the close of the public comment period and, if applicable, any public hearing and administrative appeals that is sent to U.S. EPA for review before final issuance by the cabinet. A proposed permit is not a draft permit.
- (123) "Public water system" is defined by 40 C.F.R. 141.2, effective July 1, 2008.
- (124) "RCRA" means the Resource Conservation Recovery Act as amended, 42 U.S.C. 6901 - 6992k.
- (125) "Recommencing discharger" means a source that recommences discharge after terminating operations.
- (126) "Recurring discharge" means, as it relates to a sewer system overflow, a discharge that occurs two (2) or more times in a twelve (12) month period.
- (127) "Regional administrator" means the regional administrator of the Region IV office of the U.S. EPA or the authorized representative of the regional administrator.
- (128) "Regional facility" means a facility that is:
- (a) Owned by a city, county, or other public body created by KRS Chapter 67, 67A, 74, 76, 96, 108, or 220; and
  - (b) Designated by a regional facility plan or water quality management plan to provide wastewater collection, transportation, or treatment services for a specific area.
- (129) "Regional facility plan" means a type of water quality management plan addressing point sources of pollution for the purpose of areawide waste treatment management planning prepared by the designated regional planning agency pursuant to 33 U.S.C. 1251 - 1387 to control point sources of pollution within a planning area.
- (130) "Regional planning agency" means a governmental agency, such as a city, county, or other public body created by KRS Chapter 67, 67A, 74, 76, 96, 108, or 220, that has been designated pursuant to 33 U.S.C. 1288 and 40 C.F.R. 130 to provide planning for the treatment of wastewater and for controls and recommendations relating to wastewater for a particular area; and those existing agencies that have developed plans pursuant to 33 U.S.C. 1281, 1285, 1288, and 1313(e) to provide planning related to wastewater collection, transportation, or treatment for a particular area.
- (131) "Regional sewage collection system" means a sewage collection system designated by a regional planning agency that is owned by a city, county, or other public body that was created by KRS Chapter 67, 67A, 74, 76, 96, 108, or 220.
- (132) "Run-off coefficient" means the fraction of total rainfall that will appear at a conveyance as run-off.
- (133) "SARA" means the Superfund Amendments and Reauthorization Act, 42 U.S.C. 9601 - 9675.
- (134) "Schedule of compliance" means a schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements leading to compliance with KRS Chapter 224 and 401 KAR Chapters 4 through 11.
- (135) "SDWA" means Safe Drinking Water Act, 42 U.S.C. 300f - 300j-26.
- (136) "Secondary treatment" means that degree of treatment that results in an effluent quality that meets the minimum requirements of 401 KAR 5:045.
- (137) "Service area" means that geographic area currently being served by a regional facility.
- (138) "Seven-Q-ten" or "7Q<sub>10</sub>" means that minimum average flow that occurs for seven (7) consecutive days with a recurrence interval of ten (10) years.
- (139) "Sewage" means the water-carried human or animal wastes from residences, buildings, or other places together with industrial wastes or underground, surface, storm or other water, as may be present.
- (140) "Sewage sludge" is defined by 40 C.F.R. 122.2, effective July 1, 2008.
- (141) "Sewer line" means a device used for collecting, transporting, pumping, or disposing of sewage, but not a building sewer that serves an individual building. A sewer line begins at the junction of two (2) building sewers that serve different buildings. Sewer lines include gravity sewer lines, pump stations, and force mains.
- (142) "Sewer line extension" means a proposed construction project which extends a sewer system; it includes gravity sewer lines, pump stations, and force mains.
- (143) "Sewer system" means the network of sewer lines, pump stations, and force mains that discharge to a common WWTP.
- (144) "SIC" means standard industrial classification.
- (145) "Significant industrial user" or "SIU" is defined by 40 C.F.R. 403.3(v), effective July 1, 2008.
- (146) "Silvicultural point source" is defined by 40 C.F.R. 122.27.27(b)(1), effective July 1, 2008.
- (147) "Sinkhole" means a naturally occurring topographic depression in a karst area. Its drainage is subterranean and serves as a recharge source for groundwater. It is formed by the collapse of a conduit or the solution of bedrock.
- (148) "Site" means, as used in 401 KAR 5:060 through 5:080, the land or water area where a facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.
- (149) "Sludge requirements" is defined by 40 C.F.R. 403.7(a)(ii), effective July 1, 2008.
- (150) "Small concentrated animal feeding operation" is defined by 40 C.F.R. 122.23(b)(9), effective July 1, 2008.
- (151) "Small facility" means a WWTP with an average daily design capacity less than 10,000 GPD or a sewer line of less than 2,500 feet in length including appurtenances.
- (152) "Small nonpublicly-owned treatment works" means a facility that has a design flow rate of less than 10,000 gpd of wastewater containing only conventional pollutants and that is not a POTW.
- (153) "Small WWTP" means a WWTP with an average daily design capacity of less than 10,000 gpd.
- (154) "Source" means a building, structure, facility, or installation from which there is or may be a discharge of pollutants.
- (155) "Storm water" is defined by 40 C.F.R. 122.26(b)(13), effective July 1, 2008.
- (156) "Storm water discharge associated with industrial activity" is defined by 40 C.F.R. 122.26(b)(14), effective July 1, 2008.
- (157) "Storm water discharge associated with small construction activity" is defined by 40 C.F.R. 122.26(b)(15), effective July 1, 2008, except that:
- (a) Waters of the "United States" means waters of the Commonwealth of Kentucky; and
  - (b) "Director" means "cabinet" if "director" refers to the director of an approved state program.
- (158) "Supernatant" means the water that accumulates in the upper portion of a lagoon and contains not greater than two and zero-tenths (2.0) percent total solids by dry weight analysis.
- (159) "Surface mining operation" means only those facilities required to have a permit by 405 KAR Chapters 7 through 26.
- (160) "Surface waters" means those waters having well-defined banks and beds, either constantly or intermittently flowing; lakes and impounded waters; marshes and wetlands; and any subterranean waters flowing in well-defined channels and having a demonstrable hydrologic connection with the surface. Lagoons used for waste treatment and effluent ditches that are situated on property owned, leased, or under valid easement by a permitted discharger are not considered to be surface waters of the commonwealth.
- (161) "Total dissolved solids" or "TDS" is defined by 40 C.F.R. 122.2, effective July 1, 2008.
- (162) "Total maximum daily load" or "TMDL" means a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources.

**401 KAR 5:002. Definitions for 401 KAR Chapter 5.**

(163) "Total suspended solids" or "TSS" means the total suspended solids (nonfilterable residue) as determined by use of the method specified in 40 C.F.R. 136.

(164) "Toxic pollutant" means, as used in 401 KAR 5:060 through 5:080, a pollutant listed as being toxic in 401 KAR 5:080.

(165) "UIC" means Underground Injection Control.

(166) "Underground injection control well" means a well used for the emplacement of fluids into the subsurface.

(167) "Upset" is defined by 40 C.F.R. 122.41(n), effective July 1, 2008.

(168) "USGS" means the U.S. Geological Survey.

(169) "Variance" means a mechanism or provision pursuant to 401 KAR Chapter 5 that allows modification to or waiver of the generally applicable effluent limitation requirements or time deadlines.

(170) "Wastewater system" means a sewage system as defined in KRS 224.01-010(25).

(171) "Wastewater treatment plant" or "WWTP" means a facility used for the treatment and disposal of sewage.

(172) "Water" or "Waters of the Commonwealth" is defined by KRS 224.01-010(33).

(173) "Water quality management plan" or "WQM plan" means:

(a) A plan consisting of initial plans produced in accordance with 33 U.S.C. 1288 and 1313 and certified and approved updates to those plans; or

(b) A state or areawide waste treatment management plan developed and updated in accordance with 33 U.S.C. 1281, 1285j, 1288, and 1313e and 40 C.F.R. Part 130.

(174) "Water quality standard" means an administrative regulation promulgated by the cabinet establishing the designated use of a surface water and the water quality criteria necessary to maintain and protect that designated use.

(175) "Well" or "water well" means:

(a) For 401 KAR 5:005, as defined by KRS 223.400(7).

(176) "Wellhead protection area" means:

(a) The surface and subsurface area surrounding a water well, well field, or spring, supplying a public water system, through which pollutants are reasonably likely to move toward and reach the water well, well field, or spring; or

(b) An area defined as a wellhead protection area in a county water supply plan.

(177) "Wetlands" is defined by 40 C.F.R. 122.2, effective July 1, 2008.

Section 2. Incorporation by Reference. (1) "Combined Sewer Overflow Control Policy", 59 Fed. Reg. 18688, April 19, 1994, is incorporated by reference.

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Kentucky Division of Water, 300 Sower Boulevard, Frankfort, Kentucky 40601, Monday through Friday, 8 a.m. to 4:30 p.m. (25 Ky.R. 690; eff. 11-18-98; Am. 26 Ky.R. 118; 792; 1119; eff. 12-8-99; 29 Ky.R. 1018; 1533; eff. 12-18-2002; 30 Ky.R. 997; eff. 9-8-04; TAm eff. 9-8-2007; TAm eff. 11-25-2008; 35 Ky.R. 2493; 36 Ky.R. 337; eff. 9-25-2009; TAm eff. 7-8-2016.)