



## Permitting for Environmental Results (PER)

# NPDES Profile: Kentucky

### PROGRAM RESPONSIBILITY

**State of Kentucky:** NPDES authority for base program, general permitting, federal facilities, pretreatment  
**EPA Region 4:** NPDES authority for biosolids

### Program Integrity Profile

This profile characterizes key components of the National Pollutant Discharge Elimination System (NPDES) program, including program administration and implementation, environmental outcomes, enforcement, and compliance. EPA considers profiles to be an initial screen of NPDES permitting, water quality, enforcement, and compliance programs based on self-evaluations by the States and a review of national data. EPA will use the profiles to identify program strengths and opportunities for enhancements. For more information, contact Bruce Scott, at State of Kentucky, at (502) 564-3410, or Marshall Hyatt, at EPA Region 4, at (404) 562-9304.

## Section I. Program Administration

### 1. Resources and Overall Program Management

#### The State of Kentucky:

The Kentucky Pollutant Discharge Elimination System (KPDES) program is administered within the Kentucky Environmental and Public Protection Cabinets' (EPPC) Department of Environmental Protection (KDEP). The KDEP has a Division of Water (DOW), which manages the KPDES program. The DOW has a central office in Frankfort. KPDES permitting is handled by the KPDES Branch, which has three sections: Municipal, Industrial, and Inventory and Data Management. The KDEP also has a Division of Enforcement (DOE), which handles all the KPDES enforcement issues. In addition to the central office, the DOW has 10 regional offices, which assist the central office. These offices are in Bowling Green, Columbia, Florence, Frankfort, Hazard, London, Louisville, Madisonville, Morehead, and Paducah. The regional offices conduct KPDES inspections.

The KPDES program is organized to provide close coordination with the water quality standards and total maximum daily load (TMDL) programs to ensure that KPDES permits accurately include the most recent wasteload allocations and State water quality standards. These programs are routinely consulted in drafting permit limits and in the concurrence that final permit limits are appropriate.

**Table 1: Kentucky Resource and Program Summary**

<i>Scope of KPDES Program in Kentucky</i>		<i>Approval Date</i>	
KPDES Permit Program <sup>a</sup>		9/30/1983	
Federal Facilities		9/30/1983	
Pretreatment Program		9/30/1983	
General Permits		9/30/1983	
Biosolids		Not Applicable	
<sup>a</sup> The stormwater and concentrated animal feeding operation (CAFO) permitting authority was authorized at the same time as the base KPDES program. The DOW is responsible for all Phase I and Phase II stormwater and CAFO KPDES activity in the State.			
<b>KPDES Universe in Kentucky</b>			
FY2003	Major Facilities	Minor Facilities	Minor Non-Stormwater Facilities with General Permits
No. of Sources	136	1,702	4,014
% National Universe	2.0	4.1	10.2
<b>Kentucky KPDES Program Resources</b>			
Source		Amount for FY2003	
State <sup>b</sup>		\$523,709	
Federal Funding		\$653,803	
Total Funding		\$1,177,512	
Workyears		20	
<sup>b</sup> State funding does not include permitting fees.			

These financial resources fund 20 full-time employees, who carry out the permitting, compliance, enforcement, technical assistance, data entry, and monitoring functions of KPDES program, including municipal and industrial permitting, combined sewer overflows (CSOs), sanitary sewer overflows (SSOs), stormwater, and pretreatment.

Staffing and budget levels continue to be a concern in Kentucky, especially for stormwater permitting.

The KPDES permit program has had significant staff turnover over the past 2 years, resulting in challenges with the continuity of KPDES program implementation.

DOW and DOE employees receive formal training and informal training in several ways. First, new employees are mentored by experienced staff. All field inspectors also receive in-the-field training with experienced staff. Technical classes may be given to permitting and enforcement staff. If resources

allow, staff members are encouraged to take EPA-sponsored courses (i.e., NPDES Permit Writers' Training Course and the Water Quality Standards Academy). In-house guidance and spreadsheets regarding wasteload allocation development, conducting reasonable potential assessments for chemicals and whole effluent toxicity (WET), and checklists for discharges to streams on the list of impaired water bodies prepared under Clean Water Act (CWA) section 303(d) have been developed.

The most recent memorandum of agreement (MOA) revision is September 30, 1983.

#### EPA Region 4:

The NPDES program is administered within EPA Region 4 in the Water Management Division, Permits, Grants and Technical Assistance Branch (PGTAB) and Water Programs Enforcement Branch (WPEB). Permitting responsibilities are located in the NPDES and Biosolids Permits Section of the PGTAB, and enforcement responsibilities for the NPDES program are shared among the Central, Gulf, and Eastern Enforcement sections of the WPEB.

The permitting and enforcement sections coordinate activities pertaining to Region 4's direct implementation of the NPDES program. For example, NPDES enforcement reviews all draft permits and NPDES permitting identifies potential areas of concern for enforcement highlighted in permit applications. All permit compliance data are entered into the Permit Compliance System (PCS) by the NPDES enforcement sections.

The NPDES program is organized to provide close coordination with the water quality standards and TMDL programs to ensure that NPDES permits accurately include the most recent wasteload allocations and reflect appropriate State water quality standards and federal standards.

The Region does not have any direct implementation responsibilities in Kentucky.

The NPDES and Biosolids Permits Section has dedicated 1.0 full-time equivalent (FTE) for implementation of the biosolids permitting program. A draft general permit is in the final stage of preparation and will be issued to cover sludge management facilities in all eight Region 4 States. The resources for the biosolids permitting program are adequate at this time.

## **2. State Program Assistance**

#### EPA Region 4:

The Region serves as the permitting authority for all eight Region 4 States because none has an approved biosolids program. The Region assists States in assuming authorization for the biosolids program as requests are received.

## **3. EPA Activities in Indian Country**

#### EPA Region 4:

Not applicable because there are no federally recognized Tribes in Kentucky.

#### **4. Legal Authorities**

*EPA is conducting a comprehensive review of the State's legal authorities. This review has not yet been completed. As a result, EPA is reserving this section of the profile; when the legal reviews are complete, EPA will update profiles to include the results of the reviews.*

#### **5. Public Participation**

*An evaluation of the State's legal authorities regarding public participation will be included in the legal authority review. As noted above, the legal authority review section of this profile is reserved pending completion of the legal authority review.*

##### The State of Kentucky:

The State provides for public participation in its KPDES program under title 401 Kentucky Administrative Regulations (KAR) 5:075, section 5. Kentucky's public participation procedures for KPDES permits include the use of public notice in newspapers and procedures for public comments, public meetings, and administrative hearings. In addition, members of the public can ask for an administrative hearing to contest a permit. The formal procedures for public participation in permitting activities are listed in KAR 5:075, sections 6, 7, and 8. The State does not have a specific definition of "public." The State actively holds public meetings for watershed involvement. The State considers holding a public hearing even for only one request.

The public is able to access the State's information on the DOW's Web site at <http://www.water.ky.gov>. The Web site provides links to information on persons to contact, permit application forms, water quality standards, Kentucky statutes and regulations, publications, and public notices, including information about the time, place, and reason for public hearings and public meetings scheduled by the DOW.

##### EPA Region 4:

Not applicable because the Region does not have direct implementation responsibilities in Kentucky.

#### **6. Permit Issuance Management Strategy**

##### The State of Kentucky:

Kentucky administers all point source pollution control programs. As of June 2004, Kentucky's permit rate for major facilities was 77.9%, short of meeting the national current permit goal (90%) for major facilities. In 2003 Kentucky's permit rate for minor facilities covered by individual permits was 87.8%, which exceeded the national permit average (81.4%). There are no major dischargers with permits expired for more than 2 years. There are 29 minor dischargers with permits expired for more than 2 years. The permit issuance and trends data for 2000 to 2003 are shown below.

Kentucky's permit issuance and trends data show a reduction in the rate of permits issued in a timely manner beginning in 2003. This reduction is a result of Kentucky's process of converting to a new computerized program (TEMPO) that generates permits for KPDES program-related actions and documentation.

DOW is implementing the new TEMPO system to address many of the State's long-term data needs. The short-term concern is that missing deadlines to get the program operational has resulted in an increase in the permit backlog. The State is committed to developing a strategy to ensure that TEMPO works to address the overall backlog problem. DOW will screen the backlogged permits to determine whether any of the permitting delays will adversely affect the environment and identify those that can easily be issued. With more usage, the processing of expired KPDES permits should improve in the new TEMPO system. A schedule has been developed to resolve the pending major permits during 2004. A process is also being implemented to eliminate the general permit coverage backlog for stormwater from construction.

**Table 2: Percentage of Facilities Covered by Current Permits in Kentucky**

	2000	Nat'l Avg.	2001	Nat'l Avg.	2002	Nat'l Avg.	2003	Nat'l Avg.
Major Facilities	96.1%	74%	98.5%	76%	93.2%	83%	78.2%	84%
Minor Facilities Covered by Individual Permits	94.9%	69%	94.6%	73%	93.6%	79%	87.8%	81%
Minor Facilities Covered by Individual or General Permits	N/A	N/A	N/A	N/A	47.9%	85%	95.5%	86%

Source: PCS, 12/31/00; 12/31/01; 12/31/02; and 12/31/03. (The values in the "2003" column are PCS data as of 12/31/03. The values in the National Data Sources column of the Management Report, measures #19 and #20, are PCS data as of 6/30/04.)

#### EPA Region 4:

The States within Region 4 are kept well informed on their backlog status through the implementation of the Regional Low Backlog Maintenance Strategy. On a monthly basis since the mid-1980s, EPA Region 4 has provided the States with an NPDES update report that includes current backlog numbers. Reports are requested from any States having major backlogs greater than 10%. For each permit that has been expired for more than 2 years, the State must provide the reason for the backlog, the issuance progress, and a tentative date for reissuance. In addition, also on a monthly basis, the States receive from EPA Region 4 the list of NPDES permits that have expired or will expire in the near future for which EPA has not received drafts for review. The draft permits in consideration are those for which EPA has permit overview authority, per the EPA/State MOA (i.e., major permits, minor primary permits, and the like). The State in turn informs EPA if there are any draft permits shown on the non-receipt list that have been sent, allowing the misdirected draft permit to be located or resent quickly.

## **7. Data Management**

#### The State of Kentucky:

Kentucky enters all required data directly into PCS. Kentucky is also converting to a multimedia State system, TEMPO, and is currently entering data directly into both systems. Kentucky started implementation of TEMPO for KPDES in March 2003. Implementation continues to be an ongoing

effort. TEMPO will address all aspects of KPDES, from facility information to enforcement information. Eventually, it will have a component that allows for electronic submission of discharge monitoring reports (DMRs). The intention is to have data submitted electronically to the agency in addition to being able to store the data electronically in TEMPO in much the same manner as is done with PCS. The State is developing an interface using an Interim Data Exchange Format (IDEF), but until IDEF comes online, all data will be entered directly into both PCS and TEMPO. The IDEF interface is intended to link PCS and TEMPO. No firm date has been set for IDEF implementation. Work continues to progress on creation of the IDEF interface. Currently no procedure is in place to ensure consistency between the two databases.

The State maintains data on all Water Enforcement National Data Base (WENDB) elements, including geographic data at both the facility and pipe levels. These data are verified through a variety of methods, including the use of a geographic information system (GIS) and field office global positioning system (GPS). Latitude/longitude data at the pipe level are 93% complete and include complete metadata. As of March 19, 2004, DMR data entry rates for major permits for the July-September 2003 period were greater than 99% for both municipal and industrial facilities.

EPA Region 4:

Not applicable because the Region does not have any direct implementation responsibilities in Kentucky.

## **Section II. Program Implementation**

### **1. Permit Quality**

#### The State of Kentucky:

Kentucky routinely assesses whether a given facility discharges to a section 303(d) listed stream and coordinates with its TMDL program to incorporate any wasteload allocation requirements into the KPDES permit. If a TMDL has not yet been established, Kentucky ensures that historical loadings are maintained for any parameter of concern. Kentucky ensures that technology-based requirements, at a minimum, are incorporated into the KPDES permit. To protect water quality, the State has developed reasonable potential procedures for both chemical-specific parameters and WET, which have been approved by EPA. Spreadsheets have been prepared to conduct reasonable potential analyses for toxic pollutants. STORET data or other readily available ambient data are used to assess background. Kentucky has also developed a user-friendly model for conducting toxic pollutant wasteload allocations (SSTWAM). Procedures for conducting dispersion modeling have also been well established. Kentucky uses standardized language and templates, whenever possible, to streamline permit development. In addition, Kentucky can accept permit applications electronically.

To improve permit quality and efficiency, Kentucky routinely uses general permits. Based on mid-2004 data, Kentucky administers 6 general permits for non-stormwater discharges, with a total of 4,014 facilities under coverage. Kentucky also administers 8 general permits for stormwater discharges, with a total of 3,736 facilities under coverage.

Based on the KPDES MOA, Kentucky routinely sends all municipal and industrial major permits and all minor primary industrial permits with process wastewater to Region 4 for real-time review. The Region 4 State Coordinator provides comments or concerns based on the review. Each year Region 4 also conducts a midyear and end-of-year review of Kentucky's KPDES program. The midyear review is to review the administrative and technical KPDES permitting processes and to audit a representative sample of permits that did not receive real-time review during the previous year, using a standardized format. Interviews are conducted with Kentucky DOW KPDES management using a predetermined questionnaire. The midyear process is completed by a site visit by the Water Division Director, or his designee, to discuss any identified issues. Corrective actions, if necessary, are taken by the State, with follow-up by the Region during the end-of-year phone evaluations.

Kentucky has numeric criteria for both acute and chronic toxicity. The State has developed and has been implementing a WET program. Kentucky's WET permit limits are expressed in terms of toxic units, acute or chronic, as appropriate. Kentucky has also developed reasonable potential procedures for WET that have been approved by EPA. Kentucky routinely incorporates sublethal limits into KPDES permits, as needed, and has effective procedures for WET compliance. The WET monitoring frequency is quarterly.

#### EPA Region 4:

Not applicable because the Region does not have any direct implementation responsibilities in Kentucky.

## 2. Pretreatment

### The State of Kentucky:

Kentucky received authorization to administer the pretreatment program on September 30, 1983. Currently, there are 67 approved programs in the State. These approved programs act as control authorities for 617 significant industrial users (SIUs), of which 216 are categorical industrial users (CIUs). One hundred percent of SIUs have control mechanisms.

Although the State has the authority to require publicly owned treatment works (POTW) pretreatment program development in an enforcement action, the State typically requires pretreatment program development and implementation through the NPDES permit or by letter. The State does have the authority in its statutes to issue permits directly to SIUs, but State regulations have not been promulgated pursuant to the statutes to address this function. The State issued one permit directly to an SIU, but the facility closed its operations in April 2004.

The State audits approximately 20% of the approved programs and conducts pretreatment compliance inspections at approximately 80% of the approved programs annually. This arrangement means that all programs should be audited within a 5-year period. Audit reports are typically completed within 30 days of the inspection or audit, and data are entered into PCS at that time. If the audit identifies deficiencies in a program, the POTW is sent a letter requiring follow-up, typically within 30 days. Any escalated enforcement beyond a notice of violation is referred to State enforcement. The KPDES Branch works with the Enforcement Branch to issue and track resolution of enforcement orders.

### EPA Region 4:

Not applicable because the Region does not have any direct implementation responsibilities in Kentucky.

## 3. Concentrated Animal Feeding Operations

### The State of Kentucky:

Kentucky is authorized to administer the concentrated animal feeding operation (CAFO) KPDES program. Kentucky is required by EPA to ensure that each CAFO has a manure management plan consistent with the nutrient management plan (NMP) outlined in the new CAFO regulations.

The new CAFO rule requires that all CAFOs must apply for permits by 2006. Kentucky and the Region have agreed on a schedule for implementation of the new rule, and Kentucky is on target with this schedule.

Based on the 1997 Census of Agriculture data, Kentucky has about 150 potential Large CAFOs; 13 individual KPDES permits and 14 general KPDES CAFO permit coverages have been issued to date.

KPDES general permits for swine, dairy, poultry, and beef CAFOs have been issued to facilities with 1,000 to 1,500 animal units since October 2000. Operations with more than 1,500 animal units have individual CAFO permits.

As Region 4 States revise their CAFO programs, issue revised or new general permits, and provide NPDES coverage to CAFOs that meet the new requirements, it is expected that most Kentucky

operational permits will convert to KPDES coverage. This will help to ensure 100% permitting of Large CAFOs in the Region, thereby ensuring successful implementation of the new rule by the end of 2006.

The State has a CAFO program consistent with federal regulations. The State implements the nine minimum control measures, or NMPs that meet the requirements of the CAFO regulations, through general permit coverage and individual permits.

The State is committed to issuing permits to all CAFOs in a timely manner, though resource limitation is a constraint. The State is on track with the implementation targets of the new regulations. It plans to adopt the federal rule by reference. The State has changed its anticipated rule revision target date from September 2004 to first quarter 2005 because of a delay in the legislative process.<sup>1</sup> No change is expected in the target date of the issuance of the general permit.

The State has technical standards that conform to the revised CAFO regulations in place.

EPA Region 4:

Not applicable because the Region does not have direct implementation responsibilities for any CAFO facility at this time.

#### **4. Stormwater**

The State of Kentucky:

Phase I Municipal Separate Storm Sewer Systems (MS4s): Kentucky has two Phase I MS4 permits (Louisville/Jefferson County and Lexington/Fayette) currently expired.<sup>2</sup> The State is in the process of developing early drafts of the two expired Phase I permits. Part of this process includes developing the schedule for public notices. The State plans to have both permits issued by the end of the 2004 calendar year. The delay in reissuing the Phase I permits was due to staff shortages, with the State hiring one person to develop municipal stormwater permits.

Phase II MS4s: The general permit covering Phase II MS4s became effective in December 2002. The State received for review notices of intent (NOIs), which included stormwater management plans, from 97 small MS4s, which covers approximately 102 designated communities (5 of which are designated unincorporated communities), all currently in compliance with the permit. All MS4s were authorized coverage under the general permit as of August 2003. The State also issued waivers to two small MS4s after the communities certified that they do not own or operate an MS4. Two federal facilities are in the process of obtaining individual permit coverage as a small MS4 based on State designation. These Phase II facilities are being permitted as new sources (e.g., federal facilities, universities) and are designated on the basis of who controls and operates the MS4.

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<sup>1</sup> The National Data Sources column of the Management Report, measure #15, shows the 9/04 date based on an estimate made in March 2004.

<sup>2</sup> Management Report measure #28 (number of Phase I stormwater permits issued but not current) lists a 1 for the Kentucky State activity in the National Data Sources columns, which is based on data as of 6/12/04. The number of expired permits mentioned above (two) is different from the number in the Management Report's National Data Sources column because one additional permit expired after the data in the Management Report were pulled.

Construction: The construction general permit addressing large and small construction activities is currently in effect. It was issued in December 2002. Construction sites are tracked through an NOI tracking system.

Industrial: Currently, Kentucky has issued six stormwater general permits for industrial activities. NOIs are tracked electronically, whereas reporting data are not.

<b>NPDES No.</b>	<b>Industry</b>	<b>Date Issued</b>	<b>Facil. Covered</b>
KYG20-	Stormwater Phase II MS4	12/2002	97
KYR00-	Other	10/1/02	1,338
KYR10-	Construction	10/1/02	1,738
KYR20-	Primary Metals	10/1/02	35
KYR22-	Wood Preserving	NA	Combined w/KYR25
KYR25-	Wood Preserving, Ar/Cr	10/1/02	9
KYR30-	Coal Runoff	10/1/02	4
KYR31-	Oil and Gas	10/1/02	1
KYR50-	Landfills	10/1/02	14

Kentucky uses both PCS and the new TEMPO system to track the issuance of KPDES construction stormwater runoff general permit coverage. NOIs are submitted to the agency and processed electronically. As permits are issued, the field office is automatically notified for inspection. As construction activity is completed, operations must submit a Notice of Termination (NOT), which is also processed electronically to inactivate the permit. The field office is automatically notified of this inactivation.

#### EPA Region 4:

Not applicable because the Region has no direct implementation responsibilities in Kentucky.

## **5. Combined Sewer Overflows/Sanitary Sewer Overflows**

#### The State of Kentucky:

Of the 17 CSO permittees in Kentucky, 7 have implemented the 9 minimum controls. Of the 17 CSO permittees, 13 were required to develop long-term control plans; 7 LTCPs are under State review, and the other 6 are being implemented. All the LTCPs reflect the presumption approach under the 1994 CSO Policy, and all have involved evaluation of alternative controls and development of implementation schedules. The four permittees that are not required to develop LTCPs are Loyall (which is connecting to another system that is developing an LTCP), Catlettsburg (which is separating sewers), Vanceburg (no active CSOs), and Worthington (no active CSOs). LTCP implementation requirements will be included as permit conditions.

Kentucky does not maintain a database to track SSOs that are reported to the State. Kentucky has requirements for the municipality to notify public health authorities and the public when any overflow has occurred.

EPA Region 4:

Not applicable because the Region has no direct implementation responsibilities in Kentucky.

## **6. Biosolids**

The State of Kentucky:

Kentucky is not planning to seek authorization of the federal biosolids (sludge) program. The Kentucky Solid Waste Program implements a sludge management program, although Region 4 retains authority to implement the federal 40 CFR part 503 regulations.

EPA Region 4:

The Region serves as the permitting authority for all eight Region 4 states because none has an approved biosolids program. The Region implements the biosolids program in both the NPDES and Biosolids Permits Section and the Clean Water Act Enforcement Section. The permits program provides regulatory and permitting guidance on implementation of the 40 CFR part 503 biosolids regulations. The regulations are self-implementing, which means that compliance with the regulations is required without issuance of an individual or general permit. The NPDES and Biosolids Permits Section serves as the permitting authority for the biosolids program. As the permitting authority, the permits program has several biosolids functions. These include issuing individual or general permits to facilities for which permits are deemed necessary due to potential public health or environmental concerns; reviewing and approving site closure plans; issuing approval letters for the closure of surface disposal sites; reviewing and approving equivalent pathogen reduction processes; providing technical and compliance assistance to facility personnel, consultants, and State and local officials; and providing biosolids training to States and local municipalities. The permits program also works with the compliance and enforcement program to ensure the timely submittal of annual biosolids reports. The compliance and enforcement program implements the program by reviewing and assessing annual biosolids reports, conducting compliance evaluation inspections, drafting inspection reports, developing various types of enforcement actions, providing technical and compliance assistance, and providing training on the biosolids program.

## **Section III. NPDES Compliance Monitoring and Enforcement Response**

*In a separate initiative, EPA's Office of Enforcement and Compliance Assurance (OECA), EPA Regions, and the Environmental Council of the States have developed a tool for assessing State performance in enforcement and compliance assurance to ensure that States meet agreed-upon minimum performance levels and provide a consistent level of environmental and public health protection nationwide. OECA will use the State profiles to focus these efforts and identify areas needing further discussion and evaluation.*

### **1. Enforcement Program**

#### The State of Kentucky:

Kentucky identifies and addresses all significant noncompliance (SNC) violations using EPA criteria outlined in program delegation documents and the MOA. Kentucky maintains a current Enforcement Management System (EMS) that describes how and when the State will take action on violations. The EMS also addresses the level of formal enforcement that should be taken, which includes consideration of several factors related to violations such as the environmental/health impacts. In addition, Kentucky uses Department Business Rules that establish procedures for implementing enforcement actions through a tiered approach. EPA will continue to evaluate Kentucky's compliance with EPA's national EMS for consistency.

Kentucky does not refer cases to the State Attorney General's Office; all civil actions are handled administratively. However, the State may still do civil referrals and has independent authority to enforce the law in State court.

Kentucky has developed compliance and enforcement strategies for major and minor facilities, stormwater, and the CAFO/animal feeding operation (AFO) program. EPA will continually evaluate these strategies to ensure that they are effective.

At this time, Kentucky does not maintain a database to track SSOs. However, EPA will continue discussions with the State to develop a tracking system so that the State can easily identify SSOs and ensure that all SSOs are being adequately addressed.

Kentucky does not have a written policy for calculating penalties and is prohibited by State law from imposing requirements on regulated entities in the form of policy. However, the State consistently applies fair and appropriate penalties based on the significance of the violation and the degree of environmental impact. The penalty is then adjusted based on site-specific characteristics, including economic benefit where that benefit can be demonstrated. Kentucky does use supplemental environmental projects (SEPs) as a tool during an enforcement action. The State uses federal SEP policy as guidance when developing SEPs.

Once Kentucky has issued a formal enforcement order, it maintains a tracking system to ensure that the order is complied with. Remedial measures provided by agreed orders are tracked within the Enforcement Division's database. These remedial measures identified during an enforcement action

have deadlines associated with them to ensure a return to compliance. All requirements are tracked, and additional action is taken if the violator fails to comply.

Data reported to EPA by Kentucky indicate that the State took 45 formal enforcement actions against facilities in FY2003, with a total of \$218,950 collected in penalties. This was a decrease from 56 formal enforcement actions taken in FY2002, with a total of \$1,948,634 collected in penalties, and 133 formal enforcement actions in FY2001. The decline in the enforcement numbers is due mainly to the decline in resources and the restructuring of programs.

Kentucky's percentage of major facilities in SNC at any time during the fiscal year has increased from 19% in FY2002 to 83% in FY2003. However, of the 131 major facilities in Kentucky, currently only 7 facilities (5.3%) are in SNC.

Kentucky addressed 0% of SNC facilities with a formal enforcement action in FY2000-FY2002 and only 1% of SNC facilities in FY2003. The percentage of facilities in SNC that returned to compliance without a formal enforcement action ranged from 71% in FY2002 to 95% in FY2003. Of the seven facilities currently in SNC, the KDEP has taken formal enforcement action against three (42.8%) and has taken informal enforcement action against the other four (57.2%), with 1 of the facilities having been replaced by a new wastewater treatment plant.

#### EPA Region 4:

The WPEB is responsible for compliance tracking, inspections, and enforcement of biosolids facilities in all eight Region 4 states.

During FY2003, 1 administrative order, 19 administrative penalty orders, and 19 settlements were issued for biosolids violations. As of midyear 2004, two administrative orders, eight administrative penalty orders, and eight settlements had been issued for biosolids violations.

WPEB addresses all noncompliance problems. Those which cause environmental or human health impacts are addressed in accordance with the EMS, which includes escalation of action and a penalty for noncompliance causing environmental or human health impacts.

WPEB uses the EMS, along with National and Regional EPA guidance, to address violations that occur at biosolids facilities. Actions are recommended and prepared by staff and reviewed and signed off on by management to ensure consistency with National and Regional EPA guidance and policies.

WPEB has enforcement staff assigned to each enforcement action issued to facilities under direct implementation. The enforcement officer is responsible for ensuring that all provisions of the action are completed in accordance with the requirements and the deadlines set as part of the action. Because the assigned enforcement officer is usually the person who provided input into the action when it was issued, the enforcement officer is very familiar with the requirements and due dates. All enforcement actions are entered into PCS, which allows for the tracking of all schedule items. Follow-up site visits or meetings are held as needed to observe and discuss completion of requirements. These meetings and visits allow WPEB to learn early on of any anticipated problems in meeting deadlines so that alternatives can be discussed and WPEB management briefed.

WPEB escalates enforcement, including penalties, based on the EMS.

## 2. Record Keeping and Reporting

### The State of Kentucky:

General and individual permits are not available on the DOW's Web site; however, several individual permits and fact sheets can be accessed via EPA's Web site. Instructions for accessing these documents are available at <http://www.epa.gov/npdes/permitdocuments>. In addition, citizens can either contact their local KPDES field office or the Frankfort central office's Inventory and Data Management Section, KPDES Branch, to obtain copies of permits.

### EPA Region 4:

WPEB maintains compliance and enforcement files in a central location. A formal records policy is being drafted to ensure consistency in record keeping among all the NPDES programs. Files are maintained for each facility in which the Region has issued a permit or granted coverage under a general permit. Files contain DMR data, correspondence, permits, inspection reports, and enforcement actions.

## 3. Inspections

### The State of Kentucky:

Kentucky is conducting inspections in accordance with the section 106 Water Grant Commitment Workplan. This work plan incorporates an annual inspection plan that offers the State the opportunity to negotiate inspection priorities in order to better use the resources of the State. In addition, Kentucky has developed compliance and enforcement strategies for major and minor wastewater facilities, stormwater, and CAFO programs.

Inspection priorities are based on past compliance, potential for environmental damage, existing water quality, and available resources.

Kentucky further prioritizes its efforts consistent with a watershed management strategy applied throughout the State. Kentucky also considers existing water quality, as well as potential threats to human health and the environment, when assessing its priorities.

Kentucky inspectors conduct file reviews prior to initiating an inspection. Issues identified during the file review are addressed as part of the resulting inspection. In addition, the Division of Enforcement dedicates staff in the enforcement and permitting branches who review DMRs and submitted compliance data to identify potential violations.

Kentucky's rationale or approach for selecting sectors, facilities, pollutants, or geographic locations for inspections is implemented by means of a watershed-based approach that is on a cyclic basis, whereby the DOW prioritizes its resources in a particular watershed each year. The evaluations rotate yearly from one watershed to another. This approach has allowed the DOW to maximize its monitoring, permitting, compliance, and enforcement actions within the State.

Kentucky inspected 81% of all of its major facilities during inspection year 2003, which exceeds the national average of 69%. In addition, during inspection year 2003, 93% of total inspections were at minor facilities. This compares with a national average of 77% of State inspections in inspection year 2003 being conducted at minor facilities. (EPA conducted no inspections of facilities in Kentucky during inspection year 2003.) It should be noted that Kentucky has performed these inspections with

limited resources. These limited resources have caused inspection coverage to decrease from the levels seen in FY2002 (98%), FY2001 (91%), and FY2000 (99%).

Kentucky has participated with EPA in new inspection initiatives to evaluate stormwater construction sites. These inspections were conducted to both train and develop relations with Kentucky. In addition, the State has participated with EPA in inspection initiatives for maintenance and operations management and multimedia inspections.

#### EPA Region 4:

For biosolids facilities, assigned enforcement officers focus their compliance tracking efforts in environmental justice areas and within impaired watersheds identified by the Water Management Division. Inspections are also focused within these areas, as well as in States that have rescinded their state biosolids regulations. Biosolids inspections are focused within environmental justice areas and within impaired watersheds identified by the Water Management Division, as well as in States that have rescinded their State biosolids regulations. During the 2003 inspection year, WPEB conducted a total of 7 biosolids inspections at minor facilities and 19 inspections at major facilities throughout the Region. As of midyear 2004, WPEB had conducted biosolids inspections at a total of 2 minor facilities and 17 major facilities throughout the Region. EPA Region 4 did no inspections at facilities in Kentucky during inspection year 2003.<sup>3</sup>

## **4. Compliance Assistance**

### The State of Kentucky

Kentucky field inspectors actively seek to assist facilities in their effort to return to compliance. These individuals offer technical assistance and guidance to assist facilities in addressing deficiencies. In addition, the DOW conducts a variety of technical and regulatory training efforts to assist facilities in maintaining compliance. The DOW implements a tiered approach to enforcement and encourages facilities to evaluate multiple approaches when reaching and maintaining compliance.

### EPA Region 4:

Region 4 States have improved environmental performance through the development and implementation of compliance assistance activities. These activities have been used with individual entities, groups of regulated entities, and trade associations. The compliance assistance activities include innovative strategies, pollution prevention, and sustainable management practices.

Biosolids compliance assistance is provided to both facilities and States through presentations at workshops and conferences.

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<sup>3</sup> Management Report measures #32 and #33 (percentage of major facilities inspected and (inspections at minors) / (total inspections at majors and minors) ) list 2% and 0%, respectively, for EPA activities in the National Data Sources column. According to a PCS pull conducted in November 2004, EPA Region 4 did no inspections at facilities in Kentucky during inspection year 2003. Therefore, the correct values for these measures are 0% and n/a (not applicable), respectively.

## **Section IV. Related Water Programs and Environmental Outcomes**

### **1. Monitoring**

#### The State of Kentucky

Kentucky implements a statewide probability monitoring program. It implements a rotating-basin approach to water quality monitoring to maximize monitoring results in any given year for targeted water bodies. A completed monitoring strategy encompassing all 10 elements was submitted to EPA on May 28, 2004, and the Region provided comments on August 31, 2004. The Region is working with the State on a final submittal date.

Monitoring is conducted for major permits to assist with determinations of water quality-based effluent limits. The need for information and the permit cycle dictate the extent of monitoring conducted each year.

The State's comprehensive monitoring strategy will address the manner in which it will improve the number of waters assessed in order to enhance the understanding and characterization of surface water quality throughout Kentucky.

### **2. Environmental Outcomes**

#### The State of Kentucky

Based on the 2002 water quality inventory prepared under Clean Water Act section 305(b), 9% of assessed river/stream miles and 95% of assessed lake acres fully support uses. The percentage assessed is reported for aquatic life support only. An accurate trend analysis cannot be conducted at this time because of changes in Kentucky's sampling protocols and reporting methods, and limited funding for complete, long-term monitoring coverage.

#### EPA Region 4:

Not applicable because the Region has no direct implementation responsibilities in Kentucky.

### **3. Water Quality Standards**

#### The State of Kentucky

As the State adopts or revises water quality standards, it conducts a thorough examination of how the standards will be implemented through NPDES permits. As the standards are made available for public comment, the State explains to the interested NPDES permit holders and other interested groups exactly how that water quality standard will be implemented, especially in relation to dischargers.

Certain water quality standards are difficult to implement, but those are addressed permit by permit. To assist this process, the State has adopted a variance procedure that implements EPA's use attainability analysis regulations on a permit-specific basis.

The State conducts its review every 3 years and uses that time to revise its water quality standards to make them consistent with EPA's most recent guidance. The State is expected to adopt E. coli criteria statewide by the end of 2004 and has submitted a draft plan describing how it intends to proceed with nutrient criteria.

The State designates water bodies used as drinking water sources as having a domestic water supply designated use. Those water bodies all have criteria associated with protection of the drinking water supply. All wasteload allocations and water quality-based effluent limitations (WQBELs) are written to comply with the criteria associated with the drinking water designated use.

Kentucky has integrated the water quality standards and KPDES program in part by conducting timely reviews of its water quality standards. There is currently only one outstanding EPA disapproval of standards. Permit fact sheets explain the basis for each WQBEL and identify designated uses of the receiving water body and applicable standards. Additional information is maintained in facility-specific files, which are available for public review. Kentucky has provisions for compliance schedules, which are used when needed.

EPA Region 4:

Not applicable because the Region has no direct implementation responsibilities in Kentucky.

#### **4. Total Maximum Daily Loads**

The State of Kentucky:

Prior to TMDL establishment, Kentucky developed a checklist for use in the development and issuance of permits for facilities that discharge to impaired waters. The State has consistently followed and met the requirements of 40 CFR 122.4(i) and 122.44(d)(1) and Region 4's February 1999 policy in the development of such permits.

Kentucky incorporates wasteload allocations into KPDES permits as they are expressed in the TMDL (as a load or a concentration). Kentucky keeps an updated list of completed and approved TMDLs. This list is used when drafting KPDES permits to ensure that wasteload allocations derived from the TMDL are incorporated into the KPDES permits. Permit fact sheets discuss the TMDL and appropriate wasteload allocations for the affected permit. Permits for facilities on a 303(d)-listed stream discharging a parameter of concern contain a reopener clause to modify the permit when a TMDL is approved.

TMDL development is under way in Kentucky. Currently, the State is 8% on schedule for meeting its TMDL development commitment. State resources have not been adequate to maintain the pace of TMDL development needed to meet the State's original commitment. Recent investments in staff resources are expected to increase the pace of TMDL development.

EPA Region 4:

Not applicable because the Region has no direct implementation responsibilities in Kentucky.

## **5. Safe Drinking Water Act**

### The State of Kentucky:

The State takes drinking water intakes into consideration in the development of standards, wasteload allocations, WQBELs, and permits. The State has placed spill notification language in selected KPDES permits.

### EPA Region 4:

Not applicable because the Region ha no direct implementation responsibilities in Kentucky.

## **Section V. Other Program Highlights**

### **The State of Kentucky**

Kentucky has switched to permit issuance by watershed. This has enabled coordinated public involvement and coordinated evaluation of water quality data within a watershed during the permitting process.

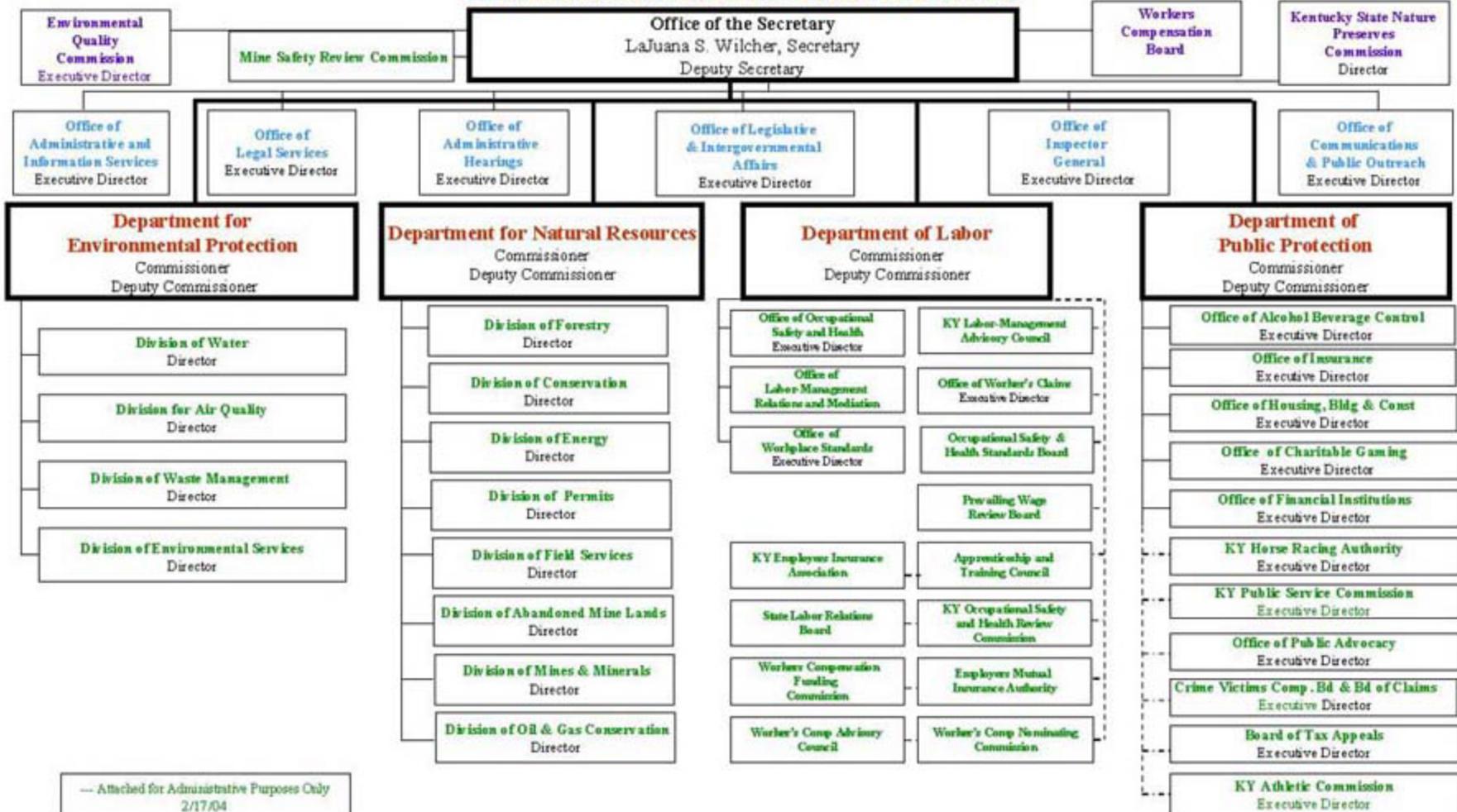
Kentucky has used general permits extensively to effectively manage its workload, covering approximately 80% of the total KPDES permitted entities. There are 18 categories of separate general permits to improve efficiency within the permitting program. In addition, permit templates have been developed to assist staff in the preparation of individual permits. Kentucky now accepts electronic submittals of permit applications.

The KPDES Coal General Permit was reissued in December 2003. Consequently, backlogged general permit coverages are being brought up-to-date.

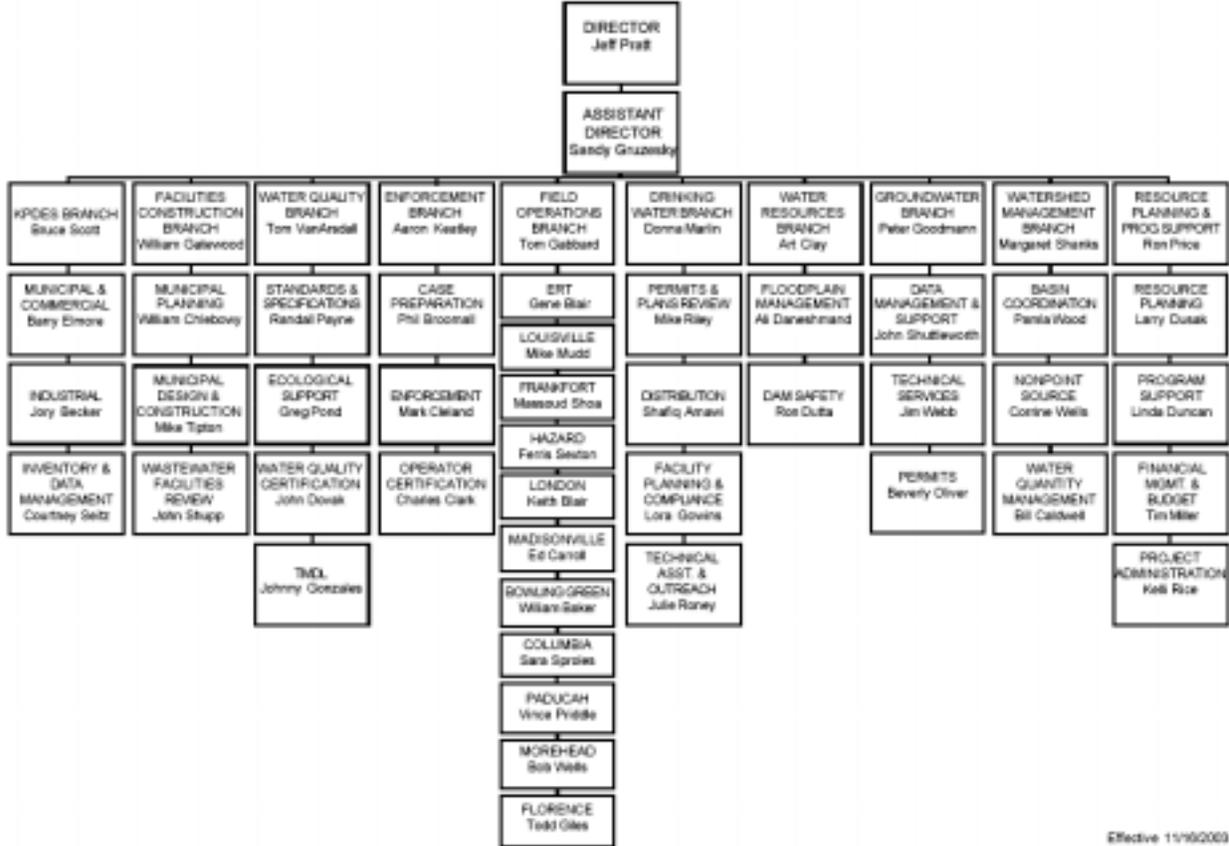
### **EPA Region 4:**

Not applicable because the Region has no direct implementation responsibilities in Kentucky.

# Environmental and Public Protection Cabinet



**NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF WATER**



Effective 11/02/03

# NPDES Management Report, Fall 2004

## Kentucky

			Profile Section	GPRA Goal	Nat. Avg.	National Data Sources		Additional Data	
						State Activities	EPA Activities	State Activities	EPA Activities
<b>NPDES Progress</b>									
Universe	1	# major facilities (6,690 total)	I.1		n/a	136	0		
	2	# minor facilities covered by individual permits (42,057 total)	I.1		n/a	1,702	0		
	3	# minor facilities covered by non-storm water general permits (39,183 total)	I.1		n/a	4,014	0		
	4	# priority permits (TBD)	I.6			--	--		
	5	# pipes at facilities covered by individual permits (142,761 total)	I.7		n/a	4,149	--		
	6	# industrial facilities covered by individual permits (32,505 total)	I.1		n/a	1,591	0		
	7	# POTWs covered by individual permits (15,197 total)	I.1		n/a	257	0		
	8	# pretreatment programs (1,482 total)	II.2		n/a	67	--		
	9	# Significant Industrial Users (SIUs) discharging to pretreatment programs (22,158 total)	II.2		n/a	617	--		
	10	# Combined Sewer Overflow (CSO) permittees (831 total)	II.5		n/a	17	--		
	11	# CAFOs (current and est. future) (17,672 total)	II.3		n/a	150	--		
	12	# biosolids facilities (TBD '05)	II.6			--	--		
NPDES Program Administration	13	State or Region assessment of State NPDES program (none (N)/assessment (A)/profile (P))	I.1	50 states 2004	n/a	A, P	P		
	14	% pipes at facilities covered by individual permits w/ lat/long in PCS	I.7		46.3%	93.0%	--		
	15	State CAFO legal authority expected (mo/yr)	II.3	2005	n/a	9/04	n/a	3/05	
	16	# Withdrawal petitions/legal challenges (22 total)	I.4		n/a	0	n/a		
	17	DMR data entry rate	I.7		95%	100%	--		
	18	# permit applications pending (1,011 total)	I.6		n/a	16	--		
NPDES Program Implementation	19	% major facilities covered by current permits	I.6	90%	83.7%	77.9%	n/a		
	20	% minor facilities covered by current individual or non-storm water general permits	I.6	90% 12/04	87.0%	94.1%	n/a		
	21	# major facilities w/permits expired >10 yrs. (56 total)	I.6		n/a	0	0		
	22	% priority permits issued as scheduled (TBD '05)	I.6	95% 2005		--	--		
	23	% pretreatment programs inspected/audited during 5 yr. inspection period	II.2		85.3%	94.0%	--		
	24	% SIUs w/control mechanisms	II.2		99.2%	99.7%	--		
	25	% of CSO permittees with long-term control plans developed or required	II.5	75% 2008	82.2%	76.5%	--		
	26	% CAFOs covered by NPDES permits	II.3		35%	45%	--		
	27	% biosolids facilities that have satisfied part 503 requirements (TBD '05)	II.6			--	--		
	28	# Phase I storm water permits issued but not current (76 total)	II.4		n/a	1	n/a	2	
	29	# Phase I storm water permits not yet issued (5 total)	II.4		n/a	0	n/a		
	30	Phase II storm water small MS4 permits current (Y/N/D (draft) (35 States)	II.4	100% states 2008	n/a	Y	n/a		
	31	Phase II storm water construction permit current (Y/N/D (draft) (49 States)	II.4	100% states 2008	n/a	Y	n/a		
NPDES Compliance Monitoring and Enforcement Response	32	% major facilities inspected	III.3		71%	81%	2%	0%	
	33	(inspections at minors) / (total inspections at majors and minors)	III.3		76%	93%	0%	n/a	
	34	% major facilities in significant non-compliance (SNC)	III.1		20%	83%	--		
	35	% SNCs addressed by formal enforcement action (FEA)	III.1		14%	1%	--		
	36	% SNCs returned to compliance w/o FEA	III.1		70%	95%	--		
	37	# FEAs at major facilities (666 total)	III.1		n/a	4	2		
	38	# FEAs at minor facilities (1,660 total)	III.1		n/a	41	0		

### Explanation of Column Headers:

**Profile Section:** For each measure, this column lists the section of the profile where the program area (including any additional data for the measure) is discussed.

**National Data Sources:** The information in these two columns is drawn from two types of sources:

(1) EPA-managed databases of record for the national water program, such as PCS, the National Assessment Database, and the National TMDL Tracking System. NPDES authorities are responsible for populating PCS with required data elements and for assuring the quality of the data. EPA is working to phase in full use of NAD and NTTS as national databases.

(2) Other tracking information maintained by EPA Headquarters for program areas such as CAFOs, CSOs, and storm water.

The [definitions document](#) accompanying this Management Report provides a detailed definition of each data element in the National Data Sources columns.

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**EPA Activities:** Information in these columns reflects activities conducted by the EPA Region within the State.

# NPDES Management Report, Fall 2004

## Kentucky

		Profile Section	GPRA Goal	Nat. Avg.	National Data Sources		Additional Data		
					State Activities	EPA Activities	State Activities	EPA Activities	
<b>Water Quality Progress</b>									
Universe	39	River/stream miles (3,419,857 total)	IV.2		n/a	47,844	n/a		
	40	Lake acres (27,775,301 total)	IV.2		n/a	217,680	n/a		
	41	Total # TMDLs in docket at end of FY 2003 (52,795 total)	IV.4		n/a	367	--		
	42	# TMDLs committed to in FY 2003 management agreement (2,435 total)	IV.4		n/a	n/a	n/a		
	43	# Watersheds (2,341 total)	IV.2		n/a	--	--		
Water Quality Administration	44	On-time Water Quality Standards (WQS) triennial review completed (42 States)	IV.3		n/a	Y	n/a		
	45	# WQS submissions that have not been fully acted on after 90 days (32 total)	IV.3	<25% submissions	n/a	n/a	1		
Water Quality Implementation	46	State is implementing a comprehensive monitoring strategy (Y/N) (TBD)	IV.1	all states 2005	--	--	--		
	47	% river/stream miles assessed for recreation	IV.2		13.8%	6.0%	n/a		
	48	% river/stream miles assessed for aquatic life	IV.2		22.0%	20.0%	n/a		
	49	% lake acres assessed for recreation	IV.2		49.4%	3.2%	n/a		
	50	% lake acres assessed for aquatic life	IV.2		48.5%	100.0%	n/a		
	51	# outstanding WQS disapprovals (23 total)	IV.3		n/a	1	n/a		
	52	WQS for E. coli or enterococci for coastal recreational waters (12 States)	IV.3	35 states 2008	n/a	n/a	n/a		
	53	WQS for nutrients or Nutrient Criteria Plan in place (13 States)	IV.3	25 states 2008	n/a	N	n/a		
	54	Cumulative # TMDLs completed through FY 2003 (10,807 total)	IV.4		n/a	44	--		
	55	# TMDLs completed in FY 2003 (2,929 total)	IV.4		n/a	0	0		
Environmental Outcomes	56	# TMDLs completed through FY 2003 that include at least one point source WLA (5,036 total)	IV.4		n/a	42	--		
	57	% Assessed river/stream miles impaired for swimming in 2000	IV.2		--	72.7%	n/a		
	58	% Assessed lake acres impaired for swimming in 2000	IV.2		--	0.1%	n/a		
	59	# Watersheds in which at least 20% of the water segments have been assessed and, of those assessed, 80% or more are meeting WQS (440 total)	IV.2	600 2008	n/a	--	--		

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