



## Permitting for Environmental Results (PER)

# NPDES Profile: Illinois

### PROGRAM RESPONSIBILITY

**State of Illinois:** NPDES authority for base program, general permitting, federal facilities

**EPA Region 5:** NPDES authority for pretreatment and 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, please contact Toby Frevert, Illinois EPA, at (217) 558-2012 or Peter Swenson, EPA Region 5, at (312) 886-0236.

## Section I. Program Administration

### 1. Resources and Overall Program Management

#### The State of Illinois:

Administration of the NPDES program by the Illinois Environmental Protection Agency (IEPA) involves the cooperative efforts of the Bureau of Water Pollution Control's Permit Section, Water Quality Standards Section, Compliance Assurance Section, Field Operations Section, and Division of Legal Counsel. The Surface Water Monitoring and Watershed Management Section issues non-coal mining (quarry) and concentrated animal feeding operation (CAFO) permits. The Mine Program Section develops mining operation NPDES permits. Permits are also reviewed by the Field Operations Section, the Compliance Assurance Section, and the applicant. In addition to the NPDES program, the State must also devote resources to other wastewater-related activities, such as the issuance of State permits to install wastewater infrastructure. As of summer 2004, the Permit Section included 11 permit engineers and three managers. The Water Quality Standards and Mine Program Sections account for six full-time equivalents (FTEs). The Surface Water Monitoring and Watershed Management Sections account for 15 FTEs. The Compliance Assurance Section has 13 FTEs, and six FTEs are in administrative support. There are 39 field inspection personnel, and NPDES activities account for about 30 of those FTEs (not including clerical and management support). Thirteen positions are vacant. The FTEs are supported by monetary resources totaling \$8.6 million. Recent budget constraints have prevented filling vacancies. The Illinois legislature has enacted an NPDES fee program. Although IEPA's overall resources have not yet increased with the shift to a fee-based program, the program is expected to bring increased funding for IEPA once State finances have stabilized. This expected increase will allow resources devoted to the NPDES program to increase.

NPDES permit staffing is supported in part by Clean Water Act (CWA) section 106 grant funding, which also funds work in monitoring and water quality standards. Staffing levels have not kept pace

with the increased scope of the NPDES program, including stormwater and CAFOs. Although the number of authorized FTEs has remained fairly constant over the past 5 years, a number of vacant positions have not been filled.

IEPA has a training program for field inspection staff, including required and recommended training for both new and experienced inspectors. Planned training includes IEPA methods and procedures for new staff (including a field procedures manual), ongoing technical training, and health and safety training. IEPA also has a long-established NPDES training program for permit engineers. Upon employment, new permit engineers receive extensive training and work with a senior engineer on all phases of permit development. The senior engineer provides all necessary training, including the regulatory framework of the NPDES program, permitting process, application process, technology-based effluent limits, water quality-based effluent limits (WQBELs), special conditions, and the administrative process. IEPA has developed a permit engineer's manual that provides templates for the efficient and expedient drafting of many NPDES permits. In addition, IEPA makes in-house and outside training programs available for its permit-writing staff. Senior permit engineers, NPDES managers, field inspectors from the regional field offices, and legal staff members are available to advise and assist when unique situations develop. A database is available to track the progress of NPDES permits pending issuance or renewal.

IEPA was authorized to administer the NPDES program on October 23, 1977; authorized to administer the program for federal facilities on September 20, 1979; and authorized to issue general permits on January 4, 1984. In addition, the State issues State operating permits for land application of municipal biosolids and industrial sludges pursuant to State regulations and design/operational criteria. Illinois does not have authorization for the pretreatment program.

According to the NPDES management report, the State has 279 major facilities, 1,667 minor facilities with individual permits, and 542 non-stormwater minor facilities covered by general permits.

#### EPA Region 5:

EPA Region 5 carries out direct implementation activities in industrial pretreatment and biosolids in Illinois.

Region 5's NPDES Programs Branch has approximately 0.5 FTE committed to these programs in Illinois. This staffing is adequate for the current workload (pretreatment program reviews, limited biosolids permitting). Congress, however, intended that biosolids requirements would be implemented through permits. The Region estimates that an additional 1 FTE would be needed to issue biosolids permits for all facilities in Illinois. Additional enforcement and compliance staff would also be needed to monitor compliance.

## **2. State Program Assistance**

Region 5 has made progress in helping Illinois obtain biosolids program approval. The Region has helped identify areas of Illinois's program that need to be updated and is working with Illinois to update the identified areas, including State rules. The State's workplan includes a commitment to submit a copy of the State's revised draft rules for review during fiscal year (FY) 2005. After the rules have been finalized, Illinois plans to seek program approval.

EPA Region 5 previously worked with Illinois to prepare several submittals necessary for pretreatment program delegation. The Region remains the pretreatment program approval authority in Illinois. Although not delegated, the State carries out some of the day-to-day implementation activities under the pretreatment program and will assist EPA in other aspects of program implementation as resources allow. In light of these shared responsibilities and competing State priorities, EPA and IEPA have agreed that delegation of this program in the near term is not a high-priority activity.

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

Not applicable because there are currently no federally recognized Tribes in Illinois.

### **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 Illinois:

IEPA encourages public participation in the NPDES permitting process. The IEPA public participation policy is regulated by 35 Illinois Administrative Code (IAC) 309.109 through 309.119. By considering comments received through the public participation process and by working with interested individuals and groups, many revisions and improvements have been made to the permitting process. IEPA encourages meaningful public involvement through the preparation of NPDES public notice fact sheets. These fact sheets are prepared consistent with title 40 of the Code of Federal Regulations (CFR) section 124.8. The fact sheets outline the derivation of the permit limits and contain all information required by federal regulations. NPDES permits are placed on public notice in accordance with federal regulations. Individual NPDES permits receive legal public notice by publication in daily or weekly newspapers circulated in the geographic area of the proposed discharge, and all draft permits are available on the Internet. The fact sheet includes the name and telephone number of the permit engineer who drafted the NPDES permit. The permit engineer is available to answer questions and provide clarification or additional information to the interested public. In addition, IEPA maintains and updates a mailing list of interested parties who have requested copies of the proposed NPDES permits, fact sheets, or public notice documents. Those receiving direct mailings include municipal, State, and federal agencies; public interest groups; concerned citizens; and any individual or group expressing an interest in a particular NPDES permit.

IEPA maintains a Web site to interact with, educate, and inform the public. IEPA believes that public involvement and interaction should begin at an early age and has developed a "Kids and Environmental Education" section on its Web site. This section includes pages that provide information for educators and information on internships for those interested in environmental careers. The Web site also includes a section on hot topics, a list of frequently asked questions, and a quick-answer directory. From the Web

site the public can download a citizen complaint form, current rules and regulations, and forms and publications. The Web site also provides links to federal, Illinois, and other relevant sites.

Draft individual permits proposed for issuance are available on IEPA's Web site and generally receive a public comment period of 30 days following legal public notice. Coverage under the general stormwater permits is subject to a 14-day public notice period. Any person may provide comments to IEPA in response to a draft permit. During the comment period, any interested person, organization, or agency may request a public hearing on a draft permit. Based on a review of the issues raised and the amount of public interest, IEPA evaluates whether a public meeting or public hearing will be held. If a public hearing is requested, IEPA may decide whether to hold a public hearing. If a public hearing is held, the public is notified of the hearing date and location at least 45 days before the hearing date. A public hearing is a formal meeting for taking testimony for the record, and it is usually held near the proposed discharge site. A hearing officer chairs the public hearing. The hearing is recorded, and a responsiveness summary is prepared for the record and sent to all participants. Responsiveness summaries are also posted on IEPA's Web site. When a hearing is held on a particular permit, the final permit is also made available on the Web site. IEPA also accepts discharge monitoring reports (DMRs) electronically and provides public access to DMR summary data. IEPA provides public access to stormwater permit notices of intent on its Web site.

Documents relating to NPDES permits are available to interested parties through the Freedom of Information Act (FOIA) at IEPA headquarters. All documents relating to NPDES permits are subject to full disclosure except for those determined to be confidential, part of litigation, or information entitled to protection as trade secrets of the applicant in accordance with 40 CFR 122.7. Effective January 1, 2000, IEPA has new rules (2 IAC 1828) regulating the submission of requests for information pursuant to FOIA. These rules include definitions, procedures for requesting public records, procedures regarding exemption from public disclosure, and appeal rights. The Illinois Audit Privilege Law may keep information from the public in the permitting process that should be released under the CWA.

Amendments to this State law that will alleviate EPA's concerns have been introduced into the Illinois General Assembly; EPA is hopeful that they will be passed prior to the close of the current legislative session.

#### EPA Region 5:

As the pretreatment approval authority in Illinois, EPA is responsible for review and approval of new publicly owned treatment works (POTW) pretreatment programs and all modifications of existing programs. In approving these programs, Region 5 follows the public notice requirements in the General Pretreatment Regulations. Once the Region's review determines that a new or modified proposed program is approvable, the Region requests that the State provide public notice in the relevant local community. If, as is usually the case, no comments are received, the Region transmits an approval letter to the POTW. If comments are received, the Region considers them, makes any necessary revisions, and requests that the State provide public notice of the changes. The Region has also encouraged POTWs to use the option provided in 40 CFR 403.18 whereby the POTWs provide the public notice, and the Region has provided guidance on the necessary contents of such notices.

Some individual NPDES permits and fact sheets issued by the State can be accessed on EPA's Web site. Instructions for accessing these documents are available at <http://www.epa.gov/npdes/permitdocuments>.

## 6. Permit Issuance Management Strategy

### The State of Illinois:

IEPA developed a permit backlog reduction strategy that includes schedules based on the length of time permits are expired, environmental significance of the discharge, and complexity of the permit.

The following summarizes the status of NPDES permit issuance in Illinois:

#### Major Dischargers

- There are 279 major discharger permits in Illinois.
- As of the July 9, 2004, Management Report, 81% of major dischargers had current permits. By November 1, 2004, this number had increased to 84%.
- One major permit has been expired for more than 10 years. This facility is currently not discharging and is in the process of transferring its ownership.
- Twenty-five major permits have been expired for over 2 years.
- During calendar years 2001, 2002, and 2003, respectively, 67, 40, and 13 major permits were issued.
- IEPA believes it is on track to meet, by December 31, 2004, the national backlog reduction target of no more than 10% of major permits expired.

#### Minor Dischargers

- There are currently 1,622 minor discharger permits, a small decrease from the 1,667 referenced in the July 9, 2004, Management Report.
- Sixty-two percent of minor permits are current.
- Sixty-two minor permits have been expired for over 10 years.
- Two hundred and ninety-six minor permits have been expired for over 2 years.
- During calendar years 2001, 2002, and 2003, respectively, 126, 206, and 110 minor permits were issued.
- IEPA has committed to the Region to meet, by December 31, 2005, the national backlog reduction target of no more than 10% of all permits (including minor permits) expired.

IEPA has carried a high backlog of expired permits since calendar year 2000. Many of these permits were held for more than 18 months while IEPA developed, and sought EPA approval of, implementation procedures to develop ammonia limits under new State water quality standards. In addition, resource constraints and shortage of staff have exacerbated the situation. An additional significant work effort was necessary to implement a new NPDES fee program in the State.

IEPA has provided to EPA a list of major and minor permits with a quarterly reissuance schedule for 2004 and 2005. The list includes all the permits that have been expired for 2 or more years. The major permit issuance schedule is incorporated into the Environmental Performance Partnership Agreement (EnPPA), and the minor permit issuance schedule is an attachment to the EnPPA. The Region will track the State's progress on a monthly basis. In addition, the State has memorialized its permit backlog reduction strategy in the EnPPA and plans to meet the national backlog goal by the end of calendar year 2005.

Illinois has taken significant steps to reduce the backlog of expired permits through the use of general permits, including permits for municipal lagoons, public water supplies, non-contact cooling water, CAFOs, and sand and gravel operations.

**Table 1: Percentage of Facilities Covered by Current Permits in Illinois**

	2000	Nat'l Avg.	2001	Nat'l Avg.	2002	Nat'l Avg.	2003	Nat'l Avg.
Major Facilities	78.6%	74%	75.9%	76%	86.7%	83%	80.4%	84%
Minor Facilities Covered by Individual Permits	79.5%	69%	71.4%	73%	70.4%	79%	64.3%	81%
Minor Facilities Covered by Individual or General Permits	N/A	N/A	N/A	N/A	60.1%	85%	61.8%	86%

Source: Permit Compliance System (PCS), 12/31/00; 12/31/01; 12/31/02; 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.)

## 7. Data Management

### The State of Illinois:

The State uses EPA's Permit Compliance System (PCS) as the principal tool in the collection and management of NPDES data. The State also uses a FoxPro database for tracking under the State's general stormwater permits and an internal data system to prepare, issue, and track enforcement actions. PCS is used to track combined sewer overflow (CSO) events. Information on sanitary sewer overflow (SSO) events (often detected through citizen complaint) is maintained in individual facility files at IEPA headquarters. An exception is made for major permittees: once the number and volume of SSOs are judged to be significant, the information is tracked in PCS.

Data are not exchanged between the general stormwater permit data system and PCS. IEPA updates PCS manually with NPDES-related documents generated using the internal enforcement system. Data discrepancies have occurred between these systems, resulting in fewer enforcement actions being reported in PCS than were actually taken for minor facilities. Illinois redesigned the internal tracking system in 2003 and believes that the quality of the data is much improved. Efforts to ensure that PCS is up-to-date and complete were also undertaken, with the result that the data in PCS are believed to be complete and accurate for major facilities. Work is still needed to complete data input for minors.

The State collects latitude and longitude data at both the facility and outfall locations. These data are collected through global positioning system (GPS) units and mapping software, in addition to the information provided on the NPDES permit application. The State validates data by cross-referencing two or more sources of information and believes that all gross errors (e.g., facility locations outside the State) have been detected and corrected. Smaller-scale errors are being identified and corrected as field staff validate the latitude/longitude data using GPS units during sample collection and facility inspections. The process of field validating all latitude/longitude data is expected to be lengthy (approximately 5 years), but as the data become available (including metadata), the information will be promptly updated in PCS.

IEPA staff address and correct data discrepancies as they are identified during regular quality control activities. Illinois reviews all DMRs for completeness upon receipt. Checklists itemizing reporting deficiencies are sent to the permittees for follow-up. DMR data are entered in batch mode and subjected to dummy edits to identify data entry errors prior to live updating of PCS. All other segments of PCS data entry are quality checked using PCS update audit processing and several ad hoc PCS retrievals to ensure that the data contained in PCS are as complete and accurate as possible. The State routinely maintains a DMR entry rate above the national goal of 95%. During federal fiscal year 2002, the accuracy of DMR data for major dischargers in PCS was 99.75%.

The State's field operations staff perform overviews of laboratory procedures at NPDES facilities during compliance and performance audit inspections. In addition, effluent data from samples collected during reconnaissance inspections are compared to reported DMR data for inconsistencies. The State participates in the DMR quality assurance program for its major dischargers, and the results are reviewed by the IEPA field staff.

IEPA maintains accurate and up-to-date files and records on NPDES permittees and on the compliance/enforcement actions taken against them. IEPA maintains hard copy files of inspection reports, DMRs, enforcement actions, compliance commitment agreements (CCAs) and Enforcement Decision Group decisions.

Tracking of basic permit information for specific categories of permits (CSOs, SSOs, CAFOs, pretreatment, and biosolids) is discussed in the separate sections on each of these subjects under Section II, Program Implementation.

#### EPA Region 5:

The Region uses PCS to track all biosolids data required in the annual report for Class 1 and major facilities. The Region provides preprinted DMRs for these facilities, which helps to facilitate the data entry process. Not all facilities use the preprinted form or complete the form in its entirety, however, slowing the data entry process and possibly creating erroneous reporting or numeric violations.

## **Section II. Program Implementation**

### **1. Permit Quality**

#### The State of Illinois:

To help ensure permit quality, the State has established an NPDES permit writers training program. New permit engineers receive extensive training in the NPDES program and work with senior engineers in all phases of permit development. IEPA has developed an NPDES Permit Review Check Sheet that is used by permit engineers in drafting permits to help ensure consistency, accuracy, and completeness.

The State provides Region 5 copies of the permit application, public notice, fact sheet, draft permit, and supporting documents for permit review. The public notice, fact sheets, and final issued permits are sent to Region 5 for all major permits and general permits. In recent years, the State has improved the fact sheets to ensure that these include all information required by the federal regulations at 40 CFR 124.8 and 124.56, including all proposed effluent limitations with their supporting regulations, standards, and policies. The fact sheets also include information regarding the 7Q10 (the lowest consecutive 7-day stream flow that is likely to occur in a 10-year period) of the receiving stream and waters on the list of impaired water bodies prepared under CWA section 303(d).

IEPA includes 85% removal requirements for municipal wastewater treatment plant permits where the biochemical oxygen demand/carbonaceous biochemical oxygen demand and total suspended solids concentration limits are based on the federal secondary treatment standards. The percent removal requirements are not included in permits when the concentration limits for these parameters are more stringent than the secondary treatment concentration limits. All municipal major dischargers and all dischargers with a dilution ratio of less than five to one (design average flow for the facility to the 7Q10 flow for the receiving water) have concentration limits more stringent than those required under federal secondary treatment standards. IEPA believes that by meeting these limits, dischargers will also satisfy the percent removal requirements.

IEPA's standard review document provides the analysis for reasonable potential to exceed water quality standards and the evaluation for the need for WQBELs.

IEPA's NPDES program meets minimum federal whole effluent toxicity (WET) requirements. WET testing requirements and limits are applied to both municipal and industrial sources. Data generated by either program are reviewed and summarized by Water Quality Standards Section staff, and reports are distributed to the Permit Section. These reports contain recommendations based on the reviewed toxicity tests and may suggest that further monitoring be required in the permit or that WET limits or toxicity reduction evaluations are appropriate. Mixing zones or other considerations pertinent to the WET regulations are addressed in these reports much in the same way that traditional numeric standards are assessed in WQBELs. Currently, the State focuses on monitoring for acute toxicity. EPA recommends that IEPA consider an expanded use of monitoring for chronic toxicity, particularly for discharges to low-flow, effluent-dominated receiving waters.

Reasonable potential analyses are performed by the water quality standards staff. Senior staff members mentor new staff members using the State WET guidance and procedures, as well as EPA's technical support document and approved WET methods.



The State has a narrative water quality standard for toxicity, which can be interpreted as a numeric effluent limit. The State's preference is to use the permit to require a toxicity reduction evaluation to identify and eliminate the cause of toxicity prior to establishing an effluent limit. The State has placed WET limits in only two permits, including one permit addressing sublethal (chronic) effects. That permit is being appealed.

In developing the "permit quality" section of the program profile, State permits were not independently evaluated or compared to a national standard. Rather, the discussion is based primarily on an assessment of the quality assurance/quality control procedures established by the State of Illinois and routine permit quality reviews performed by EPA Region 5.

#### EPA Region 5:

Each year Region 5 and the State negotiate a list of permits proposed for reissuance that Region 5 will review prior to public notice, concentrating on one or more of the following:

- Permits for wet-weather discharges
- Permits that implement approved TMDLs
- Permits for facilities in critical industrial sectors, such as power plants
- Permits for CSOs linked to water quality impairment
- Permits for discharges where toxicity is a concern
- Permits suggested by the State
- Permits that have been expired for more than 3 years
- Permits for discharges with flows greater than 10 million gallons per day

As stated in the annual EnPPA, the Region will review approximately 5 to 10 facilities.

## **2. Pretreatment**

#### The State of Illinois:

Although not delegated for the NPDES pretreatment program, the State carries out some of the day-to-day implementation activities under the pretreatment program and assists EPA in other aspects of program implementation as resources allow.

Forty-eight POTWs implement approved pretreatment programs in Illinois.<sup>1</sup> The need for additional POTWs to develop programs is assessed through industrial waste inventories required upon permit reissuance for POTWs with discharge rates at or near 5 million gallons per day. The Region reviews and

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<sup>1</sup> The National Data Sources column in the Management Report, measure #8, lists Illinois as having 50 approved programs. This discrepancy is due to the fact that the PCS count on June 12, 2004, included two POTWs under a formerly approved program that no longer has industrial dischargers.

approves submissions for new and modified POTW programs; necessary public noticing is carried out by either the State or the local POTW.

Virtually all of the State's approximately 1,200 significant industrial users (SIUs) discharging to POTWs with approved pretreatment programs have been issued control mechanisms (typically, permits issued by the POTW). The State assesses the status of local permits or other control mechanisms during pretreatment inspections and annual report reviews and takes follow-up action as appropriate. The Region does likewise during EPA-led pretreatment audits.

Illinois has audited 40 of 48, or 83%, of its pretreatment programs in the past 5 years and has conducted 105 pretreatment compliance inspections (PCIs). Additional audits have been conducted but not entered into PCS.

Program deficiencies identified during State oversight that constitute violations of an NPDES permit requirement to implement the pretreatment program are handled under the State's Enforcement Management System. Normally, the response would be a Violation Notice (VN) sent within 60 days of the deficiency's being identified, with immediate initiation of corrective action and completion expected within a maximum of 1 year. Minor deficiencies that do not violate permit requirements are transmitted to the POTW in writing as recommendations, and the status is monitored during future inspections.

#### EPA Region 5:

Illinois is not authorized to administer the pretreatment program, although Region 5 has previously worked with Illinois to prepare several submissions necessary for delegation. As a result, Region 5 remains the approval authority and conducts certain direct implementation activities.

The Region has worked with the State to review operating permit files and other informational resources to evaluate known potential categorical industrial users (CIUs) discharging to POTWs without approved programs. Many facilities believed to be CIUs have been inspected for verification. The Region does not have CWA authority to permit industrial users, but 56 CIUs discharging to nonapproved POTWs are listed in PCS and are required to report to the Region semiannually regarding compliance with categorical requirements. In nonapproved pretreatment municipalities, all CIUs and some significant, noncategorical industrial users are required to secure operating permits issued by the State under State law. Permits for CIUs require permittees to report to the Region semiannually. Seventy percent of these industrial users have current permits. Compliance with the permit requirement and permit conditions is determined during industrial user inspections conducted at least once every 5 years. In addition, problem discharges from industrial users are investigated when IEPA becomes aware of them through citizen information or during POTW inspections.

The Region has supplemented IEPA's oversight with three audits and two PCIs in the past 5 years, raising the percentage of programs inspected or audited during the 5-year inspection period to 90%. In the context of discussions on the 2005 EnPPA, IEPA has indicated that pretreatment audits and inspections of industrial users (other than inspections of industrial users in nondelegated POTWs) will be an area of disinvestment. As a consequence, Region 5 will increase the number of its own pretreatment audits and inspections in Illinois. The Region has focused its efforts on identifying CIUs in POTWs without pretreatment programs. The Region plans to work to improve the format and content of the annual reports used in the six States in the Region.

The Region strives to transmit reports with required and recommended actions to POTWs within 180 days from completion of an audit; however, because of delays in receiving contractor drafts and other priority activities, this time frame is not always met. To assist POTWs in improving their programs, detailed conferences at the conclusion of audits provide POTWs with immediate feedback on findings. Administrative orders are often issued to track cases where numerous deficiencies have been identified. The Region plans to work to develop a streamlined audit checklist, which might also improve the turnaround time for finalizing audit reports.

### **3. Concentrated Animal Feeding Operations**

Illinois issued a general permit for CAFOs in April 2004. The permit includes effluent limitations based on the Effluent Limitations Guidelines and New Source Performance Standards as well as water quality standards. In addition, the permit requires implementation of a best management practice (BMP) (i.e., nutrient management) plan that meets the nine minimum control measures included in the 2003 changes to the federal clean water regulations for CAFOs. Illinois plans to review BMP plans as part of the permit application process. Although this will add time to the review of permit applications, it will help to ensure the quality of plans.

The State plans to amend its administrative code for CAFOs by submitting a proposed rule change to the Illinois Pollution Control Board in April 2005. In the amended code, EPA expects that Illinois will require CAFOs to apply for permits (or seek a “no potential to discharge” determination) by no later than the applicable date in 40 CFR 122.23(g). The amended code will contain the State’s technical standards for nutrient management.

Illinois has inventory information for about 30% of the estimated 500 Large CAFOs in the State. From 2000 to 2002, the State completed periodic, proactive inspections of 154 Large CAFOs. Currently, Illinois is inspecting CAFOs consistent with the Region 5 goal that all Large CAFOs will be inspected at least once every 5 years.

### **4. Stormwater**

The State has issued permits necessary to implement the NPDES Storm Water Phase I and Phase II programs.

The State issued a new general permit for municipal systems subject to the Phase II regulations on December 20, 2002. The permit requires the development and implementation of a stormwater management plan that includes the six minimum measures EPA established in the Phase II regulations. Approximately 420 of the 647 regulated municipalities have applied for coverage under this permit.

The City of Rockford is the only municipal separate storm sewer system subject to Phase I of the national stormwater program. The Rockford permit expired on April 30, 2001. The State suffered staff losses in 2003 and made issuing the Phase II permits a priority. The State continues to work with Rockford to develop the draft renewal permit. This effort involves incorporating information and requirements from the Rock River Watershed Quality Analysis.

The State issued its revised stormwater general permit for construction activities on May 30, 2003. Persons who disturb 1 or more acres of land must obtain permit coverage. The revised general permit

requires the development and implementation of a stormwater pollution prevention plan (SWPPP), including practices to control erosion and sedimentation.

The State also issued its revised stormwater general permit for industrial activities on May 30, 2003. Facilities covered under the industrial stormwater general permit must also develop and implement an SWPPP.

Upon receipt of a Notice of Intent (NOI) to be covered under the general permit for construction site activity or industrial activity, Illinois has a 30-day review period. During that time, the NOI is posted on the State's Web site for 14 days. The public can request more detailed information from IEPA staff.

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

There are 108 entities in Illinois with active CSOs. With the exception of one community working to separate its sewer system, all are regulated under NPDES permits that require development and implementation of the nine minimum controls consistent with the National CSO Control Policy.

Historically, communities have been required to meet the treatment technology standards for CSO discharges contained in 35 IAC 306.305. As a result, virtually all municipalities with CSO discharges constructed CSO controls prior to the National CSO Control Policy. Since 1994 municipalities have been required to collect data on their CSO discharges. Those data are evaluated as NPDES permits are reissued, and appropriate CSO control language, including the requirement to develop a CSO assessment report, is included in the reissued NPDES permit. Based on the results of the assessment, further controls may be mandated. For facilities that have more than six discharges per year, the reissued permit requires the development of a CSO control plan unless the community demonstrates that water quality standards are being met. For facilities that have reduced their overflow frequency to six overflows per year or less, post-construction monitoring is required, consistent with the presumption approach in the CSO policy.

Satellite communities (those which own collection sewer systems but do not operate POTWs) that have CSOs are required to obtain NPDES permits. Satellite communities that have combined sewers but do not have CSOs are required to have procedures in place to address proper operation and maintenance of their systems. This is accomplished by including a requirement in the NPDES permit for the treatment authority, requiring that the authority's sewer use ordinance include provisions for proper operation and maintenance for the owners of all combined sewers tributary to the treatment works.

IEPA lists CSO locations during the public notice of all new and reissued CSO NPDES permits and major permit modifications. Permittees of CSOs that discharge to primary contact recreational waters are required to consider signage at the discharge location and potentially impacted downstream waters. As CSO NPDES permits are reissued, the permittee, in cooperation with members of the public, is required to develop (as a condition of the permit) a public notification program to address this issue. There is currently no public notification requirement for SSOs, though these must be reported to the State.

## **6. Biosolids**

### The State of Illinois:

The State is modifying technical design criteria and regulations to make them at least as stringent as 40 CFR part 503 and plans to seek partial authorization to administer the biosolids program. IEPA plans to decline acceptance of the septage authority.

Under its existing authorities, IEPA issues separate permits for land application of biosolids. NPDES permits issued by IEPA for POTWs contain language informing the POTWs that they must comply with federal biosolids regulations.

### EPA Region 5:

Region 5 carries out direct implementation of the biosolids program in the Region. The level of effort has been reduced because of reduced funding for the program nationwide. Other Regional activities include providing outreach to the regulated community, assisting the States in seeking program approval, and providing technical and compliance assistance. For Illinois, the Region sends out reporting forms to all major POTWs in December or January and to others required to submit annual reports by February 19. The annual report data are entered into PCS. Because resources are limited, EPA Region 5 does not verify that all annual reports have been submitted, nor does it proactively track compliance. Enforcement actions related to biosolids are typically initiated in response to complaints or are part of more comprehensive enforcement actions.

To increase Regional activities and provide for more proactive management of the biosolids program in the future, both the permitting and enforcement programs within EPA headquarters will need to reinvest in the program or provide dedicated funds for program implementation to the Region.

## **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 Illinois:

IEPA has an enforcement management system (EMS) document that has periodically been updated to ensure consistency and timeliness in compliance and enforcement responses taken across all program media. The latest update is dated October 4, 2004. The EMS is used to define the process by which the various regulatory programs in IEPA pursue compliance with the Illinois Environmental Protection Act and the regulations promulgated under it. The general objective of the EMS is to protect the public health and environment of the State of Illinois through enforcement of the environmental regulatory requirements in a timely, consistent, and fair manner. This enforcement management system seeks to

- Obtain prompt compliance with statutory and regulatory requirements.
- Pose a deterrent to actions that delay or prevent prompt compliance.
- Provide an incentive for timely and responsible compliance behavior.
- Ensure that persons who comply with environmental requirements are not placed at a competitive disadvantage.

The EMS also includes an enforcement response guide that identifies the appropriate informal and formal enforcement responses for specific types of violations occurring at major and minor facilities. The EMS provides for management review as part of the enforcement process. Enforcement cases are tracked in a database, and IEPA holds weekly meetings to discuss enforcement case status and strategies.

Enforcement cases are escalated by referring them to the Illinois Attorney General's Office for enforcement. The length of time noncompliant NPDES permittees are in significant noncompliance (SNC) is directly related to the complexity of the cases along with the resource constraints of the prosecutorial authority. The average duration of SNC significantly improved in 2002 as a result of timelier processing of formal enforcement actions by the prosecutorial authority.

To ensure that adequate penalties are assessed, Illinois follows the penalty policies of the CWA and the Illinois Environmental Protection Act. The Illinois Environmental Protection Act provides for both the civil and criminal penalties. Under the Act, any person who violates certain provisions of the Act or any regulation adopted by the Board is liable for a civil penalty not to exceed \$50,000 for the violation and

an additional civil penalty not to exceed \$10,000 for each day that the violation continues. For violations of NPDES permits and related violations, the State may assess a civil penalty not to exceed \$10,000 for each day that the violation continues. In determining the appropriate civil penalties, Illinois considers a number of factors, including the following:

- The duration and gravity of the violation
- The presence or absence of due diligence on the part of the violator in attempting to comply with requirements of the Act and regulations thereunder
- Any economic benefits accrued by the violator because of delay in compliance with the requirements
- The amount of monetary penalty that will serve to deter further violations by the violator and to otherwise aid in enhancing voluntary compliance with this Act by the violator and other persons similarly subject to the Act
- The number, proximity in time, and gravity of previously adjudicated violations of the Act by the violator

The following table provides the total number of actions taken, the penalty amounts collected, and the supplemental environmental project (SEP) value for each of the past 3 consecutive years:

**Table 2: Enforcement Actions**

Year	Number of Actions	Penalty Amount	SEP Value
2001	31	\$432,900	\$117,500
2002	37	\$1,567,250	\$361,000
2003	20	\$381,357	\$50,000

#### EPA Region 5:

The Region has historically evaluated the strength of the State's enforcement program against two key indicators, the percentage of facilities in SNC in any given quarter and the size of the active exceptions list, with the goal of maintaining the former below 10% and the latter below 2%. The Region has viewed these two indicators as the best evidence of whether the State's actions are timely and appropriate and penalty amounts sufficient. Over the course of the next several years, the Region will conduct file audits in all of its States with the intent that these subordinate factors (e.g., timeliness, penalty size) will be more closely assessed to ensure that historic reliance on the two key indicators has been an appropriate means to assess the overall health of the enforcement program.

Illinois and EPA discuss and agree to joint priorities in the context of developing the State's EnPPA. Priorities reflected in the EnPPA may stem from national priorities, Regional priorities, or State priorities. To the extent that EPA's new national priorities are recognized by the State as being an environmental problem within the State, Illinois generally participates in EPA initiatives. EPA recognizes that not all new sectors and all new initiatives at a national level necessarily have

applicability at the State level. In addition to work currently targeted at CSO and SSO issues, the Region hopes to work with the State over the next year to develop a strategy for addressing stormwater Phase II compliance, as well as the issue of failing on-site systems.

The Region targets its efforts to ensure base program integrity, as well as to maximize the environmental benefits of its actions. In terms of the base program, the Region monitors the quarterly noncompliance report and the active exceptions list to ensure that they remain below 10% and 2%, respectively. These targets are routinely met. Generally, because most NPDES program elements have been delegated, State enforcement action is the primary mechanism for managing against these goals; EnPPA agreements and annual work plans contain language indicating that where these goals are not met, federal enforcement action will be a priority.

Currently, a high priority for the Region is enforcement related to CSOs and SSOs. Forty-two percent of the nation's CSO permittees are in the Region, and enforcement related to this pollution source has been a priority. The Region has had a CSO strategy since 1986, and the strategy was most recently updated in 2003. The Region's focus is on those CSOs affecting high-priority beaches, drinking water sources, or other environmentally sensitive areas. Other wet-weather sources of pollution are also being targeted. To this end, the Region has also developed a CAFO permitting and enforcement strategy and is updating its stormwater strategy. The Region is in the early stages of developing a strategy to address failing on-site systems.

The Region has direct implementation responsibilities for the pretreatment and biosolids programs in Illinois. With respect to the pretreatment program, enforcement actions are generally the result of inspections or audits. The inspections and audits are prioritized as described below in the discussion of the Region's inspection strategy. Enforcement actions relating to biosolids are generally prompted by complaints.

EPA's NPDES program has had an enforcement management system since the 1980s. This system is out-of-date, and development of new operating procedures has been a priority for completion by the end of 2004.

The Water Division has a manual system maintained by the enforcement process manager for monitoring the status of cases in the pipeline. A monthly meeting is held to update the status of all proposed actions. In addition, meetings are scheduled with the Office of Regional Counsel approximately every 6 weeks to review the status of cases and potential bottlenecks. In 2002 the Water Division also consolidated a number of databases that were used to track permittees' progress in complying with enforcement actions and made a concerted effort to review all open cases and close out those for which closeout was appropriate. Approximately 40% of the open cases were closed out as a result of this effort.

## **2. Record Keeping and Reporting**

### The State of Illinois:

IEPA maintains accurate and up-to-date files and records on NPDES permittees and on the compliance and enforcement actions taken against them. IEPA maintains hardcopy files of inspection reports, DMRs, enforcement actions, CCAs, and Enforcement Decision Group decisions. Enforcement orders are entered into PCS along with any penalties and compliance schedules. As enforcement orders are



finalized, they are also posted to IEPA's Web site for public access. In addition, all NPDES-related Non-Compliance Advisories, VNs, CCAs, and other enforcement actions are entered into PCS on a timely basis. IEPA's EMS includes compliance monitoring and enforcement procedures to be used by all regulatory programs at IEPA, including the enforcement process outlined in section 31 of the Illinois Environmental Protection Act. VNs are issued following the enforcement process outlined in the EMS and section 31. Under section 31, noncompliant permittees that are issued VNs may enter into formal CCAs to establish schedules for returning to compliance. CCAs may be accepted if they include enough specificity to show that the plan is achievable, specific completion dates, and interim milestone dates for significant steps in returning to compliance. All compliance commitments made as part of a CCA are entered into a State database for monitoring. Key events such as "begin construction," "end construction," and "attain operational level," are also entered into PCS for NPDES-related cases.

#### EPA Region 5:

EPA Region 5 develops formal administrative records in accordance with 40 CFR 124.18 for all permits issued by the Region.

### **3. Inspections**

#### The State of Illinois:

An annual inspection strategy is developed addressing both EPA and State priorities. Inspections are of two general types. The first of these is the compliance inspection. In a typical year, approximately 2,000 compliance inspections involving various levels of detail are conducted by the engineers and environmental specialists in IEPA's seven regional offices. Inspection coverage is planned to include approximately 70% of major dischargers and at least 20% of minor dischargers annually. Inspections within specific discharge sectors, such as CAFOs and stormwater dischargers, are targeted on the basis of their relative importance within the geographic area covered by each regional office. An approximate breakdown of the inspection balance (percentage of inspections conducted) for FY2002 is as follows:

Major facilities	15%
Minor facilities	43%
Livestock facilities	20%
Stormwater inspections	12%
Other inspections	10%

The second type of inspection includes reconnaissance/sampling visits made by technician-level staff. These inspections total 8,000 to 9,000 in a typical year and involve a visual inspection of the discharge and treatment facility to note obvious problems, as well as collection of an effluent sample. The goal is to conduct these inspections six times per year at major facilities, with the remainder of the time spent on continuously discharging minor facilities. (Cooling water discharges, quarries, sand and gravel operations, and drinking water supply discharges are not included in this program.)

Between these two inspection types, inspection coverage in most years exceeds 95% for major dischargers and 70% for minor dischargers (excluding nonpermitted CAFOs).

IEPA has a healthy inspection program in terms of providing a very visible field presence and consistently meeting inspection coverage commitments. EPA has indicated, in the context of EnPPA discussions, that it would like to discuss options for evaluating the effectiveness of the program in detecting deficiencies or noncompliance.

#### EPA Region 5:

The Region has developed a CWA inspection strategy that describes the manner in which inspections are prioritized and agreed to between the States and EPA. As described in this strategy, a variety of factors influence the selection of inspection targets, including national and regional priorities, case closeout needs, multimedia initiatives, complaints, and coverage requirements. In Illinois, for which EPA is the pretreatment authority, the Region targets its efforts through evaluation of environmental indicators (e.g., increasing concentration of metals in biosolids) and coverage factors (e.g., length of time since the State or EPA performed an audit at a specific municipality). The Region requests that the States perform all other coverage inspections, though most of them have had difficulty in meeting these commitments in recent years. The Region is working with the States to increase the number of inspections they perform but does not have the resources to backstop any State shortfalls. In addition, the Region is concerned that the current requirements for coverage inspections might impede the States and EPA from focusing on those inspections that might result in the greatest environmental benefit and believes that this is an issue that warrants policy discussion at the national level.

## **4. Compliance Assistance**

#### The State of Illinois:

IEPA's Office of Small Business maintains a list of contacts for divisions within the Agency. This list can be used in informing the regulated community of changes in policy and procedures.

IEPA's Office of Pollution Prevention (OPP) has technical specialists on staff available to conduct pollution prevention opportunity site visits at Illinois businesses and other facilities. The purpose of the site visits is to help facilities apply pollution prevention techniques and practices that can save money, increase efficiency, and improve environmental performance. This service is free and strictly voluntary.

Over the past decade, the OPP technical staff has provided assistance to many kinds of businesses, including electroplaters, metal product manufactures, printers, dry cleaners, hospitals, and auto repair shops.

During the site visit, which typically lasts 2 to 3 hours, IEPA

- Reviews key waste-generating processes and operations
- Assesses the root causes of waste and pollution generation
- Discusses cost-saving pollution prevention opportunities

IEPA follows up the visit with written recommendations and resources to help implement specific pollution prevention projects. Participating facilities are under no obligation to implement the recommendations and are free to decide on the basis of site-specific technical considerations, costs, and management priorities.

IEPA works to integrate pollution prevention into its mainstream functions. IEPA inspectors, permit writers, and compliance personnel have the most frequent contact with businesses and, therefore, the best opportunity to recommend and encourage voluntary pollution prevention practices.

Training has been provided for IEPA staff to increase awareness of pollution prevention techniques and the role pollution prevention can play in helping facilities achieve compliance. IEPA also promotes voluntary pollution prevention during field inspections. Illinois measures the effectiveness of its pollution prevention regulatory integration efforts by monitoring the number of pollution prevention recommendations offered by regulatory staff and surveying facilities that have received pollution prevention advice to determine whether they have implemented one or more recommendations.

In 1999, 11.9% of field inspections included at least one pollution prevention recommendation. Sixty percent of the 117 facilities surveyed that year reported implementing at least one inspector-recommended pollution prevention project. In 2000, 9.1% of IEPA field inspections included at least one pollution prevention recommendation. In 2001 and 2002, approximately 15% of the field inspections included at least one pollution prevention recommendation. Twenty-five percent of the facilities surveyed implemented at least one inspector-recommended pollution prevention project.

IEPA also has a field office onsite technical assistance program for municipal wastewater treatment plants through which trainer operation and maintenance field experts assist communities in addressing factors that limit wastewater treatment plant performance. In FY2003, 15 communities were assisted. Eight achieved compliance, and seven were prevented from going out of compliance through a compliance maintenance assistance effort. IEPA has agreed to host a Region 5 operator trainer conference in FY2005 and a national conference in FY2006.

#### EPA Region 5:

The Region generally provides extensive compliance assistance when new federal regulations are promulgated. In recent years considerable effort has been placed on compliance assistance related to implementation of both the CAFO regulations and the Phase II stormwater regulations. This assistance includes workshops, formal presentations, and development and distribution of guidance and technical documents, as well as individual site visits.

Within the first year after the new biosolids regulations were published, the Region hosted a satellite broadcast to explain the regulation and its requirements. The Region reached nearly half of the regulated community with this broadcast. The Region has also instituted a small community compliance assistance program for biosolids modeled after the operation and maintenance evaluation program. For the small community assistance program, the Region evaluates compliance assistance activities by reviewing annual reports for regulatory compliance.

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

### **1. Monitoring**

Illinois has a monitoring strategy that addresses each of the elements described in EPA's guidance titled "Elements of a State Water Monitoring and Assessment Program." The strategy provides information on the current State program, including the use of various monitoring designs to serve program objectives. The State uses a 5-year rotating basin cycle, as well as fixed-station networks and other targeted approaches. IEPA is also taking part in the probabilistic national Wadeable Streams Survey through a five-State consortium and continues to consider the implementation of a statewide probabilistic design for river and stream monitoring.

At this time, the Illinois strategy does not encompass a comprehensive program as described in EPA's elements guidance. For example, the strategy does not cover all water body types (e.g., wetlands). Although Illinois collects data for assessing swimming, drinking water, and fish consumption uses, these are not assessed for 100% of applicable waters. Illinois has committed in the EnPPA to provide a revised strategy during FY2005.

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

Data used for establishing permit effluent limits are collected through several monitoring programs, including the ambient water quality monitoring network (213 fixed stations), whole effluent biomonitoring, and facility-related stream surveys (including upstream/downstream studies). As resources allow, facility surveys are scheduled 2 years prior to permit reissuance, whole effluent testing is scheduled about 1 to 1-1/2 years prior to the reissuance of major facility permits, and data are collected from fixed stations nine times per year.

Illinois uses a rotating basin/intensive survey approach, along with fixed-station monitoring, as the primary approach to assessing status. The State monitors 213 fixed stations, approximately 100 stream sites, and 50 to 60 lakes each year. (Other monitoring is also conducted.) To increase assessment coverage, Illinois is assessing the utility of a probabilistic design for streams. As the State increasingly focuses on parameters such as nutrients, bacteria, and sediment, the percentage of waters identified as impaired is likely to rise. The inclusion of additional water body types (large rivers, headwater streams) might also result in increased identification of impaired waters.

### **2. Environmental Outcomes**

The number of waters assessed by Illinois has increased significantly over time. In 1986, 3,400 miles of rivers and streams were assessed, as compared to the 15,491 miles assessed in 2002. Similarly, in 1986, 25,302 lake acres were assessed, as compared to the 148,134 acres assessed in 2002. During this same time period, the percentage of rivers and streams assessed as fully supporting aquatic life use increased from 47% to 65%. Although these two figures are not directly comparable because of design and other

issues, Illinois reports that stream water quality has steadily improved over the past 28 years. According to IEPA, the total number of miles of waters impacted by municipal and industrial point sources has declined; fewer stream miles are being impacted by nonpoint source pollution; and increased species diversity in the Illinois, Rock, and Mississippi Rivers has been documented.

In 2002 Illinois assessed 18% of the stream miles in the State for aquatic life, 4% for swimming, and 7% for fish consumption. Of the assessed stream miles, 65% fully support aquatic life use, 31% fully support swimming, and 58% fully support fish consumption. In addition, the State assessed 976 miles for drinking water, and 74% of these fully support the use. In 2002, 47% of the lake acres in Illinois were assessed for aquatic life, 47% for swimming, and 37% for fish consumption. Of the assessed lake acres, 58% fully support aquatic life use, 13% fully support swimming, and 74% fully support fish consumption. The State also assessed 75,168 lake acres for drinking water, and 87% of these fully support the use. Illinois assessed 100% of the Lake Michigan shoreline miles for aquatic life, 90% for swimming, 100% for fish consumption, and 100% for drinking water. Of the assessed shoreline miles, 100% fully support aquatic life, 24% fully support swimming, 0% fully support fish consumption (because of polychlorinated biphenyl [PCB] fish consumption advisories in Lake Michigan), and 100% fully support drinking water.

[Note: In its water quality reports, Illinois reports assessments on lakes with surface areas greater than 6 acres. In the preceding discussion and in the NPDES Management Report, lakes and ponds less than or equal to 6 acres are included to maintain consistency in comparisons with other States across the country, including States in Region 5.]

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

IEPA reviews the water quality standards for each new, modified, or renewed NPDES permit prior to the initial drafting of the permit. Staff of the Water Quality Standards Section provide the permit engineer with a written technical explanation of the water quality standard pertinent to each permit. Either the permit engineer or the standards specialist may initially identify the parameters that must be reviewed for potential WQBELs. This determination is based on a statistical analysis of existing data compared with in-stream water quality standards, taking into account appropriate dilution. Where a pollutant parameter is determined to have the reasonable potential to cause or contribute to violations of water quality standards, a WQBEL is developed. The standards review document provides the water quality standards calculations (for standards such as ammonia and hardness-based metals that are dependent on other water quality characteristics), the source of data that went into those calculations, an explanation of permit limits influenced by any mixing zones granted, and a summary of reasonable potential to exceed water quality standards for the effluent.

In developing specific WQBELs, IEPA performs a mass-balance calculation for the pollutant in the discharge, based on in-stream dilution available under low-flow conditions and taking into account upstream concentrations of the pollutant in the receiving water. If a pollutant is identified as being discharged to a receiving water that is impaired for that pollutant, IEPA requires that ambient water quality criteria be met at the end of pipe (i.e., no mixing zone is allowed). Where required, an antidegradation analysis is also supplied. In all cases the Water Quality Standards Section reports the CWA section 303(d) status of the receiving water. IEPA encourages the no-discharge option where possible.

IEPA periodically reviews water quality standards as part of the triennial review process to ensure that all pertinent designated uses of waters of the State are properly addressed. Newly adopted standards are scrutinized for their ability to protect designated uses. Water quality standards are subject to the public participation process and Illinois Pollution Control Board adoption process to ensure that they adequately address designated uses. IEPA submits all modifications of Illinois water quality standards to EPA Region 5 for approval pursuant to CWA section 303.

Illinois is implementing a plan to establish numerical nutrient standards as approved by Region 5. Research is being conducted to elucidate cause/effect relationships that will provide technical support to develop appropriate standards. Illinois expects to initiate regulatory adoption of numeric nutrient standards in 2007. Meanwhile, IEPA has proposed an interim effluent standard for phosphorus applicable to new and expanded discharges from large facilities. IEPA continues to participate in the nutrient Regional Technical Assistance Group. The Illinois Nutrient Standards Workgroup Science Committee continues to meet four or five times a year to work through the many details of what will be needed for nutrient standards for Illinois.

Narrative criteria to prevent toxic substances in toxic amounts from occurring in the waters of the State are derived according to the regulations at 35 IAC part 302, subpart F. These are detailed provisions that allow the derivation of water quality criteria for the protection of aquatic life, human health, and wildlife for any substance not covered by a numeric water quality standard. These criteria may then be implemented as permit limits in the same manner as any numeric standard. Agency guidance documents are followed to establish WQBELs. Reasonable potential to exceed water quality standards is determined through the application of EPA's "Technical Support Document for Water Quality-based Toxics Control."

Illinois's water quality standards contain designated uses for general-use water bodies, public and food processing water supplies, secondary contact and indigenous aquatic life, and the Lake Michigan Basin. Illinois submitted a standards revision package to EPA in 2004. The State is in the process of conducting use attainability analyses (UAAs) for the water bodies designated as secondary contact and indigenous aquatic life. Illinois's rules address compliance schedules and implementation of water quality standards. Illinois uses a fecal coliform criterion for protection of recreational uses in the general use water bodies. The State plans to begin using E. coli criteria as part of the upgrades expected in the UAAs under way. IEPA has initiated rulemaking to replace fecal coliform standards with E. coli standards for Lake Michigan recreational beaches.

The State does an antidegradation review for new and increased discharges and publishes the results as part of the public notice for the permit. The following results are possible: the new or increased discharge is allowable, additional treatment or tighter limits are required, a change in outfall location is required, or land application is determined to be an appropriate alternative.

Illinois's antidegradation policy and implementation procedures are found at section 320.105 of the Illinois Pollution Control Board Rules. Illinois's implementation of the antidegradation policy is consistent with the rules adopted by the Pollution Control Board.

Illinois regulations governing NPDES permits for coal mines limit IEPA's ability to apply water quality standards to discharges from mines. As a result, the Region has been reviewing NPDES permits issued by Illinois for coal mines to ensure that all mine permits issued by the State comply with water quality

standards, particularly those for total dissolved solids (TDS) and sulfates. Both of these water quality standards are currently based primarily on protecting water for livestock consumption rather than protecting against impacts on aquatic life. The Region has not objected to permits that use actual stream flow at the time of discharge to ensure compliance with TDS and sulfate water quality standards. In addition, IEPA is considering replacing the existing TDS standard with separate criteria for chlorides and sulfates. Some aquatic toxicity testing for sulfates has been conducted by the State and the coal mining industry. These tests suggest that sulfate's toxicity to aquatic life is related to other water quality parameters and that hardness is a good surrogate for these parameters. Additional toxicity testing to support development of a criterion that reflects this relationship is under way.

In addition, part 406 of IEPA regulations for mine waste effluent and the water quality standards are written in such a way that if a facility qualifies for part 406, it is exempt from the IEPA part 302 water quality standards regulations. IEPA plans to address this through the ongoing criteria development.

IEPA plans to move to a watershed management approach over the next few years by aligning all of its water program work on a watershed basis. A 6-month stakeholder process yielded a framework for watershed planning that will be piloted in the Rock River Basin over the next 12 to 18 months.

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

##### The State of Illinois:

Prior to 2004, less than 1% of the 3,578 impairments listed on the 2002 303(d) list had been addressed by a total maximum daily load (TMDL) (18 impairments through final TMDLs).<sup>2</sup> IEPA has produced final TMDLs addressing 74 additional impairments during FY2004. The improvement during FY2004 is a direct result of increased IEPA management focus and greater experience by the IEPA staff. The IEPA has also used section 319 (nonpoint source) funding to produce TMDLs. Continued emphasis on this program area is necessary. IEPA has provided a long-term schedule that indicates that 3,530 of the 3,574 impairments will be addressed by 2015. To keep pace, IEPA will need to address approximately 310 impairments a year through FY2015. According to State information, point sources are not a major source or cause of impairment for Illinois waters.

At this time IEPA has not developed any TMDLs that require reductions in current wasteload allocations (WLAs), and therefore no process has been developed to translate TMDL WLAs into NPDES permit limits. Illinois EPA NPDES permit program staff, however, are involved in the TMDL development process. Permit staff are consulted to determine whether any point source dischargers are located on the water body, and then the records are reviewed to determine whether the discharger contributes to the impairment being addressed. As TMDLs that include WLAs are developed, IEPA will develop procedures for ensuring the inclusion of the WLAs in the NPDES permitting process.

##### EPA Region 5:

The Region has provided increased funding, training, and contractor assistance to the State in an effort to improve IEPA's performance. The Region has offered increased funding once again, but IEPA has indicated that because of staffing shortages, increased funding will not alleviate the pace-related

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<sup>2</sup> The Management Report, measure #41, shows 3,480 TMDLs on the docket at the end of FY2003. This differs from the 3,578 on the 2002 303(d) list because of slightly different delineations of unique water body-pollutant combinations between the National TMDL Tracking System and the 303(d) list.

concerns. The Region recently met with IEPA to discuss ways to streamline the TMDL process and improve performance and is exploring having EPA headquarters staff assist IEPA directly.

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

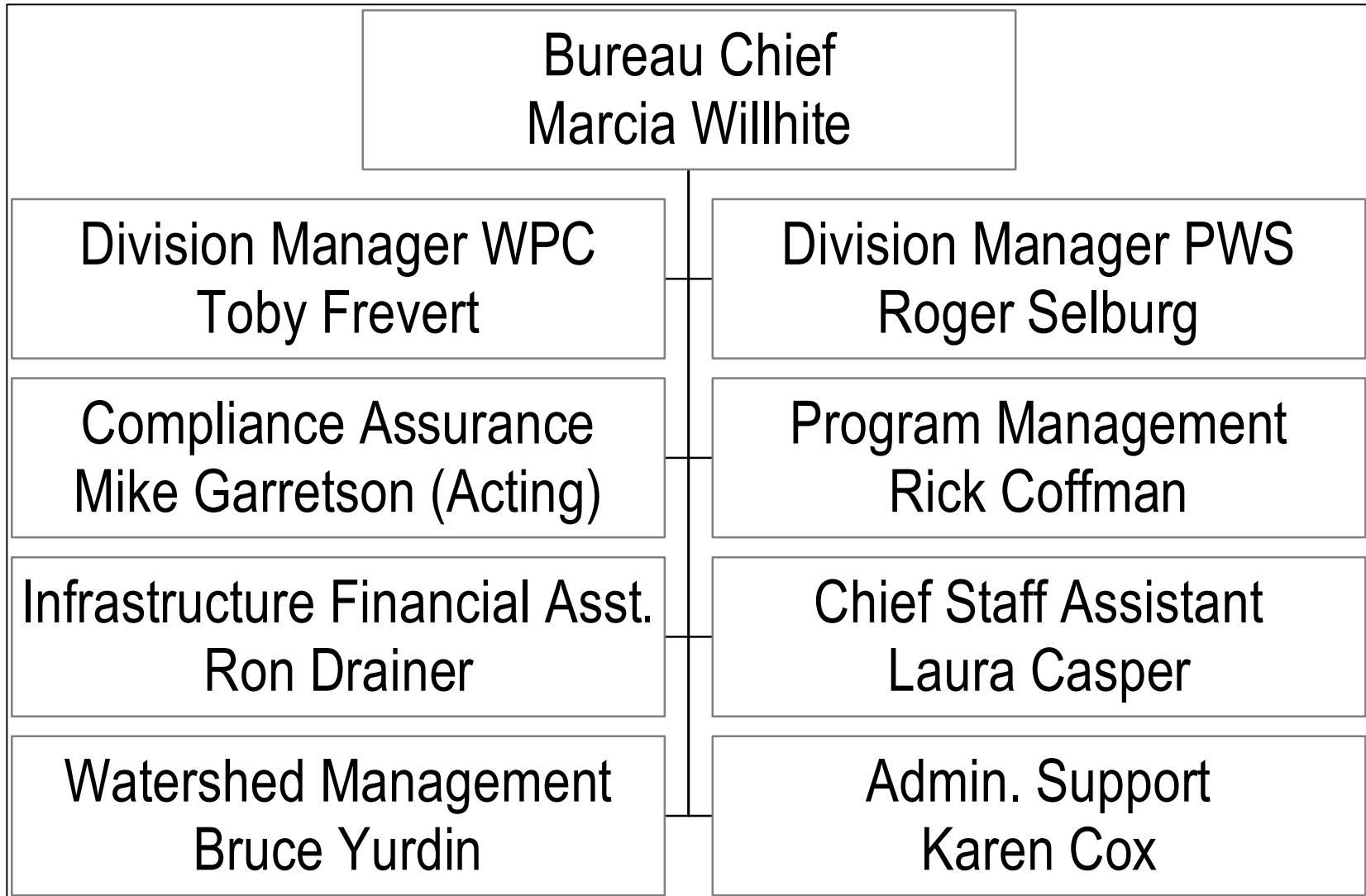
IEPA has completed its Source Water Assessment Program as required by the 1996 reauthorization of the Safe Drinking Water Act. Assessments for public water systems include relevant information from the NPDES program for both groundwater and surface water systems. IEPA has mapped the NPDES discharger locations on its source water assessment maps as potential sources of contamination. In addition to the permitted point source discharges, wet-weather discharges are a concern. IEPA is working on revising its methodology for assessing whether surface waters are meeting their designated use as drinking water sources.



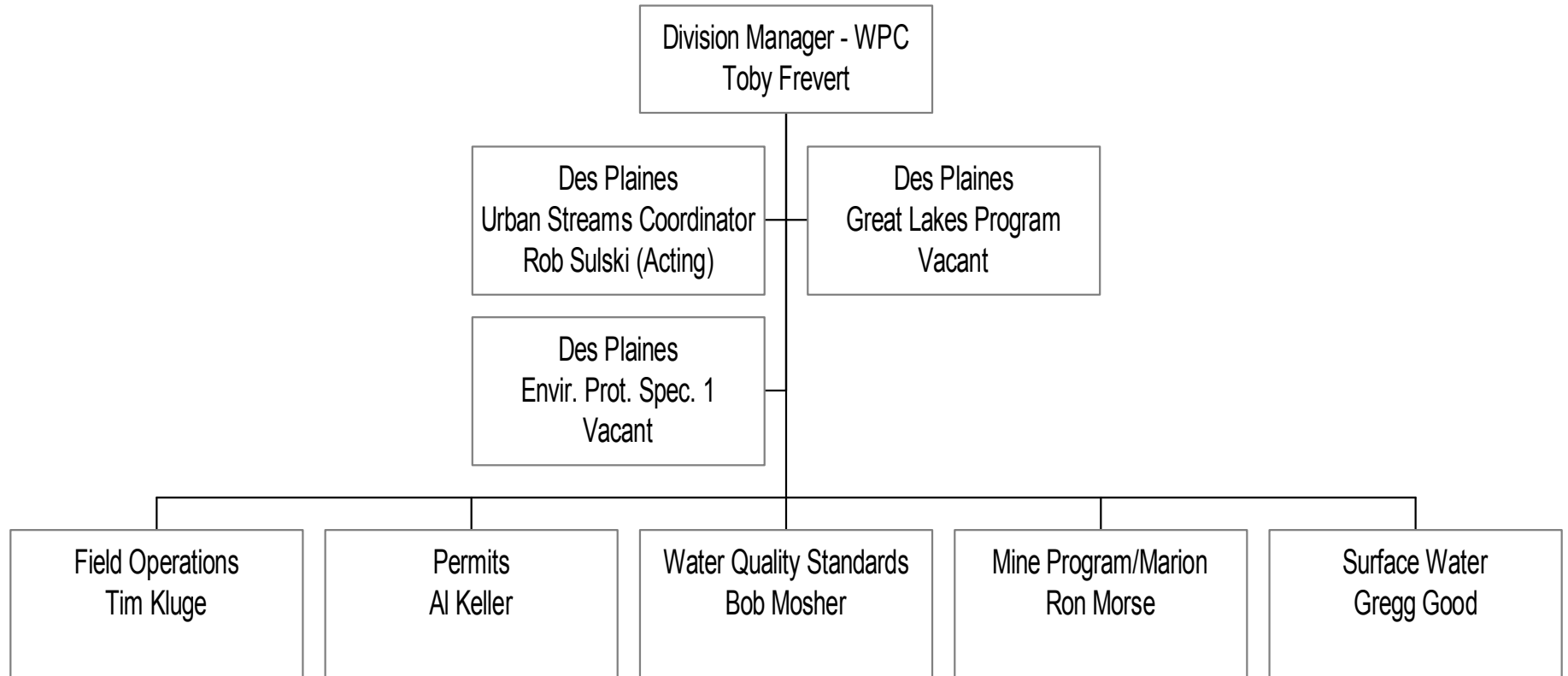
## **Section V. Other Program Highlights**

IEPA is in the process of developing a system for accepting electronic submission of permit applications. IEPA has developed forms, templates, and boilerplate language for efficient and accurate drafting of NPDES permits. The State uses computer programs to accurately perform required calculations. The draft permits are reviewed by the Regional office staff and the management prior to the release of the draft permits for public notice and comment.

# BOW Organizational Chart



# DWPC Organizational Chart



# NPDES Management Report, Fall 2004

## Illinois

		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	279	0		
	2	# minor facilities covered by individual permits (42,057 total)	I.1		n/a	1,667	0		
	3	# minor facilities covered by non-storm water general permits (39,183 total)	I.1		n/a	542	0		
	4	# priority permits (TBD)	I.6			--	--		
	5	# pipes at facilities covered by individual permits (142,761 total)	I.7		n/a	7,188	--		
	6	# industrial facilities covered by individual permits (32,505 total)	I.1		n/a	1,366	10		
	7	# POTWs covered by individual permits (15,197 total)	I.1		n/a	571	3		
	8	# pretreatment programs (1,482 total)	II.2		n/a	n/a	50	48	
	9	# Significant Industrial Users (SIUs) discharging to pretreatment programs (22,158 total)	II.2		n/a	n/a	1,199		
	10	# Combined Sewer Overflow (CSO) permittees (831 total)	II.5		n/a	108	--		
	11	# CAFOs (current and est. future) (17,672 total)	II.3		n/a	500	--		
	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%	97.7%	--		
	15	State CAFO legal authority expected (mo/yr)	II.3	2005	n/a	3/05	n/a		
	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	3	--		
NPDES Program Implementation	19	% major facilities covered by current permits	I.6	90%	83.7%	81.0%	n/a		
	20	% minor facilities covered by current individual or non-storm water general permits	I.6	90% 12/04	87.0%	61.6%	n/a		
	21	# major facilities w/permits expired >10 yrs. (56 total)	I.6		n/a	1	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%	n/a	90.0%		
	24	% SIUs w/control mechanisms	II.2		99.2%	n/a	98.5%		
	25	% of CSO permittees with long-term control plans developed or required	II.5	75% 2008	82.2%	47.2%	--		
	26	% CAFOs covered by NPDES permits	II.3		35%	4%	--		
	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		
	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%	0%		
	33	(inspections at minors) / (total inspections at majors and minors)	III.3		76%	78%	100%		
	34	% major facilities in significant non-compliance (SNC)	III.1		20%	9%	--		
	35	% SNCs addressed by formal enforcement action (FEA)	III.1		14%	37%	--		
	36	% SNCs returned to compliance w/o FEA	III.1		70%	63%	--		
	37	# FEAs at major facilities (666 total)	III.1		n/a	20	1		
	38	# FEAs at minor facilities (1,660 total)	III.1		n/a	56	5		

### 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.

**Additional Data:** These columns provide additional data in cases where information from other data sources differs from information in the National Data Sources column for reasons such as different timing of the data "snapshot." Additional data should generally adhere to the same narrative definitions as data in the National Data Sources, and should be derived using similar processes and criteria. Our goal is to work with the States on these discrepancies to ensure consistent and accurate reporting. A State contact is available who can respond to queries. The profiles discuss each additional data element.

**State Activities:** Information in these columns reflects activities conducted by the State program. (Shaded cells in these columns indicate that the work may not be entirely the State's responsibility, but a breakdown of the data into EPA and State responsibilities is unavailable.)

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# NPDES Management Report, Fall 2004

## Illinois

		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	87,110	n/a		
	40	Lake acres (27,775,301 total)	IV.2		n/a	309,340	n/a		
	41	Total # TMDLs in docket at end of FY 2003 (52,795 total)	IV.4		n/a	3,480	--		
	42	# TMDLs committed to in FY 2003 management agreement (2,435 total)	IV.4		n/a	35	0		
	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%	4.0%	n/a		
	48	% river/stream miles assessed for aquatic life	IV.2		22.0%	18.0%	n/a		
	49	% lake acres assessed for recreation	IV.2		49.4%	47.0%	n/a		
	50	% lake acres assessed for aquatic life	IV.2		48.5%	47.0%	n/a		
	51	# outstanding WQS disapprovals (23 total)	IV.3		n/a	0	n/a		
	52	WQS for E. coli or enterococci for coastal recreational waters (12 States)	IV.3	35 states 2008	n/a	N	n/a		
	53	WQS for nutrients or Nutrient Criteria Plan in place (13 States)	IV.3	25 states 2008	n/a	Y	n/a		
	54	Cumulative # TMDLs completed through FY 2003 (10,807 total)	IV.4		n/a	18	--		
	55	# TMDLs completed in FY 2003 (2,929 total)	IV.4		n/a	9	0		
Environmental Outcomes	56	# TMDLs completed through FY 2003 that include at least one point source WLA (5,036 total)	IV.4		n/a	17	--		
	57	% Assessed river/stream miles impaired for swimming in 2000	IV.2		--	75.0%	n/a		
	58	% Assessed lake acres impaired for swimming in 2000	IV.2		--	85.5%	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	--	--		

### 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.

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